

Information and Entertainment System

DTC Charts

ACM DTC Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

DTC	Description	Action
B1142:27	Ignition Status 1: Signal Rate of Change Above Threshold	GO to Pinpoint Test E
B1A01:01	Speaker #1: General Electrical Failure	- For a left front door speaker concern, GO to Pinpoint Test F - For a left A-pillar tweeter speaker concern, GO to Pinpoint Test G
B1A01:11	Speaker #1: Circuit Short To Ground	- For a left front door speaker concern, GO to Pinpoint Test F - For a left A-pillar tweeter speaker concern, GO to Pinpoint Test G
B1A01:12	Speaker #1: Circuit Short To Battery	- For a left front door speaker concern, GO to Pinpoint Test F - For a left A-pillar tweeter speaker concern, GO to Pinpoint Test G
B1A01:13	Speaker #1: Circuit Open	- For a left front door speaker concern, GO to Pinpoint Test F - For a left A-pillar tweeter speaker concern, GO to Pinpoint Test G
B1A02:01	Speaker #2: General Electrical Failure	- For a right front door speaker concern, GO to Pinpoint Test I - For a right A-pillar tweeter speaker concern, GO to Pinpoint Test H
B1A02:11	Speaker #2: Circuit Short To Ground	- For a right front door speaker concern, GO to Pinpoint Test I - For a right A-pillar tweeter speaker concern, GO to Pinpoint Test H

B1A02:12	Speaker #2: Circuit Short To Battery	- For a right front door speaker concern, GO to Pinpoint Test I - For a right A-pillar tweeter speaker concern, GO to Pinpoint Test H
B1A02:13	Speaker #2: Circuit Open	- For a right front door speaker concern, GO to Pinpoint Test I - For a right A-pillar tweeter speaker concern, GO to Pinpoint Test H
B1A03:01	Speaker #3: General Electrical Failure	GO to Pinpoint Test J
B1A03:11	Speaker #3: Circuit Short To Ground	GO to Pinpoint Test J
B1A03:12	Speaker #3: Circuit Short To Battery	GO to Pinpoint Test J
B1A03:13	Speaker #3: Circuit Open	GO to Pinpoint Test J
B1A04:01	Speaker #4: General Electrical Failure	GO to Pinpoint Test K
B1A04:11	Speaker #4: Circuit Short To Ground	GO to Pinpoint Test K
B1A04:12	Speaker #4: Circuit Short To Battery	GO to Pinpoint Test K
B1A04:13	Speaker #4: Circuit Open	GO to Pinpoint Test K
B1A05:02	Speaker #5: General Signal Failure	GO to Pinpoint Test L
B1A56:21	Antenna: Signal Amplitude < Minimum	DISREGARD this DTC. The running and passing of this test depends on local radio stations. If no local station is broadcasting on the required frequency, this DTC sets.
B1D19:49	Compact Disc Unit: Internal Electronic Failure	CLEAR the DTC. WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
B1D19:4B	Compact Disc Unit: Over Temperature	The ACM detected an over temperature condition and disabled the compact disc player. This may occur during extended use. Audio operation resumes after the ACM cools. CLEAR the DTC. This is normal operation.
U0100:00	Lost Communication With ECM/PCM "A": No Sub Type Information	GO to Pinpoint Test P
U0140:00	Lost Communication With Body Control Module: No Sub Type Information	GO to Pinpoint Test Q
U0155:00	Lost Communication With Instrument Panel Cluster (IPC) Control Module: No Sub Type Information	GO to Pinpoint Test S
U0256:00	Lost Communication With Front Controls Interface Module "A": No Sub Type Information	GO to Pinpoint Test V
U0257:00	Lost Communication With Front Controls / Display Interface Module: No Sub Type Information	GO to Pinpoint Test W

U201A:51	Control Module Main Calibration Data: Not Programmed	This DTC sets due to an incorrect or incomplete ACM configuration. CARRY OUT the ACM PMI procedure using as-built data.
U2100:00	Initial Configuration Not Complete: No Sub Type Information	This DTC sets due to an incorrect or incomplete ACM configuration. CARRY OUT the ACM PMI procedure using as-built data.
U2101:00	Control Module Configuration Incompatible: No Sub Type Information	This DTC sets due to an incorrect or incomplete ACM configuration. CARRY OUT the ACM PMI procedure using as-built data.
U3000:41	Control Module: General Checksum Failure	CLEAR the DTC. WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
U3000:42	Control Module: General Memory Failure	CLEAR the DTC. WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
U3000:96	Control Module: Component Internal Failure	CLEAR the DTC. WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
U3003:16	Battery Voltage: Circuit Voltage Below Threshold	GO to Pinpoint Test X
U3003:17	Battery Voltage: Circuit Voltage Above Threshold	GO to Pinpoint Test Y

FCDIM DTC Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.

REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

DTC	Description	Action
C1001:01	Vision System Camera: General Electrical Failure	REFER to: Parking Aid (413-13 Parking Aid - Vehicles With: Parking Aid Camera) .
U0140:00	Lost Communication With Body Control Module: No Sub Type Information	GO to Pinpoint Test Q
U0155:00	Lost Communication With Instrument Panel Cluster (IPC) Control Module: No Sub Type Information	GO to Pinpoint Test S

U0159:00	Lost Communication With Parking Assist Control Module "A": No Sub Type Information	GO to Pinpoint Test T
U0184:00	Lost Communication With Radio: No Sub Type Information	GO to Pinpoint Test U
U0256:00	Lost Communication With Front Controls Interface Module "A": No Sub Type Information	GO to Pinpoint Test V
U201A:51	Control Module Main Calibration Data: Not Programmed	This DTC sets due to an incorrect or incomplete FCDIM configuration. CARRY OUT the FCDIM PMI procedure using as-built data.
U2100:00	Initial Configuration Not Complete: No Sub Type Information	This DTC sets due to an incorrect or incomplete FCDIM configuration. CARRY OUT the FCDIM PMI procedure using as-built data.
U2101:00	Control Module Configuration Incompatible: No Sub Type Information	This DTC sets due to an incorrect or incomplete FCDIM configuration. CARRY OUT the FCDIM PMI procedure using as-built data.
U3000:41	Control Module: General Checksum Failure	CLEAR the DTC. WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again, INSTALL a new FCDIM. REFER to: Front Control/Display Interface Module (FCDIM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
U3000:42	Control Module: General Memory Failure	CLEAR the DTC. WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again, INSTALL a new FCDIM. REFER to: Front Control/Display Interface Module (FCDIM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
U3003:16	Battery Voltage: Circuit Voltage Below Threshold	GO to Pinpoint Test X
U3003:17	Battery Voltage: Circuit Voltage Above Threshold	GO to Pinpoint Test Y

FCIM DTC Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

DTC	Description	Action
B00D5:01	Restraint System Passenger Disable Indicator: General Electrical Failure	CLEAR the DTC. WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again,   Click here to access Guided Routine (FCIM).

B105A:12	Cabin Temperature Sensor Fan: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B105A:14	Cabin Temperature Sensor Fan: Circuit Short To Ground or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1081:07	Left Temperature Damper Motor: Mechanical Failure	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1081:11	Left Temperature Damper Motor: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1081:12	Left Temperature Damper Motor: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1081:13	Left Temperature Damper Motor: Circuit Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1083:07	Recirculation Damper Motor: Mechanical Failure	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1083:11	Recirculation Damper Motor: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1083:12	Recirculation Damper Motor: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1083:13	Recirculation Damper Motor: Circuit Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).

B1086:07	Air Distribution Damper Motor: Mechanical Failure	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1086:11	Air Distribution Damper Motor: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1086:12	Air Distribution Damper Motor: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1086:13	Air Distribution Damper Motor: Circuit Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B10AF:11	Blower Fan Relay: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B10AF:15	Blower Fan Relay: Circuit Short To Battery or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B10B5:11	Left Panel Air Discharge Temperature: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B10B5:15	Left Panel Air Discharge Temperature: Circuit Short To Battery or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B10B6:11	Left Floor Air Discharge Temperature: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B10B6:15	Left Floor Air Discharge Temperature: Circuit Short To Battery or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).

B10B8:63	Push Buttons: Circuit / Component Protection Time-Out	CLEAR the DTC. WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again,   Click here to access Guided Routine (FCIM).
B10B9:12	Blower Control: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B10B9:14	Blower Control: Circuit Short To Ground or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B11E5:12	Left HVAC Damper Position Sensor: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B11E5:14	Left HVAC Damper Position Sensor: Circuit Short To Ground or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B11E7:12	Air Distribution Damper Position Sensor: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B11E7:14	Air Distribution Damper Position Sensor: Circuit Short To Ground or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B11F0:12	Air Intake Damper Position Sensor: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B11F0:14	Air Intake Damper Position Sensor: Circuit Short To Ground or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1202:01	Restraint System Passenger Enable Indicator: General Electrical Failure	CLEAR the DTC. WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again,   Click here to access Guided Routine (FCIM).

B12CA:11	Start/Stop "Eco-Start" Status Indicator: Circuit Short To Ground	REFER to the Diagnosis and Testing in the appropriate 303-06 section.
B12CA:15	Start/Stop "Eco-Start" Status Indicator: Circuit Short To Battery or Open	REFER to the Diagnosis and Testing in the appropriate 303-06 section.
B14B7:63	Snow Plow Button: Circuit / Component Protection Time-Out	REFER to: Snow Plow Package (419-10 Multifunction Electronic Modules) .
B14BF:11	Snow Plow LED: Circuit Short To Ground	REFER to: Snow Plow Package (419-10 Multifunction Electronic Modules) .
B14BF:15	Snow Plow LED: Circuit Short To Battery or Open	REFER to: Snow Plow Package (419-10 Multifunction Electronic Modules) .
B1A61:11	Cabin Temperature Sensor: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1A61:15	Cabin Temperature Sensor: Circuit Short To Battery or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1A69:12	Humidity Sensor: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1A69:14	Humidity Sensor: Circuit Short To Ground or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1B71:11	Evaporator Temperature Sensor: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
B1B71:15	Evaporator Temperature Sensor: Circuit Short To Battery or Open	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
C1B14:11	Sensor Supply Voltage A: Circuit Short To Ground	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).

