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# 2007 ACCESSORIES AND EQUIPMENT

# Audio/Video Systems - Electrical Diagnostics - Nitro

# **DIAGNOSTIC CODE INDEX**

# DIAGNOSTIC CODE INDEX

DTC DTC	Description
<u>B1401</u>	FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW
B1402	FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B1403</u>	FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B1405</u>	FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B1406</u>	FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B1407</u>	FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B1409</u>	REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B140A</u>	REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B140B</u>	REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B140D</u>	REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B140E</u>	REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B140F</u>	REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B1420</u>	AUDIO CASSETTE ERROR/INOPERABLE CASSETTE
<u>B1421</u>	AUDIO CD READ ERROR/INOPERABLE DISC
<u>B1422</u>	AUDIO DVD READ ERROR/INOPERABLE DISC
<u>B1423</u>	VES DVD READ ERROR/INOPERABLE DISC
<u>B1424</u>	IMPROPER DVD-WRONG REGION
<u>B1429</u>	RADIO DISPLAY HIGH TEMPERATURE
<u>B142A</u>	RADIO UNIT HIGH TEMPERATURE
<u>B142C</u>	VES VIDEO SCREEN DISCONNECTED
<u>B142D</u>	AUDIO ANTENNA NOT CONNECTED
<u>B142E</u>	GPS ANTENNA NOT CONNECTED
<u>B142F</u>	SATELLITE RADIO ANTENNA NOT CONNECTED
<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

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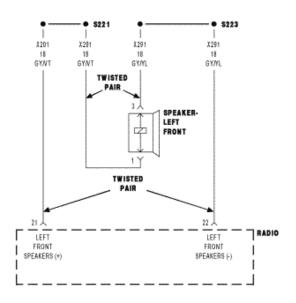
<u>B146A</u>	CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE
<u>B146B</u>	CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B146C</u>	CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B146D</u>	CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B146E</u>	CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER
<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>B2222</u>	SATELLITE RADIO RECEIVER INTERNAL
<u>B222B</u>	VEHICLE ENTERTAINMENT SYSTEM INTERNAL
<u>U0019</u>	CAN INTERIOR BUS(+)/(-) CIRCUIT
<u>U0020</u>	CAN INTERIOR BUS OFF PERFORMANCE
<u>U0151</u>	LOST COMMUNICATION WITH OCCUPANT RESTRAINT CONTROLLER
<u>U0154</u>	LOST COMMUNICATION WITH OCCUPANT CLASSIFICATION MODULE
<u>U0184</u>	LOST COMMUNICATION WITH RADIO
<u>U0186</u>	LOST COMMUNICATION WITH AUDIO AMPLIFIER
<u>U0195</u>	LOST COMMUNICATION WITH SDAR
<u>U0197</u>	LOST COMMUNICATION WITH HANDS FREE MODULE
<u>U0199</u>	LOST COMMUNICATION WITH DRIVERS DOOR MODULE
<u>U0200</u>	LOST COMMUNICATION WITH PASSENGER DOOR MODULE

# **AUDIO/VIDEO SYSTEMS - ELECTRICAL DIAGNOSTICS**

**DIAGNOSIS AND TESTING** 

B1401-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW

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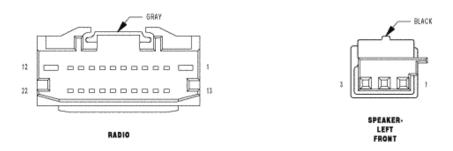


Fig. 1: Front Left Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

### When Monitored:

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With the radio on.

#### **Set Condition:**

When the output circuit is LOW for more than three seconds.

#### **Possible Causes**

(X201) LEFT FRONT SPEAKERS (+) CIRCUIT SHORTED TO GROUND

(X291) LEFT FRONT SPEAKERS (-) CIRCUIT SHORTED TO GROUND

**SPEAKER** 

#### **Diagnostic Test**

#### 1) INTERMITTENT CONDITION

Turn the ignition on.

With the scan tool, clear all Radio DTC's.

Turn the Radio on.

With the scan tool, read the DTC information.

Does the scan tool read: B1401-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

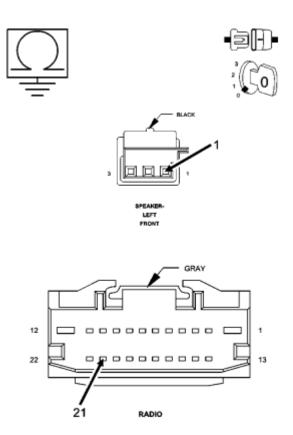
Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform BODY VERIFICATION TEST - VER 1.

2) (X201) LEFT FRONT SPEAKERS (+) CIRCUIT SHORTED TO GROUND



819c0219

Fig. 2: Measuring Resistance Between Ground And (X201) Left Front Speakers (+) Circuit Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Front Left Audio Speaker harness connector.

Measure the resistance between ground and the (X201) Left Front Speakers (+) circuit.

#### Is the resistance below 1000.0 ohms?

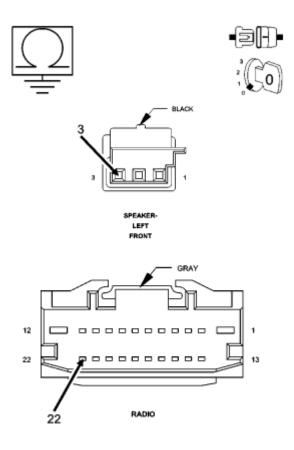
### Yes

Repair the (X201) Left Front Speakers (+) circuit for a short to ground condition. Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 3).

### 3) (X291) LEFT FRONT SPEAKERS (-) CIRCUIT SHORTED TO GROUND



819c022c

Fig. 3: Measuring Resistance Between Ground And (X291) Left Front Speakers (-) Circuit Courtesy of CHRYSLER LLC

Measure the resistance between ground and the (X291) Left Front Speakers (-) circuit.

#### Is the resistance below 1000.0 ohms?

#### Yes

Repair the (X291) Left Front Speakers (-) circuit for a short to ground condition. Perform **BODY VERIFICATION TEST - VER 1**.

#### No

Go to 4).

#### 4) SPEAKER

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Connect the Radio harness connector.

With the Front Left Audio Speaker still disconnected, turn the ignition on.

Turn the Radio on.

With the scan tool, clear all Radio DTC's.

With the scan tool, read the DTC information.

Does the scan tool read: B1401-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

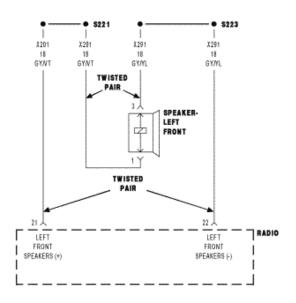
Replace the Front Left Audio Speaker in accordance with the service information. Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

B1402-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT HIGH

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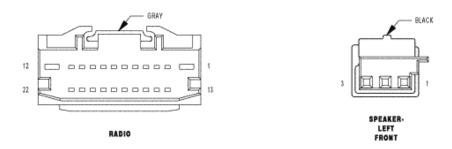


Fig. 4: Front Left Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

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#### **Possible Causes**

(X201) LEFT FRONT SPEAKERS (+) CIRCUIT SHORTED TO VOLTAGE (X291) LEFT FRONT SPEAKERS (-) CIRCUIT SHORTED TO VOLTAGE SPEAKER

#### Diagnostic Test

### 1) INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Radio DTCs.

Does the scan tool display active: B1402-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

Yes

Go to 2).

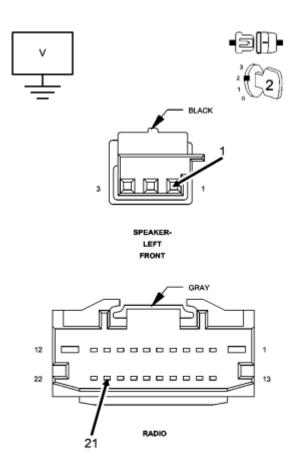
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) (X201) LEFT FRONT SPEAKERS (+) CIRCUIT SHORTED TO VOLTAGE

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819c027b

Fig. 5: Measuring For Voltage On (X201) Left Front Speakers (+) Circuit Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Left Front Audio Speaker harness connector.

Turn the ignition on.

Measure for voltage on the (X201) Left Front Speakers (+) circuit.

# Is the voltage above 10.0 volts?

### Yes

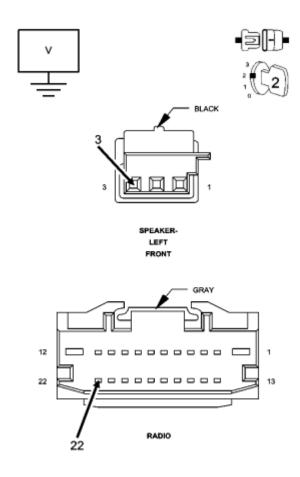
Repair the (X201) Left Front Speakers (+) circuit for a short to voltage.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

# 3) (X291) LEFT FRONT SPEAKERS (-) CIRCUIT SHORTED TO VOLTAGE



819c0283

<u>Fig. 6: Measuring For Voltage On (X291) Left Front Speakers (-) Circuit Courtesy of CHRYSLER LLC</u>

Measure for voltage on the (X291) Left Front Speakers (-) circuit.

Is the voltage above 10.0 volts?

Yes

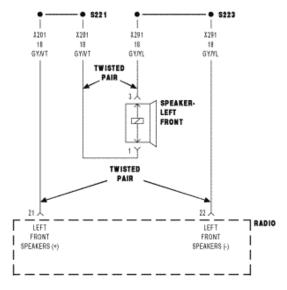
Repair the (X291) Left Front Speakers (-) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

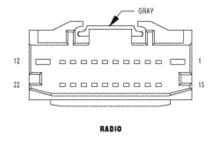
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Replace the Radio in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### B1403-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT OPEN







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# Fig. 7: Front Left Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### When Monitored:

With the radio on.

#### **Set Condition:**

When the output circuit is open for more than three seconds. The radio will not set the fault if the radio confirms an amplifier is on the BUS.

#### **Possible Causes**

(X201) LEFT FRONT SPEAKERS (+) CIRCUIT OPEN

(X291) LEFT FRONT SPEAKERS (-) CIRCUIT OPEN

**SPEAKER** 

**Diagnostic Test** 

#### 1) INTERMITTENT CONDITION

Turn the ignition on.

With the scan tool, clear all Radio DTC's.

Turn the Radio on.

With the scan tool, read the DTC information.

Does the scan tool read: B1403-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

Go to 2).

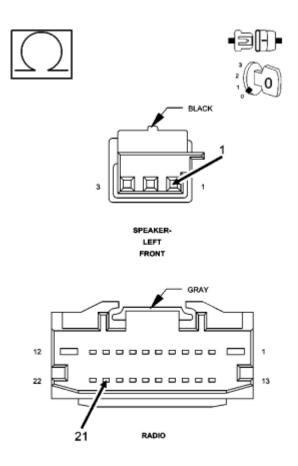
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) (X201) LEFT FRONT SPEAKERS (+) CIRCUIT OPEN

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819c052f

Fig. 8: Measuring Resistance Of (X201) Left Front Speakers (+) Circuit Between Radio And Speaker

**Courtesy of CHRYSLER LLC** 

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Front Left Audio Speaker harness connector.

Measure the resistance of the (X201) Left Front Speakers (+) circuit between the Radio and the Speaker.

### Is the resistance below 5.0 ohms for each circuit?

Yes

Go to 3).

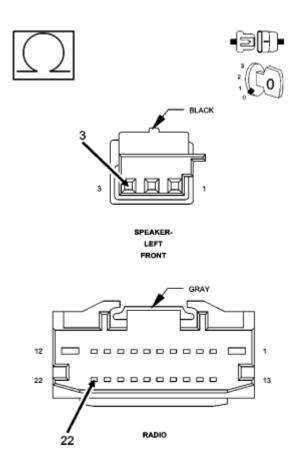
No

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Repair the (X201) Left Front Speakers (+) circuit for an open condition.

Perform **BODY VERIFICATION TEST - VER 1**.

### 3) (X291) LEFT FRONT SPEAKERS (-) CIRCUIT OPEN



819c0552

Fig. 9: Measuring Resistance Of (X291) Left Front Speakers (-) Circuit Between Radio And Speaker

**Courtesy of CHRYSLER LLC** 

Measure the resistance of the (X291) Left Front Speakers (-) circuit between the Radio and the Speaker.

#### Is the resistance below 5.0 ohms for each circuit?

Yes

Go to 4).

No

Repair the (X291) Left Front Speakers (-) circuit for an open condition.

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### Perform **BODY VERIFICATION TEST - VER 1**.

### 4) SPEAKER

Connect the Radio harness connector.

With the Front Left Audio Speaker still disconnected, turn the ignition on.

Turn the Radio on.

With the scan tool, clear all Radio DTC's.

With the scan tool, read the DTC information.

Does the scan tool read: B1403-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

Replace the Front Left Audio Speaker in accordance with the service information.

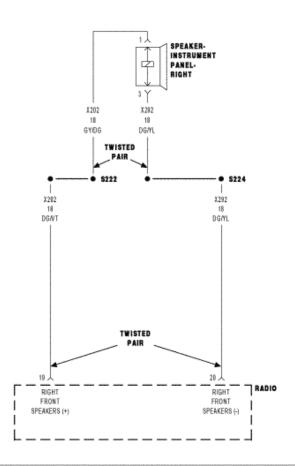
Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

B1405-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW

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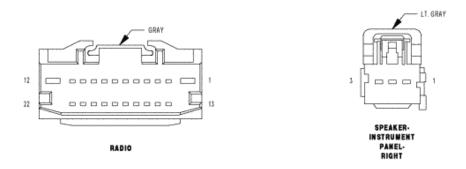


Fig. 10: Front Right Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

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### When Monitored:

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With the radio on.

#### **Set Condition:**

When the output circuit is LOW for more than three seconds.

#### **Possible Causes**

(X202) RIGHT FRONT SPEAKERS (+) CIRCUIT SHORTED TO GROUND (X292) RIGHT FRONT SPEAKERS (-) CIRCUIT SHORTED TO GROUND SPEAKER

#### **Diagnostic Test**

### 1) INTERMITTENT CONDITION

Turn the ignition on.

With the scan tool, clear all Radio DTC's.

Turn the Radio on.

With the scan tool, read the DTC information.

Does the scan tool read: B1405-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

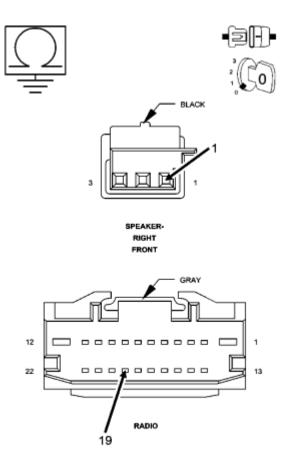
Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) (X202) RIGHT FRONT SPEAKERS (+) CIRCUIT SHORTED TO GROUND



819c0581

Fig. 11: Measuring Resistance Between Ground And (X202) Right Front Speakers (+) Circuit Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Front Right Audio Speaker harness connector.

Measure the resistance between ground and the (X202) Right Front Speakers (+) circuit.

#### Is the resistance below 1000.0 ohms?

### Yes

Repair the (X202) Right Front Speakers (+) circuit for a short to ground condition. Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 3).

### 3) (X292) RIGHT FRONT SPEAKERS (-) CIRCUIT SHORTED TO GROUND

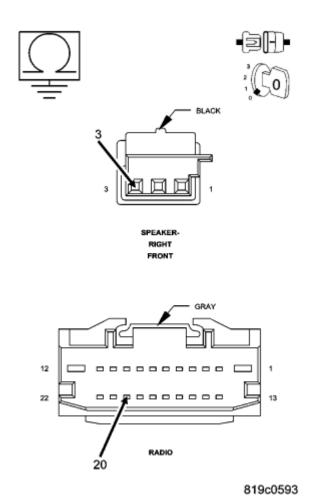


Fig. 12: Measuring Resistance Between Ground And (X292) Right Front Speakers (-) Circuit Courtesy of CHRYSLER LLC

Measure the resistance between ground and the (X292) Right Front Speakers (-) circuit.

#### Is the resistance below 1000.0 ohms?

#### Yes

Repair the (X292) Right Front Speakers (-) circuit for a short to ground condition. Perform **BODY VERIFICATION TEST - VER 1**.

#### No

Go to 4).

#### 4) SPEAKER

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Connect the Radio harness connector.

With the Front Right Audio Speaker still disconnected, turn the ignition on.

Turn the Radio on.

With the scan tool, clear all Radio DTC's.

With the scan tool, read the DTC information.

Does the scan tool read: B1405-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

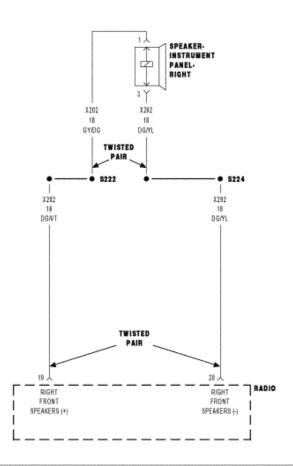
Replace the Front Right Audio Speaker in accordance with the service information. Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

B1406-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT HIGH

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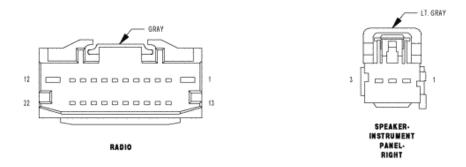


Fig. 13: Front Right Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

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### **Possible Causes**

(X202) RIGHT FRONT SPEAKERS (+) CIRCUIT SHORTED TO VOLTAGE (X292) RIGHT FRONT SPEAKERS (-) CIRCUIT SHORTED TO VOLTAGE SPEAKER

#### Diagnostic Test

### 1) INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Radio DTCs.

Does the scan tool display active: B1406-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

Yes

Go to 2).

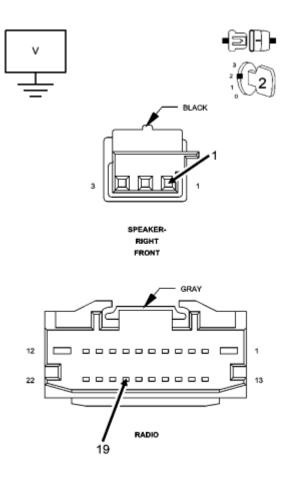
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) (X202) RIGHT FRONT SPEAKERS (+) CIRCUIT SHORTED TO VOLTAGE

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819c073b

Fig. 14: Measuring For Voltage On (X202) Right Front Speakers (+) Circuit Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Right Front Audio Speaker harness connector.

