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module) B1A02:01	Failure	detects the instrument panel center speaker circuits are shorted together.
DSP (audio digital signal processing module) B1A02:11	Speaker #2: Circuit Short To Ground	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to ground from the instrument panel center speaker circuits.
DSP (audio digital signal processing module) B1A02:12	Speaker #2: Circuit Short To Battery	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to voltage from the instrument panel center speaker circuits.
DSP (audio digital signal processing module) B1A02:13	Speaker #2: Circuit Open	Sets in continuous memory and during the on-demand self-test when the DSP (audio digital signal processing module) detects an open from the instrument panel center speaker circuits.
DSP (audio digital signal processing module) B1A03:01	Speaker #3: General Electrical Failure	Sets in continuous memory and during the on-demand self-test when the DSP (audio digital signal processing module) detects the right rear door speaker circuits are shorted together.
DSP (audio digital signal processing module) B1A03:11	Speaker #3: Circuit Short To Ground	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to ground from the right rear door speaker circuits.
DSP (audio digital signal processing module) B1A03:12	Speaker #3: Circuit Short To Battery	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to voltage from the right rear door speaker circuits.
DSP (audio digital signal processing module) B1A03:13	Speaker #3: Circuit Open	Sets in continuous memory and during the on-demand self-test when the DSP (audio digital signal processing module) detects an open from the right rear door speaker circuits.
DSP (audio digital signal processing module) B1A04:01	Speaker #4: General Electrical Failure	Sets in continuous memory and during the on-demand self-test when the DSP (audio digital signal processing module) detects the left front door speaker circuits are shorted together.
DSP (audio digital signal processing module) B1A04:11	Speaker #4: Circuit Short To Ground	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to ground from the left front door speaker circuits.

Possible Sources

- Wiring, terminals, or connectors
- Speaker
- DSP (audio digital signal processing module)

I1 CHECK FOR ACM (AUDIO FRONT CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Using a diagnostic scan tool, carry out the ACM (audio front control module) self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to the DTC (diagnostic trouble code) Chart in this section.

No	GO to I2

I2 CHECK THE AUDIO CIRCUITS TO THE SPEAKER FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect the suspect speaker.
- Disconnect DSP (audio digital signal processing module) C3154A .
- For the suspect speaker, measure:

Instrument Panel Center Speaker

Positive Lead	Measurement / Action	Negative Lead
C2356-1	Ω	Ground
C2356-2	Ω	Ground

Left Front Door Speaker

Positive Lead	Measurement / Action	Negative Lead

C802-4	Ω	Ground

Subwoofer Speaker

Positive Lead	Measurement / Action	Negative Lead
C3020-1	Ω	Ground
C3020-2	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to I3

No	REPAIR the circuit in question.

I3 CHECK THE AUDIO CIRCUITS TO THE SPEAKER FOR A SHORT TO VOLTAGE

- Ignition ON.
- For the suspect speaker, measure:
  Instrument Panel Center Speaker

Positive Lead	Measurement / Action	Negative Lead
C2356-1	V	Ground
C2356-2	V	Ground

Left Front Door Speaker

C802-1	V⎓	Ground
C802-4	V⎓	Ground

Subwoofer Speaker

Positive Lead	Measurement / Action	Negative Lead
C3020-1	V⎓	Ground
C3020-2	V⎓	Ground

Is any voltage present?

Yes	REPAIR the circuit in question.

No	GO to I4

I4 CHECK THE AUDIO CIRCUITS TO THE SPEAKER FOR A SHORT TOGETHER

- Ignition OFF.
- For the suspect speaker, measure:
  Instrument Panel Center Speaker

Positive Lead	Measurement / Action	Negative Lead
C2356-1	Ω	C2356-2

Left Front Door Speaker

Yes	GO to I5

No	REPAIR the circuits.

I5 CHECK THE AUDIO CIRCUITS TO THE SPEAKER FOR AN OPEN

- For the suspect speaker, measure:
  Instrument Panel Center Speaker

Positive Lead	Measurement / Action	Negative Lead
C2356-1	Ω	C3154A-19
C2356-2	Ω	C3154A-9

Left Front Door Speaker

Positive Lead	Measurement / Action	Negative Lead
C570-1	Ω	C3154A-17
C570-4	Ω	C3154A-7

Right Front Door Speaker

Positive Lead	Measurement / Action	Negative Lead
C628-1	Ω	C3154A-16

Yes	GO to I6

No	REPAIR the circuit in question.

I6 CHECK THE AUDIO SIGNAL TO THE SUSPECT SPEAKER

NOTE

For a rear door tweeter speaker concern, make sure the corresponding door woofer speaker is connected.

