

2009 Dodge Journey R/T

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

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

DTC	Description
<u>B1401</u>	FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B1402</u>	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>B1421</u>	AUDIO CD READ ERROR/INOPERABLE DISC
<u>B1422</u>	AUDIO 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>B142D</u>	AUDIO ANTENNA NOT CONNECTED
<u>B142E</u>	GPS ANTENNA NOT CONNECTED
<u>B142F</u>	SATELLITE RADIO ANTENNA NOT CONNECTED
<u>B1430(2.5)</u>	SATELLITE RADIO ANTENNA INTERNAL PERFORMANCE
<u>B1430(4.0)</u>	SATELLITE RADIO ANTENNA INTERNAL PERFORMANCE
<u>B143B</u>	MICROPHONE 1 CIRCUIT LOW
<u>B143C</u>	MICROPHONE 1 CIRCUIT HIGH
<u>B143E</u>	MICROPHONE 2 CIRCUIT LOW
<u>B143F</u>	MICROPHONE 2 CIRCUIT HIGH
<u>B1492</u>	GENERAL MICROPHONE PERFORMANCE
<u>B14B7</u>	MICROPHONE 1 CIRCUIT OPEN
<u>B14B8</u>	MICROPHONE 2 CIRCUIT OPEN
<u>B156B</u>	SATELLITE RADIO ANTENNA CIRCUIT
<u>B210D</u>	BATTERY VOLTAGE LOW
<u>B210E</u>	BATTERY VOLTAGE HIGH
<u>B221E</u>	RADIO INTERNAL

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<u>U0010</u>	CAN INTERIOR BUS
<u>U0011</u>	CAN INTERIOR BUS OFF PERFORMANCE
<u>U0141</u>	LOST COMMUNICATION WITH FCM (TIPM)
<u>U0155</u>	LOST COMMUNICATION WITH CLUSTER/CCN
<u>U0164</u>	LOST COMMUNICATION WITH HVAC CONTROL MODULE
<u>U0168</u>	LOST COMMUNICATION WITH VEHICLE SECURITY CONTROL MODULE (WIRELESS IGNITION NODE OR WIN)
<u>U0186</u>	LOST COMMUNICATION WITH AUDIO AMPLIFIER
<u>U0203</u>	LOST COMMUNICATION WITH DOOR MODULE FRONT LEFT
<u>U0204</u>	LOST COMMUNICATION WITH DOOR MODULE FRONT RIGHT

DIAGNOSIS AND TESTING**B1401-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW**

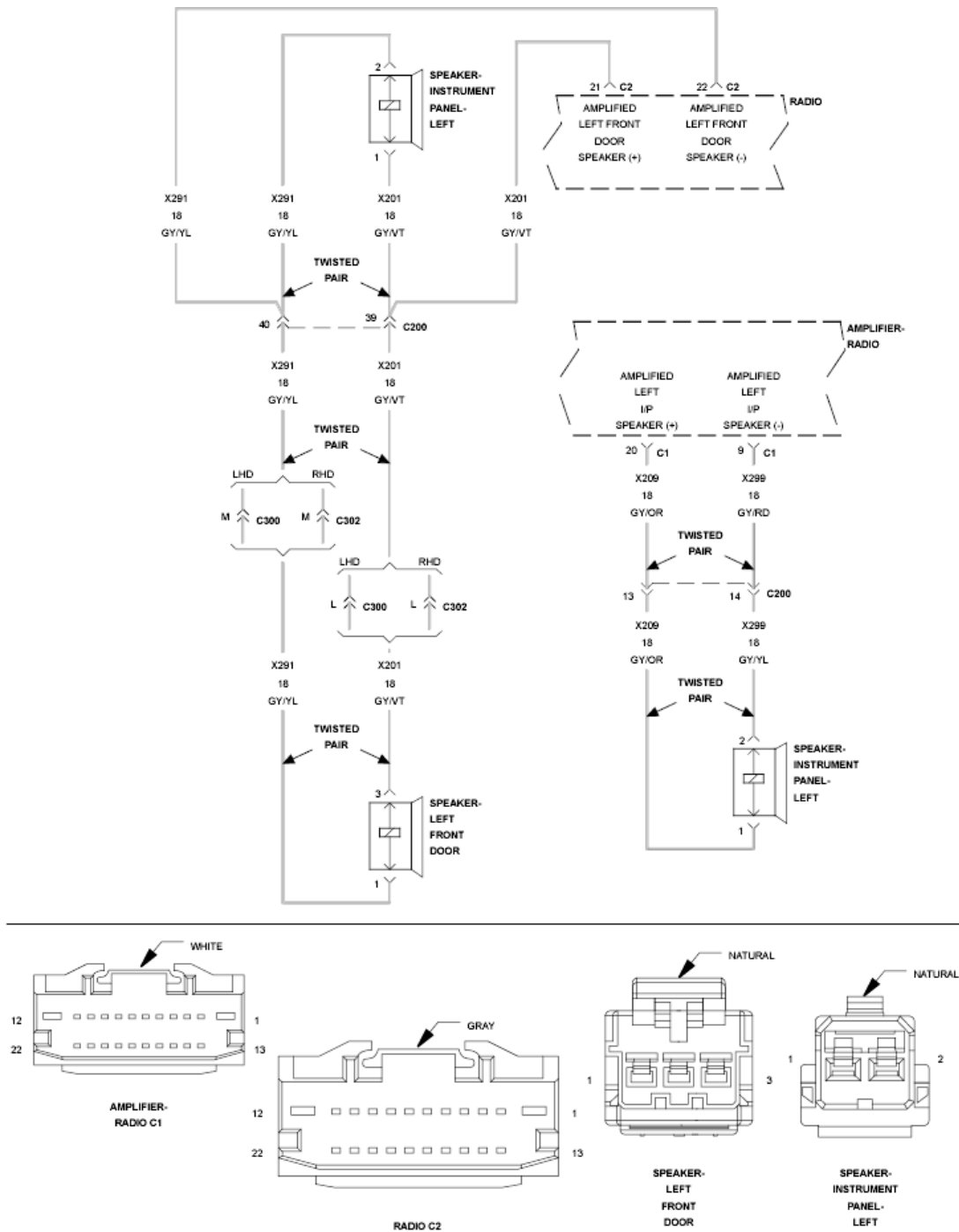


Fig. 1: Left Front Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

With the radio on.

- **Set Condition:**

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

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

Diagnostic Test**1. INTERMITTENT CONDITION**

1. Turn the ignition on.
2. With the scan tool, clear all Radio DTCs.
3. Turn the Radio on.
4. With the scan tool, read the DTC information.

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

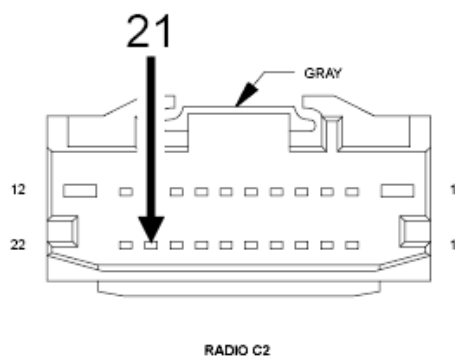
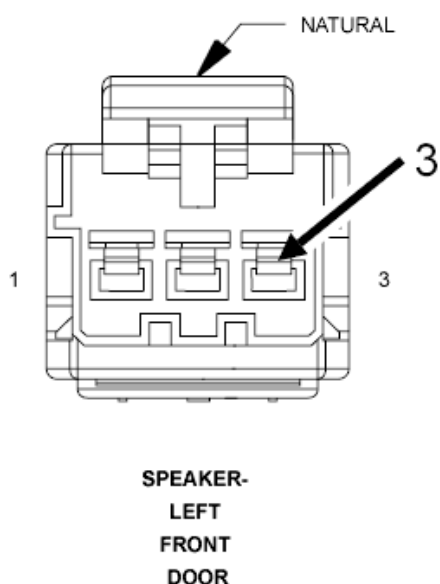
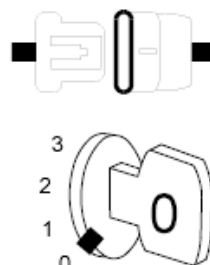
Yes

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

2. (X201) LEFT FRONT SPEAKER (+) CIRCUIT SHORTED TO GROUND



107447

Fig. 2: Checking Left Front Speaker (+) Circuit Shorted To Ground
 Courtesy of CHRYSLER LLC

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

Is the resistance below 1000.0 Ohms?

Yes

- Repair the (X201) Left Front Speaker (+) circuit for a short to ground condition.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE**.

Totally Integrated Power (TIPM) - Standard Procedure .

No

- Go to step 3

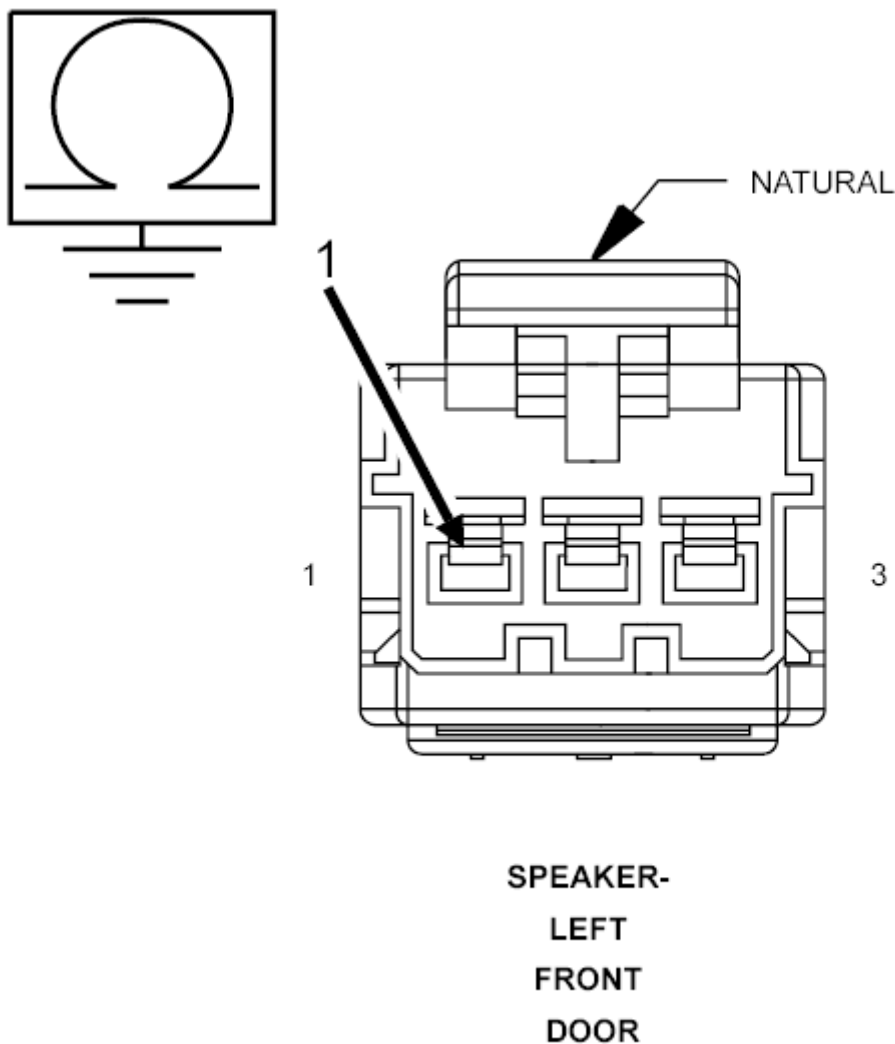
3. (X291) LEFT FRONT SPEAKER (-) CIRCUIT SHORTED TO GROUND

Fig. 3: Checking Left Front Speaker (-) Circuit Shorted To Ground
Courtesy of CHRYSLER LLC

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

Is the resistance below 1000.0 Ohms?

Yes

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

No

- Go to step 4

4. SPEAKER

1. Connect the Radio harness connector.
2. With the Front Left Audio Speaker still disconnected, turn the ignition on.
3. Turn the Radio on.
4. With the scan tool, clear all Radio DTCs.
5. 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 the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test Complete.

B1402-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT HIGH

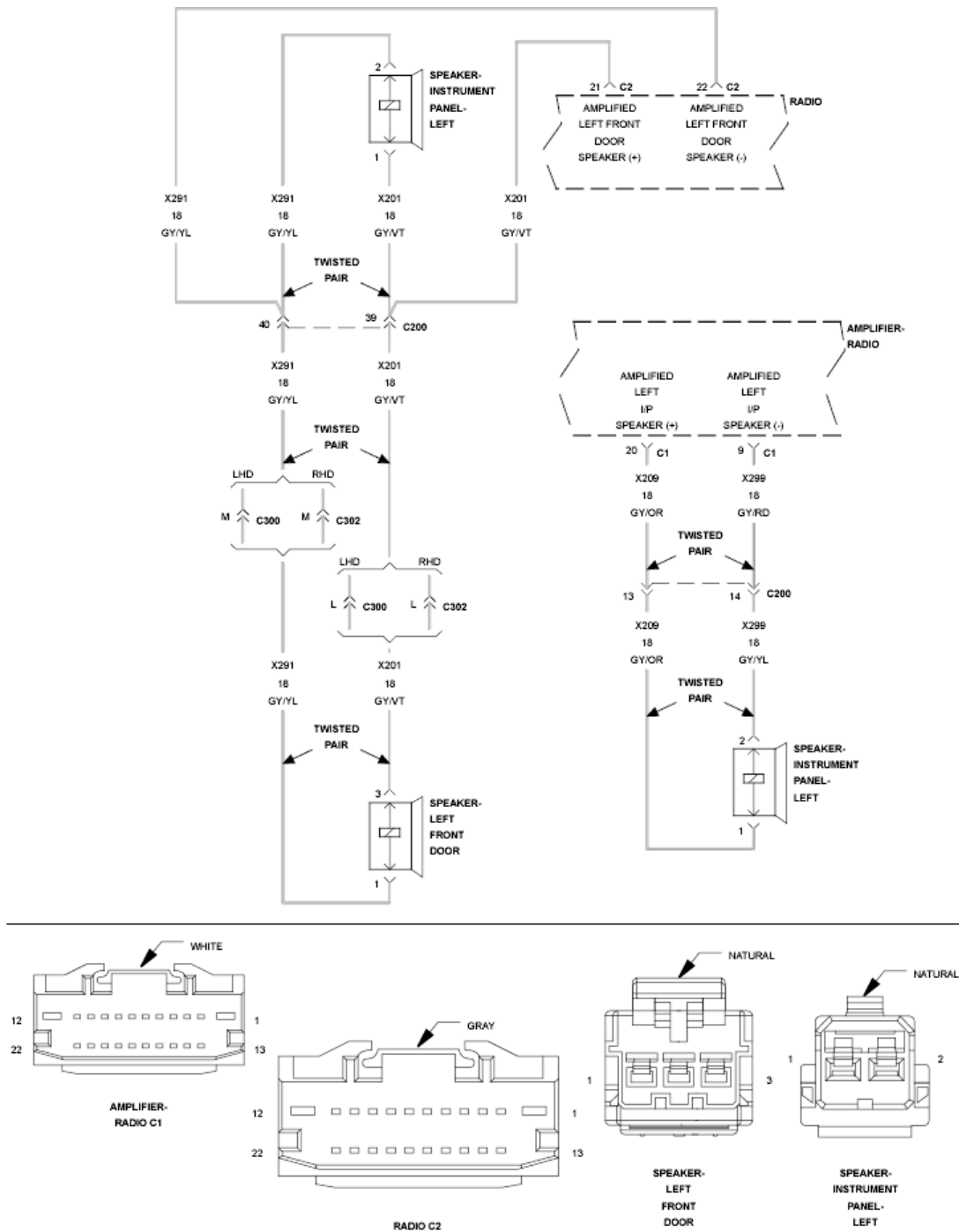


Fig. 4: Left Front Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

With the Radio on.

- **Set Condition:**

When the Output circuit is HIGH for more than 3 seconds.

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

Diagnostic Test**1. INTERMITTENT CONDITION**

1. Turn the ignition on, then off, and then on again.
2. With the scan tool, read Radio DTCs.

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

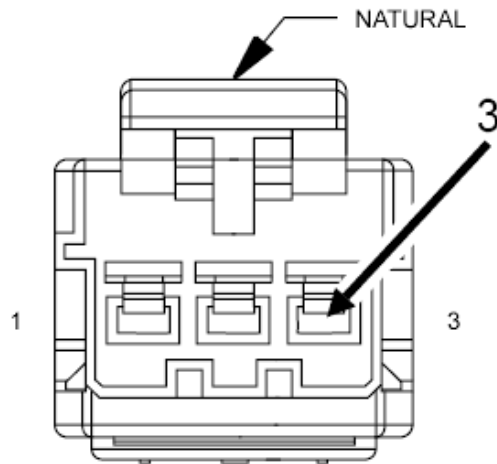
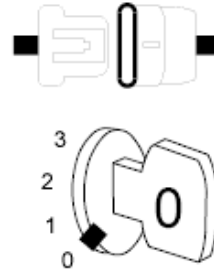
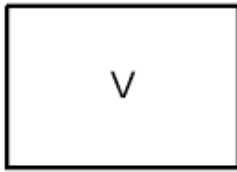
Yes

- Go to step 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 the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing** .

2. (X201) LEFT FRONT SPEAKER (+) CIRCUIT SHORTED TO VOLTAGE



SPEAKER-
LEFT
FRONT
DOOR

107453

Fig. 5: Checking Left Front Speaker (+) Circuit Shorted To Voltage
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio harness connector.
3. Disconnect the Left Front Audio Speaker harness connector.
4. Measure for voltage on the (X201) Left Front Speaker (+) circuit.

Is the voltage above 10.0 volts?

Yes

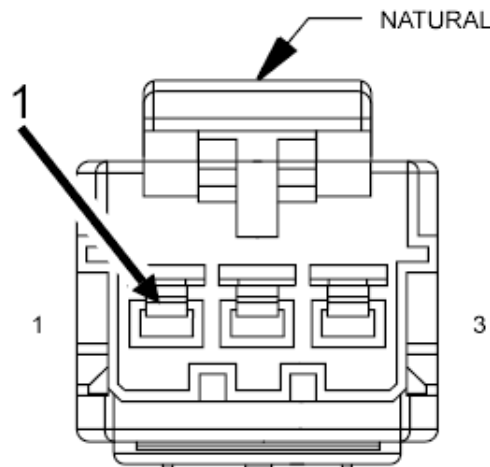
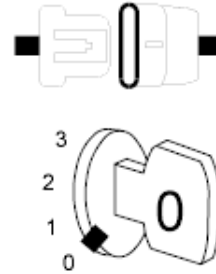
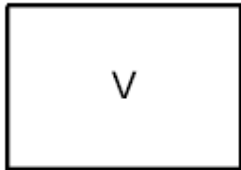
- Repair the (X201) Left Front Speaker (+) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE**.

Totally Integrated Power (TIPM) - Diagnosis and Testing .

No

- Go to step 3

3. (X291) LEFT FRONT SPEAKER (-) CIRCUIT SHORTED TO VOLTAGE



**SPEAKER-
LEFT
FRONT
DOOR**

107455

Fig. 6: Checking Left Front Speaker (-) Circuit Shorted To Voltage
Courtesy of CHRYSLER LLC

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

Is the voltage above 10.0 volts?

Yes

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

No

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

B1403-FRONT LEFT AUDIO SPEAKER OUTPUT CIRCUIT OPEN

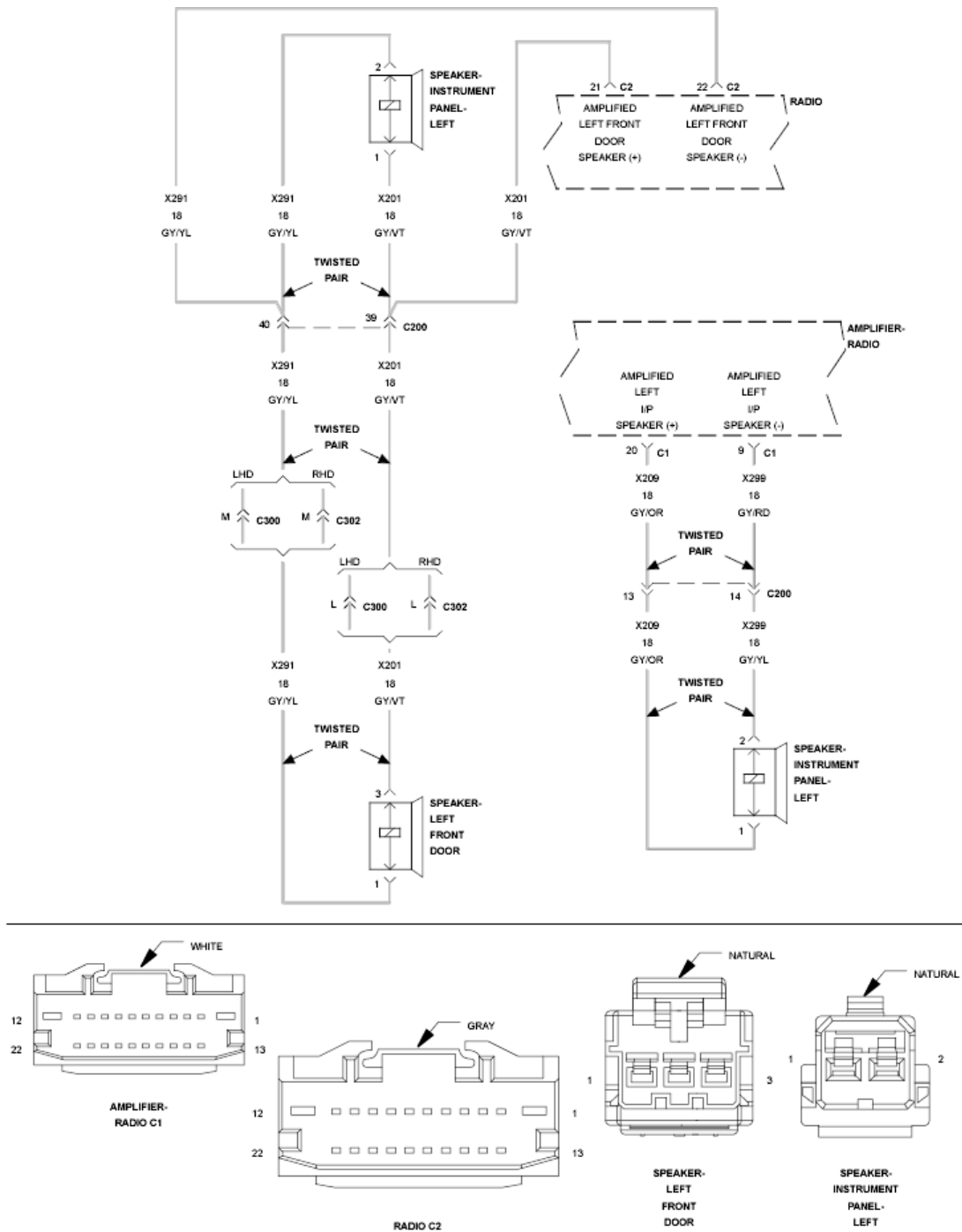


Fig. 7: Left Front Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

With the Radio on.

• **Set Condition:**

When the output circuit is open for more than 3 seconds. The Radio will not set the fault if the Radio confirms an amplifier is on the BUS.

Possible Causes

(X201) LEFT FRONT SPEAKER (+) CIRCUIT OPEN
(X291) LEFT FRONT SPEAKER (-) CIRCUIT OPEN
SPEAKER

Diagnostic Test

1. INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all Radio DTC's.
3. Turn the Radio on.
4. With the scan tool, read the DTC information.

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

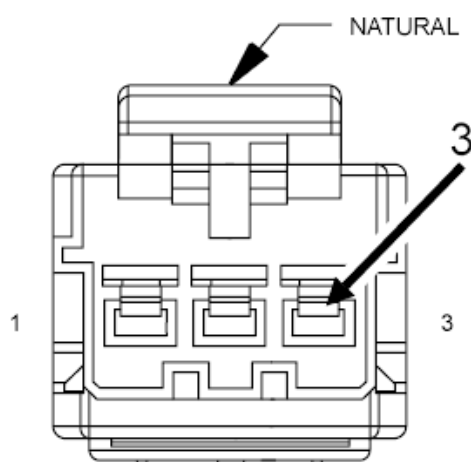
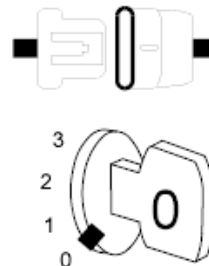
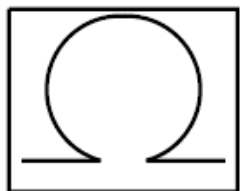
Yes

- Go to step 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. (X201) LEFT FRONT SPEAKER (+) CIRCUIT OPEN



SPEAKER-
LEFT
FRONT
DOOR

107459

Fig. 8: Checking Left Front Speaker (+) Circuit Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio harness connector.
3. Disconnect the Front Left Audio Speaker harness connector.
4. Measure the resistance of the (X201) Left Front Speaker (+) circuit between the Radio and the Speaker.