Turn the ignition on.

Measure for voltage on the (X202) Right Front Speakers (+) circuit.

# Is the voltage above 10.0 volts?

### Yes

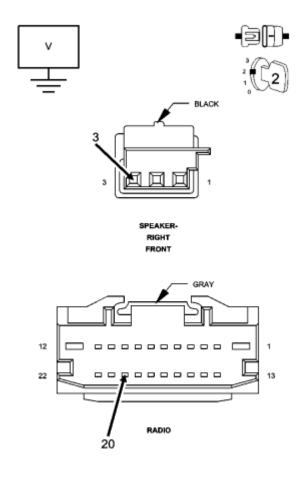
Repair the (X202) Right Front Speakers (+) circuit for a short to voltage.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

# 3) (X292) RIGHT FRONT SPEAKERS (-) CIRCUIT SHORTED TO VOLTAGE



819c0746

Fig. 15: Measuring For Voltage On (X292) Right Front Speakers (-) Circuit Courtesy of CHRYSLER LLC

Measure for voltage on the (X292) Right Front Speakers (-) circuit.

Is the voltage above 10.0 volts?

Yes

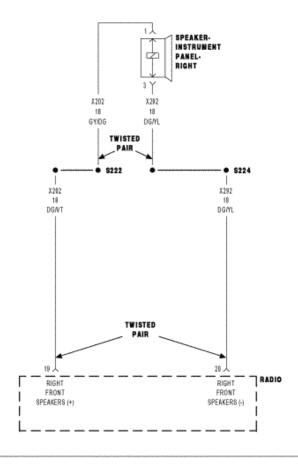
Repair the (X292) Right Front Speakers (-) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

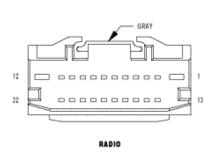
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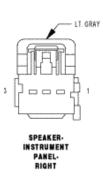
Replace the Radio in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### B1407-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT OPEN







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### <u>Fig. 16: Front Right Audio Speaker Output Circuit Schematic</u> Courtesy of CHRYSLER LLC

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

#### When Monitored:

With the radio on.

#### **Set Condition:**

When the output circuit is open for more than three seconds. The radio will not set the fault if the radio confirms an amplifier is on the BUS.

#### **Possible Causes**

(X202) RIGHT FRONT SPEAKERS (+) CIRCUIT OPEN (X292) RIGHT FRONT SPEAKERS (-) CIRCUIT OPEN

**SPEAKER** 

**Diagnostic Test** 

#### 1) INTERMITTENT CONDITION

Turn the ignition on.

With the scan tool, clear all Radio DTC's.

Turn the Radio on.

With the scan tool, read the DTC information.

Does the scan tool read: B1407-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

Go to 2).

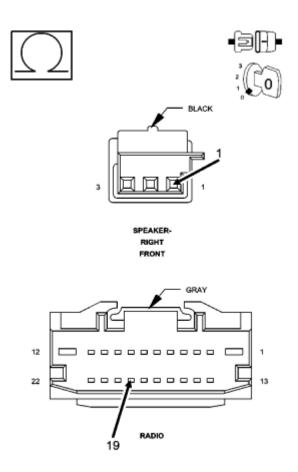
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) (X202) RIGHT FRONT SPEAKERS (+) CIRCUIT OPEN

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819c074d

Fig. 17: Measuring Resistance Of (X202) Right Front Speakers (+) Circuit Between Radio And Speaker

**Courtesy of CHRYSLER LLC** 

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Front Right Audio Speaker harness connector.

 $Measure \ the \ resistance \ of \ the \ (X202) \ Right \ Front \ Speakers \ (+) \ circuit \ between \ the \ Radio \ and \ the \ Speaker.$ 

### Is the resistance below 5.0 ohms for each circuit?

Yes

Go to 3).

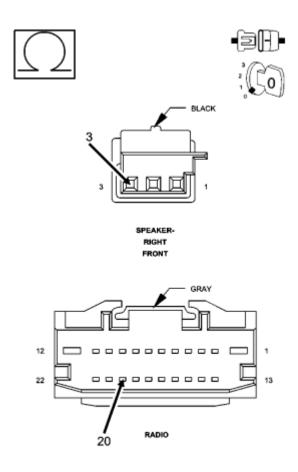
No

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Repair the (X202) Right Front Speakers (+) circuit for an open condition.

Perform **BODY VERIFICATION TEST - VER 1**.

### 3) (X292) RIGHT FRONT SPEAKERS (-) CIRCUIT OPEN



819c0751

<u>Fig. 18: Measuring Resistance Of (X292) Right Front Speakers (-) Circuit Between Radio And Speaker</u>

**Courtesy of CHRYSLER LLC** 

Measure the resistance of the (X292) Right Front Speakers (-) circuit between the Radio and the Speaker.

#### Is the resistance below 5.0 ohms for each circuit?

Yes

Go to 4).

No

Repair the (X292) Right Front Speakers (-) circuit for an open condition.

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### Perform **BODY VERIFICATION TEST - VER 1**.

### 4) SPEAKER

Connect the Radio harness connector.

With the Front Right Audio Speaker still disconnected, turn the ignition on.

Turn the Radio on.

With the scan tool, clear all Radio DTC's.

With the scan tool, read the DTC information.

Does the scan tool read: B1407-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

Replace the Front Right Audio Speaker in accordance with the service information.

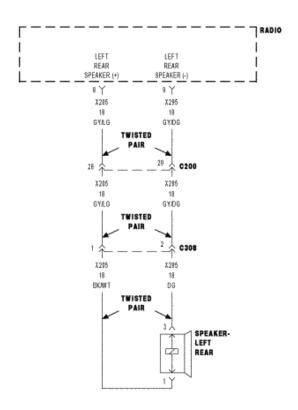
Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

B1409-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW

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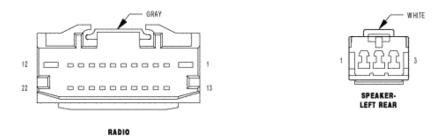


Fig. 19: Rear Left Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

### When Monitored:

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With the radio on.

#### **Set Condition:**

When the output circuit is LOW for more than three seconds.

#### **Possible Causes**

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

### Diagnostic Test

### 1) INTERMITTENT CONDITION

Turn the ignition on.

With the scan tool, clear all Radio DTC's.

Turn the Radio on.

With the scan tool, read the DTC information.

Does the scan tool read: B1409-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

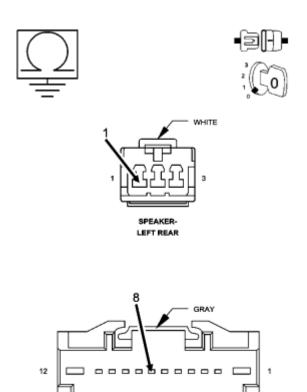
Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) (X205) LEFT REAR SPEAKER (+) CIRCUIT SHORTED TO GROUND



RADIO

819c08f2

<u>Fig. 20: Measuring Resistance Between Ground And (X205) Left Rear Speaker (+) Circuit Courtesy of CHRYSLER LLC</u>

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Rear Left Audio Speaker harness connector.

Measure the resistance between ground and the (X205) Left Rear Speaker (+) circuit.

#### Is the resistance below 1000.0 ohms?

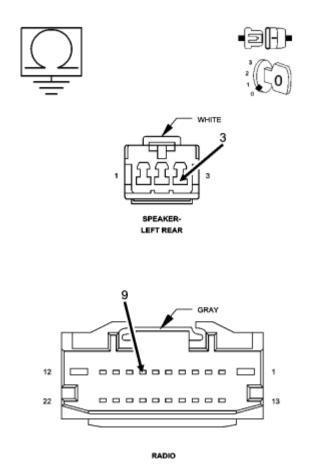
### Yes

Repair the (X205) Left Rear Speaker (+) circuit for a short to ground condition. Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 3).

### 3) (X295) LEFT REAR SPEAKER (-) CIRCUIT SHORTED TO GROUND



819c0904

Fig. 21: Measuring Resistance Between Ground And (X295) Left Rear Speaker (-) Circuit Courtesy of CHRYSLER LLC

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

#### Is the resistance below 1000.0 ohms?

#### Yes

Repair the (X295) Left Rear Speaker (-) circuit for a short to ground condition. Perform **BODY VERIFICATION TEST - VER 1**.

#### No

Go to 4).

#### 4) SPEAKER

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Connect the Radio harness connector.

With the Rear Left Audio Speaker still disconnected, turn the ignition on.

Turn the Radio on.

With the scan tool, clear all Radio DTC's.

With the scan tool, read the DTC information.

Does the scan tool read: B1409-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

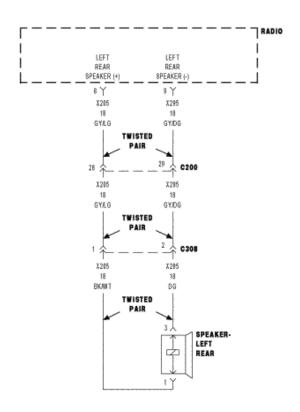
Replace the Rear Left Audio Speaker in accordance with the service information. Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

B140A-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT HIGH

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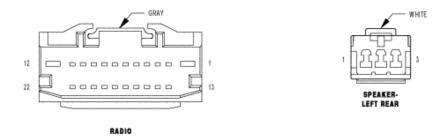


Fig. 22: Rear Left Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

B13c0Qcb

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### **Possible Causes**

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

#### Diagnostic Test

# 1) INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Radio DTCs.

Does the scan tool display active: B140A-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

Yes

Go to 2).

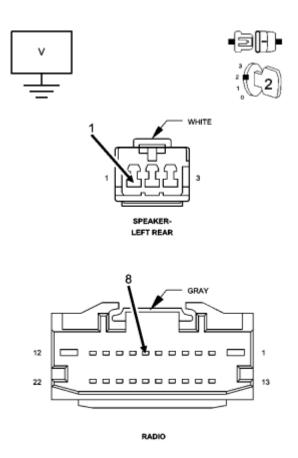
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) (X205) LEFT REAR SPEAKER (+) CIRCUIT SHORTED TO VOLTAGE

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819c0960

<u>Fig. 23: Measuring For Voltage On (X205) Left Rear Speaker (+) Circuit Courtesy of CHRYSLER LLC</u>

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Left Rear Audio Speaker harness connector.

Turn the ignition on.

Measure for voltage on the (X205) Left Rear Speaker (+) circuit.

# Is the voltage above 10.0 volts?

# Yes

Repair the (X205) Left Rear Speaker (+) circuit for a short to voltage.

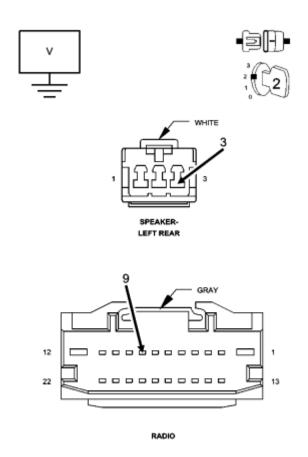
Perform **BODY VERIFICATION TEST - VER 1** .

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No

Go to 3).

# 3) (X295) LEFT REAR SPEAKER (-) CIRCUIT SHORTED TO VOLTAGE



819c0971

<u>Fig. 24: Measuring For Voltage On (X295) Left Rear Speaker (-) Circuit Courtesy of CHRYSLER LLC</u>

Measure for voltage on the (X295) Left Rear Speaker (-) circuit.

Is the voltage above 10.0 volts?

Yes

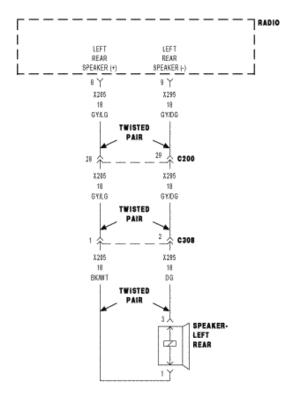
Repair the (X295) Left Rear Speaker (-) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

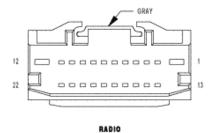
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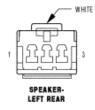
Replace the Radio in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

### B140B-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT OPEN







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# Fig. 25: Rear Left Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### When Monitored:

With the radio on.

#### **Set Condition:**

When the output circuit is open for more than three seconds. The radio will not set the fault if the radio confirms an amplifier is on the BUS.

### **Possible Causes**

(X205) LEFT REAR SPEAKER (+) CIRCUIT OPEN (X295) LEFT REAR SPEAKER (-) CIRCUIT OPEN SPEAKER

#### **Diagnostic Test**

### 1) INTERMITTENT CONDITION

Turn the ignition on.

With the scan tool, clear all Radio DTC's.

Turn the Radio on.

With the scan tool, read the DTC information.

Does the scan tool read: B140B-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

Go to 2).

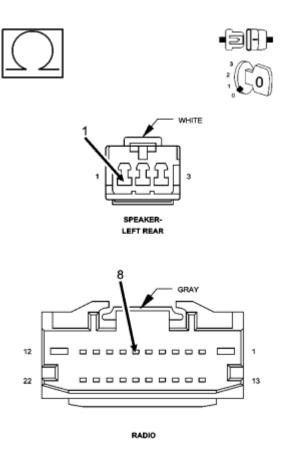
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) (X205) LEFT REAR SPEAKER (+) CIRCUIT OPEN

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819c0975

<u>Fig. 26: Measuring Resistance Of (X205) Left Rear Speaker (+) Circuit Between Radio And Speaker</u>

**Courtesy of CHRYSLER LLC** 

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Rear Left Audio Speaker harness connector.

 $Measure \ the \ resistance \ of \ the \ (X205) \ Left \ Rear \ Speaker \ (+) \ circuit \ between \ the \ Radio \ and \ the \ Speaker.$ 

# Is the resistance below 5.0 ohms for each circuit?

Yes

Go to 3).

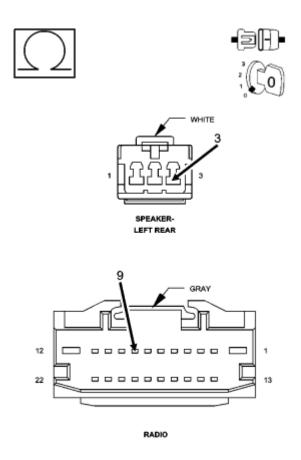
No

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Repair the (X205) Left Rear Speaker (+) circuit for an open condition.

Perform **BODY VERIFICATION TEST - VER 1**.

# 3) (X295) LEFT REAR SPEAKER (-) CIRCUIT OPEN



819c097c

Fig. 27: Measuring Resistance Of (X295) Left Rear Speaker (-) Circuit Between Radio And Speaker

**Courtesy of CHRYSLER LLC** 

Measure the resistance of the (X295) Left Rear Speaker (-) circuit between the Radio and the Speaker.

#### Is the resistance below 5.0 ohms for each circuit?

Yes

Go to 4).

No

Repair the (X295) Left Rear Speaker (-) circuit for an open condition.

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# Perform **BODY VERIFICATION TEST - VER 1**.

# 4) SPEAKER

Connect the Radio harness connector.

With the Rear Left Audio Speaker still disconnected, turn the ignition on.

Turn the Radio on.

With the scan tool, clear all Radio DTC's.

With the scan tool, read the DTC information.

Does the scan tool read: B140B-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

Replace the Rear Left Audio Speaker in accordance with the service information.

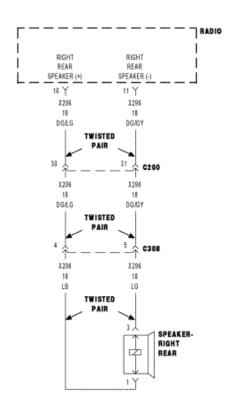
Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

B140D-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW

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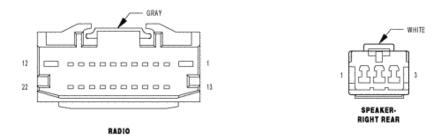


Fig. 28: Rear Right Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

# When Monitored:

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With the radio on.

#### **Set Condition:**

When the output circuit is LOW for more than three seconds.

### **Possible Causes**

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

#### Diagnostic Test

# 1) INTERMITTENT CONDITION

Turn the ignition on.

With the scan tool, clear all Radio DTC's.

Turn the Radio on.

With the scan tool, read the DTC information.

Does the scan tool read: B140D-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

Go to 2).

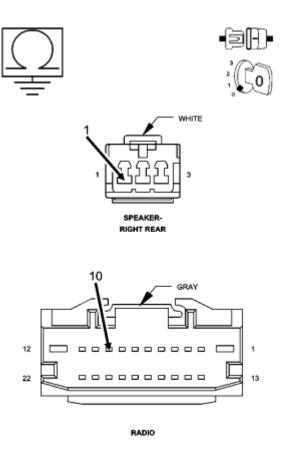
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform BODY VERIFICATION TEST - VER 1.

2) (X206) RIGHT REAR SPEAKER (+) CIRCUIT SHORTED TO GROUND

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819c0b58

Fig. 29: Measuring Resistance Between Ground And (X206) Right Rear Speaker (+) Circuit Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Rear Right Audio Speaker harness connector.

Measure the resistance between ground and the (X206) Right Rear Speaker (+) circuit.

### Is the resistance below 1000.0 ohms?

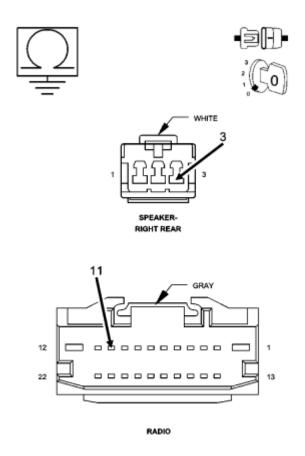
# Yes

Repair the (X206) Right Rear Speaker (+) circuit for a short to ground condition. Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 3).

# 3) (X296) RIGHT REAR SPEAKER (-) CIRCUIT SHORTED TO GROUND



819c0b60

Fig. 30: Measuring Resistance Between Ground And (X296) Right Rear Speaker (-) Circuit Courtesy of CHRYSLER LLC

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

#### Is the resistance below 1000.0 ohms?

### Yes

Repair the (X296) Right Rear Speaker (-) circuit for a short to ground condition. Perform **BODY VERIFICATION TEST - VER 1**.

#### No

Go to 4).

### 4) SPEAKER

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Connect the Radio harness connector.

With the Rear Right Audio Speaker still disconnected, turn the ignition on.

Turn the Radio on.

With the scan tool, clear all Radio DTC's.

With the scan tool, read the DTC information.