C1B14:12	Sensor Supply Voltage A: Circuit Short To Battery	REFER to: Climate Control System - Vehicles With: Electronic Manual Temperature Control (EMTC) (412-00 Climate Control System - General Information, Diagnosis and Testing).
U0140:00	Lost Communication With Body Control Module: No Sub Type Information	GO to Pinpoint Test Q
U0151:00	Lost Communication With Restraints Control Module: No Sub Type Information	GO to Pinpoint Test R
U0155:00	Lost Communication With Instrument Panel Cluster (IPC) Control Module: No Sub Type Information	GO to Pinpoint Test S
U0401:00	Invalid Data Received from ECM/PCM A: No Sub Type Information	NOTE: <i>If no Diagnostic Trouble Codes (DTCs) are present in the PCM, DIAGNOSE the observable symptom.</i> RETRIEVE and FOLLOW Diagnostic Trouble Codes (DTCs) present in the PCM. REFER to the Diagnosis and Testing in the appropriate 303-14 section.
U0401:82	Invalid Data Received from ECM/PCM A: Alive / Sequence Counter Incorrect / Not Updated	NOTE: <i>If no Diagnostic Trouble Codes (DTCs) are present in the PCM, DIAGNOSE the observable symptom.</i> RETRIEVE and FOLLOW Diagnostic Trouble Codes (DTCs) present in the PCM. REFER to the Diagnosis and Testing in the appropriate 303-14 section.
U0422:68	Invalid Data Received From Body Control Module: Event Information	NOTE: <i>If no Diagnostic Trouble Codes (DTCs) are present in the BCM, DIAGNOSE the observable symptom.</i> RETRIEVE and FOLLOW Diagnostic Trouble Codes (DTCs) present in the PCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules) .
U0422:81	Invalid Data Received From Body Control Module: Invalid Serial Data Received	NOTE: <i>If no Diagnostic Trouble Codes (DTCs) are present in the BCM, DIAGNOSE the observable symptom.</i> RETRIEVE and FOLLOW Diagnostic Trouble Codes (DTCs) present in the PCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules) .
U0452:82	Invalid Data Received From Restraints Control Module: Alive / Sequence Counter Incorrect / Not Updated	NOTE: <i>If no Diagnostic Trouble Codes (DTCs) are present in the RCM, DIAGNOSE the observable symptom.</i> RETRIEVE and FOLLOW Diagnostic Trouble Codes (DTCs) present in the RCM. REFER to: Airbag Supplemental Restraint System (SRS) (501-20B Supplemental Restraint System, Diagnosis and Testing).

U1000:00	Solid State Driver Protection Active - Driver Disabled: No Sub Type Information	NOTE: The FCIM has temporarily disabled a HVAC control output because an excessive current draw exists (such as a short to ground). The FCIM cannot enable the output until the cause of the short is corrected. ADDRESS all other FCIM Diagnostic Trouble Codes (DTCs) first. After the cause of the concern is corrected, CLEAR the Diagnostic Trouble Codes (DTCs). WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again,   Click here to access Guided Routine (FCIM).
U2024:51	Control Module Cal-Config Data: Not Programmed	This DTC sets due to an incorrect or incomplete FCIM configuration. CARRY OUT the FCIM PMI procedure using as-built data.
U2100:00	Initial Configuration Not Complete: No Sub Type Information	This DTC sets due to an incorrect or incomplete FCIM configuration. CARRY OUT the FCIM PMI procedure using as-built data.
U3000:41	Control Module: General Checksum Failure	CLEAR the Diagnostic Trouble Codes (DTCs). WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again,   Click here to access Guided Routine (FCIM).
U3000:49	Control Module: Internal Electronic Failure	ADDRESS all other FCIM Diagnostic Trouble Codes (DTCs) first. After the cause of the concern is corrected, CLEAR the Diagnostic Trouble Codes (DTCs). WAIT at least 10 seconds and then REPEAT the self-test. If the DTC is retrieved again,   Click here to access Guided Routine (FCIM).
U3003:16	Battery Voltage: Circuit Voltage Below Threshold	GO to Pinpoint Test X
U3003:17	Battery Voltage: Circuit Voltage Above Threshold	GO to Pinpoint Test Y

Symptom Charts

Symptom Chart: General Audio System

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

Condition	Possible Sources	Actions
A module does not respond to the diagnostic scan tool	Refer to the Pinpoint Test	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

The CD player is inoperative or does not operate correctly	- CD - ACM	- INSPECT the CD for scratches, fingerprints, a loose paper label, incorrect format, or damage. INSERT a known good CD and TEST the system. - If the system operates correctly, the concern was caused by a damaged CD. - If the system does not operate correctly, INSTALL a new ACM . REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
The speed compensated volume does not operate correctly	Refer to the Pinpoint Test	GO to Pinpoint Test B
The audio input jack is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test M
The audio system does not operate correctly from the FCIM	Refer to the Pinpoint Test	GO to Pinpoint Test N
The FCIM illumination is inoperative or does not dim	Refer to the Pinpoint Test	REFER to: Instrument Panel and Interior Switches Illumination (413-00 Instrument Panel and Interior Switches Illumination, Diagnosis and Testing).
The FCDIM is inoperative or does not operate correctly	Refer to the Pinpoint Test	GO to Pinpoint Test O
The FCDIM illumination is inoperative or does not dim	Refer to the Pinpoint Test	REFER to: Instrument Panel and Interior Switches Illumination (413-00 Instrument Panel and Interior Switches Illumination, Diagnosis and Testing).

Symptom Chart: Sound Quality

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

Condition	Possible Sources	Actions
Poor reception - AM/ FM	Refer to the Pinpoint Test	GO to Pinpoint Test A
Continuous seek or scan - AM/ FM	Refer to the Pinpoint Test	GO to Pinpoint Test A
A loud popping sound is heard when cycling the ignition	Refer to the Pinpoint Test	GO to Pinpoint Test C
Poor sound quality or distorted sound from one or more speakers (not all speakers)	Refer to the Pinpoint Test	GO to Pinpoint Test D
No sound from all speakers	Refer to the Pinpoint Test	GO to Pinpoint Test E
The left front door speaker is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test F
The left A-pillar tweeter speaker is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test G

The right front door speaker is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test I
The right A-pillar tweeter speaker is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test H
The right rear door speaker is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test J
The left rear door speaker is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test K
The subwoofer speaker is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test L

Pinpoint Tests

Poor AM Or FM Reception

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

Possible Causes

- No channel found in the selected RDS category
- Charging system
- Wiring, terminals, or connectors
- Ignition system
- Noise suppression equipment
- AM/ FM antenna coaxial cable
- LHR fender-mounted AM/ FM mast antenna
- ACM

PINPOINT TEST A : POOR AM (AMPLITUDE MODULATION) OR FM (FREQUENCY MODULATION) RECEPTION

NOTE: Prior to carrying out diagnostics, it may be beneficial to determine the cause using the Antenna Kit Tool 420-525 (Rotunda part number NUD420-525) or equivalent tool.

A1 CHECK THE AUDIO SYSTEM RECEPTION WITH THE ENGINE RUNNING

- Operate the audio system in AM/ FM mode.
- Check the reception with the engine running and with the engine off.

Does the poor reception only occur with the engine running?

Yes	GO to A2
No	GO to A4

A2 CHECK THE GENERATOR

- Ignition OFF.
 - **NOTICE: Do not allow the generator B+ cable terminal to make contact with a conductive surface. Failure to follow this instruction may result in personal injury or damage to the vehicle.**
- Disconnect: Generator B+ Cable.
- Start the engine.
 - Operate the audio system in AM/ FM mode.

Is the reception OK?

Yes	INSTALL a new generator. REFER to the appropriate Removal and Installation procedure in section 414-02.
No	GO to A3

A3 CHECK THE IGNITION CIRCUITS

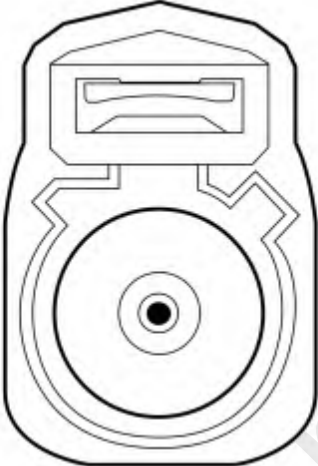
- Ignition OFF.
- Connect the generator B+ cable.
- Inspect the engine compartment and make sure all ignition coils are correctly and securely connected, and no cracks are visible in the coil housings.
- Inspect all the wiring harnesses and connectors for damaged insulation and loose or broken conditions.