Is the resistance below 5.0 ohms for each circuit?

Yes

- Go to step 3

No

- Repair the (X201) Left Front Speaker (+) circuit for an open condition.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

3. (X291) LEFT FRONT SPEAKER (-) CIRCUIT OPEN

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

Is the resistance below 5.0 ohms for each circuit?

Yes

- Go to step 4

No

- Repair the (X291) Left Front Speaker (-) circuit for an open condition.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

4. SPEAKER

1. Connect the Radio harness connector.
2. With the Front Left Audio Speaker still disconnected, turn the ignition on.
3. Turn the Radio on.
4. With the scan tool, clear all Radio DTC's.
5. 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Test Complete.

B1405-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW

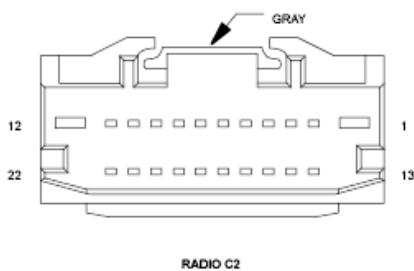
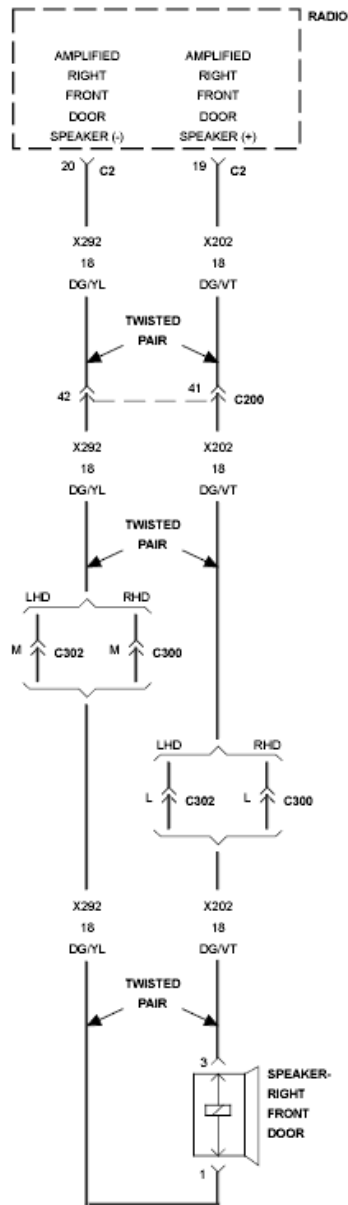


Fig. 9: Right Front Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

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- **When Monitored:**

With the Radio on.

- **Set Condition:**

When the Output circuit is LOW for more than 3 seconds.

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

Diagnostic Test

1. INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all Radio DTC's.
3. Turn the Radio on.
4. With the scan tool, read the DTC information.

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

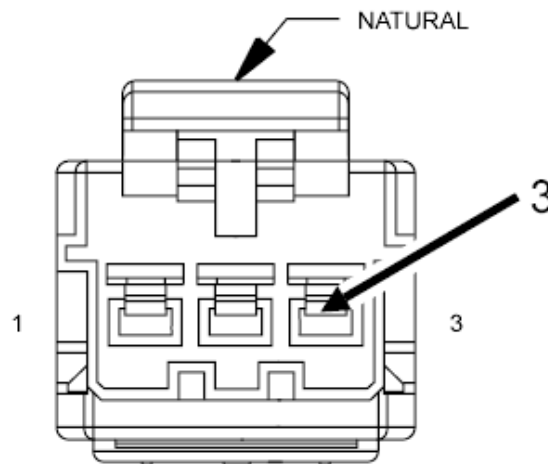
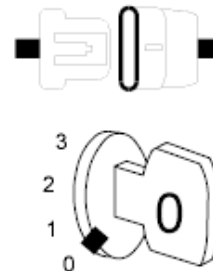
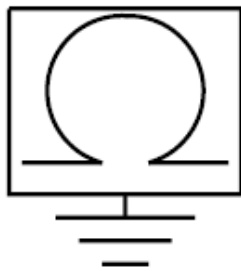
Yes

- Go to step 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. (X202) RIGHT FRONT SPEAKER (+) CIRCUIT SHORTED TO GROUND



SPEAKER-
RIGHT
FRONT
DOOR

107465

Fig. 10: Checking Right Front Speaker (+) Circuit Shorted To Ground
Courtesy of CHRYSLER LLC

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

Is the resistance below 1000.0 ohms?

Yes

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

Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure

No

- Go to step 3

3. (X292) RIGHT FRONT SPEAKER (-) CIRCUIT SHORTED TO GROUND

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

Is the resistance below 1000.0 ohms?

Yes

- Repair the (X292) Right Front Speaker (-) circuit for a short to ground condition.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Go to step 4

4. SPEAKER

1. Connect the Radio harness connector.
2. With the Front Right Audio Speaker still disconnected, turn the ignition on.
3. Turn the Radio on.
4. With the scan tool, clear all Radio DTC's.
5. 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Test Complete.

B1406-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT HIGH

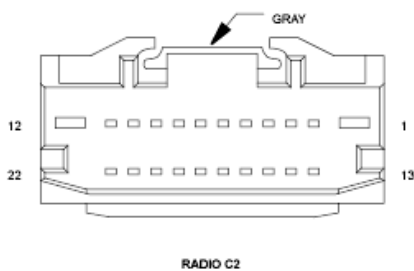
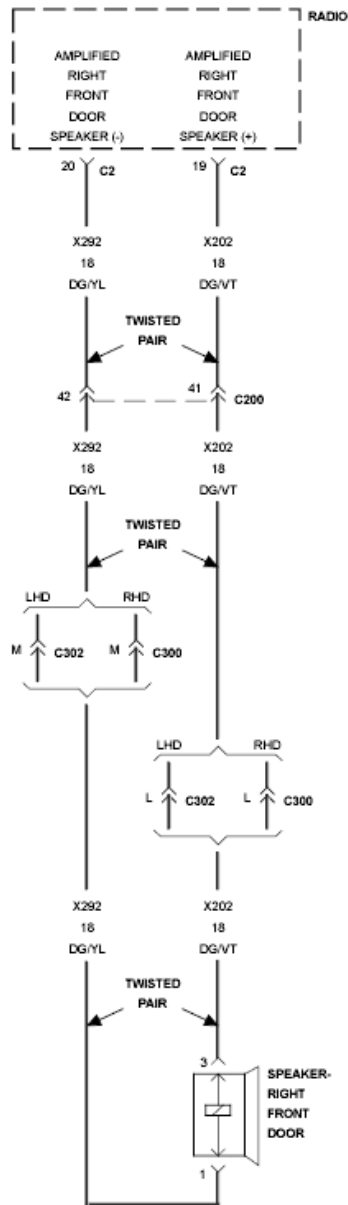


Fig. 11: Right Front Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

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- **When Monitored:**

With the Radio on.

- **Set Condition:**

When the Output circuit is HIGH for more than 3 seconds.

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

Diagnostic Test

1. INTERMITTENT CONDITION

1. Turn the ignition on, then off, and then on again.
2. With the scan tool, read Radio DTCs.

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

Yes

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

2. (X202) RIGHT FRONT SPEAKER (+) CIRCUIT SHORTED TO VOLTAGE

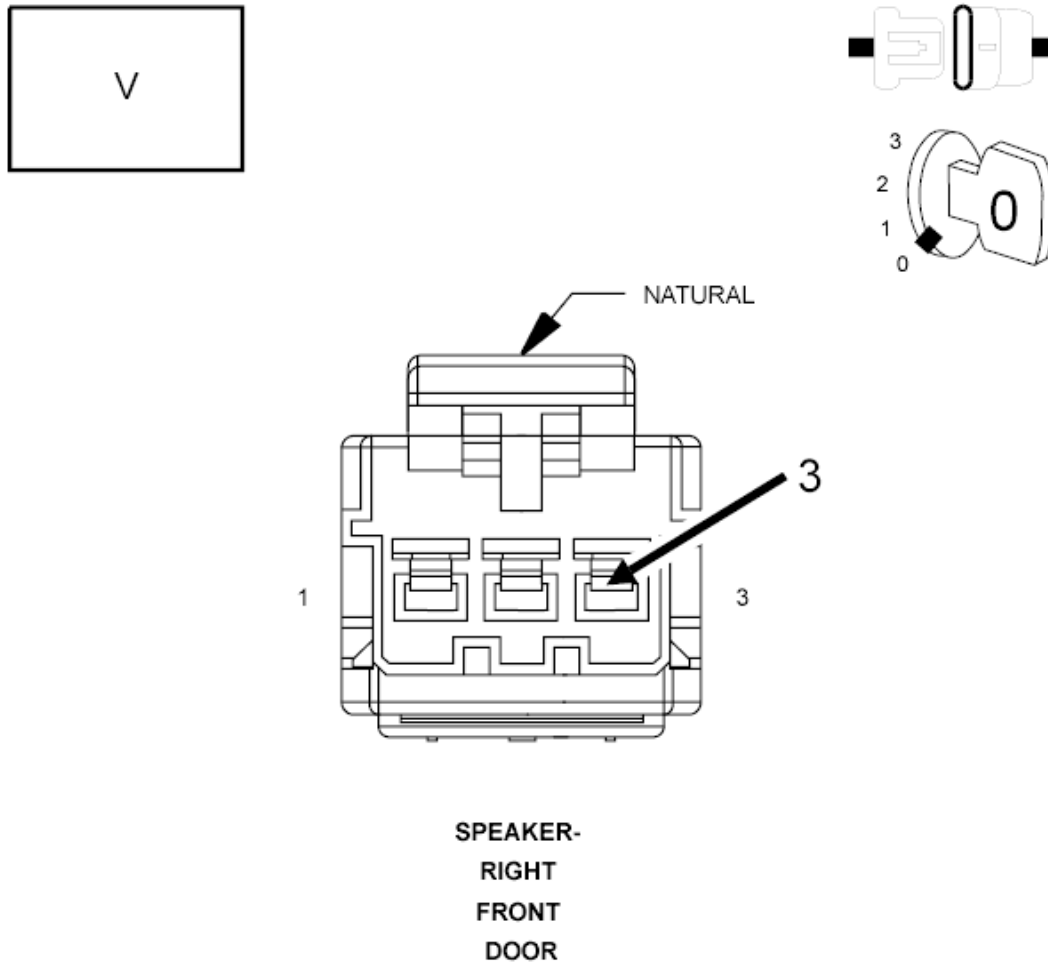


Fig. 12: Checking Right Front Speaker (+) Circuit Shorted To Voltage
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio harness connector.
3. Disconnect the Right Front Audio Speaker harness connector.
4. Measure for voltage on the (X202) Right Front Speaker (+) circuit.

Is the voltage above 10.0 volts?

Yes

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

No

- Go to step 3

3. (X292) RIGHT FRONT SPEAKER (-) CIRCUIT SHORTED TO VOLTAGE

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

Is the voltage above 10.0 volts?

Yes

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

No

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

B1407-FRONT RIGHT AUDIO SPEAKER OUTPUT CIRCUIT OPEN

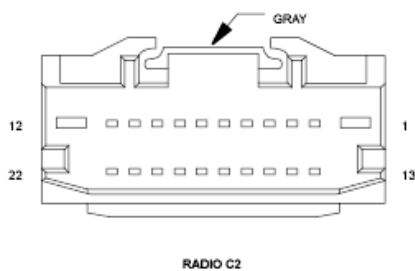
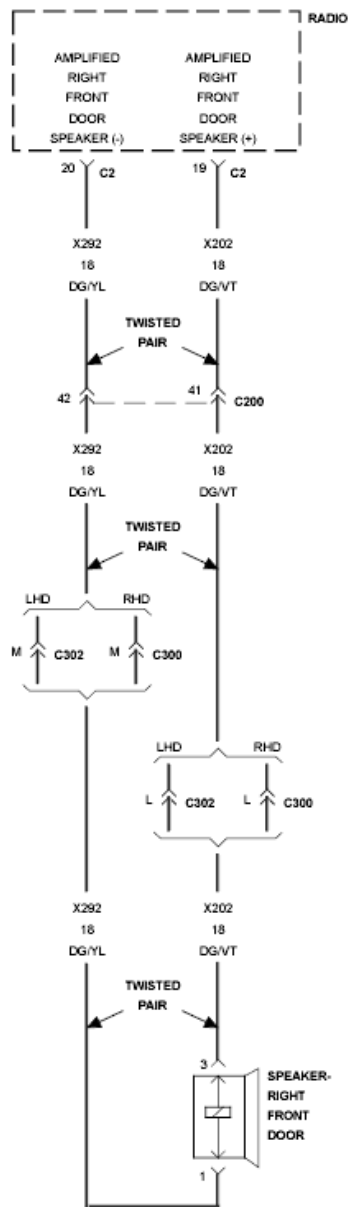


Fig. 13: Right Front Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

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- **When Monitored:**

With the Radio on.

- **Set Condition:**

When the output circuit is open for more than 3 seconds. The Radio will not set the fault if the Radio confirms an amplifier is on the BUS.

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

Diagnostic Test

1. INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all Radio DTC's.
3. Turn the Radio on.
4. With the scan tool, read the DTC information.

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

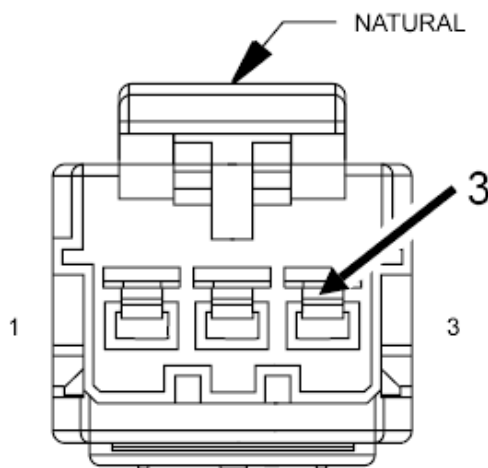
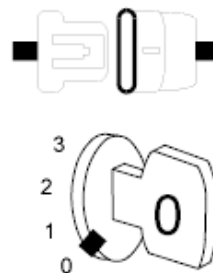
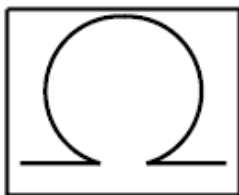
Yes

- Go to step 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. (X202) RIGHT FRONT SPEAKER (+) CIRCUIT OPEN



SPEAKER-
RIGHT
FRONT
DOOR

107473

Fig. 14: Checking Right Front Speaker (+) Circuit Open
Courtesy of CHRYSLER LLC

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

Is the resistance below 5.0 ohms for each circuit?

Yes

- Go to step 3

No

- Repair the (X202) Right Front Speaker (+) circuit for an open condition.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

3. (X292) RIGHT FRONT SPEAKER (-) CIRCUIT OPEN

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

Is the resistance below 5.0 ohms for each circuit?

Yes

- Go to step 4

No

- Repair the (X292) Right Front Speaker (-) circuit for an open condition.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

4. SPEAKER

1. Connect the Radio harness connector.
2. With the Front Right Audio Speaker still disconnected, turn the ignition on.
3. Turn the Radio on.
4. With the scan tool, clear all Radio DTC's.
5. 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

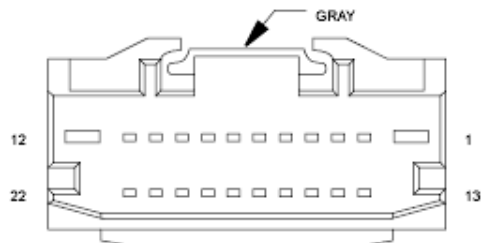
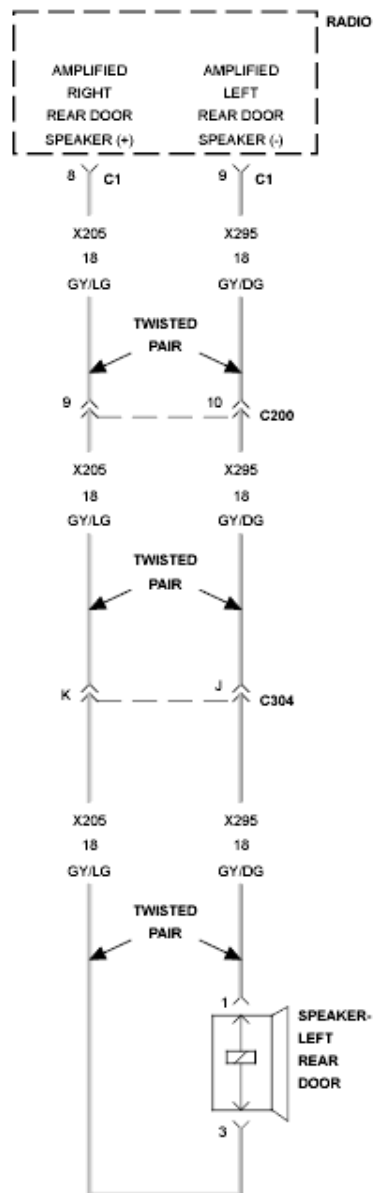
No

- Test Complete.

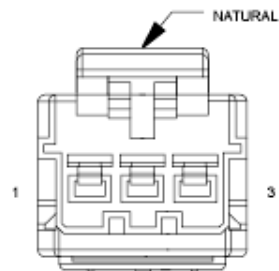
B1409-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT LOW

2009 Dodge Journey R/T

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



RADIO C2



SPEAKER-
LEFT
REAR
DOOR

Fig. 15: Left Rear Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the Radio on.

- **Set Condition:**

When the Output circuit is LOW for more than 3 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

1. Turn the ignition on.
2. With the scan tool, clear all Radio DTC's.
3. Turn the Radio on.
4. With the scan tool, read the DTC information.

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

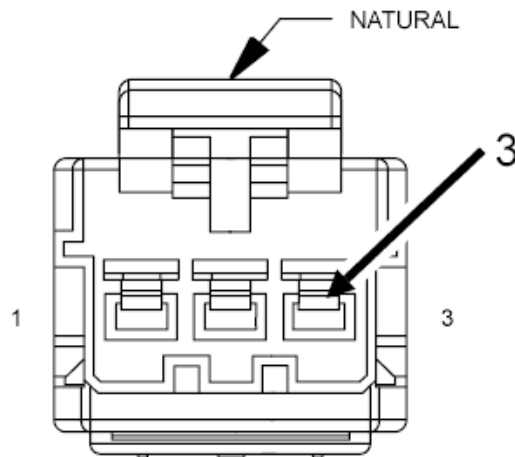
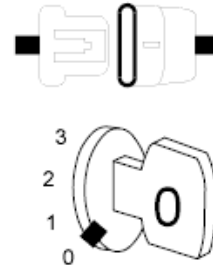
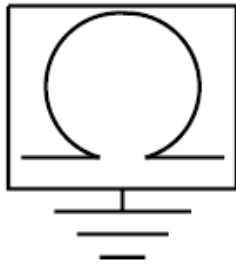
Yes

- Go to step 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

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



SPEAKER-
LEFT
REAR
DOOR

107479

Fig. 16: Checking Left Rear Speaker (+) Circuit Shorted To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio harness connector.
3. Disconnect the Rear Left Audio Speaker harness connector.
4. 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based**

Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure

No

- Go to step 3

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

1. 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Go to step 4

4. SPEAKER

1. Connect the Radio harness connector.
2. With the Rear Left Audio Speaker still disconnected, turn the ignition on.
3. Turn the Radio on.
4. With the scan tool, clear all Radio DTC's.
5. With the scan tool, read the DTC information.

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

Yes

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

No

- Test Complete.

B140A-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT HIGH

2009 Dodge Journey R/T

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

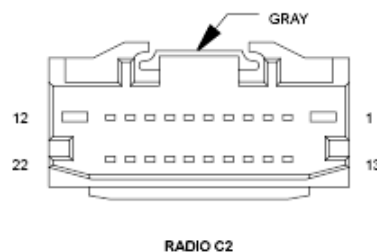
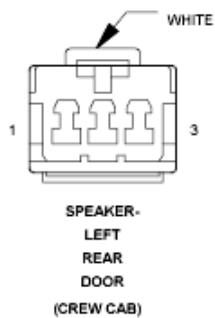
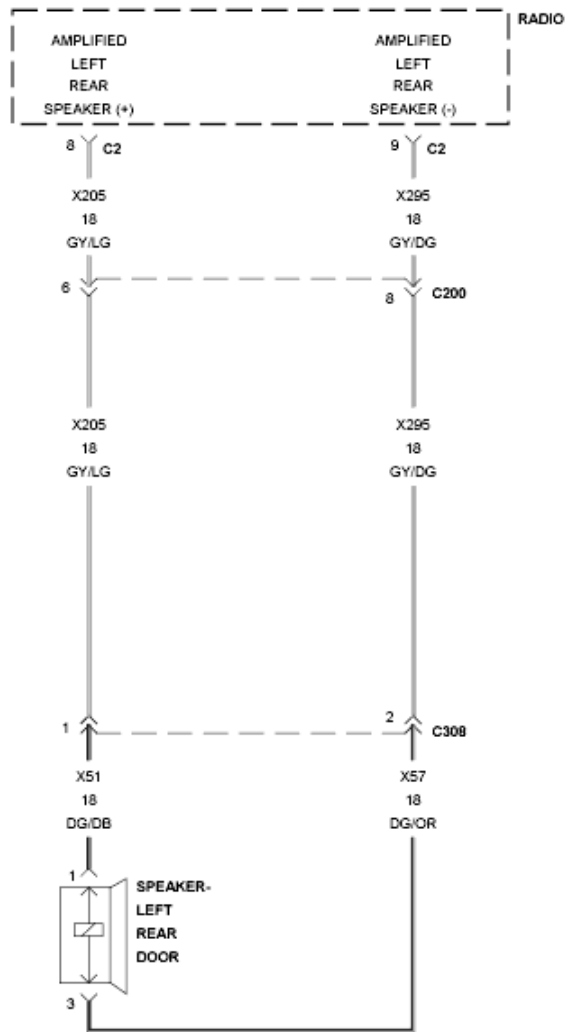


Fig. 17: Left Rear Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the Radio on.

- **Set Condition:**

When the Output circuit is HIGH for more than 3 seconds.

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

Diagnostic Test

1. INTERMITTENT CONDITION

1. Turn the ignition on, then off, and then on again.
2. With the scan tool, read Radio DTCs.

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

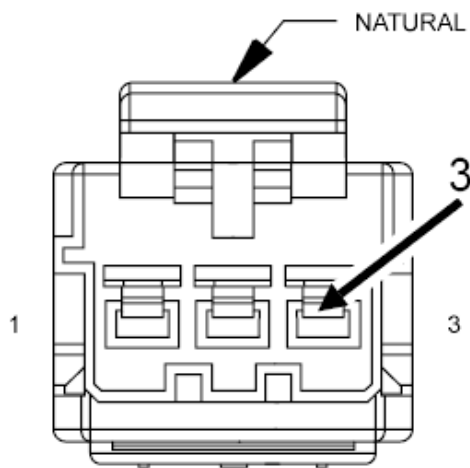
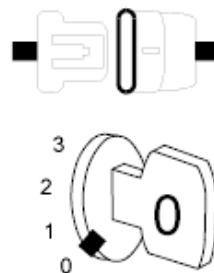
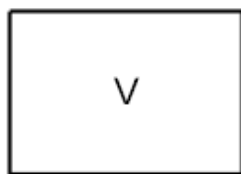
Yes

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

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



SPEAKER-
LEFT
REAR
DOOR

107483

Fig. 18: Checking Left Rear Speaker (+) Circuit Shorted To Voltage
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio harness connector.
3. Disconnect the Left Rear Audio Speaker harness connector.
4. 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 the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE**,

Totally Integrated Power (TIPM) - Standard Procedure

No

- Go to step 3

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

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

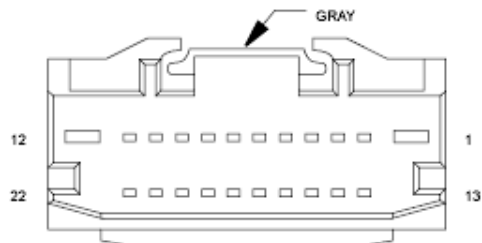
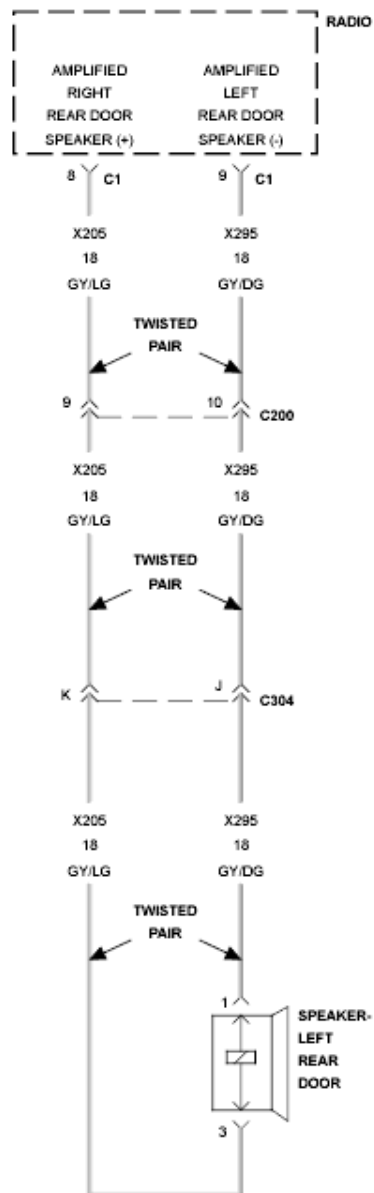
No

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

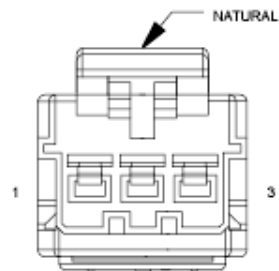
B140B-REAR LEFT AUDIO SPEAKER OUTPUT CIRCUIT OPEN

2009 Dodge Journey R/T

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



RADIO C2



SPEAKER-
LEFT
REAR
DOOR

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

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

- **When Monitored:**

With the Radio on.