Does the scan tool read: B140D-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

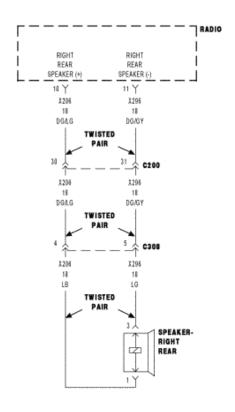
Replace the Rear Right Audio Speaker in accordance with the service information. Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

**B140E-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT HIGH** 

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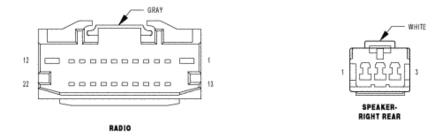


Fig. 31: Rear Right Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

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### **Possible Causes**

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

#### Diagnostic Test

# 1) INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Radio DTCs.

Does the scan tool display active: B140E-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

Yes

Go to 2).

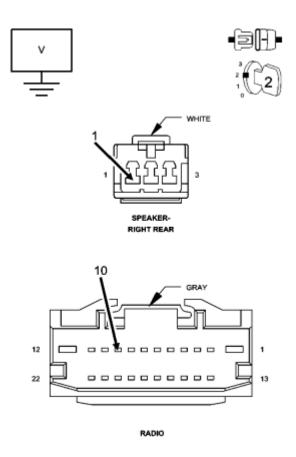
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) (X206) RIGHT REAR SPEAKER (+) CIRCUIT SHORTED TO VOLTAGE

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819c0b9a

Fig. 32: Measuring For Voltage On (X206) Right Rear Speaker (+) Circuit Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Right Rear Audio Speaker harness connector.

Turn the ignition on.

Measure for voltage on the (X206) Right Rear Speaker (+) circuit.

# Is the voltage above 10.0 volts?

# Yes

Repair the (X206) Right Rear Speaker (+) circuit for a short to voltage.

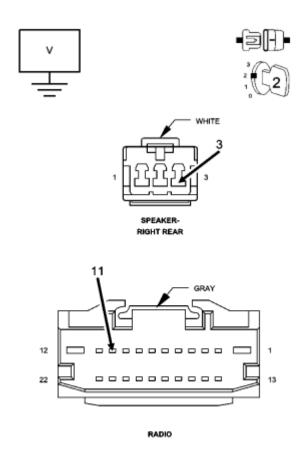
Perform **BODY VERIFICATION TEST - VER 1**.

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No

Go to 3).

# 3) (X296) RIGHT REAR SPEAKER (-) CIRCUIT SHORTED TO VOLTAGE



819c0ba8

<u>Fig. 33: Measuring For Voltage On (X296) Right Rear Speaker (-) Circuit Courtesy of CHRYSLER LLC</u>

Measure for voltage on the (X296) Right Rear Speaker (-) circuit.

Is the voltage above 10.0 volts?

Yes

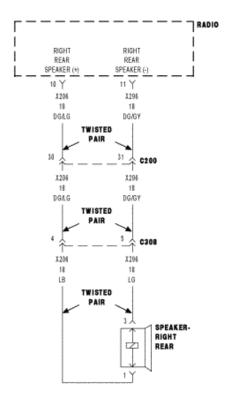
Repair the (X296) Right Rear Speaker (-) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

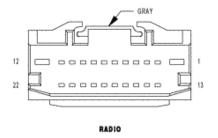
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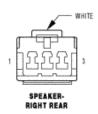
Replace the Radio in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

### **B140F-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT OPEN**







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# Fig. 34: Rear Right Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### When Monitored:

With the radio on.

#### **Set Condition:**

When the output circuit is open for more than three seconds. The radio will not set the fault if the radio confirms an amplifier is on the BUS.

### **Possible Causes**

(X206) RIGHT REAR SPEAKER (+) CIRCUIT OPEN (X296) RIGHT REAR SPEAKER (-) CIRCUIT OPEN SPEAKER

**Diagnostic Test** 

### 1) INTERMITTENT CONDITION

Turn the ignition on.

With the scan tool, clear all Radio DTC's.

Turn the Radio on.

With the scan tool, read the DTC information.

Does the scan tool read: B140F-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

Go to 2).

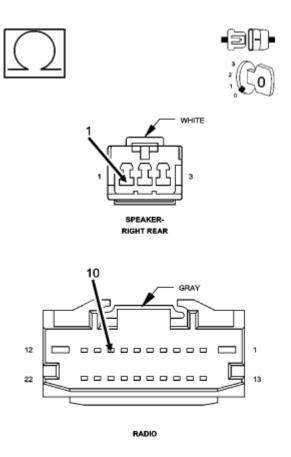
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) (X206) RIGHT REAR SPEAKER (+) CIRCUIT OPEN

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819c0bb5

<u>Fig. 35: Measuring Resistance Of (X206) Right Rear Speaker (+) Circuit Between Radio And Speaker</u>

**Courtesy of CHRYSLER LLC** 

Turn the ignition off.

Disconnect the Radio harness connector.

Disconnect the Rear Right Audio Speaker harness connector.

 $Measure \ the \ resistance \ of \ the \ (X206) \ Right \ Rear \ Speaker \ (+) \ circuit \ between \ the \ Radio \ and \ the \ Speaker.$ 

# Is the resistance below 5.0 ohms for each circuit?

Yes

Go to 3).

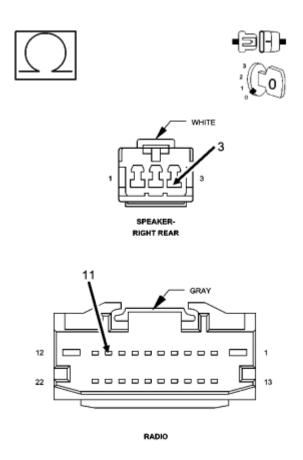
No

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Repair the (X206) Right Rear Speaker (+) circuit for an open condition.

Perform **BODY VERIFICATION TEST - VER 1**.

# 3) (X296) RIGHT REAR SPEAKER (-) CIRCUIT OPEN



819c0bc3

<u>Fig. 36: Measuring Resistance Of (X296) Right Rear Speaker (-) Circuit Between Radio And Speaker</u>

**Courtesy of CHRYSLER LLC** 

Measure the resistance of the (X296) Right Rear Speaker (-) circuit between the Radio and the Speaker.

#### Is the resistance below 5.0 ohms for each circuit?

Yes

Go to 4).

No

Repair the (X296) Right Rear Speaker (-) circuit for an open condition.

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# Perform **BODY VERIFICATION TEST - VER 1**.

# 4) SPEAKER

Connect the Radio harness connector.

With the Rear Right Audio Speaker still disconnected, turn the ignition on.

Turn the Radio on.

With the scan tool, clear all Radio DTC's.

With the scan tool, read the DTC information.

#### Does the scan tool read: B140F-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

### Yes

Replace the Rear Right Audio Speaker in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

#### B1420-AUDIO CASSETTE ERROR/INOPERABLE CASSETTE

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

### When Monitored:

Continuously with the ignition on and the Radio Cassette player turned on.

#### **Set Condition:**

The code will set when a damaged Cassette is placed in the Cassette Player.

	Possible Causes	
CASSETTE READ FAILURE		

### **Diagnostic Test**

### 1) RADIO

Replace the problem Cassette with a good, clean, undamaged, cassette.

Turn the Radio cassette player on

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With the scan tool, read DTC's.

Does the scan tool display active: B1420-AUDIO CASSETTE ERROR/INOPERABLE CASSETTE?

Yes

Eject the inoperative cassette and replace the Radio/Cassette Player in accordance with the Service Information.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

#### B1421-AUDIO CD READ ERROR/INOPERABLE DISC

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

### When Monitored:

Continuously with the ignition on and the radio CD player turned on.

#### **Set Condition:**

The code will set if a CD that is not formatted as a music CD is installed in the radio CD player.

	Possible Causes
CD READ FAILURE	

#### **Diagnostic Test**

### 1) RADIO

Replace the problem CD with a good, clean, unscratched, music CD.

Turn the radio CD player on.

With the scan tool, read DTC's.

Does the can tool display: B1421 AUDIO CD READ ERROR/INOPERABLE DISC?

Yes

Eject the inoperative CD and replace the CD in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

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Test Complete.

#### **B1422-AUDIO DVD READ ERROR/INOPERABLE DISC**

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

### When Monitored:

Continuously with the ignition on and the DVD player turned on.

### **Set Condition:**

The code will set if a DVD that is not formatted as a DVD is installed in the DVD player.

Possible Causes
DVD READ FAILURE

### **Diagnostic Test**

### 1) DVD PLAYER

Replace the problem DVD with a good, clean, unscratched DVD.

Turn the DVD player on.

With the scan tool, read DTC's.

Does the scan tool display active: B1422-AUDIO DVD READ ERROR/INOPERABLE DISC?

Yes

Eject the inoperative DVD and replace the DVD in accordance with the Service Information. Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

#### **B1423-VES DVD READ ERROR/INOPERABLE DISC**

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

### When Monitored:

Continuously with the ignition on and the DVD player turned on.

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#### **Set Condition:**

The code will set if a DVD that is not formatted as a DVD is installed in the DVD player.

# **Possible Causes**

DVD READ FAILURE

Diagnostic Test

### 1) DVD PLAYER

Replace the problem DVD with a good, clean, unscratched DVD.

Turn the DVD player on.

With the scan tool, read DTC's.

Does the scan tool display active: B1423-VES DVD READ ERROR/INOPERABLE DISC?

Yes

Eject the inoperative DVD and replace the DVD in accordance with the Service Information. Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

#### **B1424-IMPROPER DVD-WRONG REGION**

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

#### When Monitored:

Continuously with the ignition on and the DVD player turned on.

### **Set Condition:**

The code will set if a DVD that is not formatted as a DVD is installed in the DVD player.

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DVD READ FAILURE

Diagnostic Test

1) DVD PLAYER

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Replace the problem DVD with a good, clean, unscratched DVD.

Turn the DVD player on.

With the scan tool, read DTC's.

Does the scan tool display active: B1424-IMPROPER DVD-WRONG REGION?

Yes

Eject the inoperative DVD and replace the DVD in accordance with the Service Information. Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

#### **B1429-RADIO DISPLAY HIGH TEMPERATURE**

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

### When Monitored:

Continuously with the ignition and Radio on.

### **Set Condition:**

The code will set if the temperature inside the Radio is above  $+65^{\circ}$ C ( $+145^{\circ}$ F)

	Possible Causes
HIGH TEMPERATURE FAILURE	

### Diagnostic Test

# 1) VERIFY THAT DTC B1429-RADIO DISPLAY HIGH TEMPERATURE IS ACTIVE.

With the scan tool, clear all DTC's.

Start the engine and allow the engine to reach normal operating temperature.

If the vehicle has been in the hot sunlight or extreme cold, move the vehicle indoors and open the doors to allow the inside temperature to stabilize.

The Radio should operate between  $-23^{\circ}$ C and  $+65^{\circ}$ C ( $-10^{\circ}$ F and  $+145^{\circ}$ F).

With the scan tool, read DTC's.

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Does the scan tool display active: B1429-RADIO DISPLAY HIGH TEMPERATURE?

Yes

Replace the Radio in accordance with the Service Information.

Perform BODY VERIFICATION TEST - VER 1.

No

Test Complete.

### **B142A-RADIO UNIT HIGH TEMPERATURE**

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

#### When Monitored:

Continuously with the ignition and Radio on.

### **Set Condition:**

The code will set if the temperature inside the Radio is above +65°C (+145°F)

	Possible Causes
HIGH TEMPERATURE FAILURE	

### **Diagnostic Test**

# 1) VERIFY THAT DTC B142A-RADIO UNIT HIGH TEMPERATURE IS ACTIVE.

With the scan tool, erase the DTC's.

Start the engine and allow the engine to reach normal operating temperature.

If the vehicle has been in the hot sunlight or extreme cold, move the vehicle indoors and open the doors to allow the inside temperature to stabilize.

The Radio should operate between -23°C and +65°C (-10°F and +145°F).

With the scan tool, read DTC's.

# Does the scan tool display active: B142A-RADIO UNIT HIGH TEMPERATURE?

# Yes

Replace the Radio in accordance with the Service Information.

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# Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

#### **B142C-VES VIDEO SCREEN DISCONNECTED**

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

### When Monitored:

With the ignition on and the Radio in Video mode.

### **Set Condition:**

With the Radio in Video mode, the Radio does not detect a VES Video Screen.

### **Possible Causes**

BAD VES VIDEO SCREEN CONNECTION RADIO

Diagnostic Test

### 1) TEST VES VIDEO SCREEN CONNECTION

Turn the ignition off.

Disconnect the VES Video Screen connector.

Inspect the VES Video Screen connection.

### Was the VES Video Screen connection clean and secure?

Yes

Go to 2).

No

Repair the VES Video Screen connection as needed.

Perform **BODY VERIFICATION TEST - VER 1**.

### 2) VES VIDEO SCREEN

Refer to the Audio System in the Service Information and test the VES Video Screen in accordance with the Service Procedure

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Is the Antenna ok?

Yes

Go to 3).

No

Repair or replace the VES Video Screen in accordance with the Service Information.

Perform **BODY VERIFICATION TEST - VER 1**.

3) RADIO

NOTE: Reconnect all previously disconnected components.

NOTE: Move vehicle outside approximately 30ft (9.14m) from any structure.

Turn the ignition on.

Turn the Radio on.

With the scan tool, clear all DTC's, put the Radio in mode.

With the scan tool, read DTC's.

Does the scan tool display active: B142C-VES VIDEO SCREEN DISCONNECTED?

Yes

Replace the Radio in accordance with the Service Information.

Perform BODY VERIFICATION TEST - VER 1.

No

Test Complete.

#### **B142D-AUDIO ANTENNA NOT CONNECTED**

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

### When Monitored:

With the ignition on and the Radio in seek mode.

### **Set Condition:**

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With the Radio in seek mode for two loops around the band. The Radio does not detect an Antenna connection or does not receive a Radio station signal.

Possible Causes
BAD ANTENNA CONNECTION
RADIO

### Diagnostic Test

### 1) TEST ANTENNA

Turn the ignition off.

Disconnect the Radio Antenna connector.

Inspect the Radio Antenna connection.

Was the Antenna connection clean and secure?

Yes

Go to 2).

No

Repair the Antenna connection as needed.

Perform **BODY VERIFICATION TEST - VER 1**.

### 2) ANTENNA

Refer to the Audio System in the Service Information and test the antenna in accordance with the Service Procedure.

#### Is the Antenna ok?

Yes

Go to 3).

No

Repair or replace the Antenna assembly in accordance with the Service Information.

Perform **BODY VERIFICATION TEST - VER 1**.

# 3) RADIO

NOTE: Reconnect all previously disconnected components.

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NOTE: Move vehicle outside approximately 30ft (9.14m) from any structure.

Turn the ignition on.

Turn the Radio on.

With the scan tool, clear all DTC's, put the Radio in seek up and down mode for 2 loops around the band cycle before proceeding.

With the scan tool, read DTC's.

Does the scan tool display active: B142D-AUDIO ANTENNA NOT CONNECTED?

Yes

Replace the Radio in accordance with the Service Information.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

#### **B142E-GPS ANTENNA NOT CONNECTED**

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

#### When Monitored:

With the ignition on and the Radio in Navigation mode.

### **Set Condition:**

With the Radio in Navigation mode. The Radio does not detect an Antenna connection or does not receive a Navigation (GPS) signal.

Possible Causes
BAD ANTENNA CONNECTION
RADIO
ANTENNA

### **Diagnostic Test**

# 1) TEST ANTENNA

Turn the ignition off.

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Disconnect the GPS Antenna connector.

Inspect the GPS Antenna connection.

Was the Antenna connection clean and secure?

Yes

Go to 2).

No

Repair the Antenna connection as needed.

Perform **BODY VERIFICATION TEST - VER 1**.

### 2) ANTENNA

Refer to the Audio System in the Service Information and test the antenna in accordance with the Service Procedure.

Is the Antenna ok?

Yes

Go to 3).

No

Repair or replace the Antenna assembly in accordance with the Service Information.

Perform **BODY VERIFICATION TEST - VER 1**.

3) RADIO

NOTE: Reconnect all previously disconnected components.

NOTE: Move vehicle outside approximately 30ft (9.14m) from any structure.

Turn the ignition and Radio on.

With the scan tool, clear all DTC's and operate the Navigation system.

With the scan tool, read DTC's.

Does the scan tool display active: B142E-GPS ANTENNA NOT CONNECTED?

Yes

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Replace the Radio in accordance with the Service Information.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

# **B142F-SATELLITE RADIO ANTENNA NOT CONNECTED**

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

### When Monitored:

With the ignition on and the Satellite Radio in seek mode.

### **Set Condition:**

With the radio in seek mode for two loops around the band. The radio does not detect an antenna connection or does not receive a radio satellite signal.

Possible Causes	
BAD ANTENNA CONNECTION	
SATELLITE RADIO RECEIVER	

### **Diagnostic Test**

### 1) TEST ANTENNA

Turn the ignition off.

Disconnect the Satellite Radio Antenna connector.

Inspect the Satellite Radio Antenna connection.

Was the Antenna connection clean and secure?

Yes

Go to 2).

No

Repair the Antenna connection as needed.

Perform **BODY VERIFICATION TEST - VER 1**.

### 2) SATELLITE RADIO ANTENNA

Refer to the <u>AUDIO/VIDEO-SERVICE INFORMATION</u> and test the antenna in accordance with the service procedure

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Is the Antenna ok?

Yes

Go to 3).

No

Repair or replace the Antenna assembly as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

3) SATELLITE RADIO RECEIVER

NOTE: Reconnect all previously disconnected components.

NOTE: Move vehicle outside approximately 30ft (9.144m) from any structure.

Turn the ignition and radio on.

With the scan tool, erase the audio DTC's, put the satellite radio in seek up and down mode for 2 loops around the band cycle before proceeding.

With the scan tool, read the audio DTC's.

Did this DTC reset?

Yes

Replace the Satellite Radio Receiver in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Test Complete.

#### B1430-SATELLITE RADIO ANTENNA INTERNAL PERFORMANCE

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

### When Monitored:

With the ignition on.

### **Set Condition:**

The Satellite Radio Antenna detects a software checksum test failure.

#### **Possible Causes**

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# SATELLITE RADIO ANTENNA

**Diagnostic Test** 

### 1) REPLACE THE SATELLITE RADIO ANTENNA

When this code is set, the Satellite Radio Antenna must be replaced.

# Repair

Replace the Satellite Radio Antenna in accordance with the Service Information. Refer to **STANDARD PROCEDURE**.