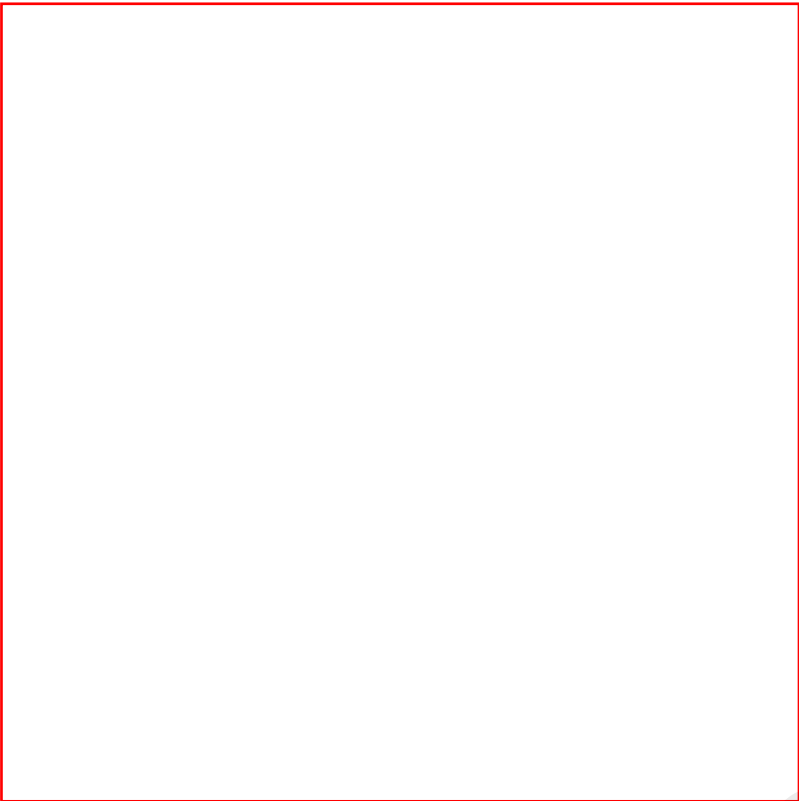
Are the ignition components OK?

Yes	USE a jumper cable to ground various parts of the vehicle to the frame (for example: engine, fenders, quarter panels, stone deflectors, air cleaner, and body sheet metal). When the noise is eliminated, PROVIDE a permanent ground where necessary.
No	REPAIR the ignition system as necessary.

A4 CHECK THE AUDIO UNIT ANTENNA CABLE CORE AND SHIELD FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect the audio unit antenna cable at the ACM.
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
 E260212 Audio unit antenna cable core at the ACM		Ground

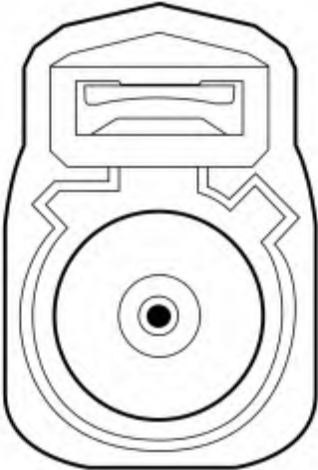
		Ground
Audio unit antenna cable shield at the ACM		

Is any voltage present?

Yes	IDENTIFY the cause of the short to voltage and REPAIR or INSTALL a new audio unit antenna cable or audio unit antenna in question. REFER to: Audio Unit Antenna Cable (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation). REFER to: Audio Unit Antenna (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	GO to A5

A5 CHECK THE AUDIO UNIT ANTENNA AND CABLE CORE FOR A SHORT TO GROUND CONDITION

- Ignition OFF.
- Measure:

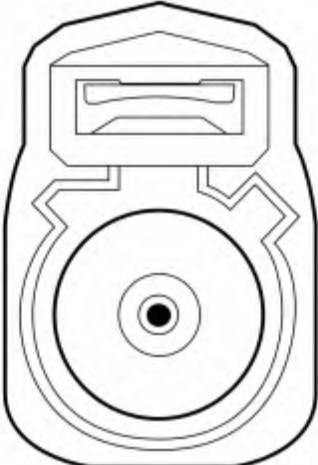
Positive Lead	Measurement / Action	Negative Lead
 E260212 Audio unit antenna cable core at the ACM		Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to A7
No	GO to A6

A6 CHECK THE AUDIO UNIT ANTENNA CABLE FOR A SHORT TO GROUND

- Disconnect the audio unit antenna cable to the audio unit antenna connection located behind the glove compartment.
- Measure:

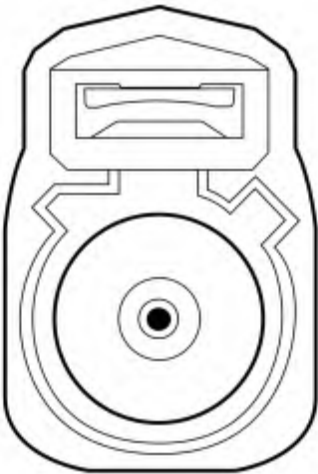
Positive Lead	Measurement / Action	Negative Lead
 E260212 Audio unit antenna cable core at the ACM		Ground

Is the resistance greater than 10,000 ohms?

Yes	INSTALL a new audio unit antenna. REFER to: Audio Unit Antenna (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	INSTALL a new audio unit antenna cable. REFER to: Audio Unit Antenna Cable (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).

A7 CHECK THE AUDIO UNIT ANTENNA CABLE CORE AND SHIELD FOR A SHORT TOGETHER CONDITION

- Measure:

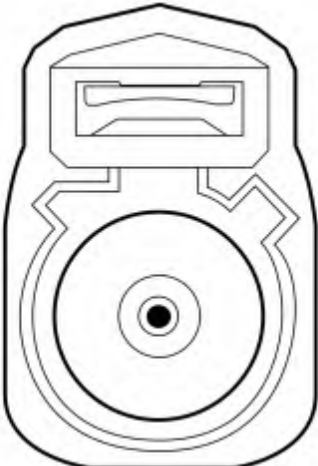
Positive Lead	Measurement / Action	Negative Lead
 E260212 Audio unit antenna cable core at the ACM		Audio unit antenna cable shield at the ACM

Is the resistance greater than 10,000 ohms?

Yes	GO to A9
No	GO to A8

A8 ISOLATE THE AUDIO UNIT ANTENNA CABLE CORE AND SHIELD FOR A SHORT TOGETHER

- Disconnect the audio unit antenna cable to the audio unit antenna connection located behind the glove compartment.
- Measure:

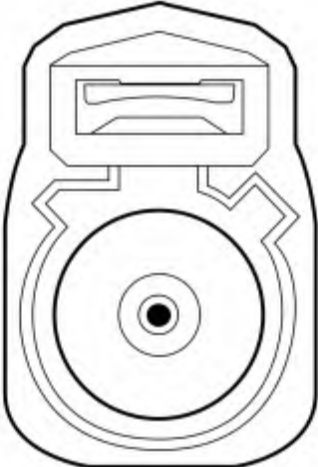
Positive Lead	Measurement / Action	Negative Lead
 E260212 Audio unit antenna cable core at the ACM		Audio unit antenna cable shield at the ACM

Is the resistance greater than 10,000 ohms?

Yes	INSTALL a new audio unit antenna. REFER to: Audio Unit Antenna (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	INSTALL a new audio unit antenna cable. REFER to: Audio Unit Antenna Cable (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).

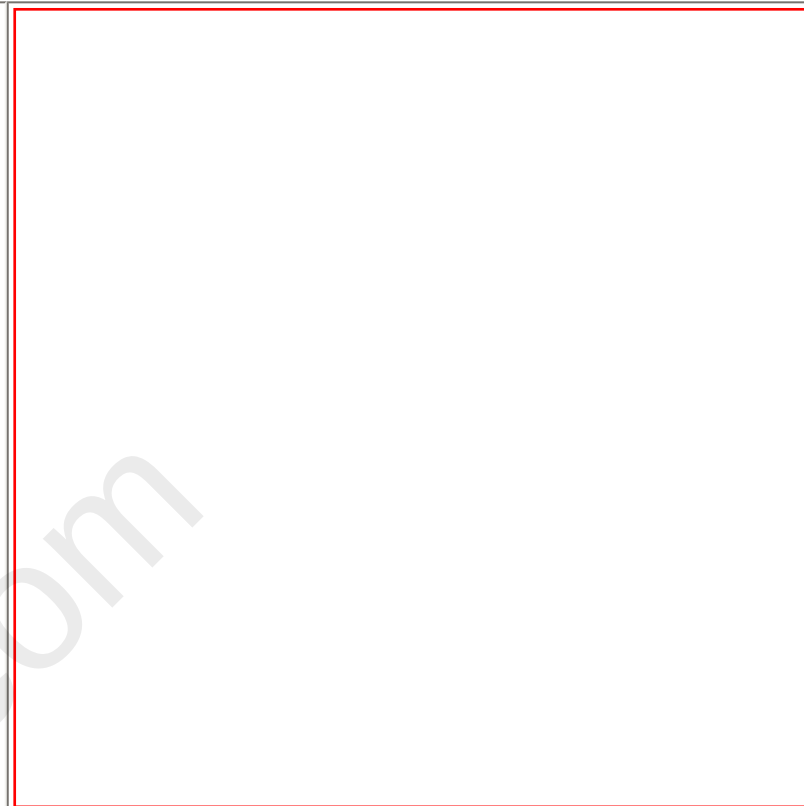
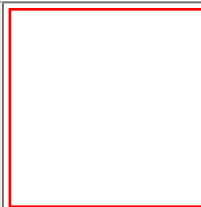
A9 CHECK THE AUDIO UNIT ANTENNA CABLE CORE AND SHIELD FOR AN OPEN

- Disconnect the audio unit antenna cable to the audio unit antenna connection located behind the glove compartment.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
 E260212 Audio unit antenna cable core at the ACM		Audio unit antenna cable core at the audio unit antenna connection



Audio unit antenna cable shield at the ACM



Audio unit antenna cable shield at the audio unit antenna connection

Are the resistances less than 1 ohm?

Yes	GO to A10
No	INSTALL a new audio unit antenna cable. REFER to: Audio Unit Antenna Cable (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).