- **Set Condition:**

When the output circuit is open for more than 3 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

1. Turn the ignition on.
2. With the scan tool, clear all Radio DTC's.
3. Turn the Radio on.
4. With the scan tool, read the DTC information.

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

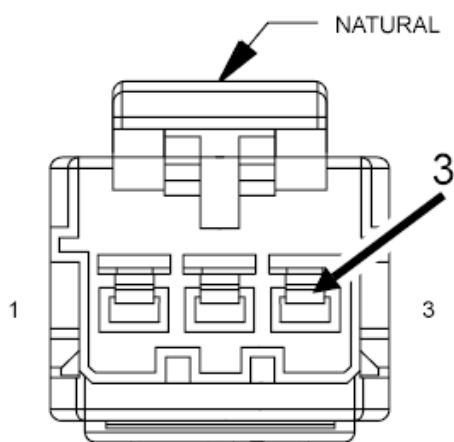
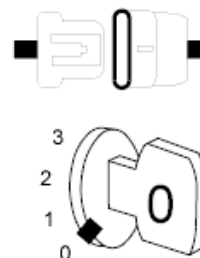
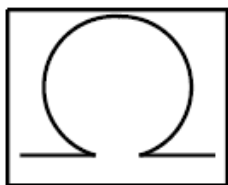
Yes

- Go to step 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

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



SPEAKER-
LEFT
REAR
DOOR

107487

Fig. 20: Checking Left Rear Speaker (+) Circuit Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio harness connector.
3. Disconnect the Rear Left Audio Speaker harness connector.
4. 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 step 3

No

- Repair the (X205) Left Rear Speaker (+) circuit for an open condition.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

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

1. 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 step 4

No

- Repair the (X295) Left Rear Speaker (-) circuit for an open condition.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

4. SPEAKER

1. Connect the Radio harness connector.
2. With the Rear Left Audio Speaker still disconnected, turn the ignition on.
3. Turn the Radio on.
4. With the scan tool, clear all Radio DTC's.
5. 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

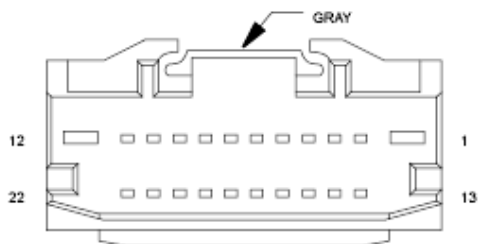
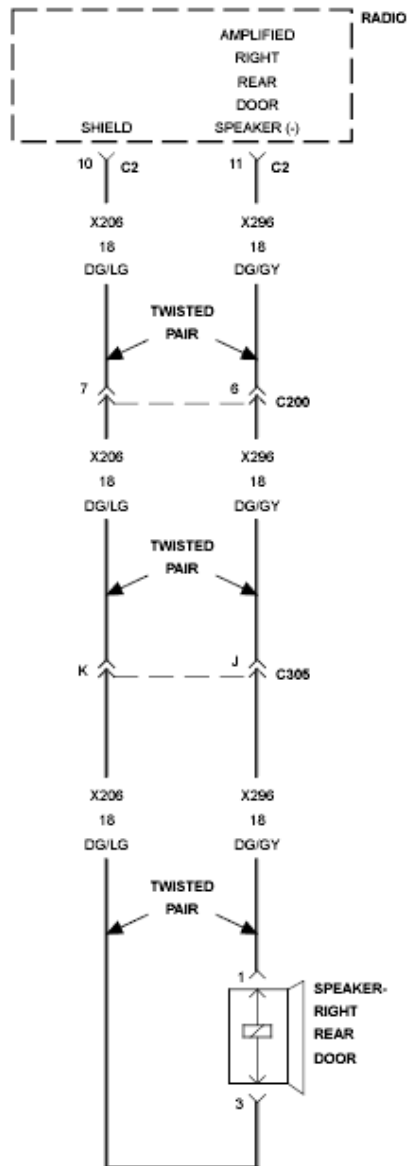
No

- Test Complete.

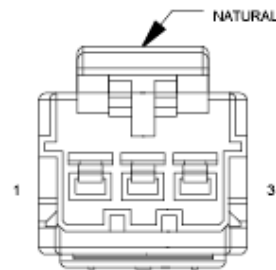
B140D-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW

2009 Dodge Journey R/T

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



RADIO C2



SPEAKER-
RIGHT
REAR
DOOR

Fig. 21: Right Rear Speaker Circuit Schematic
 Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the Radio on.

- **Set Condition:**

When the Output circuit is LOW for more than 3 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

1. Turn the ignition on.
2. With the scan tool, clear all Radio DTC's.
3. Turn the Radio on.
4. With the scan tool, read the DTC information.

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

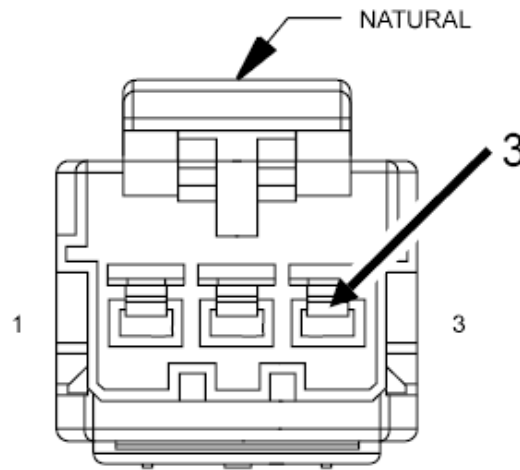
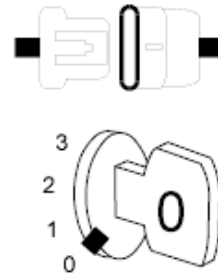
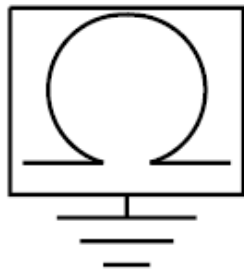
Yes

- Go to step 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

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



SPEAKER-
RIGHT
REAR
DOOR

107493

Fig. 22: Checking Right Rear Speaker (+) Circuit Shorted To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio harness connector.
3. Disconnect the Rear Right Audio Speaker harness connector.
4. 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based**

Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure

No

- Go to step 3

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

1. 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Go to step 4

4. SPEAKER

1. Connect the Radio harness connector.
2. With the Rear Right Audio Speaker still disconnected, turn the ignition on.
3. Turn the Radio on.
4. With the scan tool, clear all Radio DTC's.
5. With the scan tool, read the DTC information.

Does the scan tool read: B1401-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

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

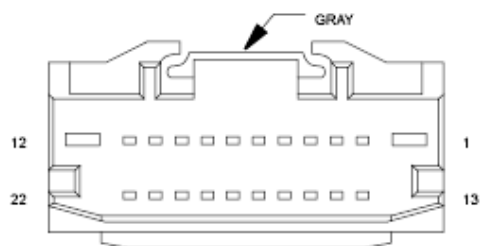
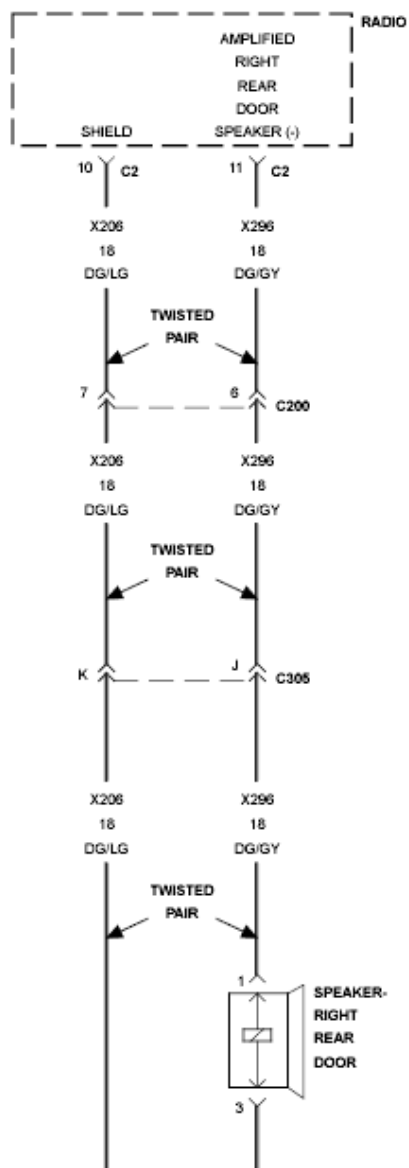
No

- Test Complete.

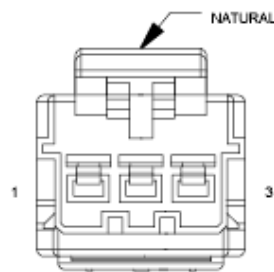
B140E-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT HIGH

2009 Dodge Journey R/T

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



RADIO C2



SPEAKER-
RIGHT
REAR
DOOR

Fig. 23: Right Rear Speaker Circuit Schematic
 Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the Radio on.

- **Set Condition:**

When the Output circuit is HIGH for more than 3 seconds.

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

Diagnostic Test

1. INTERMITTENT CONDITION

1. Turn the ignition on, then off, and then on again.
2. With the scan tool, read Radio DTCs.

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

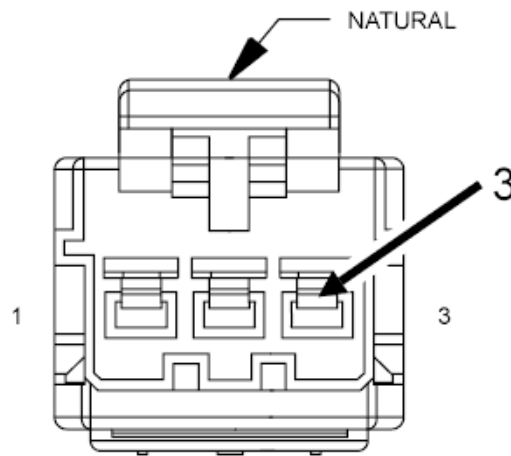
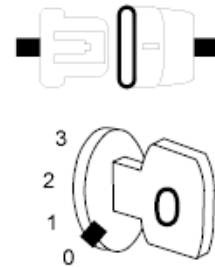
Yes

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

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



SPEAKER-
RIGHT
REAR
DOOR

107497

Fig. 24: Checking Right Rear Speaker (+) Circuit Shorted To Voltage
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio harness connector.
3. Disconnect the Right Rear Audio Speaker harness connector.
4. 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 the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Go to step 3

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

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

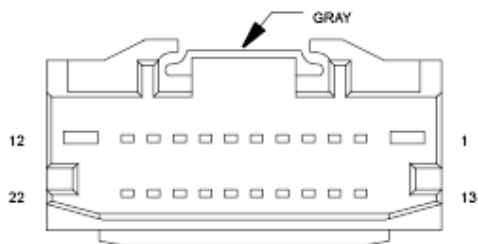
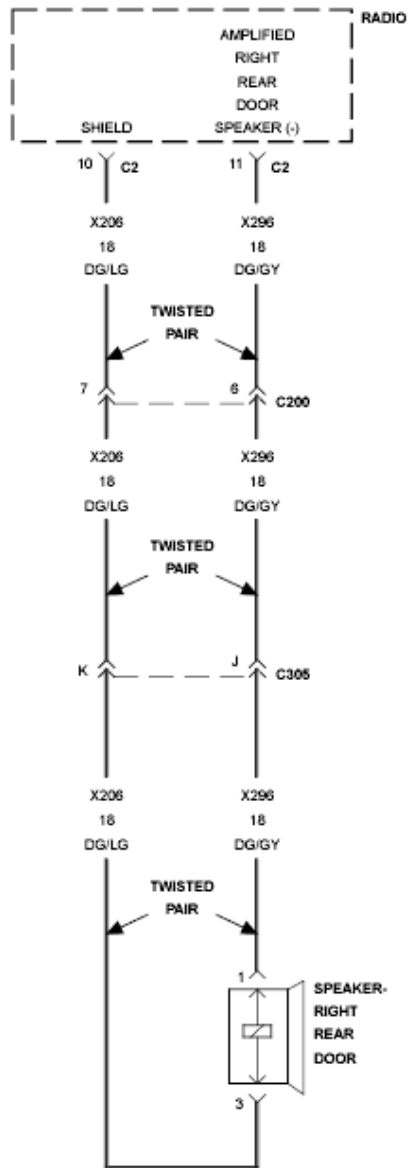
No

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

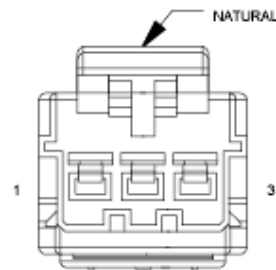
B140F-REAR RIGHT AUDIO SPEAKER OUTPUT CIRCUIT OPEN

2009 Dodge Journey R/T

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



RADIO C2



SPEAKER-
RIGHT
REAR
DOOR

Fig. 25: Right Rear Speaker Circuit Schematic
 Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the Radio on.

- **Set Condition:**

When the output circuit is open for more than 3 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

1. Turn the ignition on.
2. With the scan tool, clear all Radio DTC's.
3. Turn the Radio on.
4. With the scan tool, read the DTC information.

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

Yes

- Go to step 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 the **BODY VERIFICATION TEST - VER 1**. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

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

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

3. Disconnect the Rear Right Audio Speaker harness connector.
4. 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 step 3

No

- Repair the (X206) Right Rear Speaker (+) circuit for an open condition.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

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

1. 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 step 4

No

- Repair the (X296) Right Rear Speaker (-) circuit for an open condition.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

4. SPEAKER

1. Connect the Radio harness connector.
2. With the Rear Right Audio Speaker still disconnected, turn the ignition on.
3. Turn the Radio on.
4. With the scan tool, clear all Radio DTC's.
5. 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 the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based**

Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**No**

- Test Complete.

B1421-AUDIO CD READ ERROR/INOPERABLE DISC

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

- **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**

1. Replace the problem CD with a good, clean, unscratched music CD.
2. Turn the Radio CD player on.
3. With the scan tool, read DTC's.

Does the scan tool display active: B1421-AUDIO CD READ ERROR/INOPERABLE DISC?

Yes

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

No

- Test Complete.

B1422-AUDIO DVD READ ERROR/INOPERABLE DISC

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

- **When Monitored:**

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

- **Set Condition:**

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

Possible Causes
DVD READ FAILURE

Diagnostic Test

1. RADIO/DVD PLAYER

1. Replace the problem DVD with a good, clean, unscratched DVD.
2. Turn the Radio/DVD player on.
3. With the scan tool, read DTCs.

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

No

- Test Complete.

B1424-IMPROPER DVD-WRONG REGION

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

- **When Monitored:**

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

- **Set Condition:**

The code will set if a DVD is not formatted for the proper region.

Possible Causes
DVD READ FAILURE

Diagnostic Test

1. RADIO/DVD PLAYER

1. Turn the Radio/DVD player on.
2. With the scan tool, read DTCs.

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

Yes

- Eject the inoperative DVD and replace with a DVD formatted for the proper region in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test Complete.

B1429-RADIO DISPLAY HIGH TEMPERATURE

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

• 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 B1429-RADIO DISPLAY HIGH TEMPERATURE IS ACTIVE.

1. With the scan tool, clear all DTC's.
2. Start the engine and allow the engine to reach normal operating temperature.
3. 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.
4. The Radio should operate between -23°C and 65°C (-10°F and +145°F).
5. With the scan tool, read DTC's.

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

Yes

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

No

- Test Complete.

B142A-RADIO UNIT HIGH TEMPERATURE

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

• **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.

1. With the scan tool, erase the DTC's.
2. Start the engine and allow the engine to reach normal operating temperature.
3. 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.
4. The Radio should operate between -23°C and 65°C (-10°F and +145°F).
5. 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.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Test Complete.

B142D-AUDIO ANTENNA NOT CONNECTED

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

- **When Monitored:**

With the ignition on and the 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 station signal.

Possible Causes
BAD ANTENNA CONNECTION RADIO

Diagnostic Test

1. TEST ANTENNA

1. Turn the ignition off.
2. Disconnect the Radio Antenna connector.
3. Inspect the Radio Antenna connection.

Was the Antenna connection clean and secure?

Yes

- Go to step 2

No

- Repair the Antenna connection as needed.
- Perform the BODY VERIFICATION TEST - VER1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. ANTENNA

1. 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 step 3

No

- Repair or replace the Antenna assembly in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST - VER1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

3. RADIO

NOTE: Reconnect all previously disconnected components.

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

1. Turn the ignition on.
2. Turn the Radio on.
3. 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.
4. With the scan tool, read DTC's.

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

Yes

- Replace the Radio in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST-VER1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Test Complete.

B142E-GPS ANTENNA NOT CONNECTED

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

- **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
ANTENNA
RADIO

Diagnostic Test

1. TEST ANTENNA

1. Turn the ignition off.
2. Disconnect the GPS Antenna connector.
3. Inspect the GPS Antenna connection.

Was the Antenna connection clean and secure?

Yes

- Go to step 2

No

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

2. ANTENNA

1. 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 step 3

No

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

3. RADIO

NOTE: Reconnect all previously disconnected components.

NOTE: Move vehicle outside approximately 30ft from any structure.

1. Turn the ignition and Radio on.
2. With the scan tool, clear all DTCs and operate the Navigation system.
3. With the scan tool, read DTCs.

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

Yes

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

No

- Test Complete.

B142F-SATELLITE RADIO ANTENNA NOT CONNECTED

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

- **When Monitored:**

With the ignition on and the radio in satellite mode.

- **Set Condition:**

If the radio does not detect an antenna connection, this code will set.

Possible Causes
BAD ANTENNA CONNECTION
OPEN SATELLITE RADIO ANTENNA CABLE
OPEN SATELLITE RADIO ANTENNA
SATELLITE RADIO RECEIVER

Diagnostic Test

1. CHECK CONNECTOR

1. Turn the ignition off.
2. Disconnect the Satellite Radio Antenna connector at the rear of the radio.
3. Inspect the Satellite Radio Antenna connection.

Was the antenna connection clean and secure?

Yes

- Go to step 2

No

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

2. SATELLITE RADIO

NOTE: To continue with this test, you must secure a Known Good Satellite Antenna.

1. Connect a known good Satellite Radio Antenna to the back of the radio.
2. Turn the ignition on.
3. With the scan tool, record, then erase the radio DTCs.
4. Turn the radio on.
5. Put the Satellite Radio in Satellite Mode.
6. With the scan tool, read the active DTCs.

Does the scan tool display: B142F Satellite Radio Antenna Not Connected as Active?

Yes

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

No

- Go to step 3

3. SATELLITE RADIO ANTENNA

1. Turn the ignition off.
2. Reconnect the Satellite Radio Antenna connector at the radio.
3. Disconnect the Satellite Radio Antenna connector at the antenna.
4. Connect the known good Satellite Radio Antenna to the harness.
5. Turn the ignition on.
6. With the scan tool, record, then erase the radio DTCs.
7. Turn the radio on and select satellite mode.
8. With the scan tool, read the active DTCs.

Does the scan tool display: B142F Satellite Radio Antenna Not Connected as Active?

No

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

Yes

- Go to step 4

4. SATELLITE RADIO ANTENNA CABLE

1. Turn the ignition off.
2. Locate the intermediate Satellite Radio Antenna connector.
3. Disconnect and inspect the intermediate Satellite Radio Antenna connector.

Was the connector clean and secure?

No

- Clean and secure the Satellite Radio Antenna intermediate connector.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

Yes

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

B1430(2.5)-SATELLITE RADIO ANTENNA INTERNAL PERFORMANCE

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

NOTE: There are two versions of the B1430 DTC tests. In order to select the proper test you must know the Sales (model) Code of the radio. The Sales Code is on the face of the radio or if necessary use the scan tool and select Radio, More options and ECU Details.

NOTE: This version of the B1430 test is only applicable for the GEN 2.5 radios (2007/2008 RES, REQ, and 2007 and later RER, REU and REN). For the GEN 4.0 radios (2009 and later RES, REQ and RBZ) see **B1430(4.0)-SATELLITE RADIO ANTENNA INTERNAL PERFORMANCE**.

- **When Monitored:**

With the ignition on and the radio in Satellite mode.

- **Set Condition:**

When the Satellite Radio does not detect a proper antenna signal, this code will set

Possible Causes
SHORTED ANTENNA CABLE SHORTED ANTENNA SATELLITE RADIO RECEIVER

Diagnostic Test**1. TEST ANTENNA**

1. With the scan tool, record the DTCs.
2. Erase the DTCs.
3. Turn the ignition off.
4. Disconnect the Satellite Radio Antenna connector at the back of the Radio.
5. Turn the ignition on and the radio in Satellite mode.
6. With the scan tool, erase the DTCs again.
7. Put the satellite radio in seek up mode for two loops around the band cycle.
8. With the scan tool, read the active DTCs.

What Active DTC(s) are displayed?

B142F-Satellite Radio Antenna Not Connected and B1430-Satellite Radio Antenna Internal Performance.

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

B142F-Satellite Radio Antenna Not Connected only.

- Go to step 2

B1430-Satellite Radio Antenna Internal Performance only.

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

2. CHECK CONNECTOR

1. Turn the ignition off.

2. Inspect the Satellite Radio Antenna connection at the Radio.

Was the antenna connection clean and secure?

Yes

- Go to step 3

No

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

3. SATELLITE RADIO

1. Re-connect the antenna cable to the Radio.
2. Disconnect the Satellite Radio Antenna connector at the Antenna.
3. Turn the ignition on.
4. With the scan tool, record, then erase the radio DTCs.
5. Turn the radio on and put the Satellite Radio in Satellite Mode.
6. Put the satellite radio in seek up mode for two loops around the band cycle.
7. With the scan tool, read the active DTCs.

What Active DTC(s) are displayed?

B142F-Satellite Radio Antenna Not Connected

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

B1430-Satellite Radio Antenna Internal Performance

- Go to step 4

4. SATELLITE RADIO ANTENNA CABLE

1. Turn the ignition off.
2. Locate the intermediate Satellite Radio Antenna connector.
3. Disconnect and inspect the intermediate Satellite Radio Antenna connector.

Was the connector clean and secure?

No

- Clean and secure the Satellite Radio Antenna intermediate connector.

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

Yes

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

B1430(4.0)-SATELLITE RADIO ANTENNA INTERNAL PERFORMANCE

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

NOTE: There are two versions of the B1430 DTC tests. In order to select the proper test you must know the Sales (model) Code of the radio. The Sales Code is on the face of the radio or if necessary use the scan tool and select Radio, More options and ECU Details.

NOTE: This version of the B1430 test is only applicable for the GEN 4.0 radios (2009 and later RES, REQ and RBZ). For the GEN 2.5 radios (2007/2008 RES, REQ, and 2007 and later RER, REU and REN) see **B1430(2.5)-SATELLITE RADIO ANTENNA INTERNAL PERFORMANCE**.

- **When Monitored:**

With the ignition on and the radio in Satellite mode.

- **Set Condition:**

When the Satellite Radio does not detect a proper antenna signal, this code will set

Possible Causes
SATELLITE RADIO RECEIVER

Diagnostic Test

1. TEST RADIO

1. With the scan tool, record the DTCs.
2. Erase the DTCs.
3. Turn the ignition off.
4. Turn the ignition on and the radio in Satellite mode.
5. With the scan tool, erase the DTCs again.
6. Put the satellite radio in seek up mode for two loops around the band cycle.

7. With the scan tool, read the active DTCs.

Does the scan display: B1430-Satellite Radio Antenna Internal Performance as Active?