#### B1460-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

#### When Monitored:

With the ignition on.

### **Set Condition:**

This DTC will set if a DC offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of  $5 \pm 1$  sec.

Possible Causes
AMPLIFIER

**Diagnostic Test** 

### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read 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 **BODY VERIFICATION TEST - VER 1**.

No

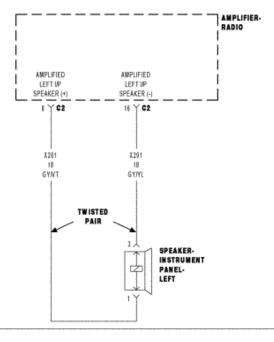
The conditions that caused this code to set are not present at this time. Using the wiring

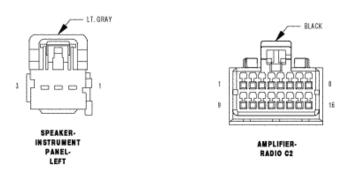
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diagram/schematic as a guide, inspect the wiring and connectors.

Perform **BODY VERIFICATION TEST - VER 1**.

#### B1461-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT LOW





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Fig. 37: Channel 1 Audio Speaker Output Circuit Schematic

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# Courtesy of CHRYSLER LLC

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

### When Monitored:

With the ignition on.

### **Set Condition:**

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

### **Possible Causes**

(X201) AMPLIFIED LEFT FRONT I/P SPEAKER (+) CIRCUIT SHORTED TO GROUND (X291) AMPLIFIED LEFT FRONT I/P SPEAKER (-) CIRCUIT SHORTED TO GROUND LEFT FRONT I/P SPEAKER AMPLIFIER

### **Diagnostic Test**

### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

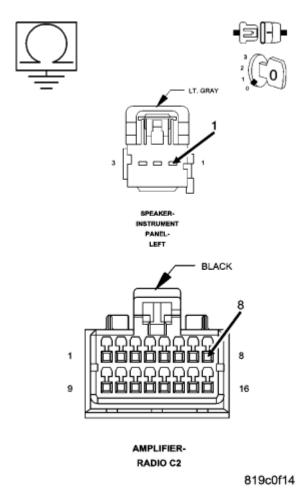
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) CHECK THE (X201) AMPLIFIED LEFT FRONT I/P SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND

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<u>Fig. 38: Measuring Resistance Between Ground And (X201) Amplified Left Front I/P Speaker (+) Circuit</u>

**Courtesy of CHRYSLER LLC** 

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Disconnect the Left I/P Speaker harness connector.

Measure the resistance between ground and the (X201) Amplified Left Front I/P Speaker (+) circuit.

### Is the resistance below 10K ohms?

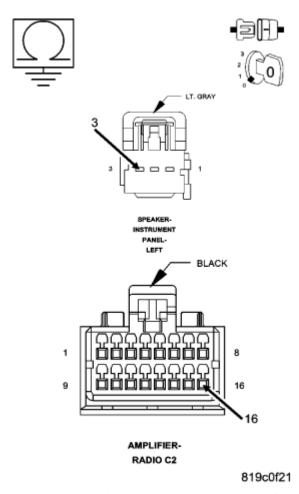
Yes

Repair the (X201) Amplified Left Front I/P Speaker (+) circuit for a short to ground. Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 3).

# 3) CHECK THE (X291) AMPLIFIED LEFT FRONT I/P SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND



<u>Fig. 39: Measuring Resistance Between Ground And (X291) Amplified Left Front I/P Speaker (-) Circuit</u>

**Courtesy of CHRYSLER LLC** 

Measure the resistance between ground and the (X291) Amplified Left Front I/P Speaker (-) circuit.

## Is the resistance below 10K ohms?

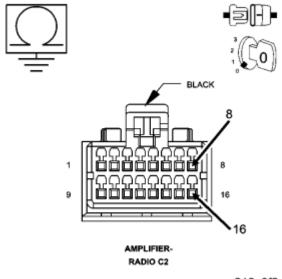
Yes

Repair the (X291) Amplified Left Front I/P Speaker (-) for a short to ground. Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 4).

# 4) CHECK OPERATION OF THE AMPLIFIED LEFT FRONT I/P SPEAKER



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<u>Fig. 40: Measuring Resistance Of Speaker Circuit Between Amplifier C2 Harness Connector And Ground</u>

**Courtesy of CHRYSLER LLC** 

Reconnect and reinstall the Left Front I/P Speaker.

Measure the resistance of the speaker circuit between the Amplifier C2 harness connector and ground.

### Is the resistance below 10K ohms?

### Yes

Replace the Left Front I/P Speaker in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

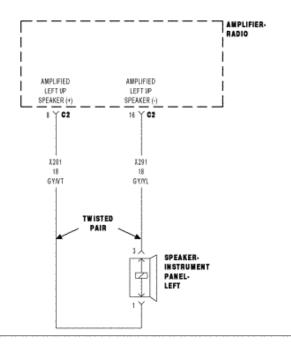
No

Replace the Amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

### **B1462-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT HIGH**

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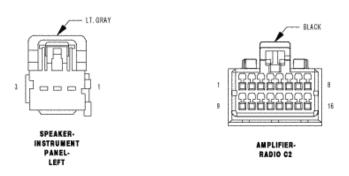


Fig. 41: Channel 1 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

# When Monitored:

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With the ignition on.

### **Set Condition:**

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

### **Possible Causes**

(X201) AMPLIFIED LEFT I/P SPEAKER (+) CIRCUIT SHORT TO VOLTAGE

(X291) AMPLIFIED LEFT I/P SPEAKER (-) CIRCUIT SHORT TO VOLTAGE

**AMPLIFIER** 

# Diagnostic Test

## 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) CHECK FOR VOLTAGE ON THE (X201) AMPLIFIED LEFT I/P SPEAKER (+) CIRCUIT

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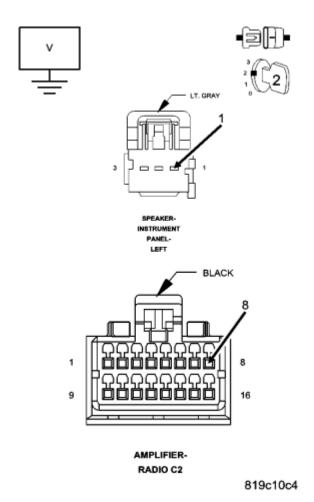


Fig. 42: Measuring For Voltage On (X201) Amplified Left I/P Speaker (+) Circuit Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Disconnect the Amplified Left I/P Speaker harness connector.

Turn the ignition on.

Measure for voltage on the (X201) Amplified Left I/P Speaker (+) circuit.

# Is the voltage above 10.0 volts?

# Yes

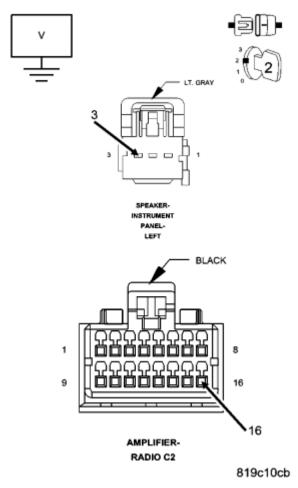
Repair the (X201) Amplified Left I/P Speaker (+) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

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No

Go to 3).

# 3) CHECK FOR VOLTAGE ON THE (X291) AMPLIFIED LEFT I/P SPEAKER (-) CIRCUIT



<u>Fig. 43: Measuring For Voltage On (X291) Amplified Left I/P Speaker (-) Circuit Courtesy of CHRYSLER LLC</u>

Measure for voltage on the (X291) Amplified Left I/P Speaker (-) circuit.

# Is the voltage above 10.0 volts?

### Yes

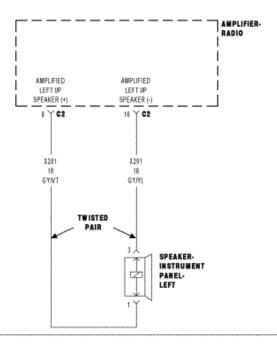
Repair the (X291) Amplified Left I/P Speaker (-) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

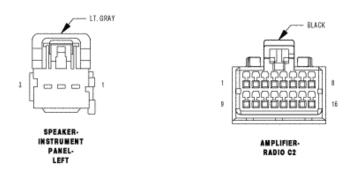
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Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

### **B1463-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT OPEN**





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# Fig. 44: Channel 1 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

### 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) AMPLIFIED LEFT I/P SPEAKER (+) CIRCUIT OPEN

(X291) AMPLIFIED LEFT I/P SPEAKER (-) CIRCUIT OPEN

LEFT FRONT I/P SPEAKER

AMPLIFIER

Diagnostic Test

### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on.

Turn the radio on.

With the scan tool, erase Amplifier DTCs.

With the scan tool, reset the amplifier.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

### 2) CHECK THE OPERATION OF THE LEFT FRONT I/P SPEAKER

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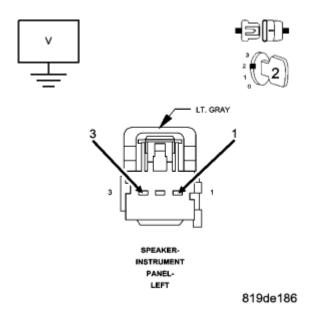


Fig. 45: Measuring Voltage Of Amplified Left I/P Speaker Circuits In Amplified Left I/P Speaker Harness Connector

Country of CHRYSLED LLC

**Courtesy of CHRYSLER LLC** 

Turn the ignition off.

Disconnect the Left I/P Speaker harness connector.

Turn the ignition on.

Turn the radio on and turn the volume to mid level.

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.

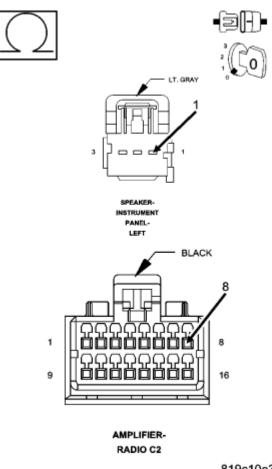
Perform **BODY VERIFICATION TEST - VER 1** .

No

Go to 3).

3) CHECK THE (X201) AMPLIFIED LEFT I/P SPEAKER (+) CIRCUIT FOR AN OPEN

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Fig. 46: Measuring Resistance Of (X201) Amplified Left I/P Speaker (+) Circuit Between Amplifier C2 Harness Connector And Amplified Left I/P Speaker Harness Connector **Courtesy of CHRYSLER LLC** 

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Measure the resistance of the (X201) Amplified Left I/P Speaker (+) circuit between the Amplifier C2 harness connector and the Amplified Left I/P Speaker harness connector.

### Is the resistance below 5.0 ohms?

### Yes

Go to 4).

No

Repair the (X201) Amplified Left I/P Speaker (+) circuit for an open.

### Perform **BODY VERIFICATION TEST - VER 1**.

# 4) CHECK THE (X291) AMPLIFIED LEFT I/P SPEAKER (-) CIRCUIT FOR AN OPEN

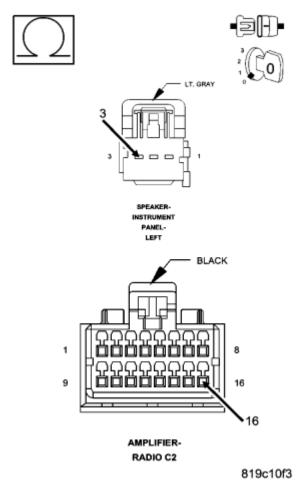


Fig. 47: Measuring Resistance Of (X291) Amplified Left I/P Speaker (-) Circuit Between Amplifier C2 Harness Connector And Amplified Left I/P Speaker Harness Connector Courtesy of CHRYSLER LLC

Measure the resistance of the (X291) amplified Left I/P Speaker (-) circuit between the Amplifier C2 harness connector and the Amplified Left I/P Speaker harness connector.

### Is the resistance below 5.0 ohms?

### Yes

Replace the Amplifier in accordance with the service information.

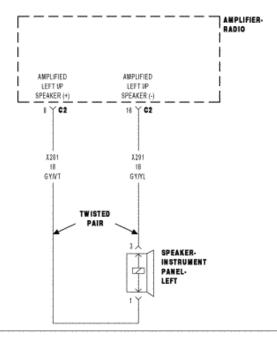
Perform **BODY VERIFICATION TEST - VER 1**.

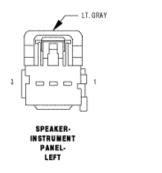
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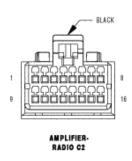
Repair the (X291) Amplified Left I/P Speaker (-) circuit for an open.

Perform **BODY VERIFICATION TEST - VER 1**.

### B1464-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER







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# <u>Fig. 48: Channel 1 Audio Speaker Output Circuit Schematic</u> Courtesy of CHRYSLER LLC

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

### 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) AMPLIFIED LEFT I/P SPEAKER (+) CIRCUIT SHORTED TO THE (X291) AMPLIFIED LEFT I/P SPEAKER (-) CIRCUIT

AMPLIFIED LEFT I/P SPEAKER

**AMPLIFIER** 

Diagnostic Test

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, erase Amplifier DTCs.

Turn the radio on.

Turn the volume level to 25.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

# 2) CHECK THE OPERATION OF THE AMPLIFIED LEFT I/P SPEAKER

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Turn the ignition off.

Disconnect the Amplified Left I/P Speaker.

Measure the resistance of the speaker between the two terminals.

Is the resistance of the speaker less than 1 ohm?

Yes

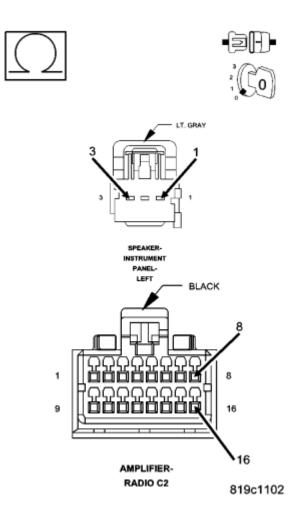
Replace the Amplified Left I/P Speaker in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

3) CHECK THE (X201) AMPLIFIED LEFT I/P SPEAKER (+) CIRCUIT, AND THE (X291) AMPLIFIED LEFT I/P SPEAKER (-) CIRCUITS FOR A SHORT TOGETHER



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# <u>Fig. 49: Measuring Resistance Between (X201) Amplified Left I/P Speaker (+) Circuit And (X291) Amplified Left I/P Speaker (-) Circuit Courtesy of CHRYSLER LLC</u>

Disconnect the Amplifier C2 harness connector.

Measure the resistance between the (X201) Amplified Left I/P Speaker (+) circuit, and the (X291) Amplified Left I/P Speaker (-) circuit.

### Is the resistance below 10K ohms?

### Yes

Repair the (X201) Amplified Left I/P Speaker (+) circuit, and the (X291) Amplified Left I/P Speaker (-) circuit for a short together.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

### B1465-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

### When Monitored:

With the ignition on.

### **Set Condition:**

This DTC will set if a DC offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of  $5 \pm 1$  sec.

	Possible Causes
AMPLIFIER	

### **Diagnostic Test**

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read amplifier DTCs.

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

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Yes

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

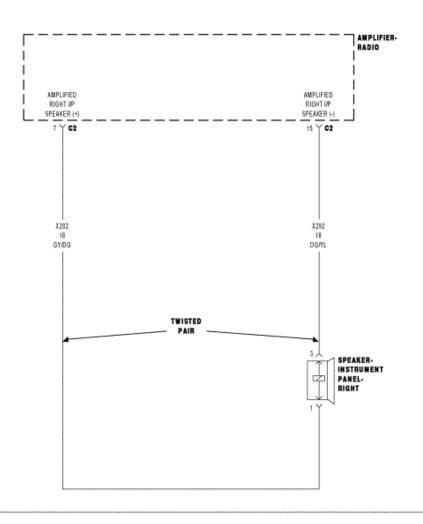
No

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 - VER 1**.

B1466-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT LOW

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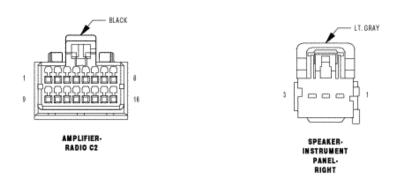


Fig. 50: Channel 2 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

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### When Monitored:

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With the ignition on.

### **Set Condition:**

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

### **Possible Causes**

(X202) AMPLIFIED RIGHT FRONT I/P SPEAKER (+) CIRCUIT SHORTED TO GROUND (X292) AMPLIFIED RIGHT FRONT I/P SPEAKER (-) CIRCUIT SHORTED TO GROUND RIGHT FRONT I/P SPEAKER AMPLIFIER

### Diagnostic Test

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

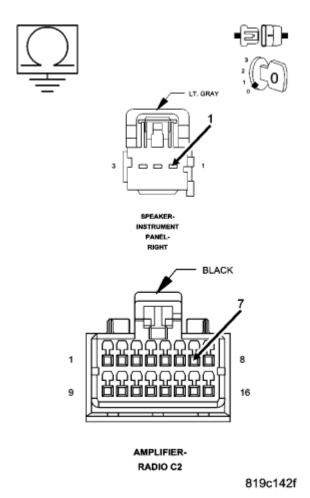
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform BODY VERIFICATION TEST - VER 1.

# 2) CHECK THE (X202) AMPLIFIED RIGHT FRONT I/P SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND

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<u>Fig. 51: Measuring Resistance Between Ground And (X202) Amplified Right Front I/P Speaker (+) Circuit</u>

**Courtesy of CHRYSLER LLC** 

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Disconnect the Right Front I/P Speaker harness connector.

Measure the resistance between ground and the (X202) Amplified Right Front I/P Speaker (+) circuit.

### Is the resistance below 10K ohms?

Yes

Repair the (X202) Amplified Right Front I/P Speaker (+) circuit for a short to ground. Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

# 3) CHECK THE (X292) AMPLIFIED RIGHT FRONT I/P SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND

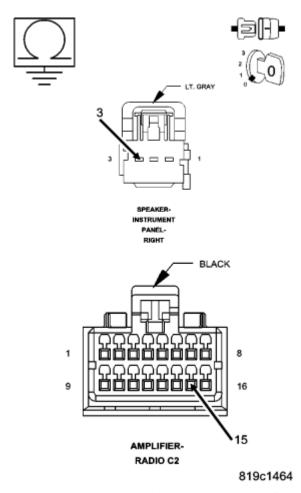


Fig. 52: Measuring Resistance Between Ground And (X292) Amplified Right Front I/P Speaker (-) Circuit

# **Courtesy of CHRYSLER LLC**

Measure the resistance between ground and the (X292) Amplified Right Front I/P Speaker (-) circuit.