A10 ISOLATE THE AUDIO UNIT ANTENNA

- Install a new audio unit antenna.
REFER to: [Audio Unit Antenna](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
- Operate the audio system in AM/ FM mode.

Is the reception OK?

Yes	The system is operating correctly at this time. The concern was caused by the audio unit antenna.
No	GO to A11

A11 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

The Speed Compensated Volume Does Not Operate Correctly

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

Possible Causes

- Speed compensated volume setting
- ACM

PINPOINT TEST B : THE SPEED COMPENSATED VOLUME DOES NOT OPERATE CORRECTLY

B1 CHECK THE SPEEDOMETER OPERATION

- Drive the vehicle and observe the speedometer.

Does the speedometer operate correctly?

Yes	GO to B2
No	REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).

B2 CHECK THE SPEED COMPENSATED VOLUME SETTING

- Turn the speed compensated volume off. Refer to the Owner's Literature.
- Operate the audio system in AM/ FM mode.
- Drive the vehicle at various speeds and observe the speaker volume.
- Set the speed compensated volume to maximum compensation. Refer to the Owner's Literature.
- Operate the audio system in AM/ FM mode.
- Drive the vehicle at various speeds and observe the speaker volume.

Does the volume remain constant with the speed compensated volume turned off, and increase and decrease with vehicle speed with the speed compensated volume set to maximum?

Yes	The system is operating correctly at this time. INSTRUCT the customer in the correct usage of the speed compensated volume feature.
No	GO to B3

B3 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0155:00

- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0155:00 retrieved in any audio system module?

Yes	GO to Pinpoint Test S
No	GO to B4

B4 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

A Loud Popping Sound Is Heard When Cycling The Ignition

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Refer to Wiring Diagrams Cell 13 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

To prevent voltage spikes from producing popping noises through the speakers when the ignition is in the START position, the PCM applies voltage on the ACM start signal circuit. When the voltage is received by the ACM, the audio signal output is muted.

Possible Causes

- Wiring, terminals, or connectors
- ACM

PINPOINT TEST C : A LOUD POPPING SOUND IS HEARD WHEN CYCLING THE IGNITION

C1 CHECK THE PCM (POWERTRAIN CONTROL MODULE) FOR DTC (DIAGNOSTIC TROUBLE CODE) P0616 OR P0617	
• Using a diagnostic scan tool, carry out the PCM self-test.	
Is DTC P0616 or P0617 present?	
Yes	REFER to the Diagnosis and Testing in the appropriate 303-06 section.
No	GO to C2
C2 CHECK THE START SENSE CIRCUIT FOR AN OPEN	
• Ignition OFF. • Disconnect: ACM C240A. • Disconnect: BJB C1035C.	
Is the resistance less than 3 ohms?	
Yes	GO to C3
No	REPAIR the circuit.

C3 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

Poor Sound Quality Or Distorted Sound From One Or More Speakers (Not All Speakers)

Normal Operation and Fault Conditions

The ACM sends audio signals to the speakers in the form of AC voltage, resulting in clear audio output.

Possible Causes

- Loose component fasteners
- Loose door handle, lock, and other trim panel components and fasteners
- Loose items in storage areas
- Loose speaker grilles
- Loose wire harnesses or wire harness fasteners
- Speaker
- Water shield bonding and placement

Visual Inspection and Diagnostic Pre-checks

Inspect the suspect area for any possible rattle conditions such as:

- Any storage compartments including cup holders (if equipped)
- Door map pockets for contents that can rattle (if equipped)
- Door pull cup attachments (if equipped)
- Door switch bezels (if equipped)
- Speaker grilles
- Trim panels and fasteners

PINPOINT TEST D : POOR SOUND QUALITY OR DISTORTED SOUND FROM ONE OR MORE SPEAKERS (NOT ALL SPEAKERS)

D1 ISOLATE THE ZONE

- Operate the audio system using digital media such as a CD or a MP3 player.
- Using the audio system fade and balance feature, adjust the audio sound to each of the zones (left front, right front and left rear, right rear for 4-door vehicles) to isolate the poor sound quality.
- Locate and apply pressure to the trim panel(s) around the poor sound quality area in question.

Does applying pressure to a trim panel reduce or eliminate the noise?

Yes	REPAIR or REPLACE the trim panel as needed.
No	GO to D2

D2 REMOVE AND INSPECT BEHIND/UNDERNEATH THE SUSPECT TRIM PANEL(S)

- Remove the trim panel to access the suspect speaker.
- Operate the audio system using digital media such as a CD or MP3.
- Validate where the poor sound quality area is located.
- Check:
 - All child safety belt anchors (if equipped).
 - All safety belt retractors.
 - All speaker bracket fasteners and other fasteners are secured and tightened to specified torque.
 - Lock and handle mechanical parts for correct attachment.
 - Storage areas for loose items.
 - Trim panel for loose components around the speaker area such as the speaker grille.
 - Trim panel joining components for missing or broken pieces.
 - Water shield for correct bonding to sheet metal.
 - Water shield for correct placement (speaker air path not blocked).
 - Wire harness fasteners for correct attachment.

- Wire harnesses for correct routing.

Is the source of the noise located?

Yes	REPAIR or REPLACE any loose or broken component or fastener as needed.
No	GO to D3

D3 CHECK THE SUSPECT SPEAKER FOR WATER INTRUSION

- Inspect for watermarks.
- Check the:
 - Basket
 - Cone
 - Magnet

Are any watermarks present on the speaker?

Yes	VERIFY the water shield is in the correct location, REPAIR or REPLACE any trim, door, or speaker seal as required. DRY the speaker in question and TEST the system for normal operation.
No	GO to D4

D4 ISOLATE SPEAKER TO VERIFY NOISE

- Remove the suspect speaker from its location and leave the speaker connected to the harness.
- Hold the speaker away from any trim panel(s) and make sure the speaker is isolated from contact.
- Operate the audio system using digital media such as a CD or MP3.

Is the noise still present in the suspect speaker?

Yes	INSTALL a new speaker for the one in question.
No	LOCATE the source of the noise and REPAIR as needed.

No Sound From All Speakers

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Refer to Wiring Diagrams Cell 13 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

A short to ground or short to voltage in the circuitry to one of the speakers may cause multiple speakers to lose sound due to the built-in overload protection feature of the ACM. In this case, a speaker fault DTC sets.

To prevent voltage spikes from producing popping noises through the speakers when the ignition is in the START position, the PCM applies voltage on the ACM start signal circuit. When the voltage is received by the ACM, the audio signal output is muted. A short to voltage on this circuit causes the ACM output to be muted continuously, and will cause the warning chimes to only sound from the IPC.

ACM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1142:27	Ignition Status 1: Signal Rate of Change Above Threshold	Set by the ACM when a short to voltage is detected on the start signal circuit.

Possible Causes

- Wiring, terminals, or connectors
- ACM

PINPOINT TEST E : NO SOUND FROM ALL SPEAKERS

E1	VERIFY THE ACM (AUDIO FRONT CONTROL MODULE) PASSES THE NETWORK TEST

- Using a diagnostic scan tool, carry out the network test.

Does the ACM pass the network test?

Yes	GO to E2
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

E2 CHECK FOR PCM (POWERTRAIN CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, carry out the PCM self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to the Diagnosis and Testing in the appropriate 303-06 section.
No	GO to E3

E3 CHECK THE START SENSE CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: ACM C240A.
- Disconnect: BJB Starter Relay.
- Disconnect:PCM connector.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to E4

E4 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

The Left Front Door Speaker Is Inoperative

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

The left front door speaker and left A-pillar tweeter speaker share the same audio signal.

ACM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions

B1A01:01	Speaker #1: General Electrical Failure	Set by the ACM when a failure is detected from the left front door or left A-pillar tweeter speaker circuits.
B1A01:11	Speaker #1: Circuit Short To Ground	Set by the ACM when a short to ground is detected from the left front door or left A-pillar tweeter speaker circuits. When DTC B1A01:11 is set, the speaker output is disabled.
B1A01:12	Speaker #1: Circuit Short To Battery	Set by the ACM when a short to voltage is detected from the left front door or left A-pillar tweeter speaker circuits. When DTC B1A01:12 is set, the speaker output is disabled.
B1A01:13	Speaker #1: Circuit Open	Set by the ACM when an open is detected from the left front door or left A-pillar tweeter speaker circuits.

Possible Causes

- Speaker
- Wiring, terminals, or connectors
- ACM

PINPOINT TEST F : THE LEFT FRONT DOOR SPEAKER IS INOPERATIVE

F1 CHECK THE AUDIO SIGNAL TO THE LEFT FRONT DOOR SPEAKER

- Ignition OFF.
- Disconnect: Left Front Door Speaker C570.
- Operate the audio system in AM/ FM mode.

Is a fluctuating AC voltage present?

Yes	INSTALL a new left front door speaker. REFER to: Front Door Speaker LH (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	GO to F2

F2 CHECK THE AUDIO CIRCUITS TO THE LEFT FRONT DOOR SPEAKER FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: Left A-Pillar Tweeter Speaker C230.
- Disconnect: ACM C240A.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to F3

F3 CHECK THE AUDIO CIRCUITS TO THE LEFT FRONT DOOR SPEAKER FOR A SHORT TO GROUND

- Ignition OFF.

Are the resistances greater than 10,000 ohms?

Yes	GO to F4
No	REPAIR the circuit in question.

F4 CHECK THE AUDIO CIRCUITS TO THE LEFT FRONT DOOR SPEAKER FOR AN OPEN

Are the resistances less than 3 ohms?

Yes	GO to F5
No	REPAIR the circuit in question.