Yes

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

No

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

B143B-MICROPHONE 1 CIRCUIT LOW

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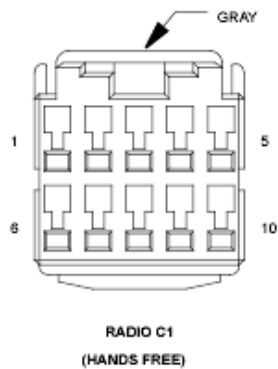
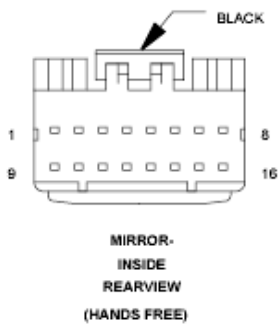
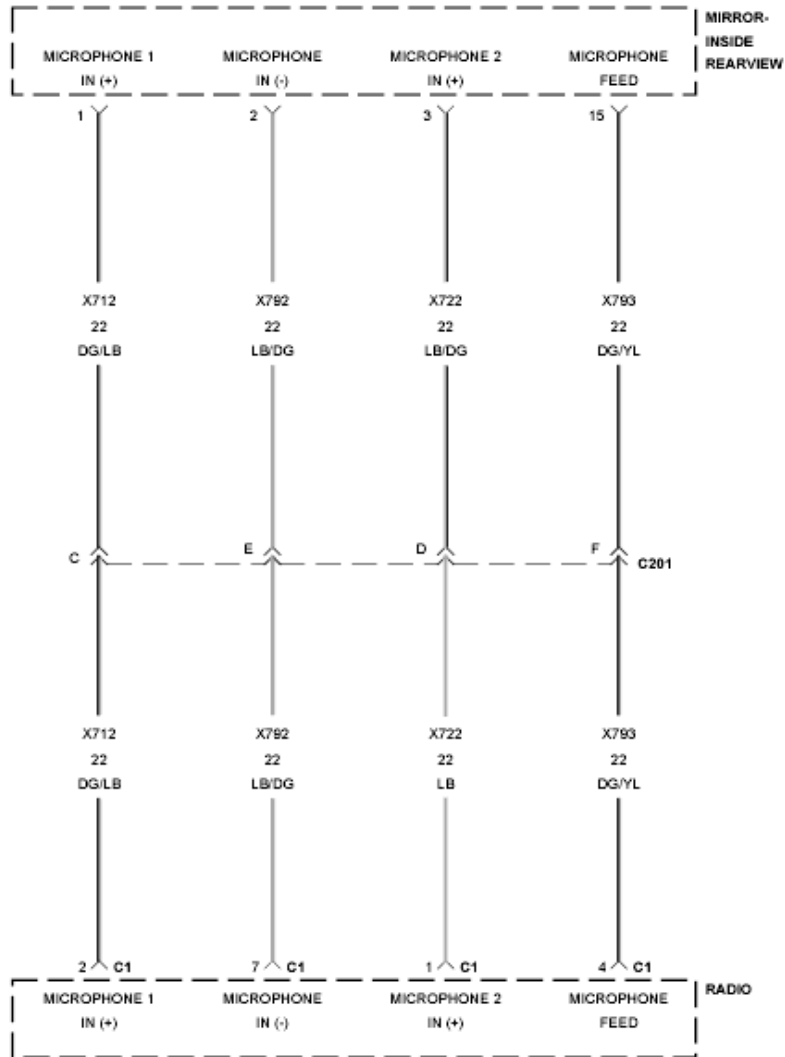


Fig. 26: Microphone 1 IN Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Radio detects a short to ground or open on the (X712) Microphone 1 IN (+) circuit.

Possible Causes
(X712) MICROPHONE 1 IN (+) CIRCUIT OPEN
(X712) MICROPHONE 1 IN (+) CIRCUIT SHORTED TO GROUND
(X793) MICROPHONE FEED CIRCUIT OPEN
INSIDE REARVIEW MIRROR
RADIO

Diagnostic Test

1. CHECK FOR ACTIVE DTC

NOTE: **Verify the connection of the Rearview Mirror harness connector.**

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

Does the scan tool display B143B-MICROPHONE 1 CIRCUIT LOW as active?

Yes

- Go to step 2

No

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

2. CHECK FOR ACTIVE DTC B143E

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

Does the scan tool display B143E-MICROPHONE 2 CIRCUIT LOW also as active?

Yes

- Go to step 3

No

- Go to step 6

3. CHECK FOR VOLTAGE AT THE INSIDE REARVIEW MIRROR

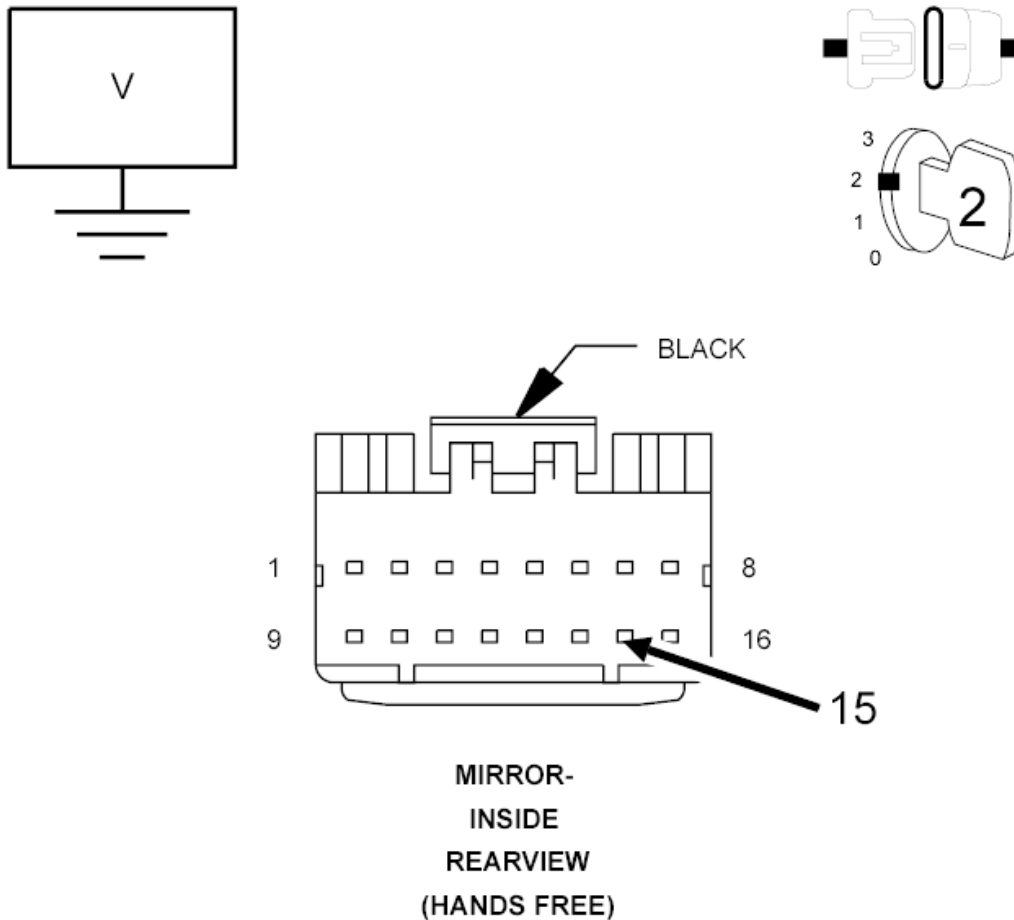


Fig. 27: Checking For Voltage At Inside Rearview Mirror
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Inside Rearview Mirror harness connector.
3. Turn the ignition on.
4. Measure the voltage between the (X793) Microphone Feed circuit and ground.

Is the voltage above 10.0 volts?

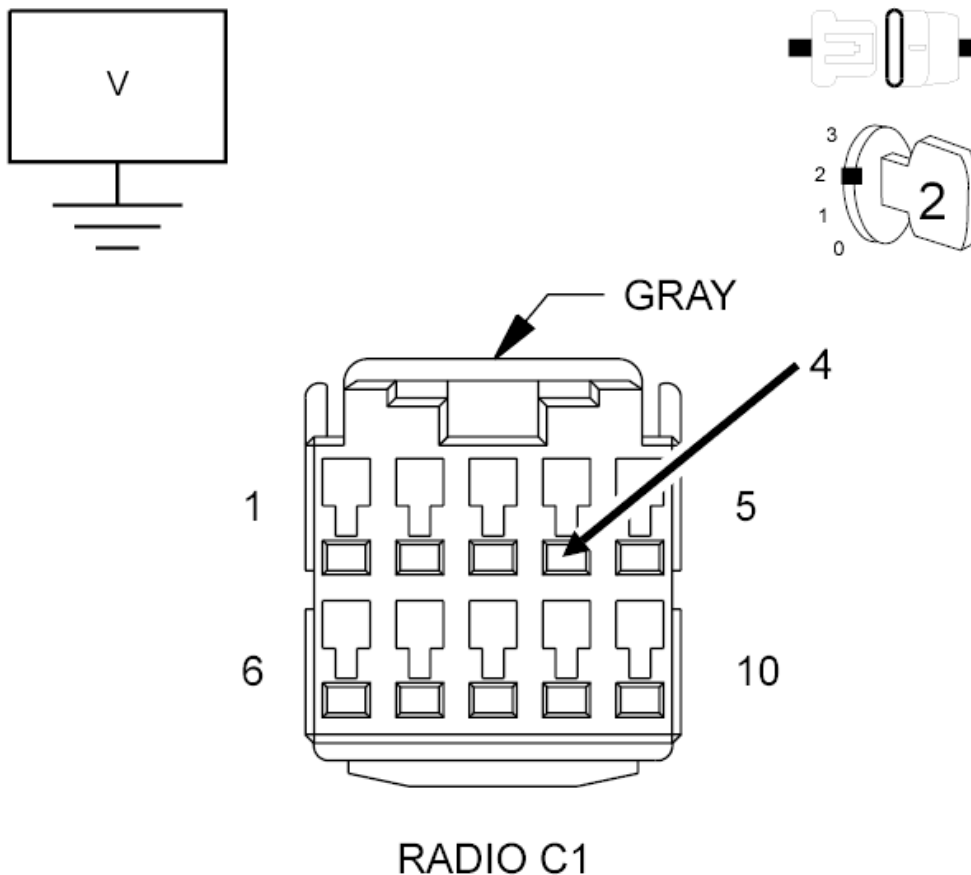
Yes

- Go to step 6

No

- Go to step 4

4. CHECK FOR VOLTAGE AT THE RADIO



2560260

Fig. 28: Checking For Voltage At Radio
Courtesy of CHRYSLER LLC

1. While back probing, measure the voltage between the (X793) Microphone Feed circuit and ground at the Radio C1 harness connector.

NOTE: The graphic shows the connector for reference only. Back probe the harness connector.

Is the voltage above 10.0 volts?

Yes

- Repair the (X793) Microphone Feed circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 5

5. RESTORE THE VEHICLE CONFIGURATION

1. With the scan tool, restore the vehicle configuration.
2. Turn the ignition off, then back on.
3. With the scan tool, read the active DTCs.

Does the scan tool display B143B-MICROPHONE 1 CIRCUIT LOW as active?

Yes

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

No

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

6. CHECK THE INSIDE REARVIEW MIRROR

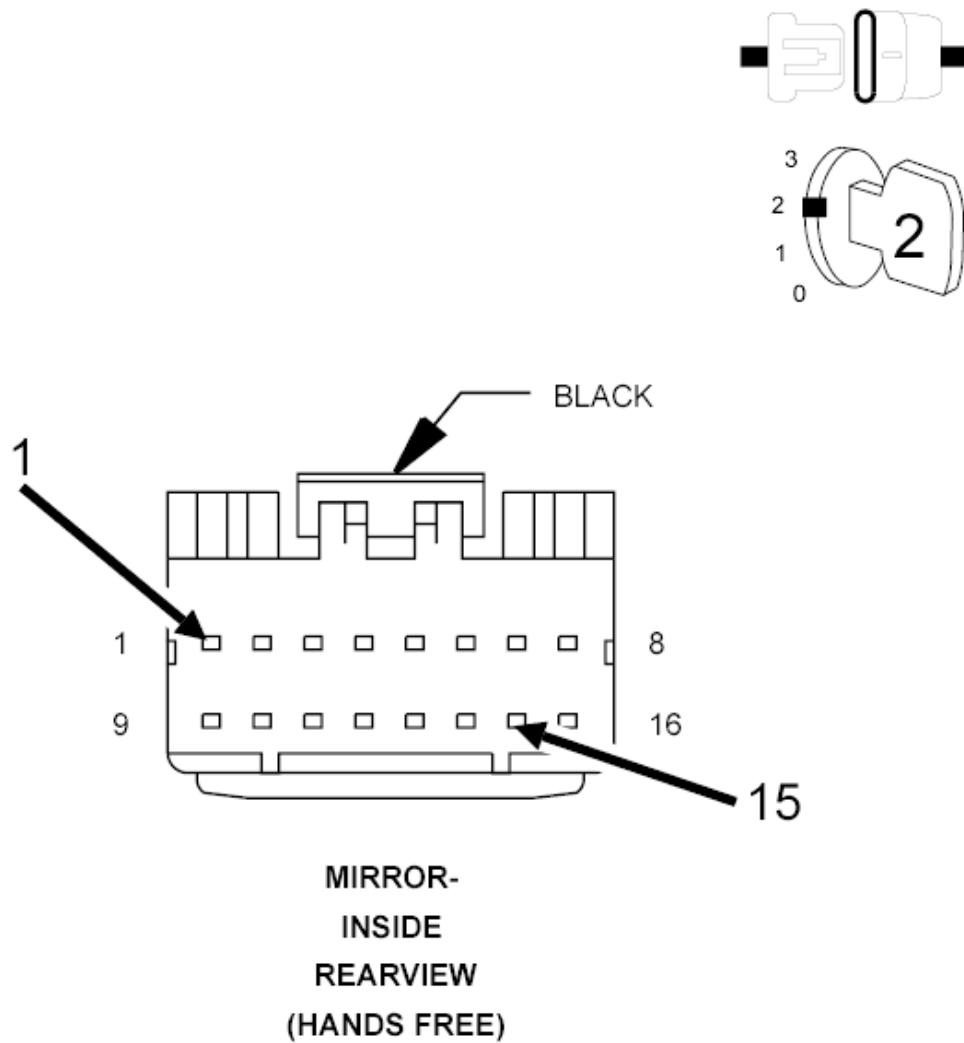


Fig. 29: Checking Inside Rearview Mirror
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Inside Rearview Mirror harness connector.
3. Connect a jumper wire between the (X793) Microphone Feed and the (X712) Microphone 1 IN (+) circuits.
4. Turn the ignition on.
5. With the scan tool, read the DTCs.

NOTE: DTC B143C-MICROPHONE 1 CIRCUIT HIGH should display as active as a result of this test.

Does the scan tool display B143B-MICROPHONE 1 CIRCUIT LOW as active?

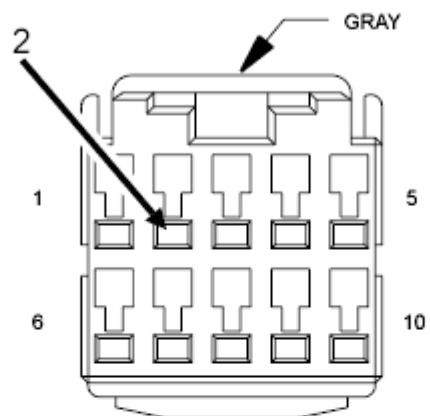
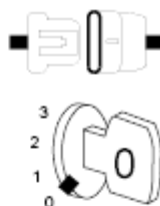
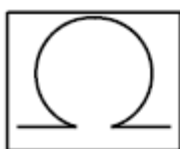
Yes

- Go to step 7

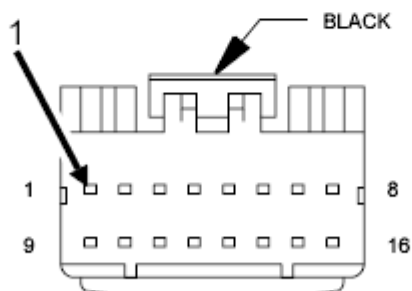
No

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

7. CHECK FOR THE (X712) MICROPHONE 1 IN (+) CIRCUIT OPEN



RADIO C1
(HANDS FREE)



MIRROR-
INSIDE
REARVIEW
(HANDS FREE)

Fig. 30: Checking For Microphone 1 IN (+) Circuit Open**Courtesy of CHRYSLER LLC**

1. Turn the ignition off.
2. Disconnect the Radio C1 harness connector.
3. Measure the resistance of the (X712) Microphone 1 IN (+) circuit between the Inside Rearview Mirror and Radio C1 harness connectors.

Is the resistance above 10K Ohms?

Yes

- Repair the (X712) Microphone 1 IN (+) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 8

8. CHECK FOR THE (X712) MICROPHONE 1 IN (+) CIRCUIT SHORTED TO GROUND

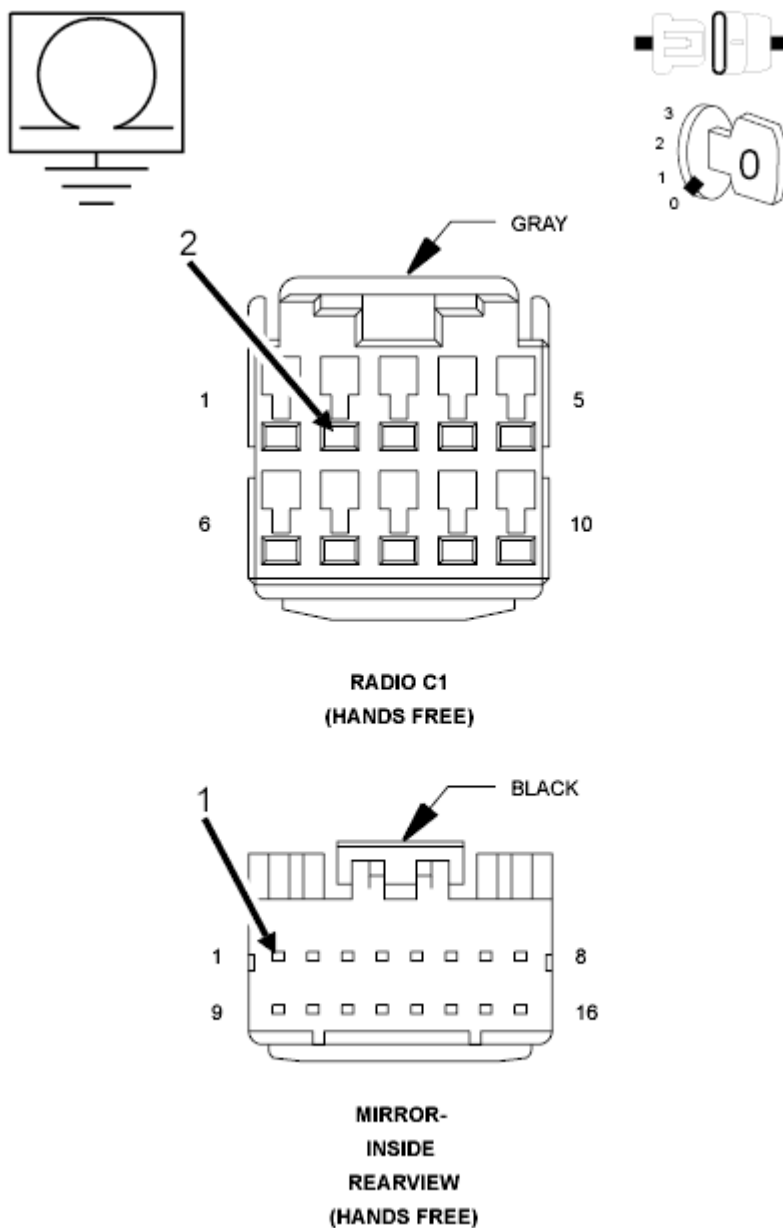


Fig. 31: Checking For Microphone 1 IN (+) Circuit Shorted To Ground
 Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (X712) Microphone 1 IN (+) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X712) Microphone 1 IN (+) circuit for short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE**.

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Totally Integrated Power (TIPM) - Standard Procedure .

No

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

B143C-MICROPHONE 1 CIRCUIT HIGH

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

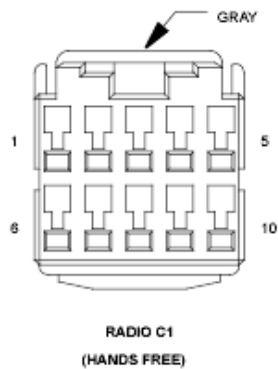
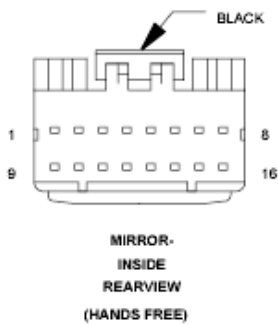
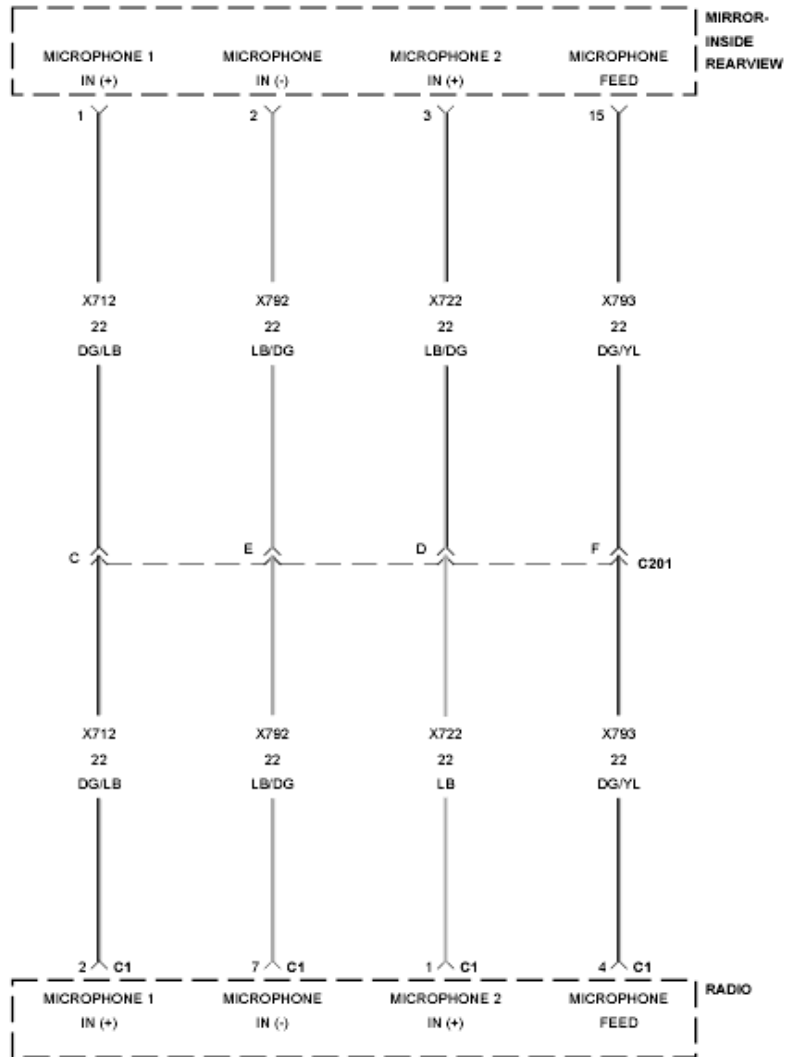


Fig. 32: Microphone 1 IN Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Radio detects a short to voltage on the (X712) Microphone 1 IN (+) circuit.

Possible Causes
(X712) MICROPHONE 1 IN (+) CIRCUITS SHORTED TO VOLTAGE INSIDE REARVIEW MIRROR RADIO

Diagnostic Test

1. CHECK FOR ACTIVE DTC

NOTE: **Verify the connection of the Rearview Mirror harness connector.**

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

Does the scan tool display this DTC as active?

Yes

- Go to step 2

No

- If the DTC is stored, check for an intermittent condition. Visually inspect the related wiring harness connectors. Look for broken, bent, pushed out, or corroded terminals.

2. INSIDE REARVIEW MIRROR

1. Turn the ignition off.
2. Disconnect the Rearview Mirror harness connector.
3. Turn the ignition on.
4. With the scan tool, read the active DTCs.

Does the scan tool display this DTC as active?

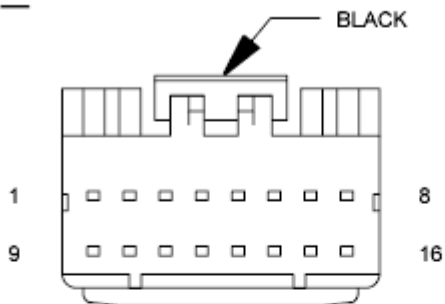
Yes

- Go to step 3

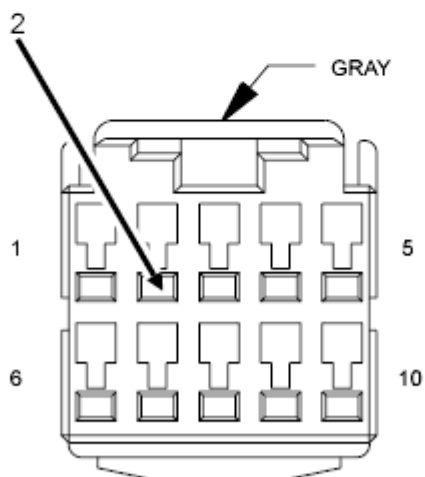
No

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

3. (X712) MICROPHONE 1 IN (+) CIRCUIT SHORTED TO VOLTAGE



MIRROR-
INSIDE
REARVIEW
(HANDS FREE)



RADIO C1
(HANDS FREE)

Fig. 33: Checking Microphone 1 IN (+) Circuit Shorted To Voltage
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio C1 harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (X712) Microphone 1 IN (+) circuit.