# Is the resistance below 10K ohms?

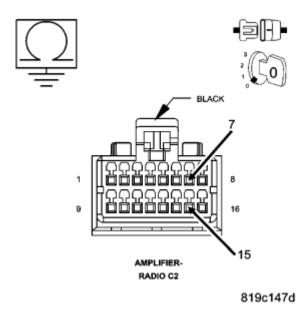
### Yes

Repair the (X292) Amplified Right Front I/P Speaker (-) for a short to ground. Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 4).

# 4) CHECK OPERATION OF THE AMPLIFIED RIGHT FRONT I/P SPEAKER



<u>Fig. 53: Measuring Resistance Of Speaker Circuit Between Amplifier C2 Harness Connector And Ground</u>

**Courtesy of CHRYSLER LLC** 

Reconnect and reinstall the Right Front I/P Speaker.

Measure the resistance of the speaker circuit between the Amplifier C2 harness connector and ground.

### Is the resistance below 10K ohms?

### Yes

Replace the Right Front I/P Speaker in accordance with the service information.

Perform BODY VERIFICATION TEST - VER 1.

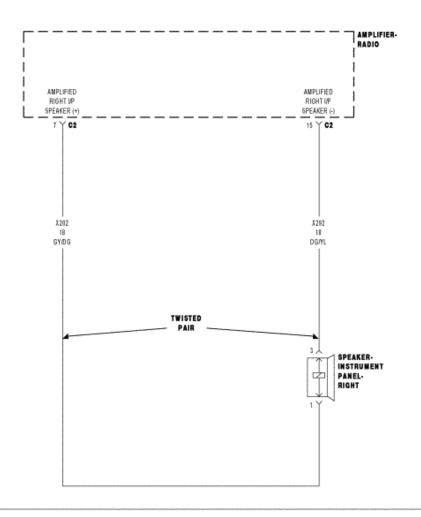
No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

### **B1467-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT HIGH**

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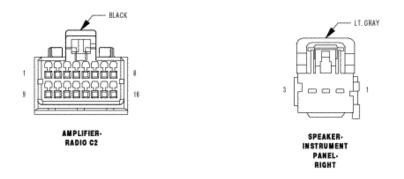


Fig. 54: Channel 2 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

013c13e5

### When Monitored:

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With the ignition on.

### **Set Condition:**

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

### **Possible Causes**

(X202) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT SHORT TO VOLTAGE

(X292) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT SHORT TO VOLTAGE

AMPLIFIER

# Diagnostic Test

## 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform BODY VERIFICATION TEST - VER 1.

2) CHECK FOR VOLTAGE ON THE (X202) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT

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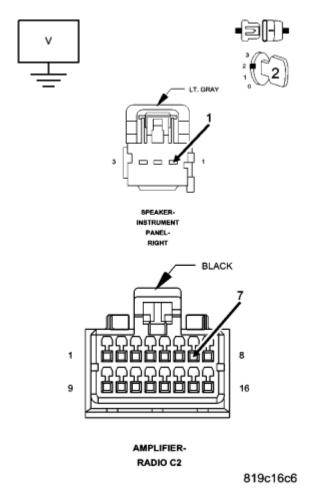


Fig. 55: Measuring For Voltage On (X202) Amplified Right I/P Speaker (+) Circuit Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Disconnect the Amplified Right I/P Speaker harness connector.

Turn the ignition on.

Measure for voltage on the (X202) Amplified Right I/P Speaker (+) circuit.

# Is the voltage above 10.0 volts?

### Yes

Repair the (X202) Amplified Right I/P Speaker (+) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1** .

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No

Go to 3).

# 3) CHECK FOR VOLTAGE ON THE (X292) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT

Measure for voltage on the (X292) Amplified Right I/P Speaker (-) circuit.

Is the voltage above 10.0 volts?

Yes

Repair the (X292) Amplified Right I/P Speaker (-) circuit for a short to voltage.

Perform **BODY VERIFICATION TEST - VER 1**.

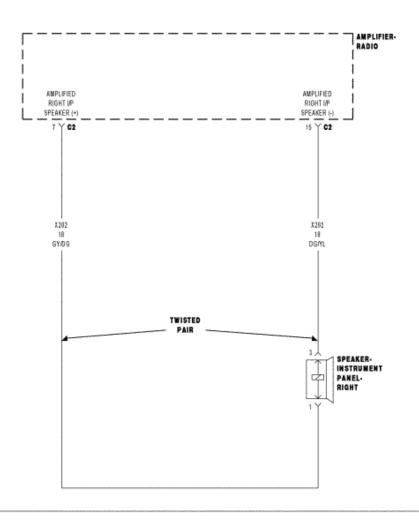
No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

**B1468-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT OPEN** 

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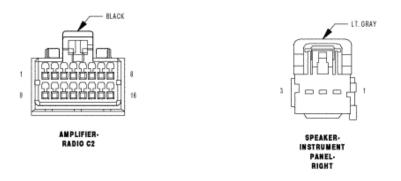


Fig. 56: Channel 2 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

013c13e5

### When Monitored:

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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) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT OPEN

(X292) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT OPEN

RIGHT I/P SPEAKER

**AMPLIFIER** 

Diagnostic Test

### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on.

Turn the radio on.

With the scan tool, erase Amplifier DTCs.

With the scan tool, reset the amplifier.

With the scan tool, read Amplifier DTCs.

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

### Yes

Go to 2).

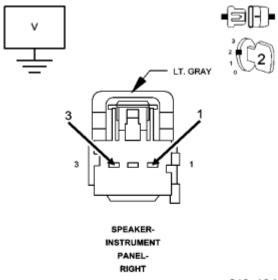
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform BODY VERIFICATION TEST - VER 1.

# 2) CHECK THE OPERATION OF THE RIGHT FRONT I/P SPEAKER

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Fig. 57: Measuring Voltage Of Amplified Right I/P Speaker Circuits In Amplified Right I/P Speaker Harness Connector Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Right I/P Speaker harness connector.

Turn the ignition on.

Turn the radio on and turn the volume to mid level.

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.

# Is the voltage present greater than 1 volt?

### Yes

Replace the Amplified Right I/P Speaker in accordance with the service information. Perform **BODY VERIFICATION TEST - VER 1**.

### No

Go to 3).

# 3) CHECK THE (X202) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT FOR AN OPEN

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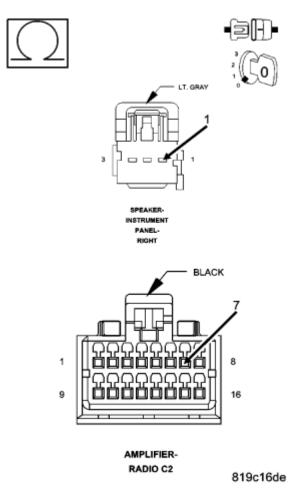


Fig. 58: Measuring Resistance Of (X202) Amplified Right I/P Speaker (+) Circuit Between Amplifier C2 Harness Connector And Amplified Right I/P Speaker Harness Connector Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Measure the resistance of the (X202) Amplified Right I/P Speaker (+) circuit between the Amplifier C2 harness connector and the Amplified Right I/P Speaker harness connector.

### Is the resistance below 5.0 ohms?

### Yes

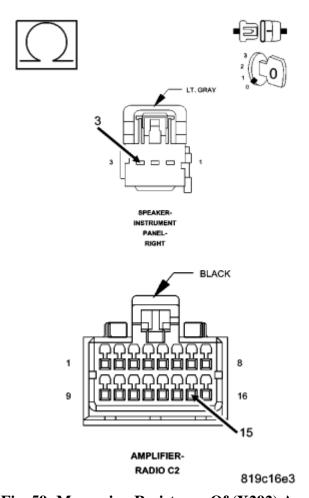
Go to 4).

No

Repair the (X202) Amplified Right I/P Speaker (+) circuit for an open.

### Perform **BODY VERIFICATION TEST - VER 1**.

# 4) CHECK THE (X292) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT FOR AN OPEN



<u>Fig. 59: Measuring Resistance Of (X292) Amplified Right I/P Speaker (-) Circuit Between Amplifier C2 Harness Connector And Amplified Right I/P Speaker Harness Connector Courtesy of CHRYSLER LLC</u>

Measure the resistance of the (X292) Amplified Right I/P Speaker (-) circuit between the Amplifier C2 harness connector and the Amplified Right I/P Speaker harness connector.

### Is the resistance below 5.0 ohms?

### Yes

Replace the amplifier in accordance with the service information.

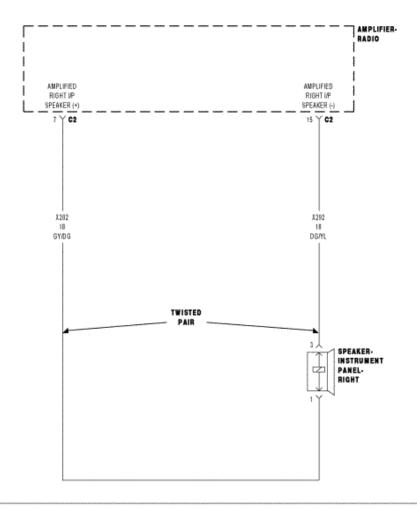
Perform BODY VERIFICATION TEST - VER 1.

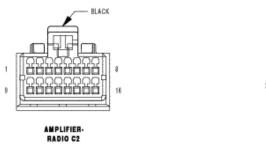
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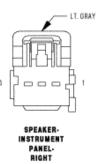
Repair the (X292) Amplified Right I/P Speaker (-) circuit for an open.

Perform **BODY VERIFICATION TEST - VER 1**.

### B1469-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER







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# <u>Fig. 60: Channel 2 Audio Speaker Output Circuit Schematic</u> Courtesy of CHRYSLER LLC

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

### 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) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT SHORTED TO THE (X292) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT AMPLIFIED RIGHT I/P SPEAKER

**AMPLIFIER** 

Diagnostic Test

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, erase Amplifier DTCs.

Turn the radio on.

Turn the volume level to 25.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

### 2) CHECK THE OPERATION OF THE AMPLIFIED RIGHT I/P SPEAKER

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Turn the ignition off.

Disconnect the Amplified Right I/P Speaker.

Measure the resistance of the speaker between the two terminals.

Is the resistance of the speaker less than 1 ohm?

Yes

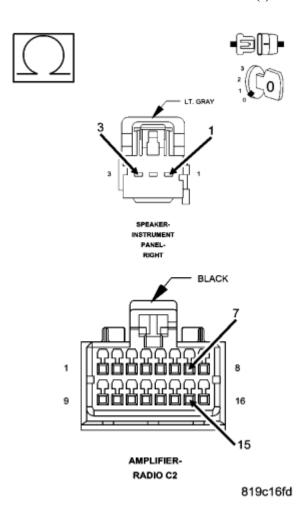
Replace the Amplified Right I/P Speaker in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

# 3) CHECK THE (X202) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT, AND THE (X292) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUITS FOR A SHORT TOGETHER



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# Fig. 61: Measuring Resistance Between (X202) Amplified Right I/P Speaker (+) Circuit And (X292) Amplified Right I/P Speaker (-) Circuit Courtesv of CHRYSLER LLC

Disconnect the Amplifier C2 harness connector.

Measure the resistance between the (X202) Amplified Right I/P Speaker (+) circuit, and the (X292) Amplified Right I/P Speaker (-) circuit.

### Is the resistance below 10K ohms?

### Yes

Repair the (X202) Amplified Right I/P Speaker (+) circuit, and the (X292) Amplified Right I/P Speaker (-) circuit for a short together.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

### B146A-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

### When Monitored:

With the ignition on.

### **Set Condition:**

This DTC will set if a DC offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of  $5 \pm 1$  sec.

Possible Causes	
AMPLIFIER	

### **Diagnostic Test**

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

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Yes

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

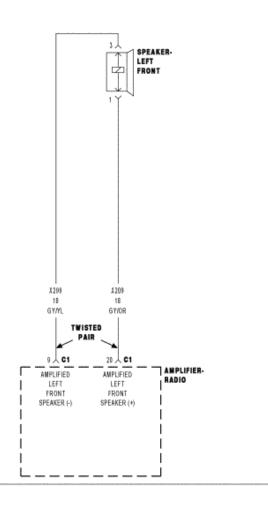
No

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 - VER 1**.

B146B-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT LOW

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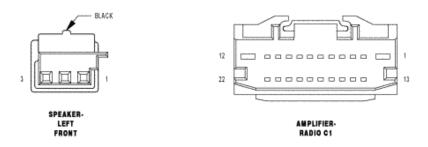


Fig. 62: Channel 3 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

# When Monitored:

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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 SPEAKER (+) CIRCUIT SHORTED TO GROUND (X299) AMPLIFIED LEFT FRONT SPEAKER (-) CIRCUIT SHORTED TO GROUND LEFT FRONT SPEAKER AMPLIFIER

#### Diagnostic Test

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

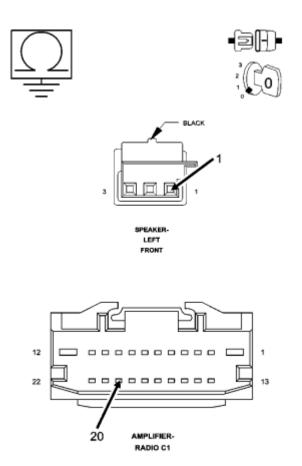
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) CHECK THE (X209) AMPLIFIED LEFT FRONT SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND

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<u>Fig. 63: Measuring Resistance Between Ground And (X209) Amplified Left Front Speaker (+) Circuit</u>

**Courtesy of CHRYSLER LLC** 

Turn the ignition off.

Disconnect the Amplifier C1 harness connector.

Disconnect the Left Front Speaker harness connector.

Measure the resistance between ground and the (X209) Amplified Left Front Speaker (+) circuit.

#### Is the resistance below 10K ohms?

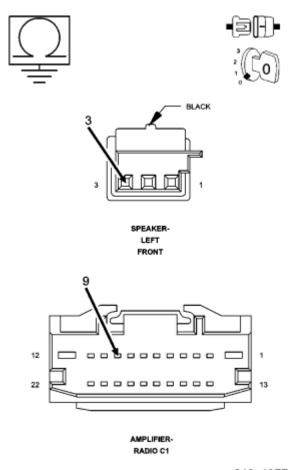
# Yes

Repair the (X209) Amplified Left Front Speaker (+) circuit for a short to ground. Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 3).

# 3) CHECK THE (X299) AMPLIFIED LEFT FRONT SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND



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<u>Fig. 64: Measuring Resistance Between Ground And (X299) Amplified Left Front Speaker (-) Circuit</u>

**Courtesy of CHRYSLER LLC** 

Measure the resistance between ground and the (X299) Amplified Left Front Speaker (-) circuit.

# Is the resistance below 10K ohms?

Yes

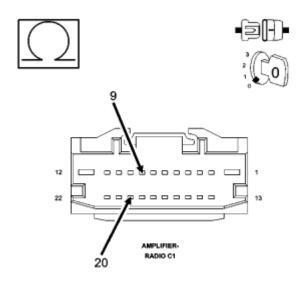
Repair the (X299) Amplified Left Front Speaker (-) for a short to ground.

Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 4).

# 4) CHECK OPERATION OF THE AMPLIFIED LEFT FRONT SPEAKER



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<u>Fig. 65: Measuring Resistance Of Speaker Circuit Between Amplifier C1 Harness Connector And Ground</u>

**Courtesy of CHRYSLER LLC** 

Reconnect and reinstall the Left Front Speaker.

Measure the resistance of the speaker circuit between the Amplifier C1 harness connector and ground.

# Is the resistance below 10K ohms?

#### Yes

Replace the Left Front Speaker in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

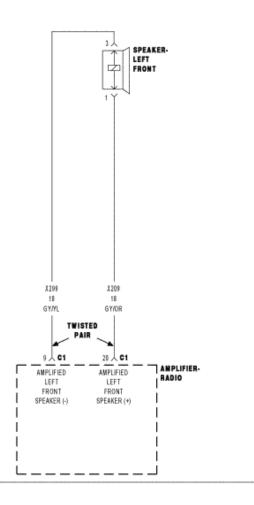
No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B146C-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT HIGH**

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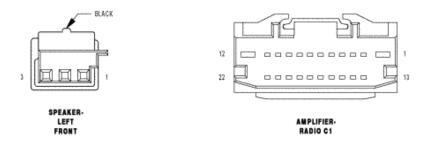


Fig. 66: Channel 3 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

# When Monitored:

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With the ignition on.

#### **Set Condition:**

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

# **Possible Causes**

(X209) AMPLIFIED LEFT FRONT SPEAKER (+) CIRCUIT SHORT TO VOLTAGE (X299) AMPLIFIED LEFT FRONT SPEAKER (-) CIRCUIT SHORT TO VOLTAGE AMPLIFIER

#### **Diagnostic Test**

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

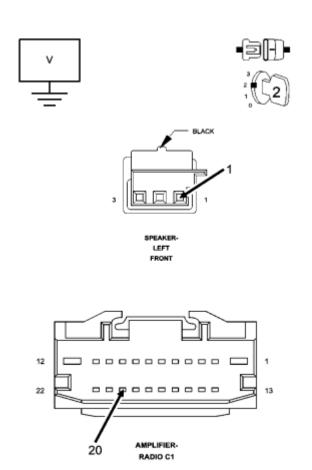
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform BODY VERIFICATION TEST - VER 1.

2) CHECK FOR VOLTAGE ON THE (X209) AMPLIFIED LEFT FRONT SPEAKER (+) CIRCUIT

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<u>Fig. 67: Measuring For Voltage On (X209) Amplified Left Front Speaker (+) Circuit Courtesy of CHRYSLER LLC</u>

Turn the ignition off.

Disconnect the Amplifier C1 harness connector.

Disconnect the Amplified Left Front Speaker harness connector.

Turn the ignition on.

Measure for voltage on the (X209) Amplified Left Front Speaker (+) circuit.

# Is the voltage above 10.0 volts?

# Yes

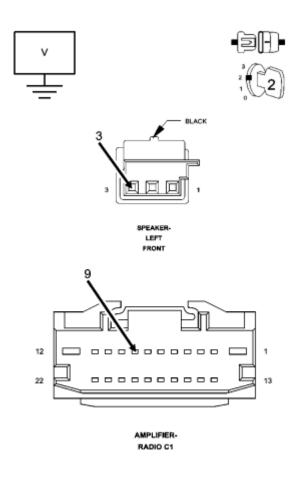
Repair the (X209) Amplified Left Front Speaker (+) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

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No

Go to 3).