- Connect DSP (audio digital signal processing module) C3154A .
- Ignition ON.
- Operate the audio system in AM (amplitude modulation) / FM (frequency modulation) mode.
- For the suspect speaker, measure:

Instrument Panel Center Speaker

Positive Lead	Measurement / Action	Negative Lead
C2356-1	$\widetilde{V}$	C2356-2

Left Front Door Speaker

Positive Lead	Measurement / Action	Negative Lead
C570-1	$\widetilde{V}$	C570-4

Right Front Door Speaker

Positive Lead	Measurement / Action	Negative Lead

- Repair:
  - Corrosion (clean module pins or install new connectors or terminals)
  - Damaged or bent pins (install new terminals or pins)
  - Pushed-out pins (install new pins as necessary)
- Reconnect the DSP (audio digital signal processing module) connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS (Online Automotive Service Information System) for any applicable service articles: TSB (Technical Service Bulletin) , GSB (General Service Bulletin) , SSM (special service message) or FSA (Field Service Action) . If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new DSP (audio digital signal processing module) . REFER to: Audio Digital Signal Processing (DSP) Module (415-00 Information and Entertainment System - General Information, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST J : ONE OR MORE SPEAKER IS INOPERATIVE - DSP (AUDIO DIGITAL SIGNAL PROCESSING MODULE) CONTROLLED 18 SPEAKER SYSTEM

Refer to Wiring Diagrams Cell 131for schematic and connector information.

Normal Operation and Fault Conditions REFER to: Information and Entertainment System - Component Location
(415-00 Information and Entertainment System - General Information, Description and Operation).
REFER to: Information and Entertainment System - System Operation and Component Description
(415-00 Information and Entertainment System - General Information, Description and Operation).

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition

module) B1A04:11		from the left front door speaker circuits.
DSP (audio digital signal processing module) B1A04:12	Speaker #4: Circuit Short To Battery	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to voltage from the left front door speaker circuits.
DSP (audio digital signal processing module) B1A04:13	Speaker #4: Circuit Open	Sets in continuous memory and during the on-demand self-test when the DSP (audio digital signal processing module) detects an open from the left front door speaker circuits.
DSP (audio digital signal processing module) B1A05:01	Speaker #5: General Electrical Failure	Sets in continuous memory and during the on-demand self-test when the DSP (audio digital signal processing module) detects the instrument panel left speaker circuits are shorted together.
DSP (audio digital signal processing module) B1A05:11	Speaker #5: Circuit Short To Ground	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to ground from the instrument panel left speaker circuits.
DSP (audio digital signal processing module) B1A05:12	Speaker #5: Circuit Short To Battery	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to voltage from the instrument panel left speaker circuits.
DSP (audio digital signal processing module) B1A05:13	Speaker #5: Circuit Open	Sets in continuous memory and during the on-demand self-test when the DSP (audio digital signal processing module) detects an open from the instrument panel left speaker circuits.
DSP (audio digital signal processing module) B1A06:01	Speaker #6: General Electrical Failure	Sets in continuous memory and during the on-demand self-test when the DSP (audio digital signal processing module) detects the subwoofer speaker circuits are shorted together.
DSP (audio digital signal processing module) B1A06:11	Speaker #6: Circuit Short To Ground	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to ground from the subwoofer speaker circuits.
DSP (audio digital signal processing module) B1A06:12	Speaker #6: Circuit Short To Battery	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to voltage from the subwoofer speaker circuits.

module) B1A09:01	Failure	detects the instrument panel right speaker circuits are shorted together.
DSP (audio digital signal processing module) B1A09:11	Speaker #9: Circuit Short To Ground	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to ground from the instrument panel right speaker circuits.
DSP (audio digital signal processing module) B1A09:12	Speaker #9: Circuit Short To Battery	Sets during the on-demand self-test when the DSP (audio digital signal processing module) detects a short to voltage from the instrument panel right speaker circuits.
DSP (audio digital signal processing module) B1A09:13	Speaker #9: Circuit Open	Sets in continuous memory and during the on-demand self-test when the DSP (audio digital signal processing module) detects an open from the instrument panel right speaker circuits.

Possible Sources

- Wiring, terminals, or connectors
- Speaker
- DSP (audio digital signal processing module)

NOTE

The rear door speaker and corresponding door tweeter speaker share the same circuitry. If a concern exists with both speakers, retest the system with the tweeter speaker disconnected to determine if the tweeter speaker is the cause of the concern.

J1 CHECK FOR ACM (AUDIO FRONT CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Using a diagnostic scan tool, carry out the ACM (audio front control module) self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to the DTC (diagnostic trouble code) Chart in this section.

No	GO to J2