F5 CHECK THE AUDIO CIRCUITS TO THE LEFT FRONT DOOR SPEAKER FOR A SHORT TOGETHER

Is the resistance greater than 10,000 ohms?

Yes	GO to F6
No	REPAIR the circuit in question.

F6 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

The Left A-Pillar Tweeter Speaker Is Inoperative

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

The left front door speaker and the left A-pillar tweeter speaker share the same audio signal.

ACM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1A01:01	Speaker #1: General Electrical Failure	Set by the ACM when a failure is detected from the left front door or left A-pillar tweeter speaker circuits.
B1A01:11	Speaker #1: Circuit Short To Ground	Set by the ACM when a short to ground is detected from the left front door or left A-pillar tweeter speaker circuits. When DTC B1A01:11 is set, the speaker output is disabled.
B1A01:12	Speaker #1: Circuit Short To Battery	Set by the ACM when a short to voltage is detected from the left front door or left A-pillar tweeter speaker circuits. When DTC B1A01:12 is set, the speaker output is disabled.
B1A01:13	Speaker #1: Circuit Open	Set by the ACM when an open is detected from the left front door or left A-pillar tweeter speaker circuits.

Possible Causes

- Speaker
- Wiring, terminals, or connectors
- ACM

PINPOINT TEST G : THE LEFT A-PILLAR TWEETER SPEAKER IS INOPERATIVE

G1 CHECK THE AUDIO SIGNAL TO THE LEFT A-PILLAR TWEETER SPEAKER	
• Ignition OFF. • Disconnect: Left A-Pillar Tweeter Speaker C230. • Operate the audio system in AM/ FM mode.	
Is a fluctuating AC voltage present?	
Yes	INSTALL a new left A-pillar tweeter speaker. REFER to: A-Pillar Tweeter Speaker (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	GO to G2
G2 CHECK THE AUDIO CIRCUITS TO THE LEFT A-PILLAR TWEETER SPEAKER FOR A SHORT TO VOLTAGE	

- Ignition OFF.
- Disconnect: Left Front Door Speaker C570.
- Disconnect: ACM C240A.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to G3

G3 CHECK THE AUDIO CIRCUITS TO THE LEFT A-PILLAR TWEETER SPEAKER FOR A SHORT TO GROUND

- Ignition OFF.

Are the resistances greater than 10,000 ohms?

Yes	GO to G4
No	REPAIR the circuit in question.

G4 CHECK THE AUDIO CIRCUITS TO THE LEFT A-PILLAR TWEETER SPEAKER FOR AN OPEN

Are the resistances less than 3 ohms?

Yes	GO to G5
No	REPAIR the circuit in question.

G5 CHECK THE AUDIO CIRCUITS TO THE LEFT A-PILLAR TWEETER SPEAKER FOR A SHORT TOGETHER

Is the resistance greater than 10,000 ohms?

Yes	INSTALL a new left front door speaker. REFER to: Front Door Speaker LH (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	REPAIR the circuit in question.

G6 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

The Right A-Pillar Tweeter Speaker Is Inoperative

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

The right front door speaker and right A-pillar tweeter speaker share the same audio signal.

ACM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1A02:01	Speaker #2: General Electrical Failure	Set by the ACM when a failure is detected from the right front door or right A-pillar tweeter speaker circuits.
B1A02:11	Speaker #2: Circuit Short To Ground	Set by the ACM when a short to ground is detected from the right front door or right A-pillar tweeter speaker circuits. When DTC B1A02:11 is set, the speaker output is disabled.
B1A02:12	Speaker #2: Circuit Short To Battery	Set by the ACM when a short to voltage is detected from the right front door or right A-pillar tweeter speaker circuits. When DTC B1A02:12 is set, the speaker output is disabled.
B1A02:13	Speaker #2: Circuit Open	Set by the ACM when an open is detected from the right front door or right A-pillar tweeter speaker circuits.

Possible Causes

- Speaker
- Wiring, terminals, or connectors
- ACM

PINPOINT TEST H : THE RIGHT A-PILLAR TWEETER SPEAKER IS INOPERATIVE

H1 CHECK THE AUDIO SIGNAL TO THE RIGHT A-PILLAR TWEETER SPEAKER	
• Ignition OFF. • Disconnect: Right A-Pillar Tweeter Speaker C231. • Operate the audio system in AM/ FM mode.	
Is a fluctuating AC voltage present?	
Yes	INSTALL a new right A-pillar tweeter speaker. REFER to: A-Pillar Tweeter Speaker (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	GO to H2

H2 CHECK THE AUDIO CIRCUITS TO THE RIGHT A-PILLAR TWEETER SPEAKER FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: Right Front Door Speaker C628.
- Disconnect: ACM C240A.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to H3

H3 CHECK THE AUDIO CIRCUITS TO THE RIGHT A-PILLAR TWEETER SPEAKER FOR A SHORT TO GROUND

- Ignition OFF.

Are the resistances greater than 10,000 ohms?

Yes	GO to H4
No	REPAIR the circuit in question.

H4 CHECK THE AUDIO CIRCUITS TO THE RIGHT A-PILLAR TWEETER SPEAKER FOR AN OPEN

Are the resistances less than 3 ohms?

Yes	GO to H5
No	REPAIR the circuit in question.

H5 CHECK THE AUDIO CIRCUITS TO THE RIGHT A-PILLAR TWEETER SPEAKER FOR A SHORT TOGETHER

Is the resistance greater than 10,000 ohms?

Yes	GO to H6
No	REPAIR the circuit in question.

H6 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

The Right Front Door Speaker Is Inoperative

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

The right front door speaker and right A-pillar tweeter speaker share the same audio signal.

ACM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1A02:01	Speaker #2: General Electrical Failure	Set by the ACM when a failure is detected from the right front door or right A-pillar tweeter speaker circuits.
B1A02:11	Speaker #2: Circuit Short To Ground	Set by the ACM when a short to ground is detected from the right front door or right A-pillar tweeter speaker circuits. When DTC B1A02:11 is set, the speaker output is disabled.
B1A02:12	Speaker #2: Circuit Short To Battery	Set by the ACM when a short to voltage is detected from the right front door or right A-pillar tweeter speaker circuits. When DTC B1A02:12 is set, the speaker output is disabled
B1A02:13	Speaker #2: Circuit Open	Set by the ACM when an open is detected from the right front door or right A-pillar tweeter speaker circuits.

Possible Causes

- Speaker
- Wiring, terminals, or connectors
- ACM

PINPOINT TEST I : THE RIGHT FRONT DOOR SPEAKER IS INOPERATIVE

I1 CHECK THE AUDIO SIGNAL TO THE RIGHT FRONT DOOR SPEAKER	
• Ignition OFF. • Disconnect: Right Front Door Speaker C628. • Operate the audio system in AM/ FM mode.	
Is a fluctuating AC voltage present?	
Yes	INSTALL a new right front door speaker. REFER to: Front Door Speaker RH (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	GO to I2
I2 CHECK THE AUDIO CIRCUITS TO THE RIGHT FRONT DOOR SPEAKER FOR A SHORT TO VOLTAGE	

- Ignition OFF.
- Disconnect: ACM C240A.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to I3

I3 CHECK THE AUDIO CIRCUITS TO THE RIGHT FRONT DOOR SPEAKER FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: Right A-Pillar Tweeter Speaker C231.
- Disconnect: ACM C240A.

Are the resistances greater than 10,000 ohms?

Yes	GO to I4
No	REPAIR the circuit in question.

I4 CHECK THE AUDIO CIRCUITS TO THE RIGHT FRONT DOOR SPEAKER FOR AN OPEN

Are the resistances less than 3 ohms?

Yes	GO to I5
No	REPAIR the circuit in question.

I5 CHECK THE AUDIO CIRCUITS TO THE RIGHT FRONT DOOR SPEAKER FOR A SHORT TOGETHER

Is the resistance greater than 10,000 ohms?

Yes	GO to I6
No	REPAIR the circuit in question.

I6 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

The Right Rear Door Speaker Is Inoperative

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

ACM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1A03:01	Speaker #3: General Electrical Failure	Set by the ACM when a failure is detected from the right rear door speaker circuits.
B1A03:11	Speaker #3: Circuit Short To Ground	Set by the ACM when a short to ground is detected from the right rear door speaker circuits. When DTC B1A03:11 is set, the speaker output is disabled.
B1A03:12	Speaker #3: Circuit Short To Battery	Set by the ACM when a short to voltage is detected from the right rear door speaker circuits. When DTC B1A03:12 is set, the speaker output is disabled.
B1A03:13	Speaker #3: Circuit Open	Set by the ACM when an open is detected from the right rear door speaker circuits.

Possible Causes

- Speaker
- Wiring, terminals, or connectors
- ACM

PINPOINT TEST J : THE RIGHT REAR DOOR SPEAKER IS INOPERATIVE

J1 CHECK THE AUDIO SIGNAL TO THE RIGHT REAR DOOR SPEAKER

- Ignition OFF.
- Disconnect: Right Rear Door Speaker C802.
- Operate the audio system in AM/ FM mode.

Is a fluctuating AC voltage present?

Yes	INSTALL a new right rear door speaker. REFER to: Rear Door Speaker RH (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	GO to J2

J2 CHECK THE AUDIO CIRCUITS TO THE RIGHT REAR DOOR SPEAKER FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: ACM C240A.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to J3

J3 CHECK THE AUDIO CIRCUITS TO THE RIGHT REAR DOOR SPEAKER FOR A SHORT TO GROUND

- Ignition OFF.

Are the resistances greater than 10,000 ohms?

Yes	GO to J4
No	REPAIR the circuit in question.

J4 CHECK THE AUDIO CIRCUITS TO THE RIGHT REAR DOOR SPEAKER FOR AN OPEN

Are the resistances less than 3 ohms?