# 3) CHECK FOR VOLTAGE ON THE (X299) AMPLIFIED LEFT FRONT SPEAKER (-) CIRCUIT



819c1a4a

Fig. 68: Measuring For Voltage On (X299) Amplified Left Front Speaker (-) Circuit Courtesy of CHRYSLER LLC

Measure for voltage on the (X299) Amplified Left Front Speaker (-) circuit.

Is the voltage above 10.0 volts?

Yes

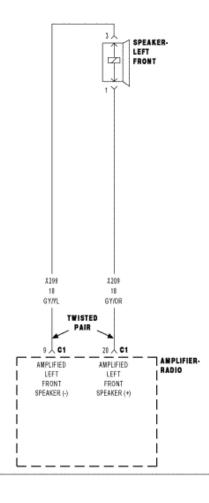
Repair the (X299) Amplified Left Front Speaker (-) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

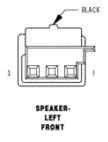
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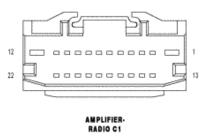
Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B146D-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT OPEN**







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# <u>Fig. 69: Channel 3 Audio Speaker Output Circuit Schematic</u> Courtesy of CHRYSLER LLC

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

#### 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 FRONT SPEAKER (+) CIRCUIT OPEN

(X299) AMPLIFIED LEFT FRONT SPEAKER (-) CIRCUIT OPEN

AMPLIFIED LEFT FRONT SPEAKER

AMPLIFIER

Diagnostic Test

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on.

Turn the radio on.

With the scan tool, erase Amplifier DTCs.

With the scan tool, reset the amplifier.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

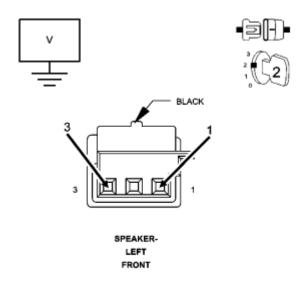
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

#### 2) CHECK THE OPERATION OF THE AMPLIFIED LEFT FRONT SPEAKER

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819c1aa2

<u>Fig. 70: Measuring Voltage Of Amplified Left Front Speaker Circuits In Amplified Left Front Speaker Harness Connector</u>
Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Amplified Left Front Speaker harness connector.

Turn the ignition on.

Turn the radio on and turn the volume to mid level.

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

# Is the voltage present greater than 1 volt?

#### Yes

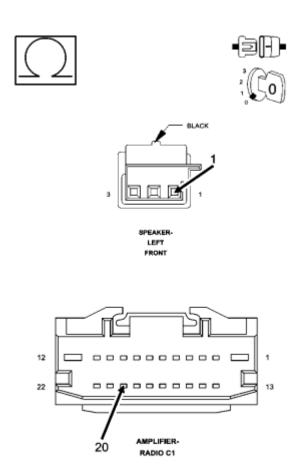
Replace the Amplified Left Front Speaker in accordance with the service information. Perform **BODY VERIFICATION TEST - VER 1**.

#### No

Go to 3).

# 3) CHECK THE (X209) AMPLIFIED LEFT FRONT SPEAKER (+) CIRCUIT FOR AN OPEN

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819c1aad

Fig. 71: Measuring Resistance Of (X209) Amplified Left Front Speaker (+) Circuit Between Amplifier C1 Harness Connector And Amplified Left Front Speaker Harness Connector Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Amplifier C1 harness connector.

Measure the resistance of the (X209) Amplified Left Front Speaker (+) circuit between the Amplifier C1 harness connector and the Amplified Left Front Speaker harness connector.

#### Is the resistance below 5.0 ohms?

### Yes

Go to 4).

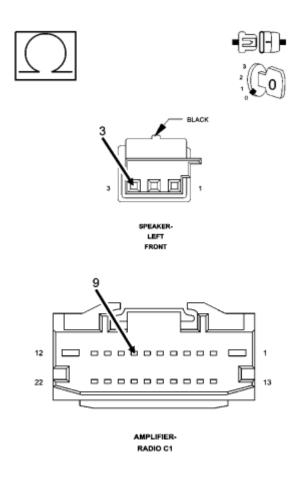
No

Repair the (X209) Amplified Left Front Speaker (+) circuit for an open.

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# Perform **BODY VERIFICATION TEST - VER 1**.

# 4) CHECK THE (X299) AMPLIFIED LEFT FRONT SPEAKER (-) CIRCUIT FOR AN OPEN



819c1ab4

<u>Fig. 72: Measuring Resistance Of (X299) Amplified Left Front Speaker (-) Circuit Between Amplifier C1 Harness Connector And Amplified Left Front Speaker Harness Connector Courtesy of CHRYSLER LLC</u>

Measure the resistance of the (X299) Amplified Left Front Speaker (-) circuit between the Amplifier C1 harness connector and the Amplified Left Front Speaker harness connector.

#### Is the resistance below 5.0 ohms?

#### Yes

Replace the amplifier in accordance with the service information.

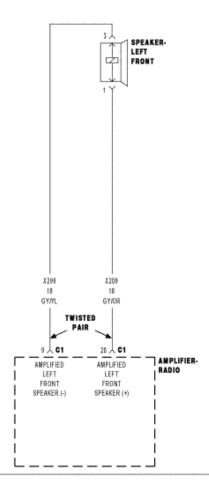
Perform BODY VERIFICATION TEST - VER 1.

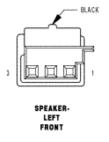
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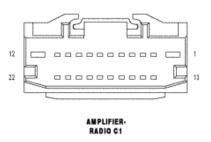
Repair the (X299) Amplified Left Front Speaker (-) circuit for an open.

Perform **BODY VERIFICATION TEST - VER 1**.

#### B146E-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER







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# Fig. 73: Channel 3 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### 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 FRONT SPEAKER (+) CIRCUIT SHORTED TO THE (X299)

AMPLIFIED LEFT FRONT SPEAKER (-) CIRCUIT

AMPLIFIED LEFT FRONT SPEAKER

**AMPLIFIER** 

**Diagnostic Test** 

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, erase Amplifier DTCs.

Turn the radio on.

Turn the volume level to 25.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

### 2) CHECK THE OPERATION OF THE AMPLIFIED LEFT FRONT SPEAKER

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Turn the ignition off.

Disconnect the Amplified Left Front Speaker.

Measure the resistance of the speaker between the two terminals.

Is the resistance of the speaker less than 1 ohm?

#### Yes

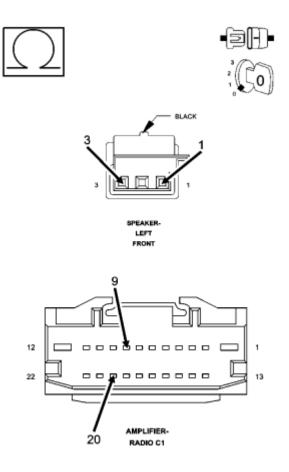
Replace the Amplified Left Front Speaker in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

# 3) CHECK THE (X209) AMPLIFIED LEFT FRONT SPEAKER (+) CIRCUIT, AND THE (X299) AMPLIFIED LEFT FRONT SPEAKER (-) CIRCUITS FOR A SHORT TOGETHER



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# Fig. 74: Measuring Resistance Between (X209) Amplified Left Front Speaker (+) Circuit And (X299) Amplified Left Front Speaker (-) Circuit Courtesy of CHRYSLER LLC

Disconnect the Amplifier C1 harness connector.

Measure the resistance between the (X209) Amplified Left Front Speaker (+) circuit, and the (X299) Amplified Left Front Speaker (-) circuit.

#### Is the resistance below 10K ohms?

#### Yes

Repair the (X209) Amplified Left Front Speaker (+) circuit, and the (X299) Amplified Left Front Speaker (-) circuit for a short together.

Perform **BODY VERIFICATION TEST - VER 1**.

#### No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### B146F-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

#### When Monitored:

With the ignition on.

#### **Set Condition:**

This DTC will set if a DC offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of  $5 \pm 1$  sec.

Possible Causes	
AMPLIFIER	

#### **Diagnostic Test**

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read amplifier DTCs.

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

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Yes

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

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 - VER 1**.

B1470-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT LOW

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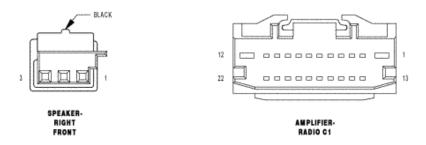


Fig. 75: Channel 4 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

# When Monitored:

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With the ignition on.

#### **Set Condition:**

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

# **Possible Causes**

(X208) AMPLIFIED RIGHT FRONT SPEAKER (+) CIRCUIT SHORTED TO GROUND (X298) AMPLIFIED RIGHT FRONT SPEAKER (-) CIRCUIT SHORTED TO GROUND RIGHT FRONT SPEAKER AMPLIFIER

### Diagnostic Test

#### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

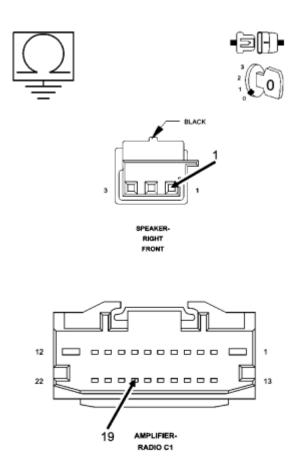
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

2) CHECK THE (X208) AMPLIFIED RIGHT FRONT SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND

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819c26a3

<u>Fig. 76: Measuring Resistance Between Ground And (X208) Amplified Right Front Speaker (+) Circuit</u>

# **Courtesy of CHRYSLER LLC**

Turn the ignition off.

Disconnect the Amplifier C1 harness connector.

Disconnect the Right Front Speaker harness connector.

Measure the resistance between ground and the (X208) Amplified Right Front Speaker (+) circuit.

#### Is the resistance below 10K ohms?

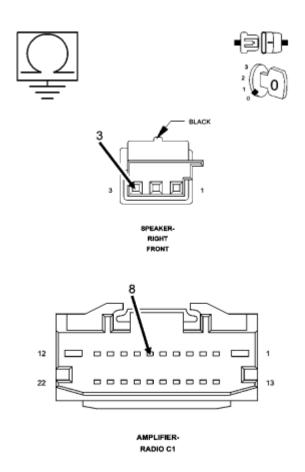
# Yes

Repair the (X208) Amplified Right Front Speaker (+) circuit for a short to ground. Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 3).

# 3) CHECK THE (X298) AMPLIFIED RIGHT FRONT SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND



819c26c6

Fig. 77: Measuring Resistance Between Ground And (X298) Amplified Right Front Speaker (-) Circuit

**Courtesy of CHRYSLER LLC** 

Measure the resistance between ground and the (X298) Amplified Right Front Speaker (-) circuit.

# Is the resistance below 10K ohms?

Yes

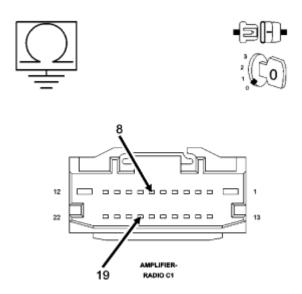
Repair the (X298) Amplified Right Front Speaker (-) for a short to ground. Perform **BODY VERIFICATION TEST - VER 1**.

No

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Go to 4).

# 4) CHECK OPERATION OF THE AMPLIFIED RIGHT FRONT SPEAKER



819c2716

<u>Fig. 78: Measuring Resistance Of Speaker Circuit Between Amplifier C1 Harness Connector And Ground</u>

**Courtesy of CHRYSLER LLC** 

Reconnect and reinstall the Right Front Speaker.

Measure the resistance of the speaker circuit between the Amplifier C1 harness connector and ground.

#### Is the resistance below 10K ohms?

#### Yes

Replace the Right Front Speaker in accordance with the service information.

Perform BODY VERIFICATION TEST - VER 1.

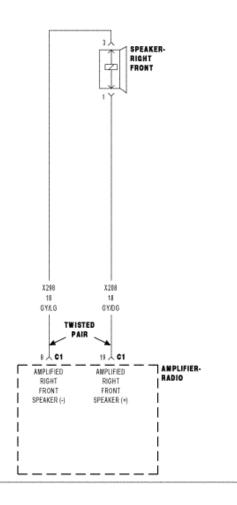
No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B1471-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT HIGH**

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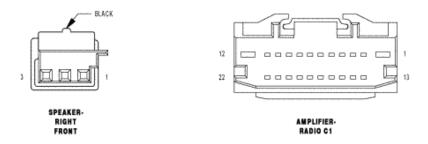


Fig. 79: Channel 4 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

# When Monitored:

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With the ignition on.

#### **Set Condition:**

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

#### **Possible Causes**

(X208) AMPLIFIED RIGHT FRONT SPEAKER (+) CIRCUIT SHORT TO VOLTAGE (X298) AMPLIFIED RIGHT FRONT SPEAKER (-) CIRCUIT SHORT TO VOLTAGE AMPLIFIER

#### **Diagnostic Test**

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

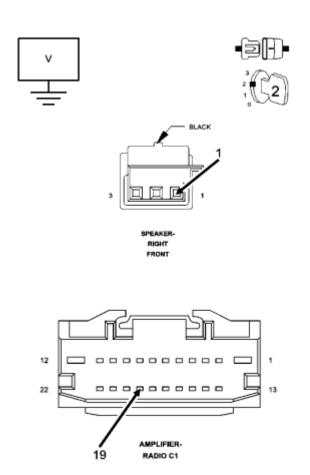
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform BODY VERIFICATION TEST - VER 1.

2) CHECK FOR VOLTAGE ON THE (X208) AMPLIFIED RIGHT FRONT SPEAKER (+) CIRCUIT

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819c293e

<u>Fig. 80: Measuring For Voltage On (X208) Amplified Right Front Speaker (+) Circuit Courtesy of CHRYSLER LLC</u>

Turn the ignition off.

Disconnect the Amplifier C1 harness connector.

Disconnect the Amplified Right Front Speaker harness connector.

Turn the ignition on.

Measure for voltage on the (X208) Amplified Right Front Speaker (+) circuit.

# Is the voltage above 10.0 volts?

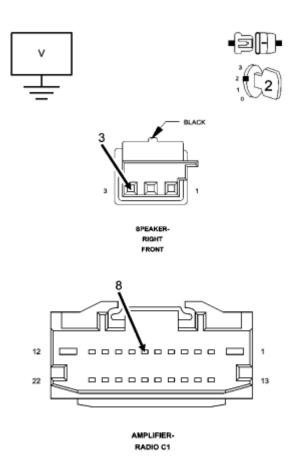
# Yes

Repair the (X208) Amplified Right Front Speaker (+) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

# 3) CHECK FOR VOLTAGE ON THE (X298) AMPLIFIED RIGHT FRONT SPEAKER (-) CIRCUIT



819c2947

Fig. 81: Measuring For Voltage On (X298) Amplified Right Front Speaker (-) Circuit Courtesy of CHRYSLER LLC

Measure for voltage on the (X298) Amplified Right Front Speaker (-) circuit.

Is the voltage above 10.0 volts?

Yes

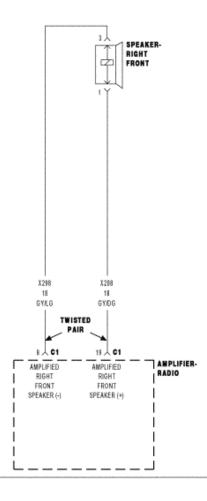
Repair the (X298) Amplified Right Front Speaker (-) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

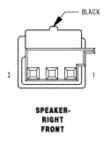
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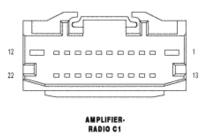
Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B1472-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT OPEN**







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# Fig. 82: Channel 4 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### 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 FRONT SPEAKER (+) CIRCUIT OPEN

(X298) AMPLIFIED RIGHT FRONT SPEAKER (-) CIRCUIT OPEN

AMPLIFIED RIGHT FRONT SPEAKER

AMPLIFIER

Diagnostic Test

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on.

Turn the radio on.

With the scan tool, erase Amplifier DTCs.

With the scan tool, reset the amplifier.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

#### 2) CHECK THE OPERATION OF THE AMPLIFIED RIGHT FRONT SPEAKER

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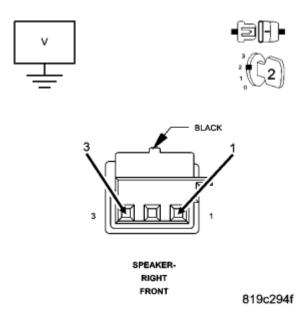


Fig. 83: Measuring Voltage Of Amplified Right Front Speaker Circuits In Amplified Right Front Speaker Harness Connector Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Amplified Right Front Speaker harness connector.

Turn the ignition on.

Turn the radio on and turn the volume to mid level.

With a voltmeter set to read in A/C voltage, measure the voltage of the Amplified Right Front Speaker circuits in the Amplified Right Front Speaker harness connector.

# Is the voltage present greater than 1 volt?

#### Yes

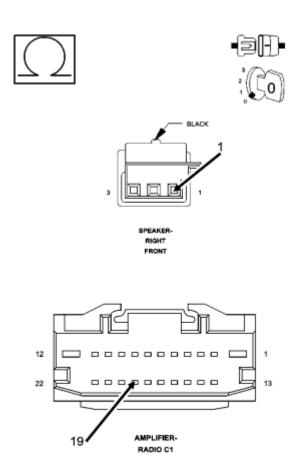
Replace the Amplified Right Front Speaker in accordance with the service information. Perform **BODY VERIFICATION TEST - VER 1**.

#### No

Go to 3).

3) CHECK THE (X208) AMPLIFIED RIGHT FRONT SPEAKER (+) CIRCUIT FOR AN OPEN

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819c295c

<u>Fig. 84: Measuring Resistance Of (X208) Amplified Right Front Speaker (+) Circuit Between Amplifier C1 Harness Connector And Amplified Right Front Speaker Harness Connector Courtesy of CHRYSLER LLC</u>

Turn the ignition off.

Disconnect the Amplifier C1 harness connector.

Measure the resistance of the (X208) Amplified Right Front Speaker (+) circuit between the Amplifier C1 harness connector and the Amplified Right Front Speaker harness connector.

#### Is the resistance below 5.0 ohms?

### Yes

Go to 4).

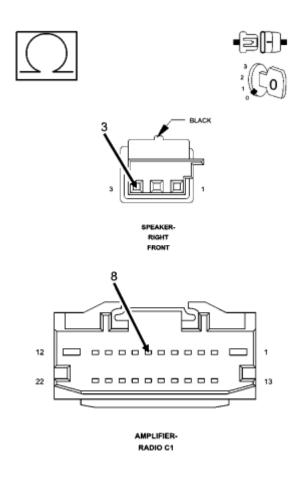
No

Repair the (X208) Amplified Right Front Speaker (+) circuit for an open.