Is voltage present?

Yes

- Repair the (X712) Microphone 1 IN (+) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B143E-MICROPHONE 2 CIRCUIT LOW

2009 Dodge Journey R/T

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

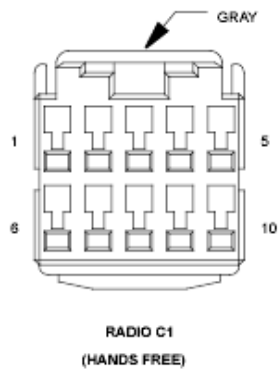
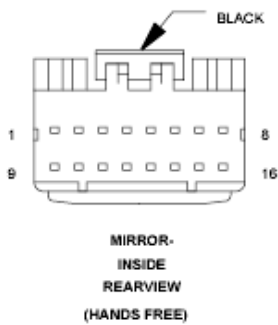
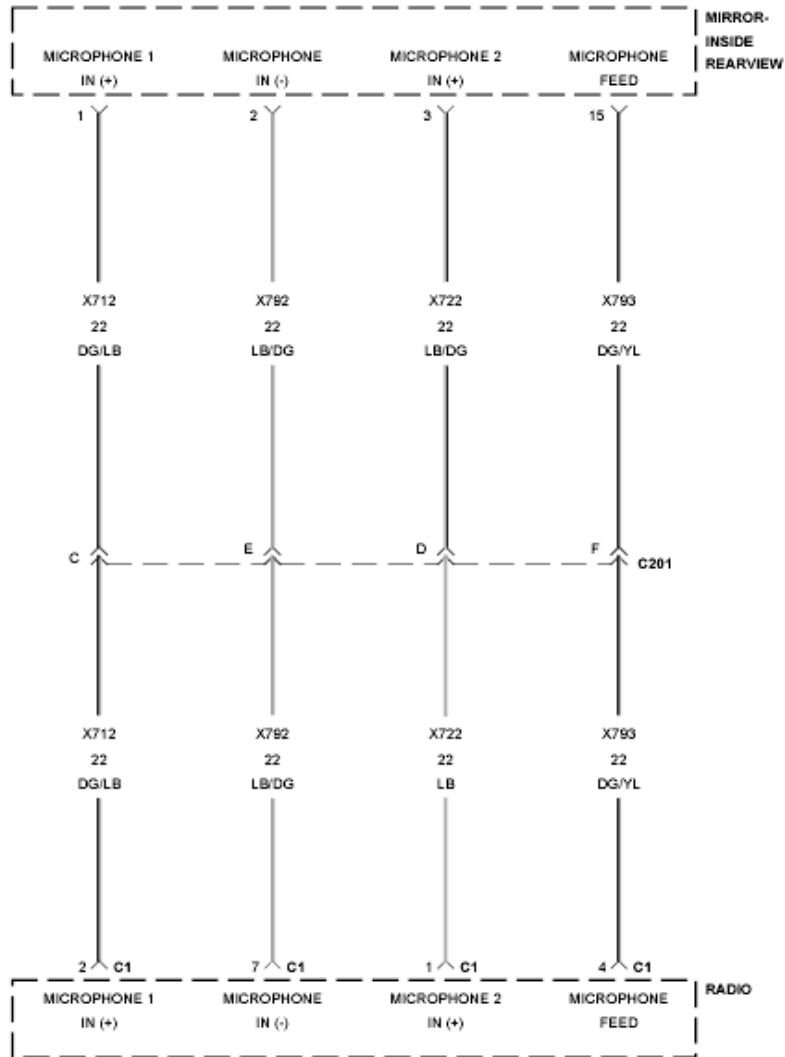


Fig. 34: Microphone 1 IN Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Radio detects a short to ground or an open on the (X722) Microphone 2 IN (+) circuit.

Possible Causes
(X722) MICROPHONE 2 IN (+) CIRCUIT OPEN
(X722) MICROPHONE 2 IN (+) CIRCUIT SHORTED TO GROUND
(X793) MICROPHONE FEED CIRCUIT OPEN
INSIDE REARVIEW MIRROR
RADIO

Diagnostic Test

1. CHECK FOR ACTIVE DTC

NOTE: **Verify the connection of the Rearview Mirror harness connector.**

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

Does the scan tool display B143E-MICROPHONE 2 CIRCUIT LOW as active?

Yes

- Go to step 2

No

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

2. CHECK FOR ACTIVE DTC B143B

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

Does the scan tool display B143B-MICROPHONE 1 CIRCUIT LOW also as active?

Yes

- Go to step 3

No

- Go to step 6

3. CHECK FOR VOLTAGE AT THE INSIDE REARVIEW MIRROR

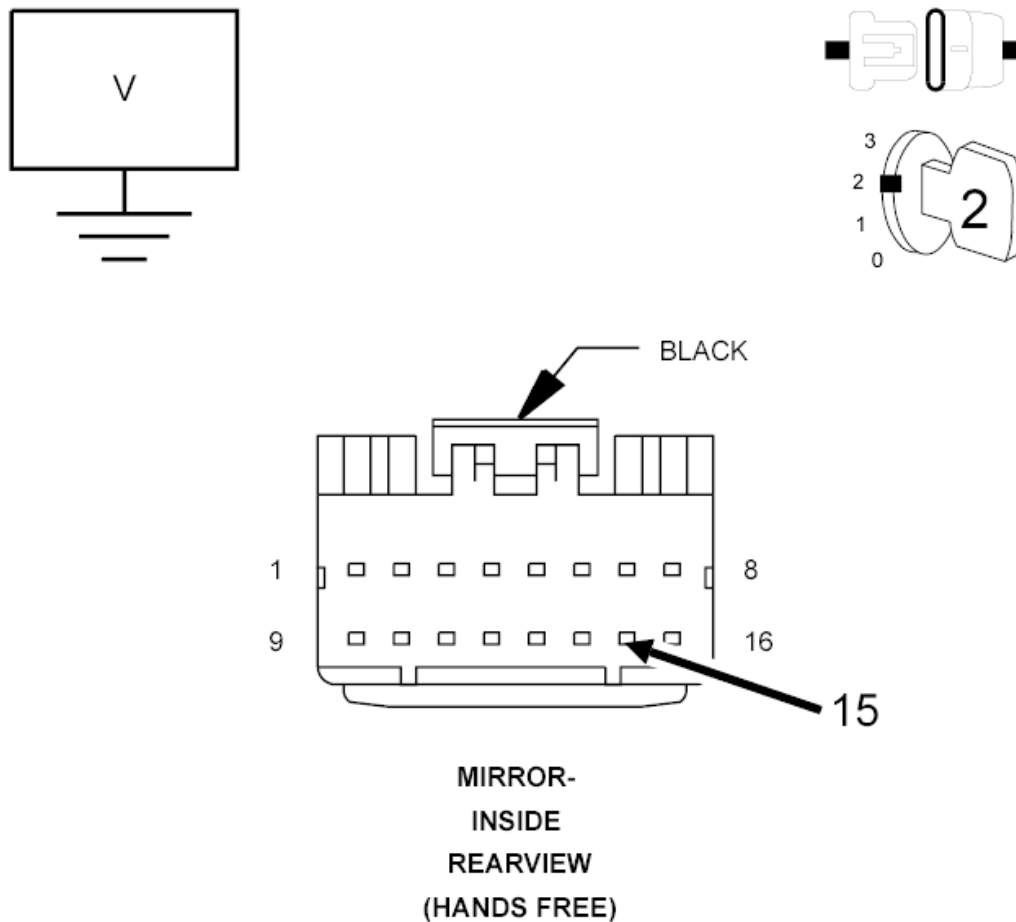


Fig. 35: Checking For Voltage At Inside Rearview Mirror
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Inside Rearview Mirror harness connector.
3. Turn the ignition on.
4. Measure the voltage between the (X793) Microphone Feed circuit and ground.

Is the voltage above 10.0 volts?

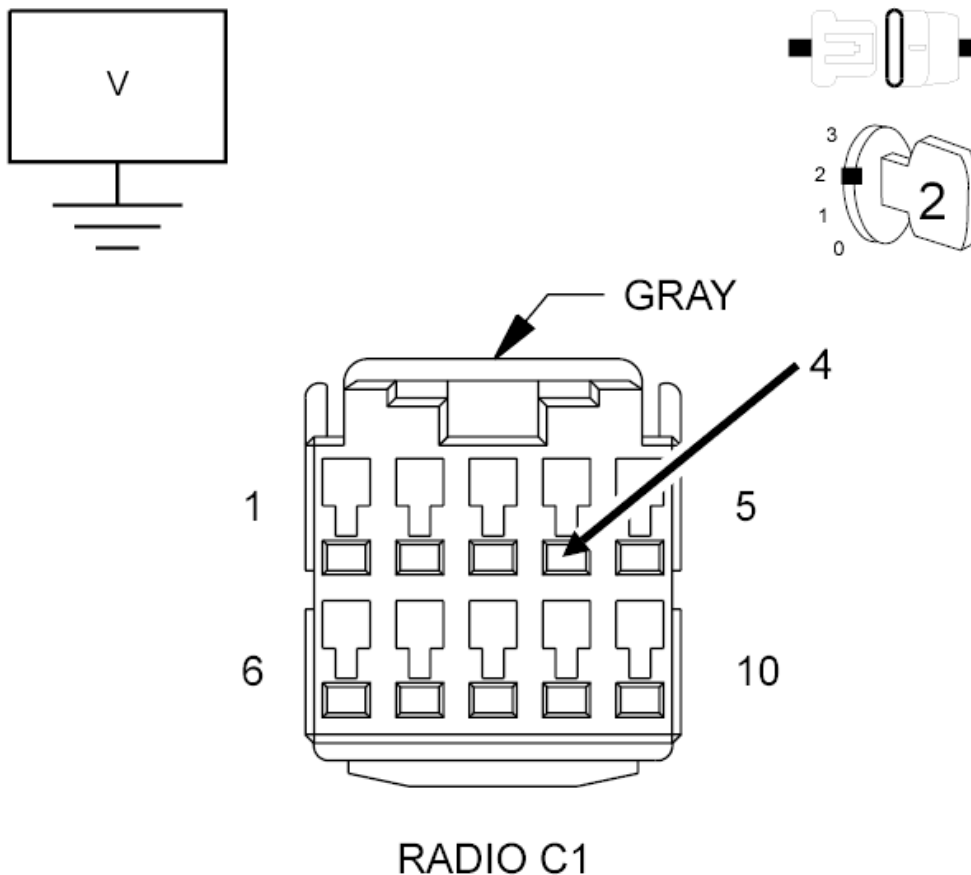
Yes

- Go to step 6

No

- Go to step 4

4. CHECK FOR VOLTAGE AT THE RADIO



2560260

Fig. 36: Checking For Voltage At Radio
Courtesy of CHRYSLER LLC

1. While back probing, measure the voltage between the (X793) Microphone Feed circuit and ground at the Radio C1 harness connector.

NOTE: The graphic shows the connector for reference only. Back probe the harness connector.

Is the voltage above 10.0 volts?

Yes

- Repair the (X793) Microphone Feed circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 5

5. RESTORE THE VEHICLE CONFIGURATION

1. With the scan tool, restore the vehicle configuration.
2. Turn the ignition off, then back on.
3. With the scan tool, read the active DTCs.

Does the scan tool display B143E-MICROPHONE 2 CIRCUIT LOW as active?

Yes

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

No

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

6. CHECK THE INSIDE REARVIEW MIRROR

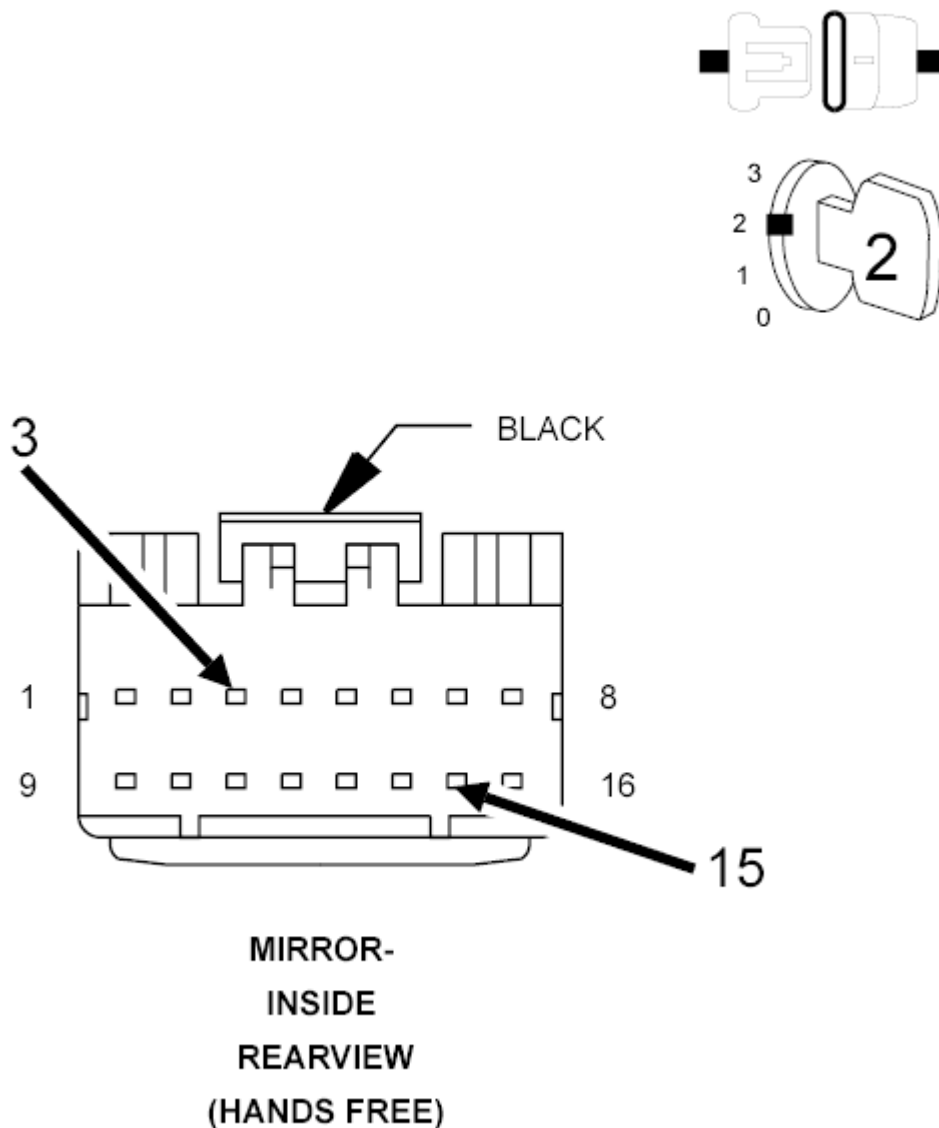


Fig. 37: Checking Inside Rearview Mirror
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Inside Rearview Mirror harness connector.
3. Connect a jumper wire between the (X793) Microphone Feed and the (X722) Microphone 2 IN (+) circuits.
4. Turn the ignition on.
5. With the scan tool, read the DTCs.

NOTE: DTC B143F-MICROPHONE 2 CIRCUIT HIGH should display as active

as a result of this test.

Does the scan tool display B143E-MICROPHONE 2 CIRCUIT LOW as active?

Yes

- Go to step 7

No

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

7. CHECK FOR THE (X722) MICROPHONE 2 IN (+) CIRCUIT OPEN

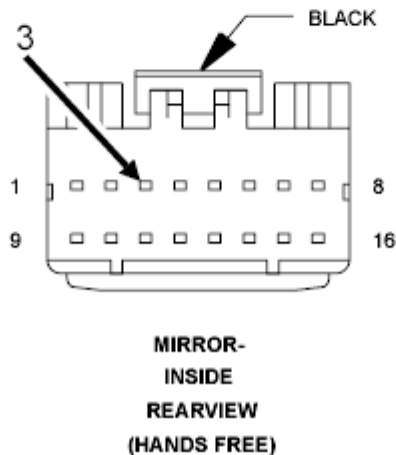
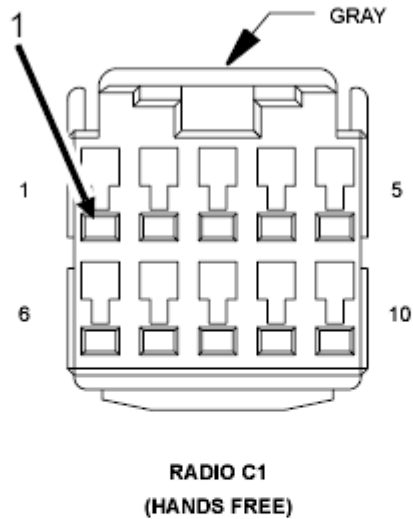
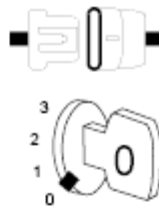
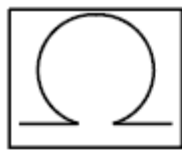


Fig. 38: Checking For Microphone 2 IN (+) Circuit Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio C1 harness connector.
3. Measure the resistance of the (X722) Microphone 2 IN (+) circuit between the Inside Rearview Mirror and Radio C1 harness connectors.

Is the resistance above 10K Ohms?

Yes

- Repair the (X722) Microphone 2 IN (+) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 8

8. CHECK FOR THE (X722) MICROPHONE 2 IN (+) CIRCUIT SHORTED TO GROUND

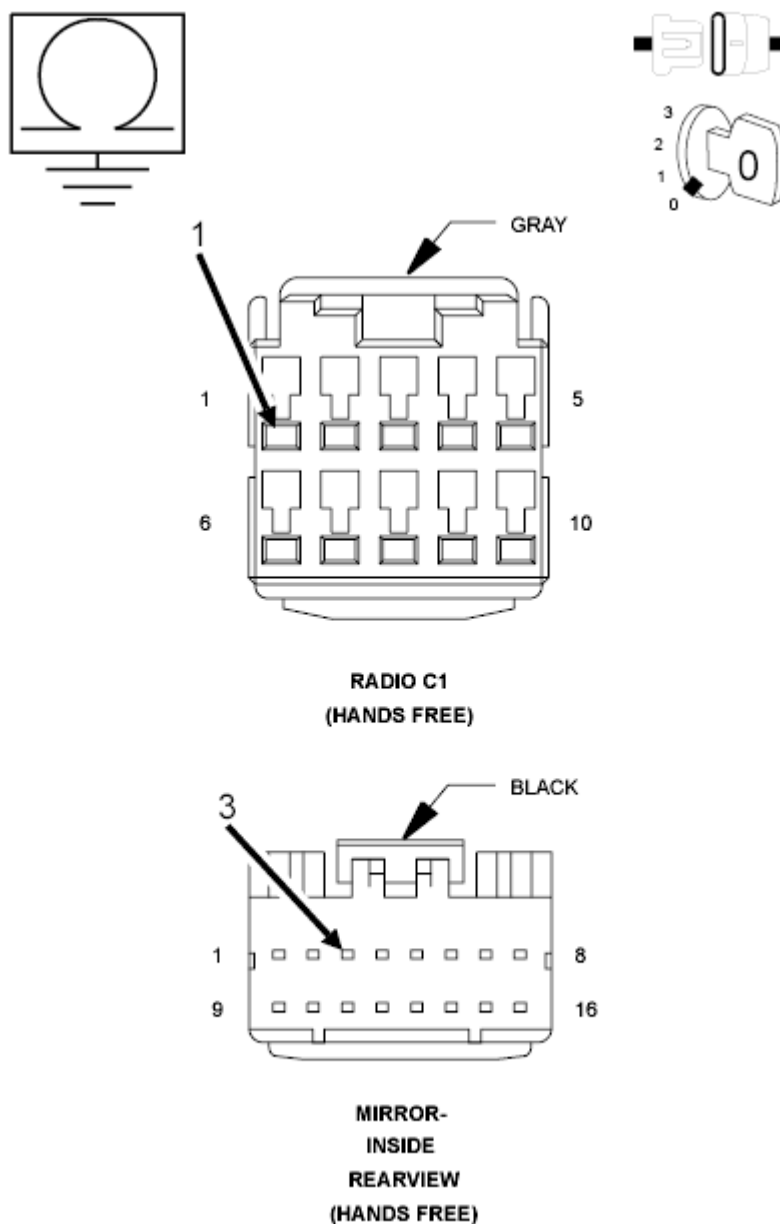


Fig. 39: Checking For Microphone 2 IN (+) Circuit Shorted To Ground

Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (X722) Microphone 2 IN (+) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X722) Microphone 2 IN (+) circuit for short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B143F-MICROPHONE 2 CIRCUIT HIGH

2009 Dodge Journey R/T

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

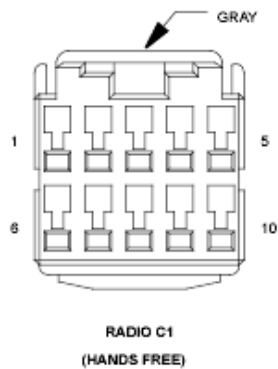
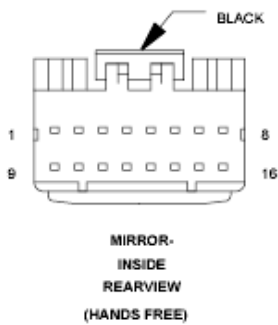
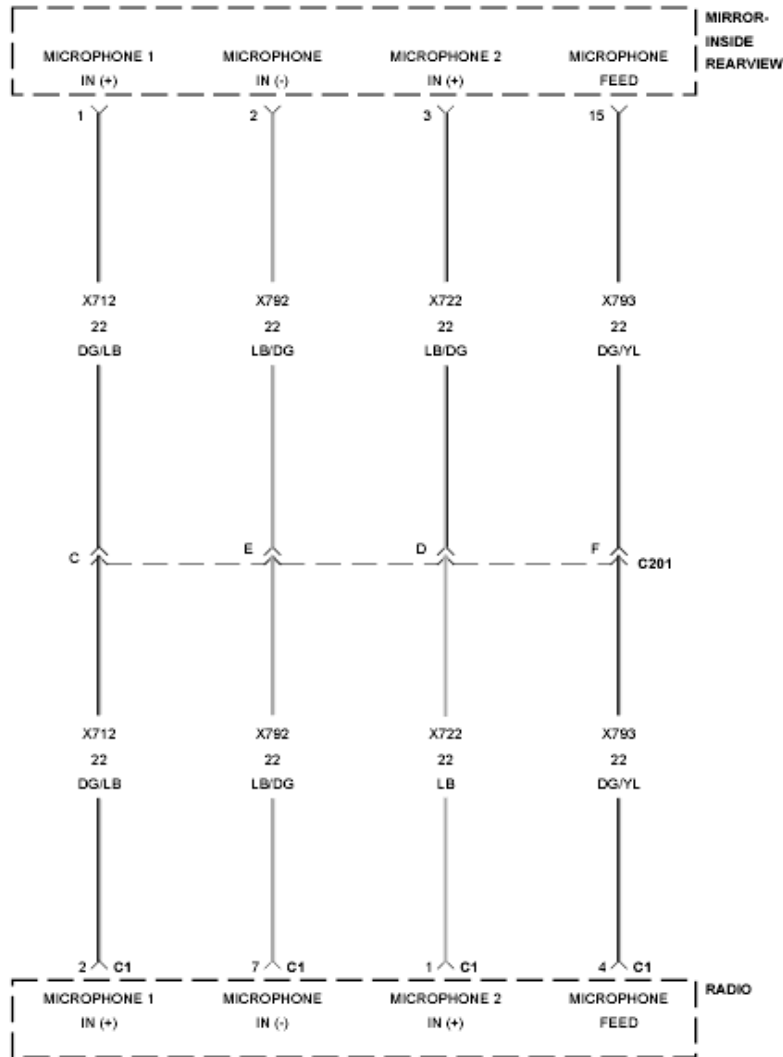


Fig. 40: Microphone 1 IN Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Radio detects a short to voltage on the (X722) Microphone 2 IN (+) circuit.

Possible Causes
(X722) MICROPHONE 2 IN (+) CIRCUITS SHORTED TO VOLTAGE INSIDE REARVIEW MIRROR RADIO

Diagnostic Test

1. CHECK FOR ACTIVE DTC

NOTE: **Verify the connection of the Rearview Mirror harness connector.**

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

Does the scan tool display this DTC as active?

Yes

- Go to step 2

No

- If the DTC is stored, check for an intermittent condition. Visually inspect the related wiring harness connectors. Look for broken, bent, pushed out, or corroded terminals.