Yes	GO to J5
No	REPAIR the circuit in question.

J5 CHECK THE AUDIO CIRCUITS TO THE RIGHT REAR DOOR SPEAKER FOR A SHORT TOGETHER

Is the resistance greater than 10,000 ohms?

Yes	GO to J6
No	REPAIR the circuit in question.

J6 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

The Left Rear Door Speaker Is Inoperative

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

ACM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1A04:01	Speaker #4: General Electrical Failure	Set by the ACM when a failure is detected from the left rear door speaker circuits.

B1A04:11	Speaker #4: Circuit Short To Ground	Set by the ACM when a short to ground is detected from the left rear door speaker circuits. When DTC B1A04:11 is set, the speaker output is disabled.
B1A04:12	Speaker #4: Circuit Short To Battery	Set by the ACM when a short to voltage is detected from the left rear door speaker circuits. When DTC B1A04:12 is set, the speaker output is disabled.
B1A04:13	Speaker #4: Circuit Open	Set by the ACM when an open is detected from the left rear door speaker circuits.

Possible Causes

- Speaker
- Wiring, terminals, or connectors
- ACM

PINPOINT TEST K : THE LEFT REAR DOOR SPEAKER IS INOPERATIVE

K1 CHECK THE AUDIO SIGNAL TO THE LEFT REAR DOOR SPEAKER

- Ignition OFF.
- Disconnect: Left Rear Door Speaker C702.
- Operate the audio system in AM/ FM mode.

Is a fluctuating AC voltage present?

Yes	INSTALL a new left rear door speaker. REFER to: Rear Door Speaker LH (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	GO to K2

K2 CHECK THE AUDIO CIRCUITS TO THE LEFT REAR DOOR SPEAKER FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: ACM C240A.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to K3

K3 CHECK THE AUDIO CIRCUITS TO THE LEFT REAR DOOR SPEAKER FOR A SHORT TO GROUND

- Ignition OFF.

Are the resistances greater than 10,000 ohms?

Yes	GO to K4
No	REPAIR the circuit in question.

K4 CHECK THE AUDIO CIRCUITS TO THE LEFT REAR DOOR SPEAKER FOR AN OPEN

Are the resistances less than 3 ohms?

Yes	GO to K5
No	REPAIR the circuit in question.

K5 CHECK THE AUDIO CIRCUITS TO THE LEFT REAR DOOR SPEAKER FOR A SHORT TOGETHER

Is the resistance greater than 10,000 ohms?

Yes	GO to K6
No	REPAIR the circuit in question.

K6 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

The Subwoofer Speaker Is Inoperative

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

ACM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1A05:02	Speaker #5: General Signal Failure	Set by the ACM when a failure is detected from the audio signal circuits to the audio unit amplifier or when a failure is detected on the audio unit amplifier enable circuit.

Possible Causes

- Fuse
- Wiring, terminals, or connectors
- BJB
- Subwoofer speaker
- Subwoofer amplifier
- ACM

Visual Inspection and Diagnostic Pre-checks

- Check the BJB fuse 22 (20A).

PINPOINT TEST L : THE SUBWOOFER SPEAKER IS INOPERATIVE

L1 CHECK THE SUBWOOFER SPEAKER AND ENCLOSURE FOR PHYSICAL DAMAGE

- Ignition OFF.
- Inspect the subwoofer speaker by looking through the grille for any obvious damage to the speaker cone and foam.
- Inspect the subwoofer speaker enclosure for any obvious damage to the assembly.

Is any damage present?

Yes	INSTALL a new subwoofer speaker. REFER to: Subwoofer Speaker (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	GO to L2

L2 CHECK THE SUBWOOFER AMPLIFIER VOLTAGE SUPPLY

- Disconnect Subwoofer Amplifier C3041.
- Ignition ON.

Is the voltage greater than 11 volts?

Yes	GO to L4
No	VERIFY the BJB Fuse 22 (20A) is OK. If OK, GO to L3 If not OK, REFER to the Wiring Diagram manual to identify the possible causes of the circuit short.

L3 CHECK THE SUBWOOFER AMPLIFIER VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect BJB C1035B.

Is the resistance less than 3 ohms?

Yes	INSTALL a new BJB.
No	REPAIR the circuit.

L4 CHECK THE SUBWOOFER AMPLIFIER GROUND CIRCUIT

Is the voltage greater than 11 volts?

Yes	GO to L5
No	REPAIR the circuit.

L5 CHECK THE SUBWOOFER AMPLIFIER ENABLE CIRCUIT FOR CORRECT VOLTAGE

NOTICE: This pinpoint test step directs testing circuits using a back-probe method. Use the special back-probe tool POM6411. Do not force test leads or other probes into connectors. Adequate care must be exercised to avoid connector terminal damage, while ensuring good electrical contact is made with the circuit or terminal. Failure to follow these instructions may cause damage to wiring, terminals, or connectors, and may cause subsequent electrical faults.

- Ignition OFF.
- Connect Subwoofer Amplifier C3041.
- Ignition ON.
- Operate the audio system in AM/ FM mode.

Is the voltage between 3.5 and 5 volts?

Yes	GO to L9
No	GO to L6

L6 CHECK THE SUBWOOFER AMPLIFIER ENABLE CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect Subwoofer Amplifier C3041.
- Disconnect ACM C240B.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to L7

L7 CHECK THE SUBWOOFER AMPLIFIER ENABLE CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.

Is the resistance greater than 10,000 ohms?

Yes	GO to L8
No	REPAIR the circuit.

L8 CHECK THE SUBWOOFER AMPLIFIER ENABLE CIRCUIT FOR AN OPEN

Is the resistance less than 3 ohms?

Yes	GO to L14
No	REPAIR the circuit.

L9 CHECK THE AUDIO CIRCUITS TO THE SUBWOOFER AMPLIFIER FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect Subwoofer Amplifier C3041.
- Disconnect ACM C240B.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to L10

L10 CHECK THE AUDIO CIRCUITS TO THE SUBWOOFER AMPLIFIER FOR A SHORT TO GROUND

- Ignition OFF.

Are the resistances greater than 10,000 ohms?

Yes	GO to L11
No	REPAIR the circuit in question.

L11 CHECK THE AUDIO CIRCUITS TO THE SUBWOOFER AMPLIFIER FOR A SHORT TOGETHER

Is the resistance greater than 10,000 ohms?

Yes	GO to L12
No	REPAIR the circuits.

L12 CHECK THE AUDIO CIRCUITS TO THE SUBWOOFER AMPLIFIER FOR AN OPEN

Are the resistances less than 3 ohms?

Yes	GO to L13
No	REPAIR the circuit in question.

L13 CHECK THE AUDIO SIGNAL TO THE SUBWOOFER AMPLIFIER

- Ignition OFF.
- Connect ACM C240B.
- Ignition ON.
- Operate the audio system in AM/ FM mode.

Is a fluctuating AC voltage present?

Yes	INSTALL a new subwoofer amplifier. REFER to: Subwoofer Speaker (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation). TEST the system for normal operation. If the concern is still present, install a new subwoofer speaker. REFER to: Subwoofer Speaker (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
No	GO to L14

L14 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

The Audio Input Jack Is Inoperative

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information -

Vehicles Without: SYNC, Description and Operation).

Possible Causes

- Customer's device
- Wiring, terminals, or connectors
- Audio input jack
- ACM

PINPOINT TEST M : THE AUDIO INPUT JACK IS INOPERATIVE

M1 CHECK THE AUDIO INPUT JACK AUDIO FUNCTIONALITY

- Connect: Multi-Media Interface Tester 105-00120.
- Using the Multi-Media Interface Tester 105-00120, attempt to play an audio file using the audio input jack.

Is the audio output OK for the audio input jack?

Yes	The system is operating correctly at this time. The fault is with the customer device.
No	GO to M2

M2 CHECK THE AUDIO INPUT JACK CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: Audio Input Jack C2362.
- Disconnect: ACM C240A.
- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to M3

M3 CHECK THE AUDIO INPUT JACK CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.

Are the resistances greater than 10,000 ohms?

Yes	GO to M4
No	REPAIR the circuit. TEST the system for normal operation.

M4 CHECK THE AUDIO INPUT JACK CIRCUITS FOR AN OPEN

Are the resistances less than 3 ohms?

Yes	GO to M5
No	REPAIR the circuit in question. TEST the system for normal operation.

M5 ISOLATE THE AUDIO INPUT JACK

- Install a new audio input jack.
REFER to: [Audio Input Jack](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Removal and Installation).
- Connect: ACM C240A
- Connect: Multi-Media Interface Tester 105-00120.
- Using the Multi-Media Interface Tester 105-00120, attempt to play an audio file using the audio input jack.

Is the audio output OK for the audio input jack?

Yes	The system is operating correctly at this time. The concern was caused by an inoperative audio input jack.
No	GO to M6

M6 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Disconnect and install all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

The Audio System Does Not Operate Correctly From The FCIM

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

Possible Causes

- Communication concern
- FCIM DTC concern

PINPOINT TEST N : THE AUDIO SYSTEM DOES NOT OPERATE CORRECTLY FROM THE FCIM (FRONT CONTROLS INTERFACE MODULE)

N1 CHECK FOR COMMUNICATION TO THE FCIM (FRONT CONTROLS INTERFACE MODULE)

- Ignition ON.
- Using a diagnostic scan tool, carry out the network test.

Does the FCIM pass the network test?