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### Perform **BODY VERIFICATION TEST - VER 1**.

# 4) CHECK THE (X298) AMPLIFIED RIGHT FRONT SPEAKER (-) CIRCUIT FOR AN OPEN



819c2962

<u>Fig. 85: Measuring Resistance Of (X298) Amplified Right Front Speaker (-) Circuit Between Amplifier C1 Harness Connector And Amplified Right Front Speaker Harness Connector Courtesy of CHRYSLER LLC</u>

Measure the resistance of the (X298) Amplified Right Front Speaker (-) circuit between the Amplifier C1 harness connector and the Amplified Right Front Speaker harness connector.

#### Is the resistance below 5.0 ohms?

#### Yes

Replace the amplifier in accordance with the service information.

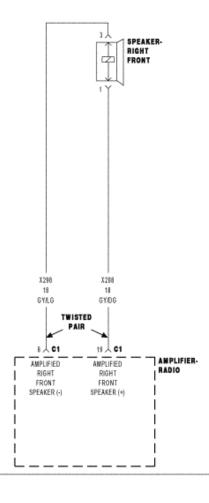
Perform BODY VERIFICATION TEST - VER 1.

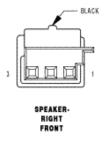
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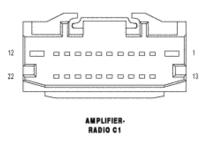
Repair the (X298) Amplified Right Front Speaker (-) circuit for an open.

Perform **BODY VERIFICATION TEST - VER 1**.

#### B1473-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER







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# <u>Fig. 86: Channel 4 Audio Speaker Output Circuit Schematic</u> Courtesy of CHRYSLER LLC

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

#### 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 FRONT SPEAKER (+) CIRCUIT SHORTED TO THE (X298)

AMPLIFIED RIGHT FRONT SPEAKER (-) CIRCUIT

AMPLIFIED RIGHT FRONT SPEAKER

**AMPLIFIER** 

**Diagnostic Test** 

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, erase Amplifier DTCs.

Turn the radio on.

Turn the volume level to 25.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

### 2) CHECK THE OPERATION OF THE AMPLIFIED RIGHT FRONT SPEAKER

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Turn the ignition off.

Disconnect the Amplified Right Front Speaker.

Measure the resistance of the speaker between the two terminals.

Is the resistance of the speaker less than 1 ohm?

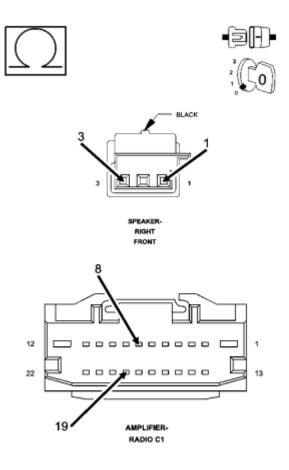
Yes

Replace the Amplified Right Front Speaker in accordance with the service information. Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

3) CHECK THE (X208) AMPLIFIED RIGHT FRONT SPEAKER (+) CIRCUIT, AND THE (X298) AMPLIFIED RIGHT FRONT SPEAKER (-) CIRCUITS FOR A SHORT TOGETHER



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# Fig. 87: Measuring Resistance Between (X208) Amplified Right Front Speaker (+) Circuit And (X298) Amplified Right Front Speaker (-) Circuit Courtesy of CHRYSLER LLC

Disconnect the Amplifier C1 harness connector.

Measure the resistance between the (X208) Amplified Right Front Speaker (+) circuit, and the (X298) Amplified Right Front Speaker (-) circuit.

#### Is the resistance below 10K ohms?

#### Yes

Repair the (X208) Amplified Right Front Speaker (+) circuit, and the (X298) Amplified Right Front Speaker (-) circuit for a short together.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B1474-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE**

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

#### When Monitored:

With the ignition on.

#### **Set Condition:**

This DTC will set if a DC offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of  $5 \pm 1$  sec.

Possible Causes		
AMPLIFIER		

#### **Diagnostic Test**

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

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Yes

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

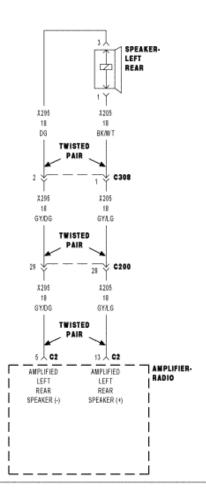
No

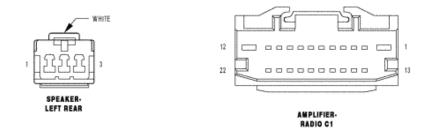
The conditions that caused this code to set are not present at this time. Using the wiring diagram/schematic as a guide, inspect the wiring and connectors.

Perform **BODY VERIFICATION TEST - VER 1**.

B1475-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT LOW

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01902973

Fig. 88: Channel 5 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### When Monitored:

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With the ignition on.

#### **Set Condition:**

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

#### **Possible Causes**

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

#### **Diagnostic Test**

#### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

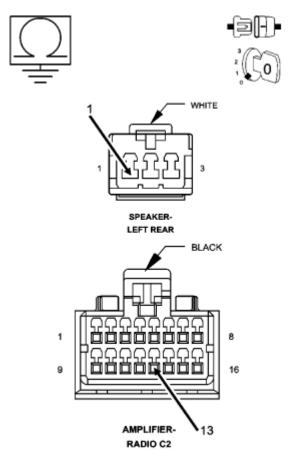
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

# 2) CHECK THE (X205) AMPLIFIED LEFT REAR SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND

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819c2bb5

Fig. 89: Measuring Resistance Between Ground And (X205) Amplified Left Rear Speaker (+) Circuit

**Courtesy of CHRYSLER LLC** 

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Disconnect the Left Rear Speaker harness connector.

Measure the resistance between ground and the (X205) Amplified Left Rear Speaker (+) circuit.

#### Is the resistance below 10K ohms?

#### Yes

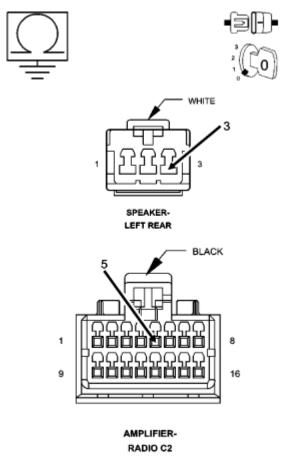
Repair the (X205) Amplified Left Rear Speaker (+) circuit for a short to ground.

Perform  $\underline{BODY\ VERIFICATION\ TEST\ -\ VER\ 1}$  .

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Go to 3).

# 3) CHECK THE (X295) AMPLIFIED LEFT REAR SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND



819c2bf0

<u>Fig. 90: Measuring Resistance Between Ground And (X295) Amplified Left Rear Speaker (-) Circuit</u>

**Courtesy of CHRYSLER LLC** 

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

#### Is the resistance below 10K ohms?

Yes

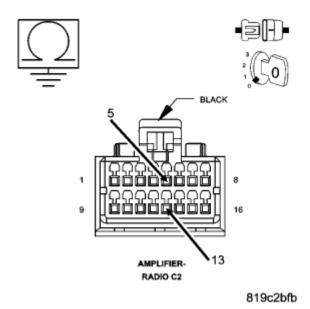
Repair the (X295) Amplified Left Rear Speaker (-) for a short to ground.

Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 4).

# 4) CHECK OPERATION OF THE AMPLIFIED LEFT REAR SPEAKER



<u>Fig. 91: Measuring Resistance Of Speaker Circuit Between Amplifier C2 Harness Connector And Ground</u>

**Courtesy of CHRYSLER LLC** 

Reconnect and reinstall the Left Rear Speaker.

Measure the resistance of the speaker circuit between the Amplifier C2 harness connector and ground.

#### Is the resistance below 10K ohms?

#### Yes

Replace the Left Rear Speaker in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

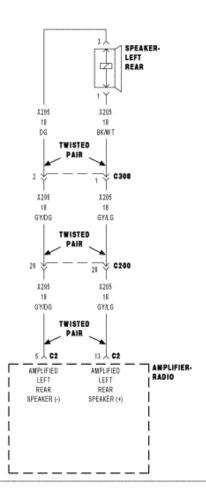
No

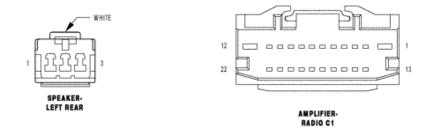
Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B1476-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT HIGH**

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01902973

Fig. 92: Channel 5 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### When Monitored:

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With the ignition on.

#### **Set Condition:**

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

#### **Possible Causes**

(X205) AMPLIFIED LEFT REAR SPEAKER (+) CIRCUIT SHORT TO VOLTAGE (X295) AMPLIFIED LEFT REAR SPEAKER (-) CIRCUIT SHORT TO VOLTAGE AMPLIFIER

#### **Diagnostic Test**

#### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform BODY VERIFICATION TEST - VER 1.

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

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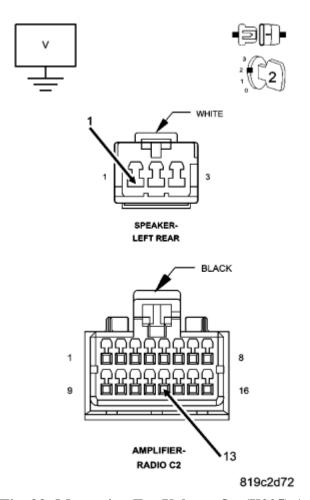


Fig. 93: Measuring For Voltage On (X205) Amplified Left Rear Speaker (+) Circuit Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Disconnect the Amplified Left Rear Speaker harness connector.

Turn the ignition on.

Measure for voltage on the (X205) Amplified Left Rear Speaker (+) circuit.

# Is the voltage above 10.0 volts?

### Yes

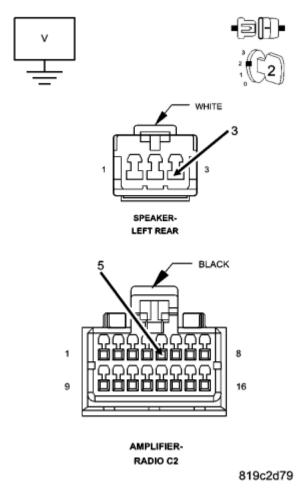
Repair the (X205) Amplified Left Rear Speaker (+) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

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No

Go to 3).

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



<u>Fig. 94: Measuring For Voltage On (X295) Amplified Left Rear Speaker (-) Circuit Courtesy of CHRYSLER LLC</u>

Measure for voltage on the (X295) Amplified Left Rear Speaker (-) circuit.

Is the voltage above 10.0 volts?

Yes

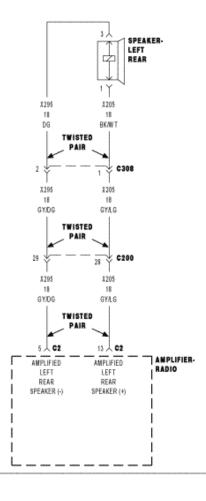
Repair the (X295) Amplified Left Rear Speaker (-) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

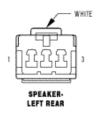
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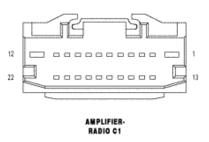
Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B1477-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT OPEN**







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# Fig. 95: Channel 5 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### 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) AMPLIFIED LEFT REAR SPEAKER (+) CIRCUIT OPEN

(X295) AMPLIFIED LEFT REAR SPEAKER (-) CIRCUIT OPEN

LEFT REAR SPEAKER

AMPLIFIER

**Diagnostic Test** 

#### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on.

Turn the radio on.

With the scan tool, erase Amplifier DTCs.

With the scan tool, reset the amplifier.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

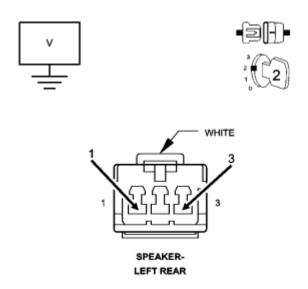
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

#### 2) CHECK THE OPERATION OF THE AMPLIFIED LEFT REAR SPEAKER

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819c2d99

<u>Fig. 96: Measuring Voltage Of Amplified Left Rear Speaker Circuits In Amplified Left Rear Speaker Harness Connector</u>
Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Left Rear Speaker harness connector.

Turn the ignition on.

Turn the radio on and turn the volume to mid level.

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

# Is the voltage present greater than 1 volt?

#### Yes

Replace the Amplified Left Rear Speaker in accordance with the service information.

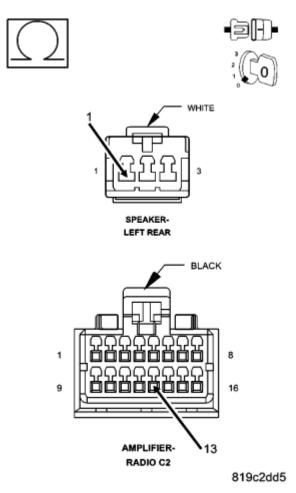
Perform **BODY VERIFICATION TEST - VER 1** .

No

Go to 3).

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

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<u>Fig. 97: Measuring Resistance Of (X205) Amplified Left Rear Speaker (+) Circuit Between Amplifier C2 Harness Connector And Amplified Left Rear Speaker Harness Connector Courtesy of CHRYSLER LLC</u>

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Measure the resistance of the (X205) Amplified Left Rear Speaker (+) circuit between the Amplifier C2 harness connector and the Amplified Left Rear Speaker harness connector.

#### Is the resistance below 5.0 ohms?

#### Yes

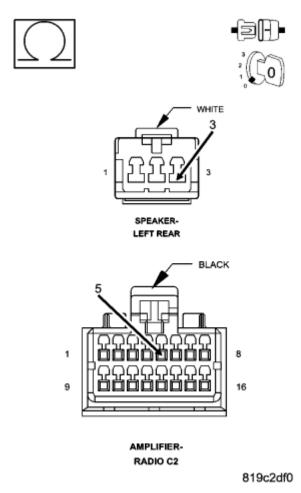
Go to 4).

No

Repair the (X205) Amplified Left Rear Speaker (+) circuit for an open.

#### Perform **BODY VERIFICATION TEST - VER 1**.

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



<u>Fig. 98: Measuring Resistance Of (X295) Amplified Left Rear Speaker (-) Circuit Between Amplifier C2 Harness Connector And Amplified Left Rear Speaker Harness Connector Courtesy of CHRYSLER LLC</u>

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

#### Is the resistance below 5.0 ohms?

#### Yes

Replace the amplifier in accordance with the service information.

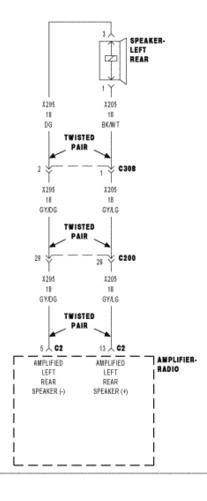
Perform BODY VERIFICATION TEST - VER 1.

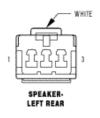
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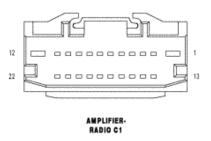
Repair the (X295) Amplified Left Rear Speaker (-) circuit for an open.

Perform **BODY VERIFICATION TEST - VER 1**.

#### B1478-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER







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# <u>Fig. 99: Channel 5 Audio Speaker Output Circuit Schematic</u> Courtesy of CHRYSLER LLC

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

#### 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) AMPLIFIED LEFT REAR SPEAKER (+) CIRCUIT SHORTED TO THE (X295) AMPLIFIED LEFT REAR SPEAKER (-) CIRCUIT

AMPLIFIED LEFT REAR SPEAKER

**AMPLIFIER** 

**Diagnostic Test** 

#### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, erase Amplifier DTCs.

Turn the radio on.

Turn the volume level to 25.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

#### 2) CHECK THE OPERATION OF THE AMPLIFIED LEFT REAR SPEAKER

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Turn the ignition off.

Disconnect the Amplified Left Rear Speaker.

Measure the resistance of the speaker between the two terminals.

Is the resistance of the speaker less than 1 ohm?

Yes

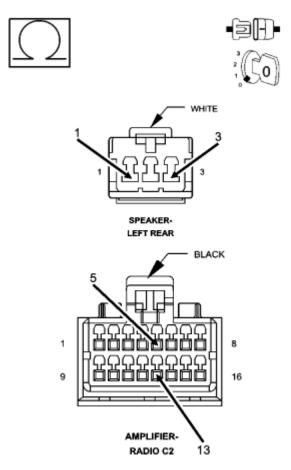
Replace the Amplified Left Rear Speaker in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

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



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# Fig. 100: Measuring Resistance Between (X205) Amplified Left Rear Speaker (+) Circuit And (X295) Amplified Left Rear Speaker (-) Circuit Courtesy of CHRYSLER LLC

Disconnect the Amplifier C2 harness connector.

Measure the resistance between the (X205) Amplified Left Rear Speaker (+) circuit, and the (X295) Amplified Left Rear Speaker (-) circuit.

#### Is the resistance below 10K ohms?

#### Yes

Repair the (X205) Amplified Left Rear Speaker (+) circuit, and the (X295) Amplified Left Rear Speaker (-) circuit for a short together.

Perform **BODY VERIFICATION TEST - VER 1**.

No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B1479-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE**

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

#### When Monitored:

With the ignition on.

#### **Set Condition:**

This DTC will set if a DC offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of  $5 \pm 1$  sec.

Possible Causes	
AMPLIFIER	

#### **Diagnostic Test**

# 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

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Yes

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

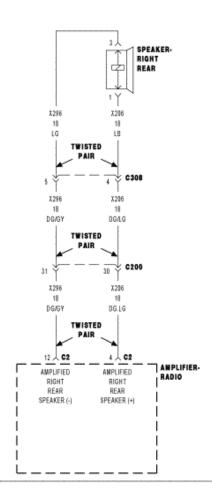
No

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 - VER 1**.

B147A-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT LOW

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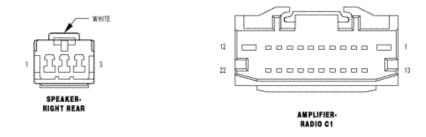


Fig. 101: Channel 6 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### When Monitored:

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With the ignition on.