2. INSIDE REARVIEW MIRROR

1. Turn the ignition off.
2. Disconnect the Rearview Mirror harness connector.
3. Turn the ignition on.
4. With the scan tool, read the active DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 3

No

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

3. (X722) MICROPHONE 2 IN (+) CIRCUIT SHORTED TO VOLTAGE

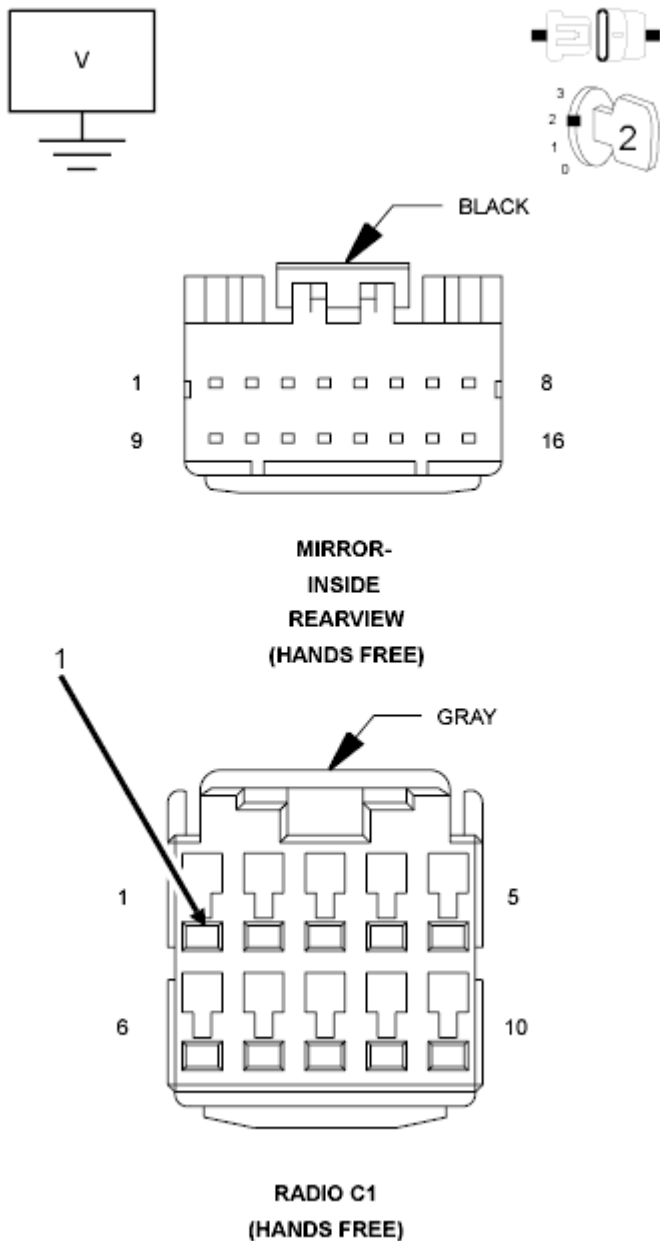


Fig. 41: Checking Microphone 2 IN (+) Circuit Shorted To Voltage
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio C1 harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (X722) Microphone 2 IN (+) circuit.

Is the voltage above 1.0 volt?

Yes

- Repair the (X722) Microphone 2 IN (+) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B1492-GENERAL MICROPHONE PERFORMANCE

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

• **When Monitored:**

With the ignition on.

• **Set Condition:**

Rearview Mirror microphone fault.

Possible Causes
INSIDE REARVIEW MIRROR

Diagnostic Test

1. CHECK FOR ACTIVE DTC

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

Is the DTC active?

Yes

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

No

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

B14B7-MICROPHONE 1 CIRCUIT OPEN

2009 Dodge Journey R/T

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

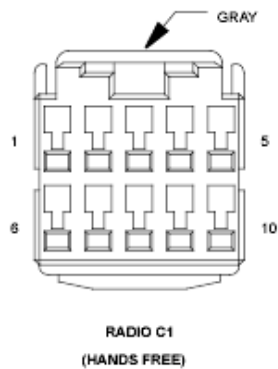
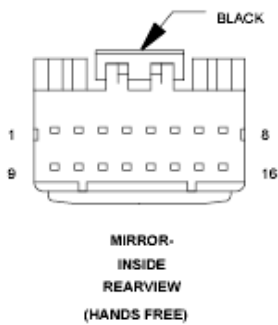
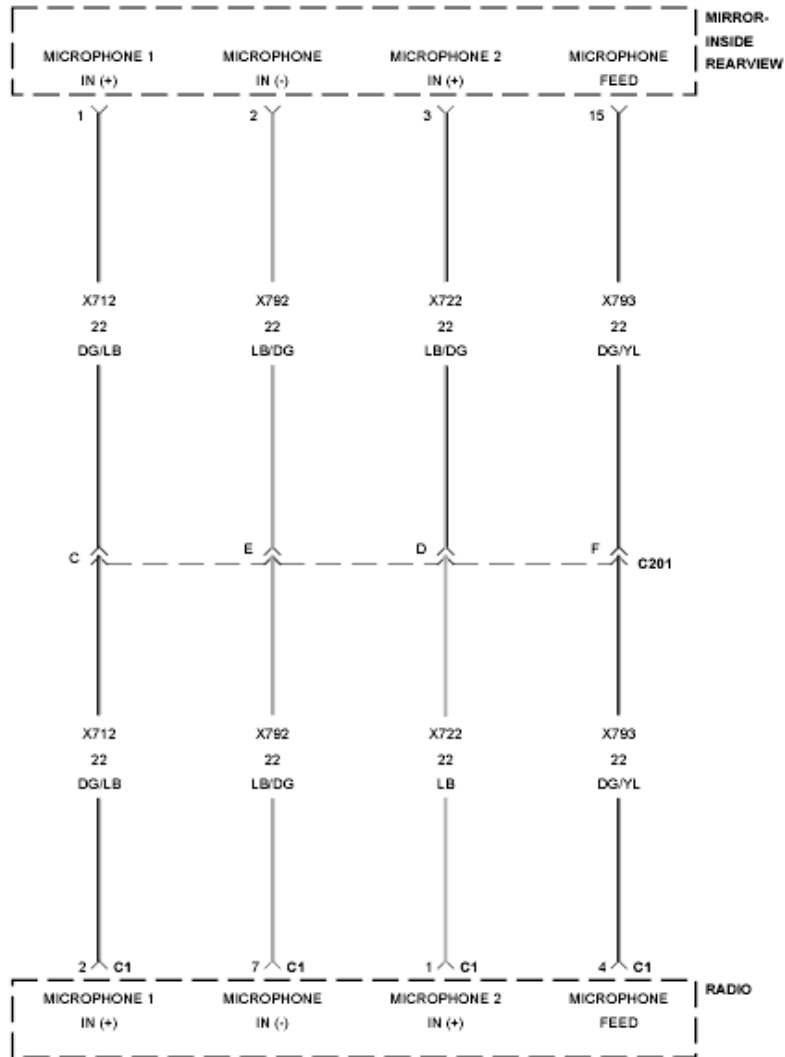


Fig. 42: Microphone 1 IN Circuit Schematic
 Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Radio detects an open in the (X712) microphone circuit.

Possible Causes
(X712) MICROPHONE 1 IN (+) CIRCUIT OPEN INSIDE REARVIEW MIRROR HANDS FREE MODULE

Diagnostic Test

1. CHECK FOR ACTIVE DTC

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

Is the DTC active?

Yes

- Go to step 2

No

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

2. INSIDE REARVIEW MIRROR

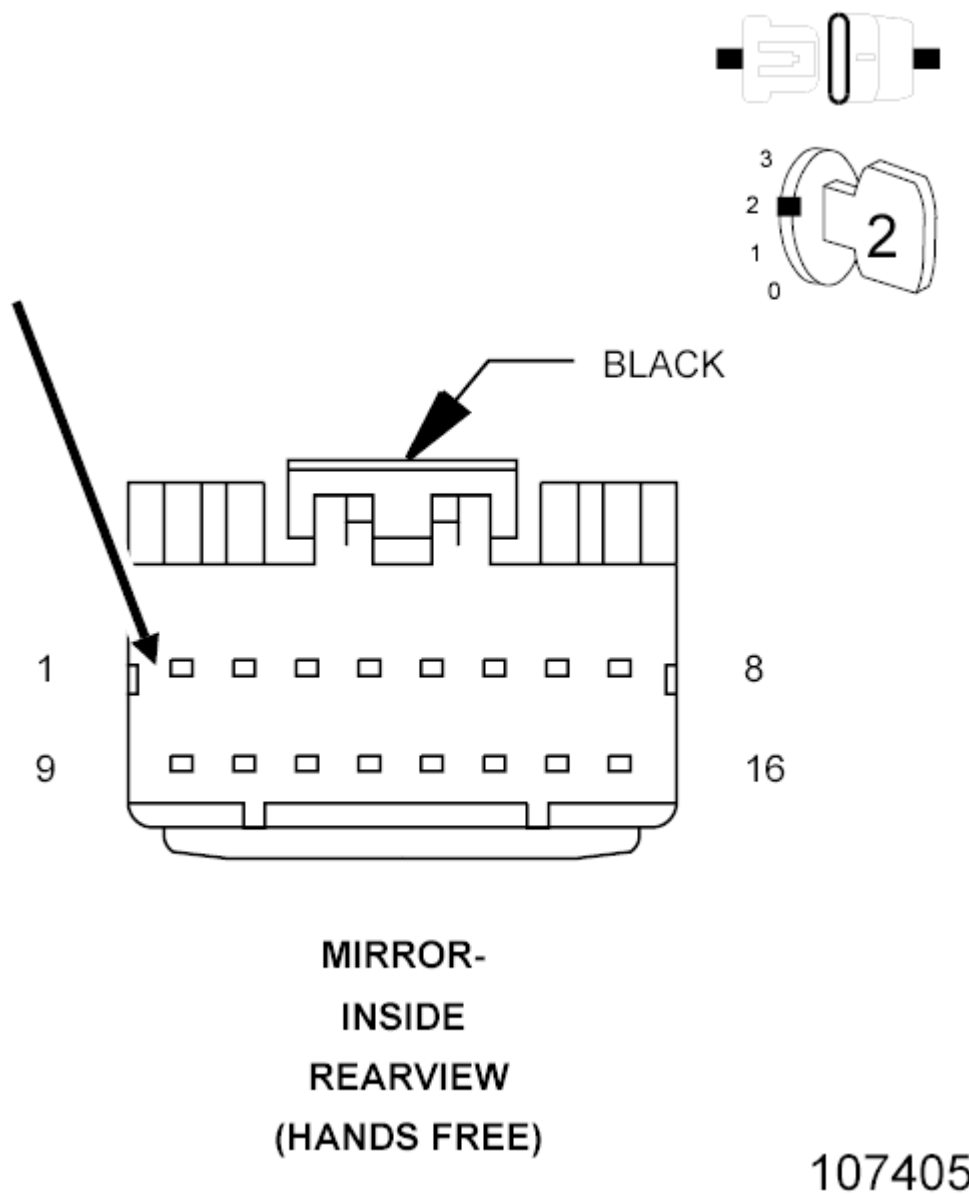


Fig. 43: Checking Inside Rearview Mirror (Radio)
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Rearview Mirror harness connector.
3. Connect a jumper wire from the (X712) Microphone 1 IN (+) circuit to ground.
4. Turn the ignition on.
5. With the scan tool, read the active DTC's.

Does the scan tool display this DTC as active?

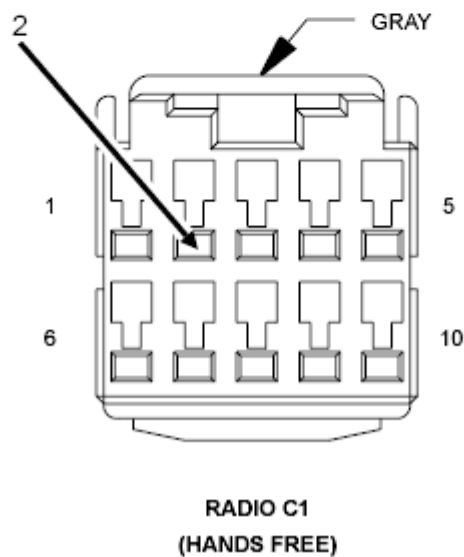
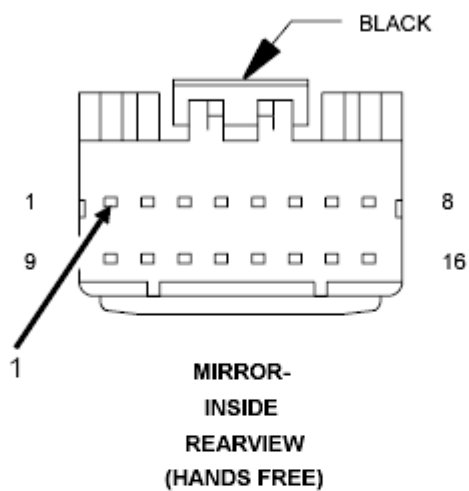
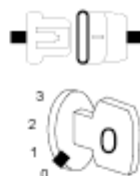
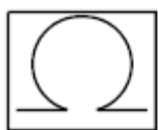
Yes

- Go to step 3

No

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

3. (X712) MICROPHONE 1 IN (+) CIRCUIT OPEN



107407

Fig. 44: Checking Microphone 1 IN (+) Circuit Open**Courtesy of CHRYSLER LLC**

1. Turn the ignition off.
2. Disconnect the Radio C1 harness connector.
3. Disconnect the Inside Rearview Mirror harness connector.
4. Measure the resistance of the (X712) Microphone 1IN (+) circuit between the Radio C1 connector and the inside rearview mirror connector.

Is the resistance below 5.0 ohms?

Yes

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

No

- Repair the (X712) Microphone 1 IN (+) circuit for an open.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B14B8-MICROPHONE 2 CIRCUIT OPEN

2009 Dodge Journey R/T

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

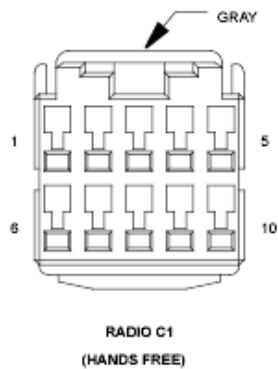
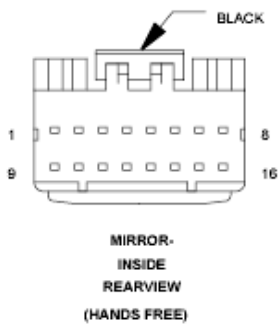
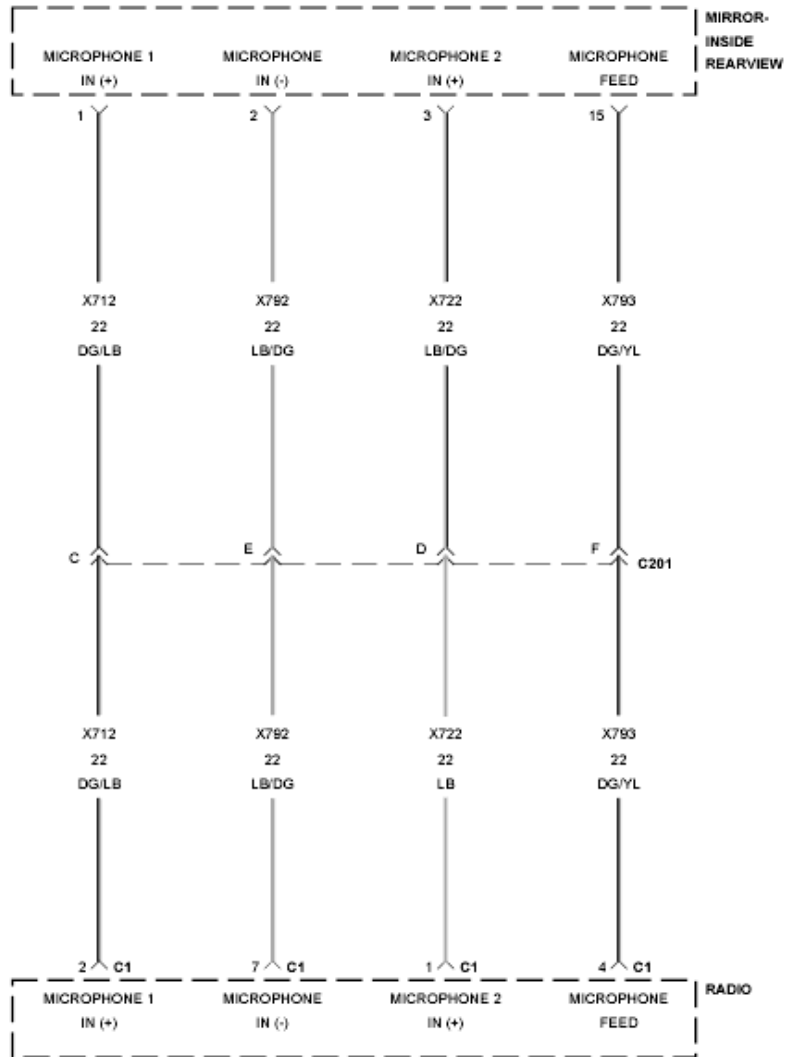


Fig. 45: Microphone 1 IN Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Radio detects an open in the (X722) microphone circuit.

Possible Causes
(X722) MICROPHONE 2 IN (+) CIRCUIT OPEN INSIDE REARVIEW MIRROR HANDS FREE MODULE

Diagnostic Test

1. CHECK FOR ACTIVE DTC

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

Is the DTC active?

Yes

- Go to step 2

No

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

2. INSIDE REARVIEW MIRROR

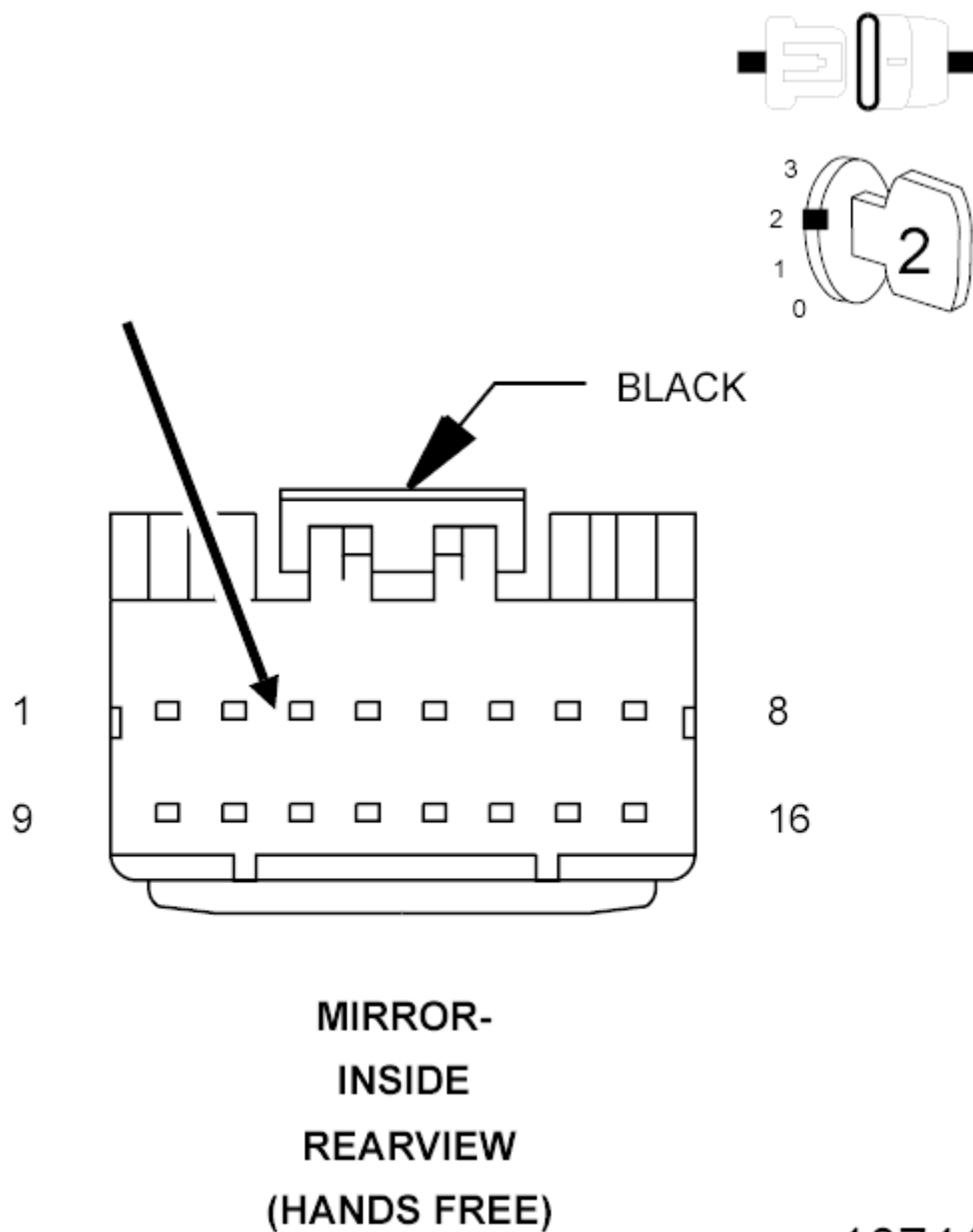


Fig. 46: Checking Inside Rearview Mirror Hands-Free
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Rearview Mirror harness connector.
3. Connect a jumper wire from the (X722) Microphone 2 IN (+) circuit to ground.
4. Turn the ignition on.
5. With the scan tool, read the active DTC's.

Does the scan tool display this DTC as active?

Yes

- Go to step 3

No

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

3. (X722) MICROPHONE 2 IN (+) CIRCUIT OPEN

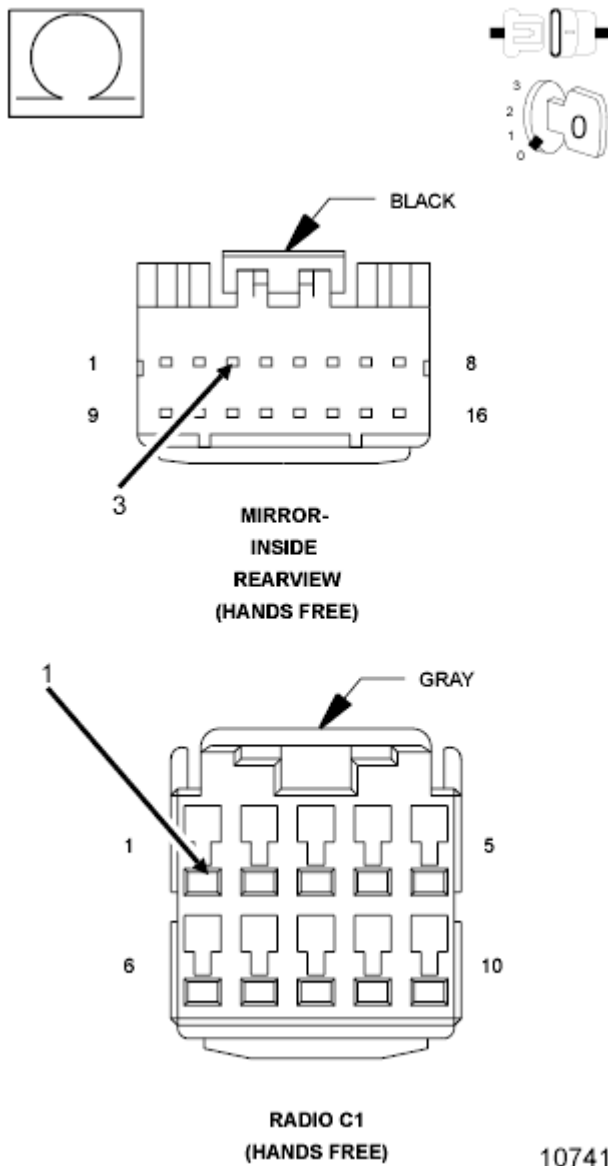


Fig. 47: Checking Microphone 2 IN (+) Circuit Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Radio C1 harness connector.
3. Disconnect the Inside Rearview Mirror harness connector.
4. Measure the resistance of the (X722) Microphone 2 IN (+) circuit between the Radio C1 connector and the inside rearview mirror connector.

Is the resistance below 5.0 ohms?

Yes

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

No

- Repair the (X722) Microphone 2 IN (+) circuit for an open.
- Perform the BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B156B-SATELLITE RADIO ANTENNA CIRCUIT

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

- **When Monitored:**

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

- **Set Condition:**

When the radio is in seek mode and detects a shorted or open antenna circuit for over five ms., this code will set.

Possible Causes
SHORTED OR OPEN ANTENNA CABLE
SHORTED OR OPEN ANTENNA
SATELLITE RADIO RECEIVER

Diagnostic Test

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, erase all Satellite Radio DTCs.
3. Turn the ignition and radio on.

4. Put the satellite radio in seek up mode for two loops around the band cycle.
5. With the scan tool, read the DTCs.

Does the scan tool display active: B156B-Satellite Radio Antenna Circuit?