Yes	CARRY OUT the FCIM self-test and DIAGNOSE the DTC present. REFER to the FCIM DTC Chart in this section
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

The FCDIM Is Inoperative Or Does Not Operate Correctly

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

Possible Causes

- FCDIM

PINPOINT TEST O : THE FCDIM (FRONT CONTROL/DISPLAY INTERFACE MODULE) IS INOPERATIVE OR DOES NOT OPERATE CORRECTLY

O1 CHECK THE FCIM (FRONT CONTROLS INTERFACE MODULE) OPERATION

- Ignition ON.
- Turn the audio system on.
- Press each FCIM button and check for correct operation.

Does each FCIM button operate correctly?

Yes	GO to O2
No	GO to Pinpoint Test N

O2 VERIFY THE FCDIM (FRONT CONTROL/DISPLAY INTERFACE MODULE) PASSES THE NETWORK TEST

- Using a diagnostic scan tool, carry out the network test.

Does the FCDIM pass the network test?

Yes	GO to O3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

O3 OBSERVE THE FCDIM (FRONT CONTROL/DISPLAY INTERFACE MODULE) DISPLAY

- Observe the FCDIM display while carrying out various operations using the FCIM controls.

Is the FCDIM screen completely inoperative or blank?

Yes	GO to O5
No	GO to O4

O4 CHECK FOR LOST COMMUNICATION DIAGNOSTIC TROUBLE CODES (DTCs) SET IN THE FCDIM (FRONT CONTROL/DISPLAY INTERFACE MODULE)

- Ignition ON.
- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Are any lost communication Diagnostic Trouble Codes (DTCs) present in the FCDIM?

Yes	REFER to the FCDIM DTC Chart in this section.
No	GO to O5

O5 CHECK FOR CORRECT FCDIM (FRONT CONTROL/DISPLAY INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the FCDIM connector.
- 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 FCDIM connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new FCDIM. REFER to: Front Control/Display Interface Module (FCDIM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

U0100:00

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

ACM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0100:00	Lost Communication with ECM/PCM "A": No Sub Type Information	Set by the ACM when network messages are detected missing from the PCM for more than 5 seconds.

Possible Causes

- PCM

PINPOINT TEST P : U0100:00

P1 VERIFY THE CUSTOMER'S CONCERN

- Ignition ON.
- Verify if there is an observable symptom present.

Is an observable symptom present?

Yes	GO to P2
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

P2 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0100:00

- Ignition ON.
- Using a diagnostic scan tool, clear all Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Ignition OFF.
- Ignition ON.
- Wait at least 10 seconds.
- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0100:00 still present?

Yes	GO to P3
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

P3 CHECK FOR BATTERY AND CHARGING SYSTEM-RELATED DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, carry out the PCM KOEO and KOER self-tests.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to the appropriate Diagnosis and Testing in section 414-00.
No	GO to P4

P4 CHECK FOR ACM (AUDIO FRONT CONTROL MODULE) DTC (DIAGNOSTIC TROUBLE CODE) U3003:16 AND U3003:17

- Using a diagnostic scan tool, carry out the ACM self-test.

Is DTC U3003:16 or U3003:17 present?

Yes	For DTC U3003:16, GO to Pinpoint Test X For DTC U3003:17, GO to Pinpoint Test Y
No	GO to P5

P5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0100:00 SET IN MULTIPLE MODULES

- Review the recorded results from the self-test.

Is DTC U0100:00 set in more than one module?

Yes	GO to P6
No	If an observable symptom is present, REFER to the General Audio System Symptom Chart in this section. If no observable symptom is present, the system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

P6 CHECK FOR CORRECT PCM (POWERTRAIN CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the PCM connectors.
- 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 PCM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new PCM. REFER to the PCM Removal and Installation procedure in the appropriate 303-14 section.
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.

U0140:00

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

ACM/ FCDIM/ FCIM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0140:00	Lost Communication With Body Control Module: No Sub Type Information	Set by the ACM, the FCDIM or the FCIM when network messages are detected missing from the BCM for more than 5 seconds.

Possible Causes

- BCM

PINPOINT TEST Q : U0140:00

Q1 VERIFY THE CUSTOMER'S CONCERN

- Ignition ON.
- Verify if there is an observable symptom present.

Is an observable symptom present?

Yes	GO to Q2
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

Q2 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0140:00

- Ignition ON.
- Using a diagnostic scan tool, clear all Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Ignition OFF.
- Ignition ON.
- Wait at least 10 seconds.
- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0140:00 still present?

Yes	GO to Q3
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

Q3 CHECK FOR BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, carry out the BCM self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules) .
No	GO to Q4

Q4 CHECK FOR BATTERY VOLTAGE OUT-OF-RANGE DIAGNOSTIC TROUBLE CODES (DTCS) DTC (DIAGNOSTIC TROUBLE CODE) U3003:16 AND U3003:17

- Using a diagnostic scan tool, carry out the self-test for the following modules:
 - ACM
 - FCIM

Is DTC U3003:16 or U3003:17 present?

Yes	For DTC U3003:16, GO to Pinpoint Test X For DTC U3003:17, GO to Pinpoint Test Y
No	GO to Q5

Q5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0140:00 SET IN MULTIPLE MODULES

- Review the recorded results from the self-test.

Is DTC U0140:00 set in more than one module?

Yes	GO to Q6
No	If an observable symptom is present, REFER to the General Audio System Symptom Chart in this section. If no observable symptom is present, the system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

Q6 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the BCM connectors.
- 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 BCM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new BCM.   Click here to access Guided Routine (BCM).
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.

U0151:00

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

FCIM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0151:00	Lost Communication With Restraints Control Module: No Sub Type Information	Set by the FCIM when the airbag deployment notification message from the RCM is detected missing for more than 5 seconds.

Possible Causes

- RCM

PINPOINT TEST R : U0151:00

R1 VERIFY THE CUSTOMER'S CONCERN

- Ignition ON.
- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to R2
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

R2 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0151:00

- Ignition ON.
- Using a diagnostic scan tool, clear all Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Ignition OFF.
- Ignition ON.
- Wait at least 10 seconds.
- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0151:00 still present?

Yes	GO to R3
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

R3 CHECK FOR RCM (RESTRAINTS CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, carry out the RCM self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Airbag Supplemental Restraint System (SRS) (501-20B Supplemental Restraint System, Diagnosis and Testing).
No	GO to R4

R4 CHECK FOR FCIM (FRONT CONTROLS INTERFACE MODULE) DTC (DIAGNOSTIC TROUBLE CODE) U3003:16 AND U3003:17

- Using a diagnostic scan tool, carry out the FCIM self-test.
-

Is DTC U3003:16 or U3003:17 present?

Yes	For DTC U3003:16, GO to Pinpoint Test X For DTC U3003:17, GO to Pinpoint Test Y
No	GO to R5

R5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0151:00 SET IN MULTIPLE MODULES

- Review the recorded results from the self-test.

Is DTC U0151:00 set in the FCIM?

Yes	GO to R6
No	If there is an observable symptom, REFER to the General Audio System Symptom Chart. If no observable symptom is present, the system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

R6 CHECK FOR CORRECT RCM (RESTRAINTS CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the RCM connectors.
- 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 RCM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new RCM. REFER to: Restraints Control Module (RCM) (501-20B Supplemental Restraint System, 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.

U0155:00

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

ACM/ FCDIM/ FCIM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0155:00	Lost Communication With Instrument Panel Cluster (IPC) Control Module: No Sub Type Information	Set by the ACM, the FCDIM or the FCIM when network messages are detected missing from the IPC for more than 5 seconds.

Possible Causes

- IPC

PINPOINT TEST S : U0155:00

S1 VERIFY THE CUSTOMER'S CONCERN

- Ignition ON.
- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to S2
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

S2 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0155:00

- Ignition ON.
- Using a diagnostic scan tool, clear all Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Ignition OFF.
- Ignition ON.
- Wait at least 10 seconds.
- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0155:00 still present?

Yes	GO to S3
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

S3 CHECK FOR IPC (INSTRUMENT PANEL CLUSTER) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, carry out the IPC self-test.

Are Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).
No	GO to S4

S4 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U3003:16 AND U3003:16

- Using a diagnostic scan tool, carry out the self-test for the following modules:
 - ACM
 - FCIM

Is DTC U3003:16 or U3003:16 present?

Yes	For DTC U3003:16, GO to Pinpoint Test X For DTC U3003:17, GO to Pinpoint Test Y
No	GO to S5

S5 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0155:00 SET IN MULTIPLE MODULES

- Review the recorded results from the self-test.

Is DTC U0155:00 set in more than one module?

Yes	GO to S6
No	If an observable symptom is present, REFER to the General Audio System Symptom Chart in this section. If no observable symptom is present, the system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

S6 CHECK FOR CORRECT IPC (INSTRUMENT PANEL CLUSTER) OPERATION

- Ignition OFF.
- Disconnect and inspect the IPC connector.
- 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 IPC connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new IPC.   Click here to access Guided Routine (IPC).
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.

U0159:00

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

The PAM is integral to the BCM.

FCDIM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0159:00	Lost Communication With Parking Assist Control Module "A": No Sub Type Information	Set by the FCDIM when network messages are detected missing from the PAM for more than 5 seconds.

Possible Causes

- PAM

PINPOINT TEST T : U0159:00

T1 VERIFY THE CUSTOMER'S CONCERN	
• Ignition ON. • Verify if there is an observable symptom present.	
Is an observable symptom present?	
Yes	GO to T2
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.
T2 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0159:00	
• Ignition ON. • Using a diagnostic scan tool, clear all Continuous Memory Diagnostic Trouble Codes (CMDTCs). • Ignition OFF. • Ignition ON. • Wait at least 10 seconds. • Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).	
Is DTC U0159:00 still present?	
Yes	GO to T3
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.
T3 CHECK FOR BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)	

- Using a diagnostic scan tool, carry out the BCM self-test.