#### **Set Condition:**

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

#### **Possible Causes**

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

#### Diagnostic Test

#### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

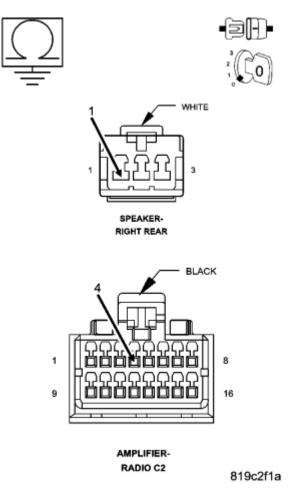
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform BODY VERIFICATION TEST - VER 1.

2) CHECK THE (X206) AMPLIFIED RIGHT REAR SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND

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<u>Fig. 102: Measuring Resistance Between Ground And (X206) Amplified Right Rear Speaker (+) Circuit</u>

# **Courtesy of CHRYSLER LLC**

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Disconnect the Right Rear Speaker harness connector.

Measure the resistance between ground and the (X206) Amplified Right Rear Speaker (+) circuit.

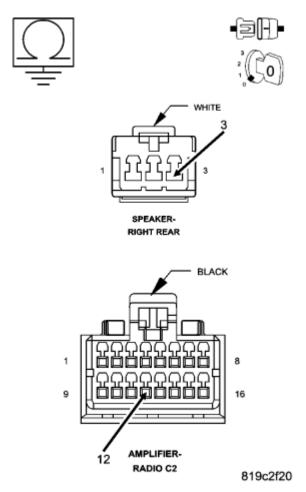
#### Is the resistance below 10K ohms?

#### Yes

Repair the (X206) Amplified Right Rear Speaker (+) circuit for a short to ground. Perform **BODY VERIFICATION TEST - VER 1**.

Go to 3).

# 3) CHECK THE (X296) AMPLIFIED RIGHT REAR SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND



<u>Fig. 103: Measuring Resistance Between Ground And (X296) Amplified Right Rear Speaker (-) Circuit</u>

**Courtesy of CHRYSLER LLC** 

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

# Is the resistance below 10K ohms?

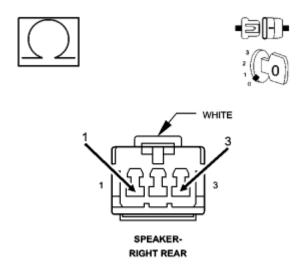
#### Yes

Repair the (X296) Amplified Right Rear Speaker (-) for a short to ground. Perform **BODY VERIFICATION TEST - VER 1**.

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Go to 4).

# 4) CHECK OPERATION OF THE AMPLIFIED RIGHT REAR SPEAKER



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<u>Fig. 104: Measuring Resistance Of Speaker Circuit Between Amplifier C2 Harness Connector And Ground</u>

**Courtesy of CHRYSLER LLC** 

Reconnect and reinstall the Right Rear Speaker.

Measure the resistance of the speaker circuit between the Amplifier C2 harness connector and ground.

#### Is the resistance below 10K ohms?

#### Yes

Replace the Right Rear Speaker in accordance with the service information.

Perform BODY VERIFICATION TEST - VER 1.

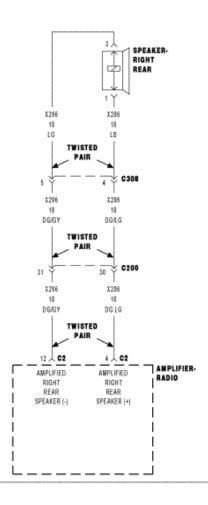
No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B147B-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT HIGH**

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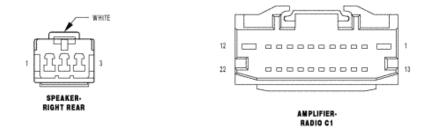


Fig. 105: Channel 6 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### When Monitored:

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With the ignition on.

#### **Set Condition:**

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

#### **Possible Causes**

(X206) AMPLIFIED RIGHT REAR SPEAKER (+) CIRCUIT SHORT TO VOLTAGE (X296) AMPLIFIED RIGHT REAR SPEAKER (-) CIRCUIT SHORT TO VOLTAGE AMPLIFIER

#### **Diagnostic Test**

#### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

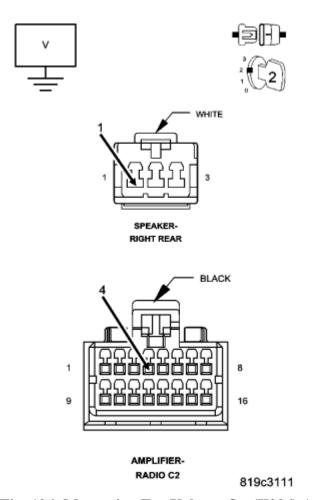
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

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

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<u>Fig. 106: Measuring For Voltage On (X206) Amplified Right Rear Speaker (+) Circuit Courtesy of CHRYSLER LLC</u>

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

Disconnect the Amplified Right Rear Speaker harness connector.

Turn the ignition on.

Measure for voltage on the (X206) Amplified Right Rear Speaker (+) circuit.

# Is the voltage above 10.0 volts?

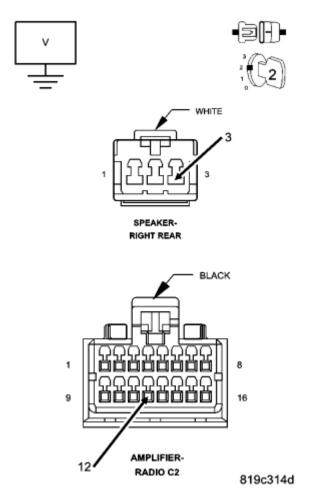
#### Yes

Repair the (X206) Amplified Right Rear Speaker (+) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

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



<u>Fig. 107: Measuring For Voltage On (X296) Amplified Right Rear Speaker (-) Circuit Courtesy of CHRYSLER LLC</u>

Measure for voltage on the (X296) Amplified Right Rear Speaker (-) circuit.

# Is the voltage above 10.0 volts?

Yes

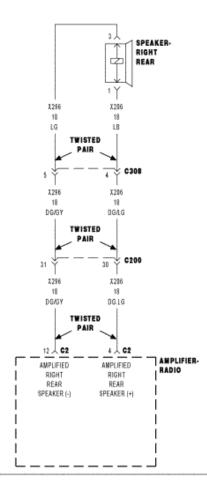
Repair the (X296) Amplified Right Rear Speaker (-) circuit for a short to voltage. Perform **BODY VERIFICATION TEST - VER 1**.

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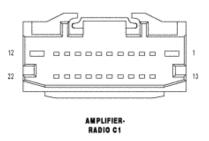
Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B147C-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT OPEN**







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# Fig. 108: Channel 6 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### 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) AMPLIFIED RIGHT REAR SPEAKER (+) CIRCUIT OPEN

(X296) AMPLIFIED RIGHT REAR SPEAKER (-) CIRCUIT OPEN

RIGHT REAR SPEAKER

AMPLIFIER

**Diagnostic Test** 

#### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on.

Turn the radio on.

With the scan tool, erase Amplifier DTCs.

With the scan tool, reset the amplifier.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

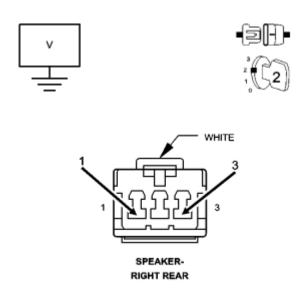
No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

#### 2) CHECK THE OPERATION OF THE RIGHT REAR SPEAKER

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819c315a

<u>Fig. 109: Measuring Voltage Of Amplified Right Rear Speaker Circuits In Amplified Right Rear Speaker Harness Connector</u>
Courtesy of CHRYSLER LLC

Turn the ignition off.

Disconnect the Right Rear Speaker harness connector.

Turn the ignition on.

Turn the radio on and turn the volume to mid level.

With a voltmeter set to read in A/C voltage, measure the voltage of the Amplified Right Rear Speaker circuits in the Amplified Right Rear Speaker harness connector.

# Is the voltage present greater than 1 volt?

#### Yes

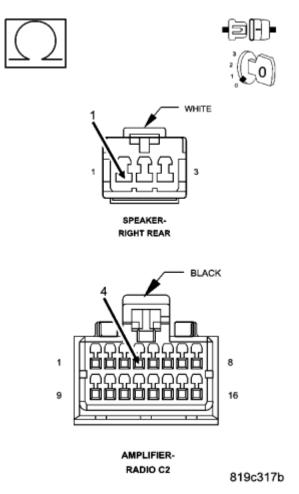
Replace the Amplified Right Rear Speaker in accordance with the service information. Perform **BODY VERIFICATION TEST - VER 1**.

#### No

Go to 3).

# 3) CHECK THE (X206) AMPLIFIED RIGHT REAR SPEAKER (+) CIRCUIT FOR AN OPEN

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<u>Fig. 110: Measuring Resistance Of (X206) Amplified Right Rear Speaker (+) Circuit Between Amplifier C2 Harness Connector And Amplified Right Rear Speaker Harness Connector Courtesy of CHRYSLER LLC</u>

Turn the ignition off.

Disconnect the Amplifier C2 harness connector.

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

#### Is the resistance below 5.0 ohms?

#### Yes

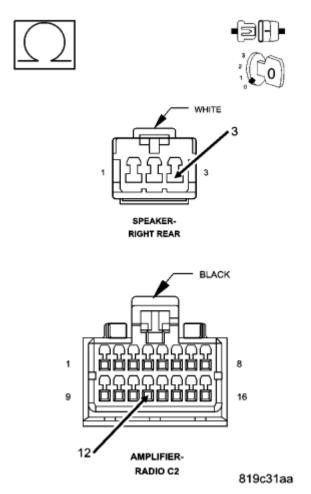
Go to 4).

No

Repair the (X206) Amplified Right Rear Speaker (+) circuit for an open.

#### Perform **BODY VERIFICATION TEST - VER 1**.

# 4) CHECK THE (X296) AMPLIFIED RIGHT REAR SPEAKER (-) CIRCUIT FOR AN OPEN



<u>Fig. 111: Measuring Resistance Of (X296) Amplified Right Rear Speaker (-) Circuit Between Amplifier C2 Harness Connector And Amplified Right Rear Speaker Harness Connector Courtesy of CHRYSLER LLC</u>

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

#### Is the resistance below 5.0 ohms?

#### Yes

Replace the amplifier in accordance with the service information.

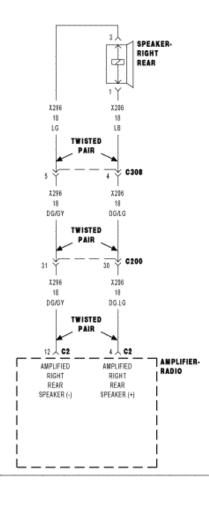
Perform BODY VERIFICATION TEST - VER 1.

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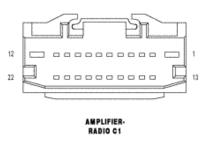
Repair the (X296) Amplified Right Rear Speaker (-) circuit for an open.

Perform **BODY VERIFICATION TEST - VER 1**.

#### B147D-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER







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# Fig. 112: Channel 6 Audio Speaker Output Circuit Schematic Courtesy of CHRYSLER LLC

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

#### 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) AMPLIFIED RIGHT REAR SPEAKER (+) CIRCUIT SHORTED TO THE (X296)

AMPLIFIED RIGHT REAR SPEAKER (-) CIRCUIT

AMPLIFIED RIGHT REAR SPEAKER

**AMPLIFIER** 

Diagnostic Test

### 1) CHECK FOR AN INTERMITTENT CONDITION

Turn the ignition on, then off, and then on again.

With the scan tool, clear Amplifier DTCs.

Turn the radio on.

Turn the volume level to 25.

With the scan tool, read Amplifier DTCs.

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

Yes

Go to 2).

No

The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.

Perform **BODY VERIFICATION TEST - VER 1**.

#### 2) CHECK THE OPERATION OF THE AMPLIFIED RIGHT REAR SPEAKER

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Turn the ignition off.

Disconnect the Amplified Right Rear Speaker.

Measure the resistance of the speaker between the two terminals.

Is the resistance of the speaker less than 1 ohm?

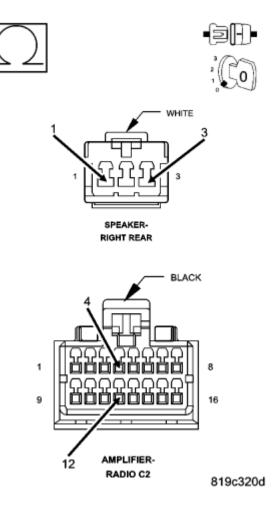
Yes

Replace the Amplified Right Rear Speaker in accordance with the service information. Perform **BODY VERIFICATION TEST - VER 1**.

No

Go to 3).

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



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# Fig. 113: Measuring Resistance Between (X206) Amplified Right Rear Speaker (+) Circuit And (X296) Amplified Right Rear Speaker (-) Circuit Courtesy of CHRYSLER LLC

Disconnect the Amplifier C2 harness connector.

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

#### Is the resistance below 10K ohms?

#### Yes

Repair the (X206) Amplified Right Rear Speaker (+) circuit, and the (X296) Amplified Right Rear Speaker (-) circuit for a short together.

Perform BODY VERIFICATION TEST - VER 1.

No

Replace the amplifier in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### **B2222-SATELLITE RADIO RECEIVER INTERNAL**

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

#### When Monitored:

With the ignition on.

#### **Set Condition:**

The Satellite Radio Receiver detects a software checksum test failure.

	Possible Causes
SATELLITE RADIO RECEIVER	

#### **Diagnostic Test**

#### 1) REPLACE THE SATELLITE RADIO RECEIVER

When this code is set, the Satellite Radio must be replaced.

# Repair

Replace the Satellite Radio Receiver in accordance with the Service Information. Refer to **STANDARD PROCEDURE**.

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#### **B222B-VEHICLE ENTERTAINMENT SYSTEM INTERNAL**

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

#### When Monitored:

With the ignition on.

#### **Set Condition:**

The DVD Player detects an internal failure.

#### **Possible Causes**

**DVD PLAYER** 

Diagnostic Test

#### 1) DVD PLAYER

If DTC: B222B-VEHICLE ENTERTAINMENT SYSTEM INTERNAL is active, view repair.

# Repair

Replace the DVD Player in accordance with the service information.

Perform **BODY VERIFICATION TEST - VER 1**.

#### U0019-CAN INTERIOR BUS(+)/(-) CIRCUIT

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

#### 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

Turn the ignition on.

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With the scan tool, record and erase DTCs.

Cycle the ignition from on to off 3 times.

Turn the ignition on.

With the scan tool, read DTCs.

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

Yes

Go to 2).

No

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

Perform **BODY VERIFICATION TEST - VER 1**.

# 2) CHECK TOTALLY INTEGRATED POWER MODULE DTCs

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 in the **ELECTRONIC CONTROL MODULES - ELECTRICAL DIAGNOSTICS** article .

No

Go to 3).

# 3) CAN INTERIOR BUS (+) CIRCUIT OPEN

Turn the ignition off.

Disconnect the Amplifier C1 harness connector.

Disconnect the Totally Integrated Power Module C7 harness connector.

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?

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Yes

Go to 4).

Perform **BODY VERIFICATION TEST - VER 1**.

No

Repair the CAN INTERIOR BUS (+) circuit for an open.

Perform BODY VERIFICATION TEST - VER 1.

# 4) CAN INTERIOR BUS (-) CIRCUIT OPEN

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 - VER 1**.

No

Repair the CAN INTERIOR BUS (-) circuit for an open.

Perform BODY VERIFICATION TEST - VER 1.

#### **U0020-CAN INTERIOR BUS OFF PERFORMANCE**

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

#### 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** 

2007 ACCESSORIES AND EQUIPMENT Audio/Video Systems - Electrical Diagnostics - Nitro

#### 1) TEST FOR INTERMITTENT CONDITION

Turn the ignition on.

With the scan tool, record and erase DTCs.

Cycle the ignition from on to off 3 times.

Turn the ignition on.

With the scan tool, read DTCs.

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

Yes

Go to 2).

No

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

Perform **BODY VERIFICATION TEST - VER 1**.

# 2) CHECK FRONT CONTROL MODULE DTCs

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 in the **ELECTRONIC CONTROL MODULES - ELECTRICAL DIAGNOSTICS** article .

No

Go to 3).

### 3) CAN INTERIOR BUS (+) CIRCUIT OPEN

Turn the ignition off.

Disconnect the Amplifier C1 harness connector.

Disconnect the Totally Integrated Power Module C7 harness connector.

Measure the resistance of the (D265) CAN INTERIOR BUS (+) circuit between the Totally Integrated

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Power module C7 harness connector and the Amplifier C1 harness connector.

Is the resistance below 2.0 ohms?

Yes

Go to 4).

Perform **BODY VERIFICATION TEST - VER 1**.

No

Repair the CAN INTERIOR BUS (+) circuit for an open.

Perform **BODY VERIFICATION TEST - VER 1**.

4) CAN INTERIOR BUS (-) CIRCUIT OPEN

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 - VER 1**.

No

Repair the CAN INTERIOR BUS (-) circuit for an open.

Perform **BODY VERIFICATION TEST - VER 1**.

#### U0151-LOST COMMUNICATION WITH OCCUPANT RESTRAINT CONTROLLER

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

Refer to **DIAGNOSIS AND TESTING** for the diagnostic test procedure.

#### U0154-LOST COMMUNICATION WITH OCCUPANT CLASSIFICATION MODULE

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

Refer to **DIAGNOSIS AND TESTING** for the diagnostic test procedure.

#### **U0184-LOST COMMUNICATION WITH RADIO**

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

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Refer to **DIAGNOSIS AND TESTING** for the diagnostic test procedure.

#### **U0186-LOST COMMUNICATION WITH AUDIO AMPLIFIER**

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

Refer to **DIAGNOSIS AND TESTING** for the diagnostic test procedure.

#### **U0195-LOST COMMUNICATION WITH SDAR**

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

Refer to **DIAGNOSIS AND TESTING** for the diagnostic test procedure.

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

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

Refer to **DIAGNOSIS AND TESTING** for the diagnostic test procedure.

# U0199-LOST COMMUNICATION WITH DRIVERS DOOR MODULE

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

Refer to **DIAGNOSIS AND TESTING** for the diagnostic test procedure.

#### U0200-LOST COMMUNICATION WITH PASSENGER DOOR MODULE

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

Refer to **DIAGNOSIS AND TESTING** for the diagnostic test procedure.