Yes

- Go to step 2

No

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

2. TEST RADIO

NOTE: In order to perform this test, you must secure a Known Good Satellite Antenna.

1. With the scan tool, record the DTCs.
2. Erase the DTCs.
3. Turn the ignition off.
4. Disconnect the Satellite Radio Antenna connector at the Radio.
5. Install a Known Good Satellite Radio Antenna at the back of the Radio.
6. Turn the ignition and radio on.
7. Put the satellite radio in seek up mode for two loops around the band cycle.
8. With the scan tool, read the active DTCs.

Does the scan tool display: B156B-Satellite Radio Antenna Circuit as Active?

Yes

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

No

- Go to step 3

3. ANTENNA CABLE

1. With the scan tool, erase the DTCs.
2. Turn the ignition off.
3. Disconnect the Known Good Satellite Radio Antenna
4. Re-connect the vehicle Satellite Radio Antenna connector at the Radio.
5. Disconnect the Satellite Radio Antenna connector at the Antenna and install the Known Good Satellite Radio Antenna.
6. Turn the ignition and the radio on.
7. Put the satellite radio in seek up mode for two loops around the band cycle.
8. With the scan tool, read the active DTCs.

Does the scan tool display: B156B-Satellite Radio Antenna Circuit as Active?

Yes

- Go to step 4

No

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

4. SATELLITE RADIO ANTENNA CABLE

1. Turn the ignition off.
2. Locate the intermediate Satellite Radio Antenna connector.
3. Disconnect and inspect the intermediate Satellite Radio Antenna connector.

Was the connector clean and secure?

No

- Clean and secure the Satellite Radio Antenna intermediate connector.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

Yes

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

B210D-BATTERY VOLTAGE LOW

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

• **When Monitored:**

With the ignition on.

• **Set Condition:**

Battery voltage less than 9 volts for more than 15 seconds.

Possible Causes
BATTERY
GENERATOR
POWERTRAIN CONTROL MODULE (PCM)

Diagnostic Test

1. CHECK FOR ANY POWERTRAIN CONTROL MODULES DTCS

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

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

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

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

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

Does the scan tool display any active battery or charging DTCS?

Yes

- Refer to **DTC-Based Diagnostics/MODULE, Powertrain Control (PCM) - Standard Procedure** and perform the appropriate battery or charging system diagnostic procedure.

No

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

B210E-BATTERY VOLTAGE HIGH

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

Battery voltage greater than 16 volts for more than 15 seconds.

Possible Causes
BATTERY
GENERATOR
POWERTRAIN CONTROL MODULE (PCM)

Diagnostic Test**1. CHECK FOR ANY POWERTRAIN CONTROL MODULE DTCS**

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

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

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

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

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

Does the scan tool display any active battery or charging system DTCS?

Yes

- Refer to **DTC-Based Diagnostics/MODULE, Powertrain Control (PCM) - Standard Procedure** and perform the appropriate battery or charging system diagnostic procedure.

No

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

B221E-RADIO INTERNAL

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

- **When Monitored:**

With the Radio on.

- **Set Condition:**

The code will set if the Radio detects a Radio internal failure.

Possible Causes
RADIO INTERNAL FAILURE

Diagnostic Test**1. Verify DTC B221E-RADIO INTERNAL IS ACTIVE**

NOTE: If a DTC is set, erase the DTC and attempt to reset the DTC. If the DTC resets, follow test.

1. This is an internal Radio failure
2. View repair

Does the scan tool display active: B221E-Radio Internal?

Repair

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

U0010-CAN INTERIOR BUS

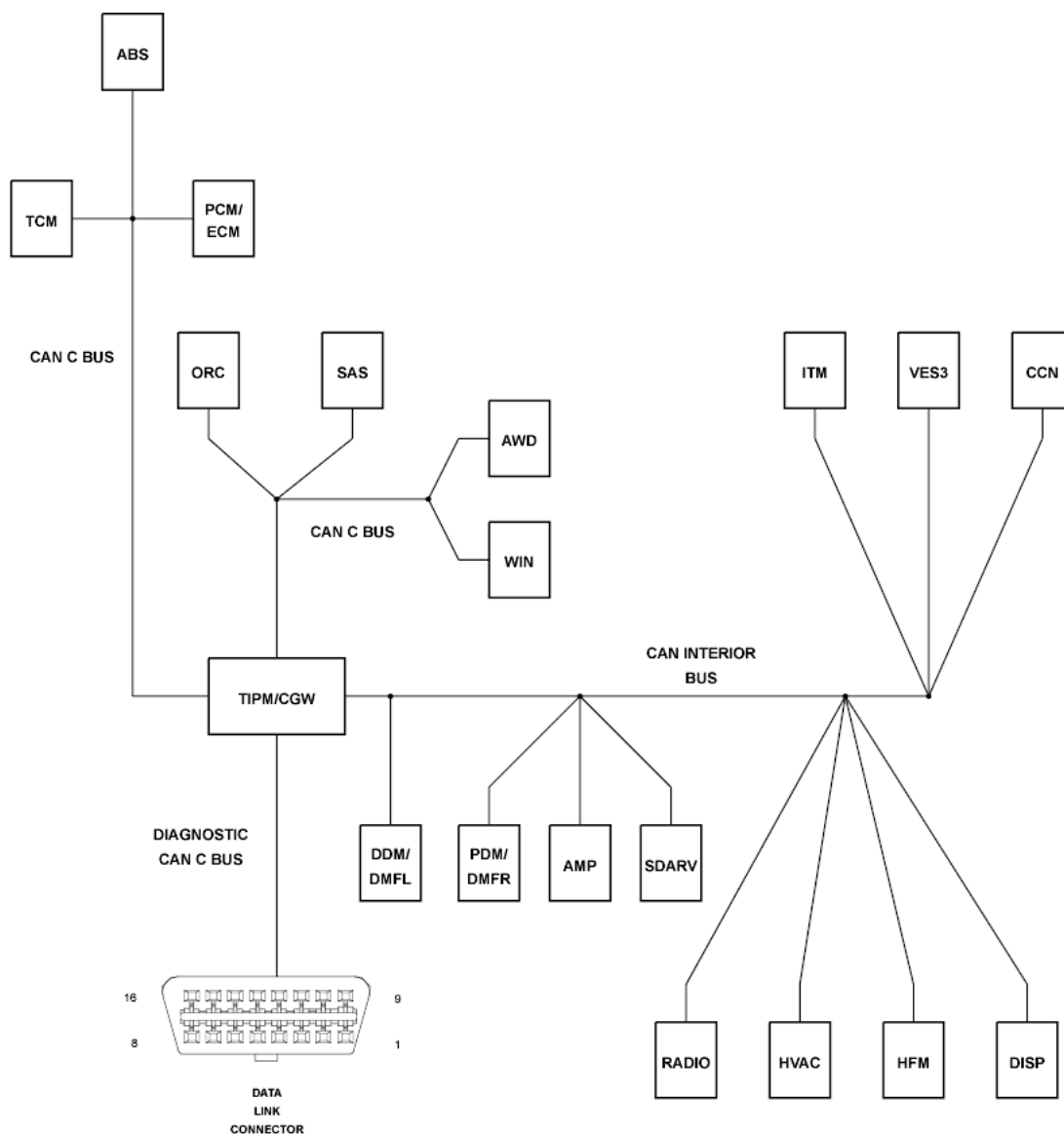


Fig. 48: CAN Interior Bus Circuit Schematic
 Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Continuously when the ignition is on.

Battery voltage between 10 and 16 volts.

IOD fuse installed.

- **Set Condition:**

The Totally Integrated Power Module (TIPM) detects a short to ground on the CAN Interior Bus (125K) (+) circuit or a short to voltage on the CAN Interior Bus (125K) (-) circuit.

Possible Causes
(D265) CAN INTERIOR BUS (125K) (+) CIRCUIT SHORTED TO GROUND
(D264) CAN INTERIOR BUS (125K) (-) CIRCUIT SHORTED TO VOLTAGE
ANY CAN INTERIOR BUS MODULE
TOTALLY INTEGRATED POWER MODULE

Diagnostic Test

1. VERIFY DTC IS ACTIVE

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

NOTE: This module will not be able to communicate when this fault is active and therefore will only display this DTC as stored. To diagnose this DTC, use a scan tool and check for DTCs in the TIPM. If DTCs are active. Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the appropriate diagnostic procedure. If no DTCs are active, but there are stored Lost Communication DTCs. Refer to Non-DTC Diagnostics/Communication - Diagnosis and Testing and perform the appropriate No Response diagnostic procedure. If no DTCs are set, perform the BODY VERIFICATION TEST. Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .

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

Is this DTC active?

Yes

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

No

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

U0011-CAN INTERIOR BUS OFF PERFORMANCE

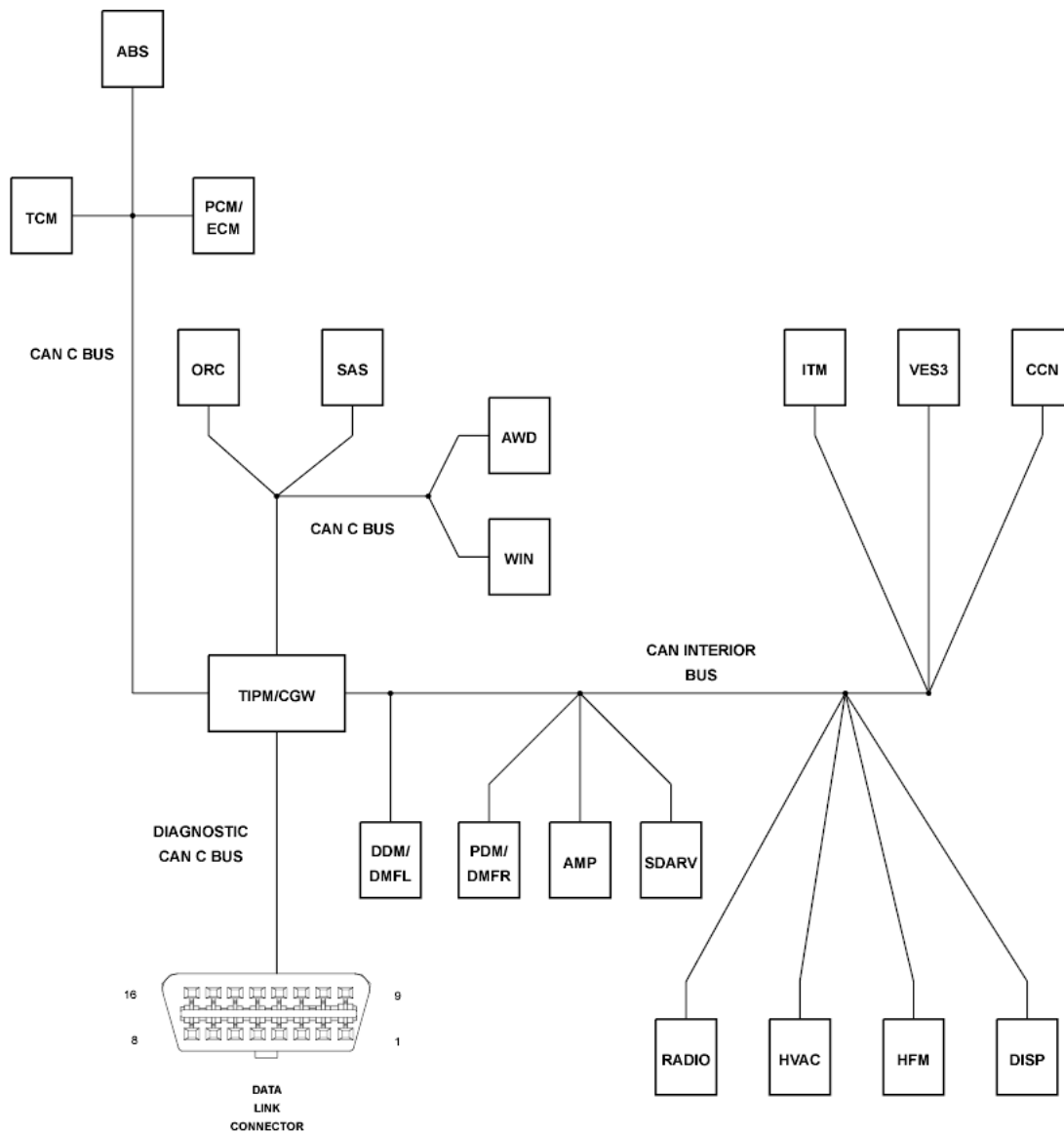


Fig. 49: CAN Interior Bus Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

Continuously when the ignition is on.

Battery voltage between 10 and 16 Volts.

Ignition Off Draw (IOD) fuse installed.

• **Set Condition:**

The Radio Display Module (DISP) detects the CAN Interior Bus circuits shorted to ground, shorted together or shorted to voltage.

Possible Causes

(D265) CAN INTERIOR BUS (125K) (+) CIRCUIT SHORTED TO GROUND
 (D264) CAN INTERIOR BUS (125K) (-) CIRCUIT SHORTED TO GROUND
 (D265) CAN INTERIOR BUS (125K) (+) CIRCUIT SHORTED TO (D264) CAN INTERIOR BUS (125K) (-) CIRCUIT
 (D265) CAN INTERIOR BUS (125K) (+) CIRCUIT SHORTED TO VOLTAGE
 (D264) CAN INTERIOR BUS (125K) (-) CIRCUIT SHORTED TO VOLTAGE
 ANY CAN INTERIOR BUS MODULE
 TOTALLY INTEGRATED POWER MODULE (TIPM)

Diagnostic Test

1. VERIFY THE DIAGNOSTIC TROUBLE CODE (DTC) IS ACTIVE

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

1. Turn the ignition on.
2. Using the scan tool, read active Radio Display Module (DISP) DTCs.

Is this DTC active?

Yes

- Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the U0011-CAN INTERIOR BUS OFF PERFORMANCE diagnostic procedure.

No

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

U0141-LOST COMMUNICATION WITH FCM (TIPM)

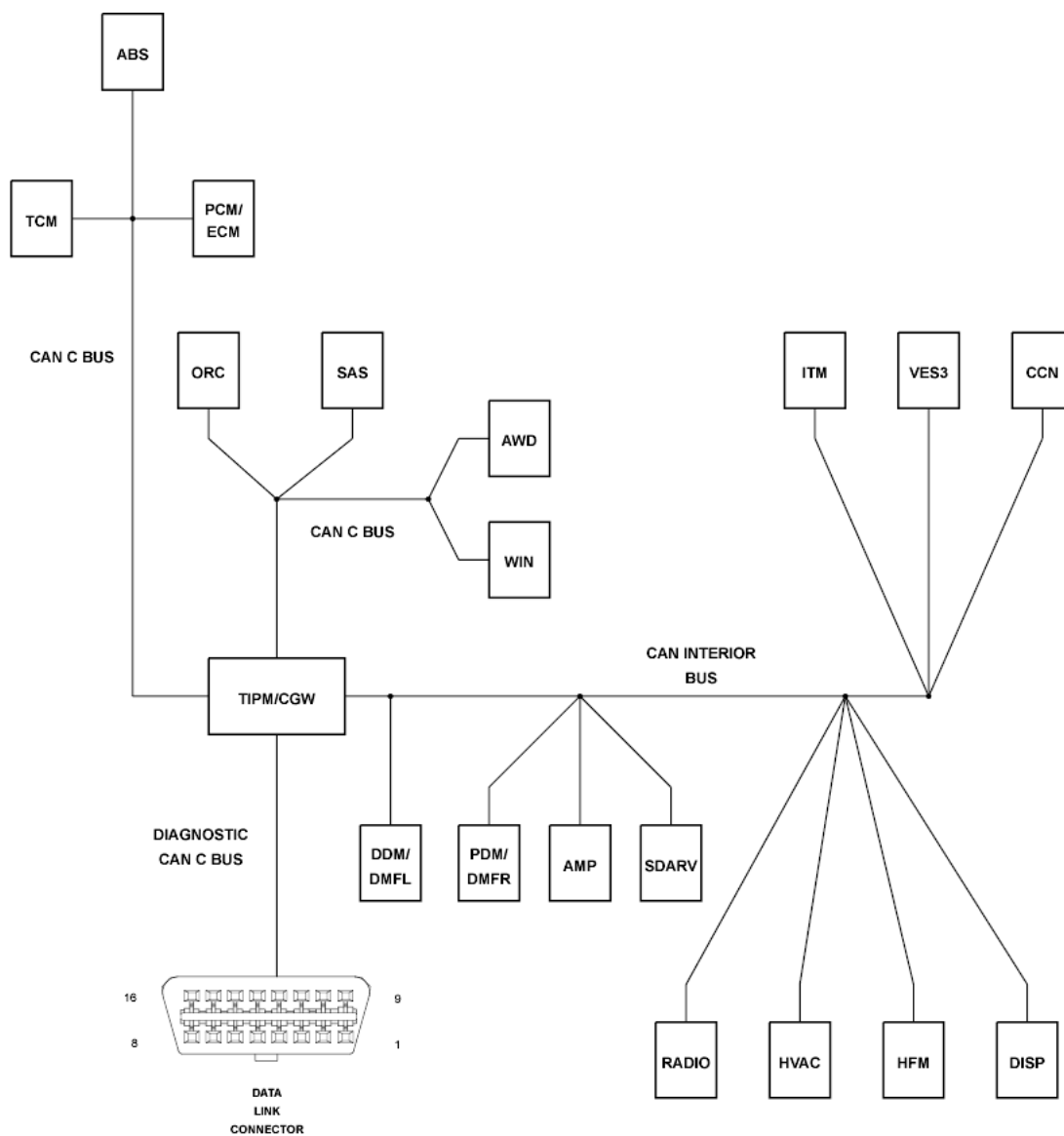


Fig. 50: CAN Interior Bus Circuit Schematic
 Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Continuously when the ignition is on.

Battery voltage between 10 and 16 volts.

IOD fuse installed.

- **Set Condition:**

Bus messages not received from the Front Control Module (TIPM) for approximately 2 to 5 seconds.

Possible Causes
(D265) CAN INTERIOR BUS (+) (125k) CIRCUIT SHORTED TO VOLTAGE (D264) CAN INTERIOR BUS (-) (125k) CIRCUIT SHORTED TO GROUND DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES TIPM NOT CONFIGURED CORRECTLY TIPM POWER AND GROUND TOTALLY INTEGRATED POWER MODULE (TIPM) MODULE THAT SET THE DTC

Diagnostic Test

1. VERIFY DTC IS ACTIVE

NOTE: Ensure the IOD fuse is installed and the battery is fully charged before proceeding.

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

Is this DTC active?

Yes

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

No

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

U0155-LOST COMMUNICATION WITH CLUSTER/CCN

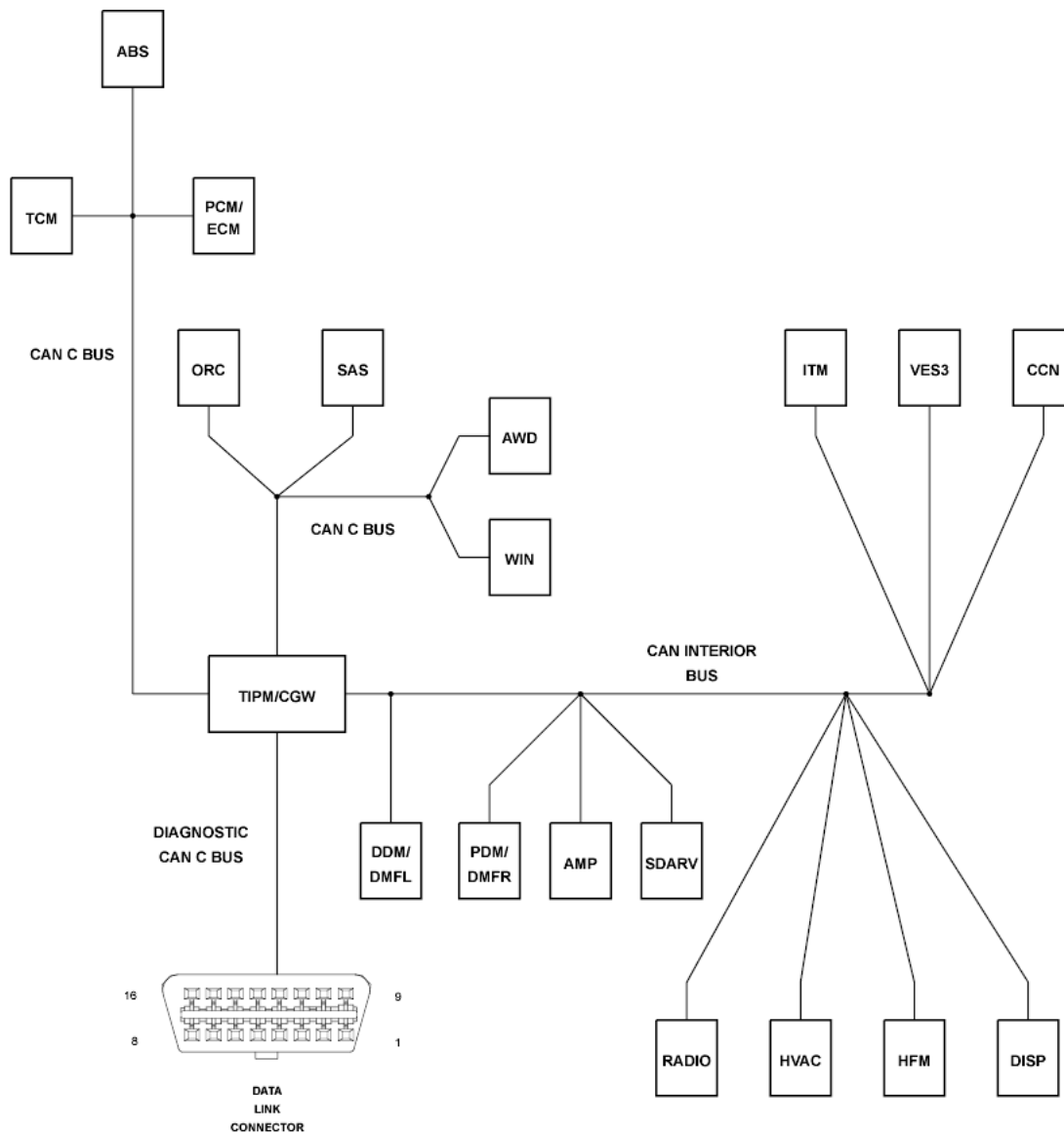


Fig. 51: CAN Interior Bus Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

Continuously when the ignition is on.

The battery voltage is between 10 and 16 volts.

IOD fuse installed.

• **Set Condition:**

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

Possible Causes
(D265) CAN INTERIOR BUS (+) (125k) CIRCUIT SHORTED TO VOLTAGE
(D264) CAN INTERIOR BUS (-) (125k) CIRCUIT SHORTED TO GROUND
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
TIPM NOT CONFIGURED CORRECTLY
CLUSTER POWER AND GROUND
CLUSTER (CCN)
CONTROL MODULE THAT SET THE DTC

Diagnostic Test

1. VERIFY DTC IS ACTIVE

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

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

Is this DTC active?

Yes

- Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the U0155-LOST COMMUNICATION WITH CLUSTER/CCN diagnostic procedure.

No

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

U0164-LOST COMMUNICATION WITH HVAC CONTROL MODULE

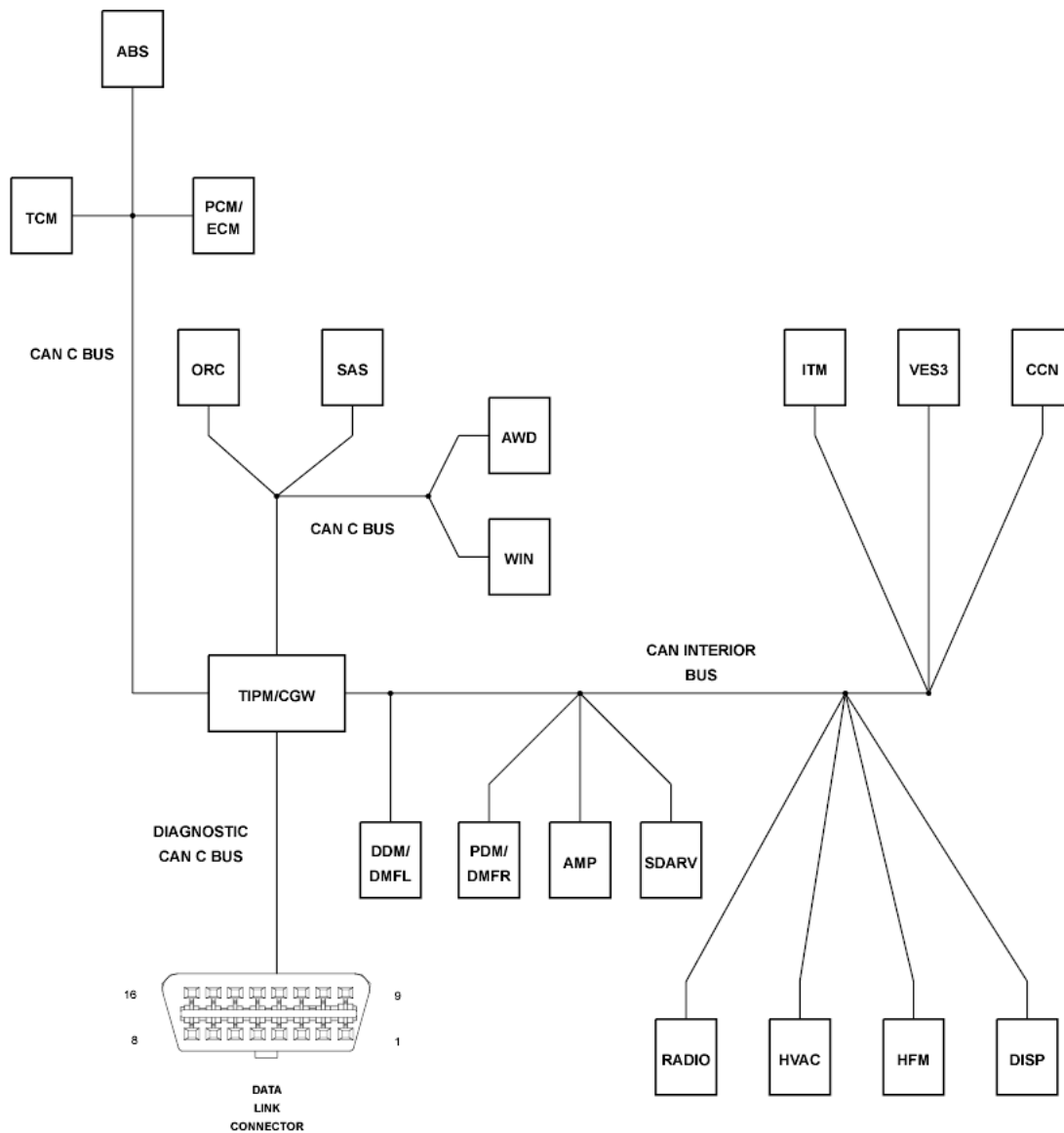


Fig. 52: CAN Interior Bus Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

Continuously when the ignition is on.

The battery voltage between 10 volts and 16 volts.

IOD fuse installed.

• **Set Condition:**

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

Possible Causes
(D265) CAN INTERIOR BUS (+) (125k) CIRCUIT SHORTED TO VOLTAGE (D264) CAN INTERIOR BUS (-) (125k) CIRCUIT SHORTED TO GROUND DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES TIPM NOT CONFIGURED CORRECTLY HVAC POWER AND GROUND HVAC CONTROL MODULE MODULE THAT SET THE DTC

Diagnostic Test

1. VERIFY DTC IS ACTIVE

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

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

Is this DTC active?

Yes

- Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the U0164-LOST COMMUNICATION WITH HVAC CONTROL MODULE diagnostic procedure.

No

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

U0168-LOST COMMUNICATION WITH VEHICLE SECURITY CONTROL MODULE (WIRELESS IGNITION NODE OR WIN)

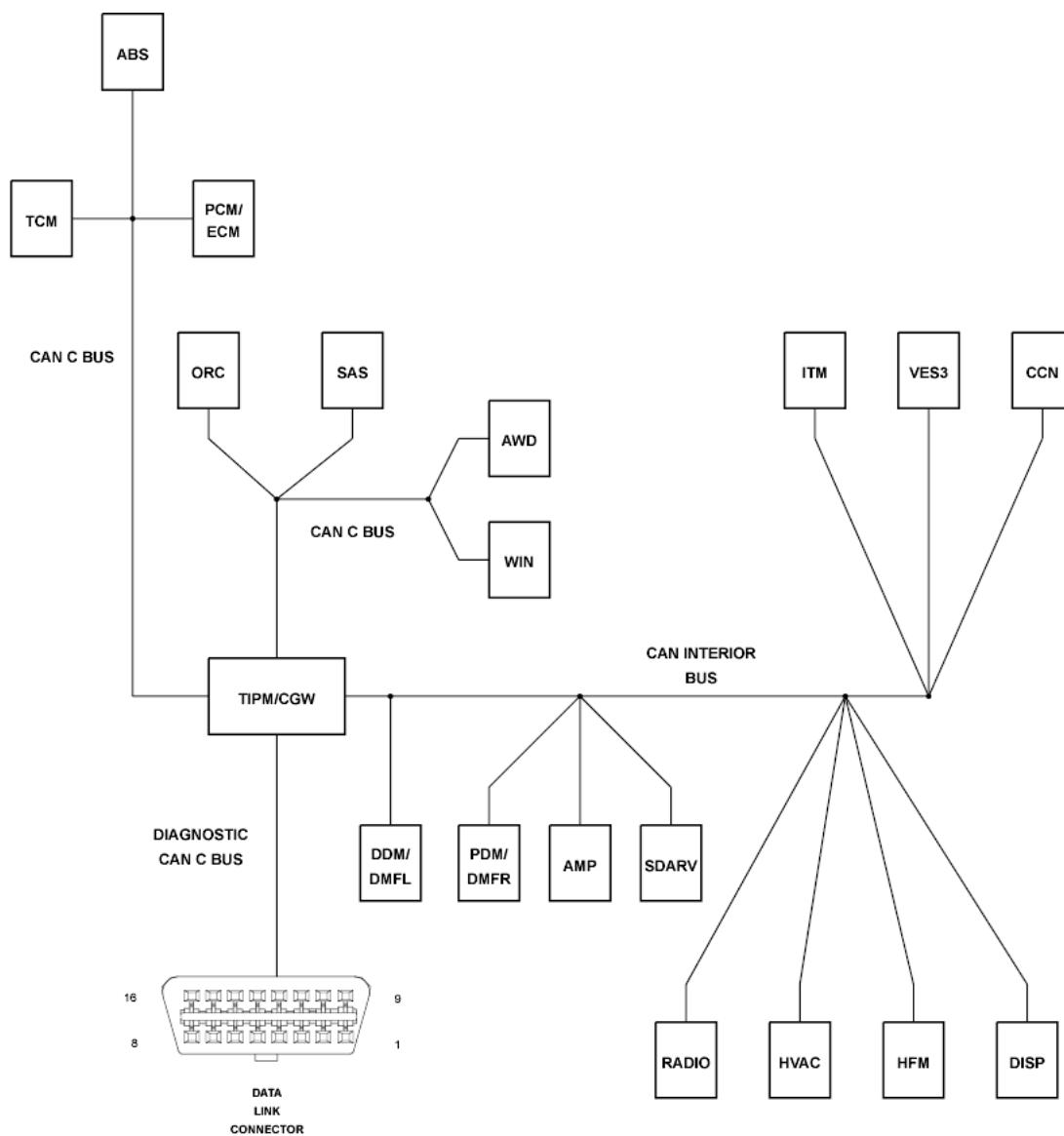


Fig. 53: CAN Interior Bus Circuit Schematic
 Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

Battery voltage between 10 and 16 volts.

Ignition Off Draw (IOD) fused installed.

Totally Integrated Power Module (TIPM) is configured correctly.

- **Set Condition:**

Bus messages not received from the Vehicle Security Control Module (also known as the Wireless Ignition Node or WIN) for approximately two to five seconds.

Possible Causes
(D51) OR (D65) CAN C BUS (+) CIRCUIT SHORTED TO VOLTAGE
(D52) OR (D64) CAN C BUS (-) CIRCUIT SHORTED TO GROUND
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
TIPM NOT CONFIGURED CORRECTLY
WIN POWER AND GROUND
WIRELESS IGNITION NODE (WIN)
MODULE THAT SET THIS DTC

Diagnostic Test**1. VERIFY DTC IS ACTIVE**

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

1. With the scan tool, read active DTCs.

Is this DTC active?

Yes

- Go to step 2

No

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

2. CHECK FOR ANY OF THE FOLLOWING ACTIVE DTCS

1. With the scan tool, read all active DTCs from all modules.

NOTE: Check for TIPM configuration, CAN C hardware electrical, VIN Missing/Mismatch, battery or ignition related DTCs.

Does the scan tool display any active DTCs to the conditions listed above?

Yes

- Go to and perform the appropriate diagnostic procedure.

No

- Go to step 3

3. VERIFY THAT THE WIN IS ACTIVE ON THE BUS

1. Turn the ignition on.
2. With the scan tool, select Network Diagnostics.
3. Verify that the WIN is active on the bus.

Is the WIN active on the bus?

Yes

- Go to step 4

No

- Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** and perform the No Response from WIN diagnostic procedure.

4. CHECK FOR ADDITIONAL COMMUNICATION RELATED DTCS

1. With the scan tool, select Network Diagnostics.

Is there more than one module with active DTCs "Logged Against" the WIN?

Yes

- Replace/update the Wireless Ignition Node in accordance with the service information.
- Perform the WIN VERIFICATION TEST. Refer to **DTC-Based Diagnostics/NODE, Wireless Ignition (WIN) - Standard Procedure** .

No

- Go to step 5

5. CLEAR DTC IN MODULE SETTING FAULT

1. With the scan tool, select the module setting the DTC against the WIN.
2. Clear active DTCs.

Is this DTC still active?

Yes

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the appropriate VERIFICATION TEST.

No

- Go to step 6

6. CYCLE IGNITION

1. Cycle the ignition from RUN to OFF three times ending with the key in the RUN position.

Does this DTC become active?

Yes

- Go to step 7

No

- The condition is not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring for chafed, pierced, pinched, and partially broken wires and the wiring harness connectors for broken, bent, pushed out, and corroded terminals.
- Perform the appropriate VERIFICATION TEST.

7. CHECK FOR ADDITIONAL LOST COMMUNICATION FAULTS

1. With the scan tool, select Network Diagnostics.

Does the TIPM and other CAN C BUS modules show Lost Communication with the remaining CAN C BUS modules?

Yes

- Go to step 8

No

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the appropriate VERIFICATION TEST.

8. (D52) OR (D65) CAN C BUS (+) CIRCUIT SHORTED TO VOLTAGE

1. Measure the voltage between the (D52) CAN C Bus (+) circuit and ground.
2. Measure the voltage between the (D65) CAN C Bus (+) circuit and ground.

Is the voltage above 5 volts?

Yes

- Repair the (D52) or (D65) CAN C Bus (+) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 9

9. (D51) OR (D64) CAN C BUS (-) CIRCUIT SHORTED TO GROUND

1. Turn the ignition off.
2. Measure the resistance between ground and the (D51) CAN C Bus (-) circuit.
3. Measure the resistance between ground and the (D64) CAN C Bus (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (D51) or (D64) CAN C Bus (-) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace/update the module that set this DTC in accordance with the service information.
- Perform the appropriate VERIFICATION TEST.

U0186-LOST COMMUNICATION WITH AUDIO AMPLIFIER

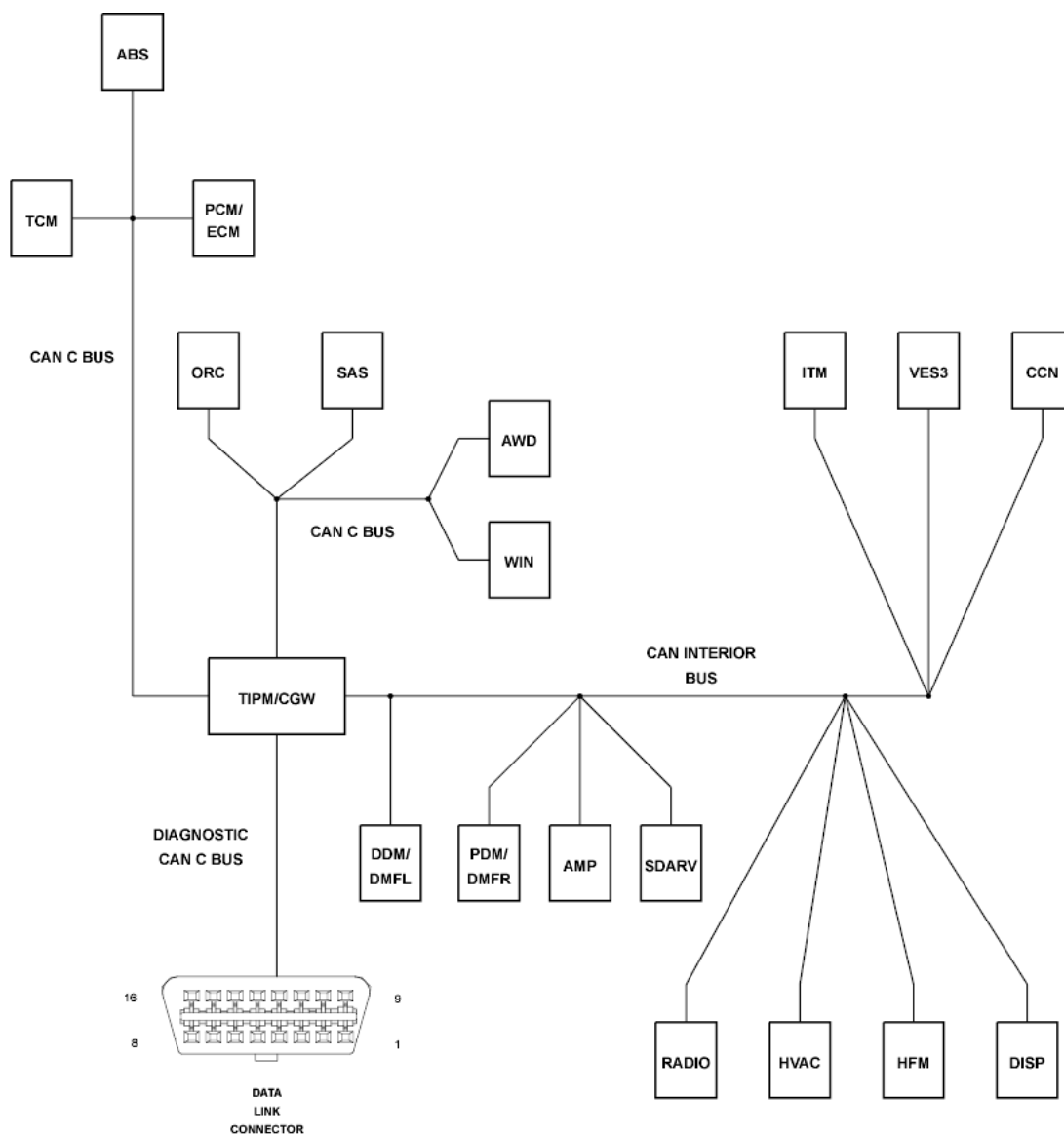


Fig. 54: CAN Interior Bus Circuit Schematic
 Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Continuously when the ignition is on.

The battery voltage is between 10 and 16 volts.

Ignition Off Draw (IOD) fused installed.

- **Set Condition:**

Bus messages not received from the Audio Amplifier (AMP) for approximately two to five seconds.

Possible Causes

(D265) CAN INTERIOR BUS (+) (125k) CIRCUIT SHORTED TO VOLTAGE
 (D264) CAN INTERIOR BUS (-) (125k) CIRCUIT SHORTED TO GROUND
 DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
 TIPM NOT CONFIGURED CORRECTLY
 AMP POWER AND GROUND
 AUDIO AMPLIFIER
 CONTROL MODULE THAT SET THE DTC

Diagnostic Test

1. VERIFY DTC IS ACTIVE

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

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

Is this DTC active?

Yes

- Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the U0186-LOST COMMUNICATION WITH AUDIO AMPLIFIER diagnostic procedure.

No

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

U0203-LOST COMMUNICATION WITH DOOR MODULE FRONT LEFT

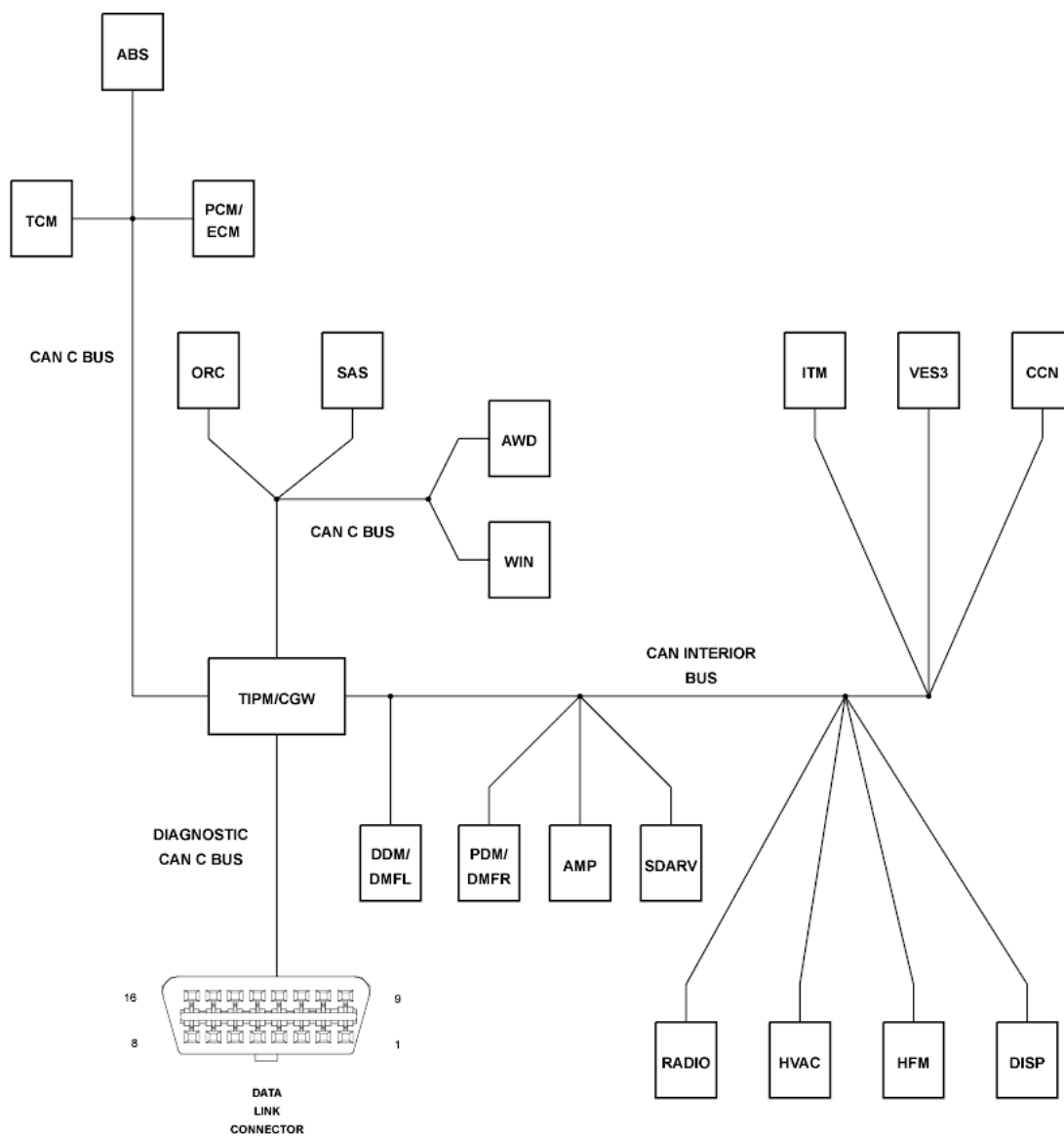


Fig. 55: CAN Interior Bus Circuit Schematic
 Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Continuously when the ignition is on.

Battery voltage between 10 volts and 16 volts.

Ignition Off Draw (IOD) fuse installed.

- **Set Condition:**

Bus messages not received from the Left Front Door Module (DMFL) for approximately two to five seconds.

Possible Causes

(D265) CAN INTERIOR BUS (+) (125k) CIRCUIT SHORTED TO VOLTAGE
 (D264) CAN INTERIOR BUS (-) (125k) CIRCUIT SHORTED TO GROUND
 DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
 TIPM NOT CONFIGURED CORRECTLY
 DOOR MODULE POWER AND GROUND
 LEFT FRONT DOOR MODULE
 CONTROL MODULE THAT SET THE DTC

Diagnostic Test

1. VERIFY DTC IS ACTIVE

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

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

Is this DTC active?

Yes

- Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing and perform the U0203-LOST COMMUNICATION WITH DOOR MODULE FRONT LEFT diagnostic procedure.

No

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

U0204-LOST COMMUNICATION WITH DOOR MODULE FRONT RIGHT

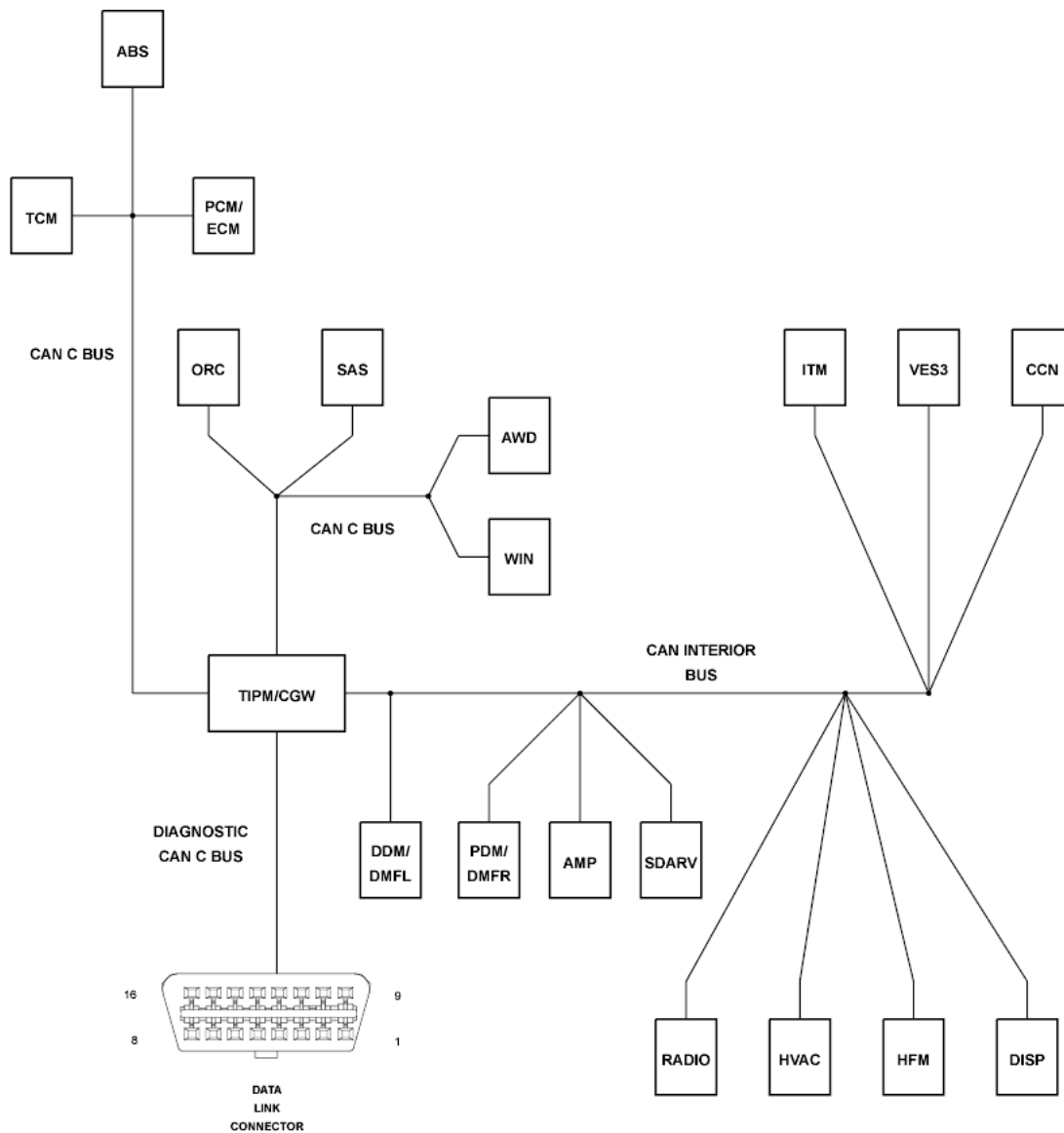


Fig. 56: CAN Interior Bus Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

Continuously when the ignition is on.

Battery voltage between 10 volts and 16 volts.

Ignition Off Draw (IOD) fuse installed.

• **Set Condition:**

Bus messages not received from the Right Front Door Module (DMFR) for approximately two to five seconds.

Possible Causes

(D265) CAN INTERIOR BUS (+) (125k) CIRCUIT SHORTED TO VOLTAGE
(D264) CAN INTERIOR BUS (-) (125k) CIRCUIT SHORTED TO GROUND
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
TIPM NOT CONFIGURED CORRECTLY
DOOR MODULE POWER AND GROUND
RIGHT FRONT DOOR MODULE
CONTROL MODULE THAT SET THE DTC

Diagnostic Test**1. VERIFY DTC IS ACTIVE**

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

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

Is this DTC active?

Yes

- Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing** and perform the **U0204-LOST COMMUNICATION WITH DOOR MODULE FRONT RIGHT** diagnostic procedure.

No

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