Are Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules) .
No	GO to T4

T4 CHECK FOR FCDIM (FRONT CONTROL/DISPLAY INTERFACE MODULE) DTC (DIAGNOSTIC TROUBLE CODE) U3003:16 AND U3003:17

- Using a diagnostic scan tool, carry out the FCDIM self-test.

Is DTC U3003:16 or U3003:17 present?

Yes	For DTC U3003:16, GO to Pinpoint Test X For DTC U3003:17, GO to Pinpoint Test Y
No	GO to T5

T5 CHECK FOR CORRECT PAM (PARKING ASSIST CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the BCM connectors.
- 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 BCM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new BCM.   Click here to access Guided Routine (BCM).
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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.
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U0184:00

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

FCDIM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0184:00	Lost Communication With Radio: No Sub Type Information	Set by the FCDIM when network messages are detected missing from the ACM for more than 5 seconds.

Possible Causes

- ACM

PINPOINT TEST U : U0184:00

U1 VERIFY THE CUSTOMER'S CONCERN

- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to U2
No	The system is operating normally at this time. This DTC may have been set due to high network traffic or an intermittent fault condition.

U2 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0184:00

- Ignition ON.
- Using a diagnostic scan tool, clear all Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Ignition OFF.
- Ignition ON.
- Wait at least 10 seconds.
- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0184:00 still present?

Yes	GO to U3
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

U3 CHECK FOR ACM (AUDIO FRONT CONTROL MODULE) DTC (DIAGNOSTIC TROUBLE CODE) U3003:16 AND U3003:17

- Using a diagnostic scan tool, carry out the ACM self-test.

Is DTC U3003:16 or U3003:17 present?

Yes	For DTC U3003:16, GO to Pinpoint Test X For DTC U3003:17, GO to Pinpoint Test Y
No	GO to U4

U4 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

U0256:00

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

ACM/ FCDIM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0256:00	Lost Communication With Front Controls Interface Module "A": No Sub Type Information	Set by the ACM or the FCDIM when network messages are detected missing from the FCIM for more than 5 seconds.

Possible Causes

- FCIM

PINPOINT TEST V : U0256:00

V1 VERIFY THE CUSTOMER'S CONCERN

- Ignition ON.
- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to V2
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

V2 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0256:00

- Ignition ON.
- Using a diagnostic scan tool, clear all Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Ignition OFF.
- Ignition ON.
- Wait at least 10 seconds.
- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0256:00 still present?

Yes	GO to V3
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

V3 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U3003:16 AND U3003:17

- Using a diagnostic scan tool, carry out the self-test for the following modules:
 - ACM
 - FCIM

Is DTC U3003:16 or U3003:17 present?

Yes	For DTC U3003:16, GO to Pinpoint Test X For DTC U3003:17, GO to Pinpoint Test Y
No	GO to V4

V4 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0256:00 SET IN MULTIPLE MODULES

- Review the recorded results from the self-test.

Is DTC U0256:00 set in both the ACM?

Yes	GO to V5
No	If an observable symptom is present, REFER to the General Audio System Symptom Chart in this section. If no observable symptom is present, the system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

V5 CHECK FOR CORRECT FCIM (FRONT CONTROLS INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the FCIM connectors.
- 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 FCIM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,   Click here to access Guided Routine (FCIM).
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.

U0257:00

Normal Operation and Fault Conditions

REFER to: [Information and Entertainment System - System Operation and Component Description](#) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, Description and Operation).

ACM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0257:00	Lost Communication With Front Controls / Display Interface Module: No Sub Type Information	Set by the ACM when network messages are detected missing from the FCDIM for more than 5 seconds.

Possible Causes

- FCDIM

PINPOINT TEST W : U0257:00

W1 VERIFY THE CUSTOMER'S CONCERN

- Ignition ON.
- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to W2
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

W2 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0257:00

- Ignition ON.
- Using a diagnostic scan tool, clear all Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Ignition OFF.
- Ignition ON.
- Wait at least 10 seconds.
- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0257:00 still present?

Yes	GO to W3
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

W3 CHECK FOR ACM (AUDIO FRONT CONTROL MODULE) DTC (DIAGNOSTIC TROUBLE CODE) U3003:16 AND U3003:17

- Using a diagnostic scan tool, carry out the ACM self-test.
-

Is DTC U3003:16 or U3003:17 present?

Yes	For DTC U3003:16, GO to Pinpoint Test X For DTC U3003:17, GO to Pinpoint Test Y
No	GO to W4

W4 CHECK FOR CORRECT FCDIM (FRONT CONTROL/DISPLAY INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the FCDIM connector.
- 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 FCDIM connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new FCDIM. REFER to: Front Control/Display Interface Module (FCDIM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

U3003:16

Refer to Wiring Diagrams Cell 130 for schematic and connector information.

ACM/ FCDIM/ FCIM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U3003:16	Battery Voltage: Circuit Voltage Below Threshold	Set by the ACM, the FCDIM or FCIM when the supply voltage falls below 10 volts for at least 10 seconds during normal operation.

Possible Causes

- Previous low battery voltage
- Wiring, terminals, or connectors
- ACM
- FCDIM
- FCIM

PINPOINT TEST X : U3003:16

X1

RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U3003:16

Ignition ON.

Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs) for the module in question.

Wait at least 15 seconds.

Using a diagnostic scan tool, repeat the self-test for the module in question.

Is DTC U3003:16 still present?

Yes

GO to [X2](#)

No

The system is operating correctly at this time. The DTC may have been set due to a previous low battery voltage condition.

X2

CHECK FOR CHARGING SYSTEM DIAGNOSTIC TROUBLE CODES (DTCs) IN THE PCM (POWERTRAIN CONTROL MODULE)

- Using a diagnostic scan tool, carry out the PCM self-test

Are any voltage-related Diagnostic Trouble Codes (DTCs) set in the PCM?

Yes	DIAGNOSE the charging system. REFER to the appropriate Diagnosis and Testing is section 414-00.
No	GO to X3

X3 CHECK THE BATTERY CONDITION AND STATE OF CHARGE

- Check the battery condition and verify the battery is fully charged.
REFER to: [Battery](#) (414-01 Battery, Mounting and Cables, Diagnosis and Testing).

Is the battery OK and fully charged?

Yes	GO to X4
No	DIAGNOSE the charging system. REFER to the appropriate Diagnosis and Testing is section 414-00.

X4 CHECK THE MODULE VOLTAGE SUPPLY

- Ignition OFF.
- Measure and record the voltage at the battery.
- Disconnect the audio system module setting DTC U3003:16.
- Ignition ON.
- Measure:

Click to display connectors

FCDIM

Positive Lead	Measurement / Action	Negative Lead
C2123-1		Ground

Is the voltage within 0.2 volts of the recorded battery voltage?

Yes	GO to X5
No	REPAIR the circuit for high resistance.

X5 CHECK THE SUSPECT MODULE GROUND CIRCUIT FOR CONTINUITY

- For the ACM, measure:

Click to display connectors

FCDIM

Positive Lead	Measurement / Action	Negative Lead
C2123-1		C2123-9

Is the suspect module voltage greater than 11 volts?

Yes	For the ACM, GO to X6 For the FCIM, GO to X7 For the FCIM, GO to X8
No	REPAIR the circuit for high resistance.

X6 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

X7 CHECK FOR CORRECT FCIM (FRONT CONTROLS INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the FCIM connector.
- 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 FCIM connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,   Click here to access Guided Routine (FCIM).
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.

X8 CHECK FOR CORRECT FCDIM (FRONT CONTROL/DISPLAY INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the FCDIM FCIM connector.
- 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 FCDIM connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new FCDIM. REFER to: Front Control/Display Interface Module (FCDIM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

U3003:17

ACM/ FCDIM/ FCIM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U3003:17	Battery Voltage: Circuit Voltage Above Threshold	Set by the ACM, the FCDIM or the FCIM when the supply voltage is more than 15.8 volts.

Possible Causes

- ACM
- FCDIM
- FCIM

PINPOINT TEST Y : U3003:17

Y1 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U3003:17

- Ignition ON.
- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs) for the module in question.
- Wait at least 10 seconds.
- Using a diagnostic scan tool, carry out the self-test for the module in question.

Is DTC U3003:17 present?

Yes	GO to Y2
No	The system is operating correctly at this time. The DTC may have been set previously during battery charging or while jump starting the vehicle.

Y2 CHECK FOR HIGH VOLTAGE DIAGNOSTIC TROUBLE CODES (DTCS) SET IN MULTIPLE MODULES

- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Are high voltage Diagnostic Trouble Codes (DTCs) such as B1676, P0563, or U3003:17 set in more than one module?

Yes	DIAGNOSE the charging system. REFER to the appropriate Diagnosis and Testing is section 414-00.
No	GO to Y3

Y3 CHECK THE BATTERY VOLTAGE

- Turn off all interior lights, exterior lights, and accessories.
- Start and run the engine at approximately 2,000 RPM for 3 minutes while monitoring the battery voltage.

Does the battery voltage rise to 15.5 volts or higher?

Yes	DIAGNOSE the charging system. REFER to the appropriate Diagnosis and Testing is section 414-00.
No	For the ACM, GO to Y4 For the FCIM, GO to Y5 For the FCDIM, GO to Y6

Y4 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the ACM connectors.
- 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 ACM 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 for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.

Y5 CHECK FOR CORRECT FCIM (FRONT CONTROLS INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the FCIM connector.
- 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 FCIM connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern,   Click here to access Guided Routine (FCIM).
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.

Y6 CHECK FOR CORRECT FCDIM (FRONT CONTROL/DISPLAY INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the FCDIM FCIM connector.
- 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 FCDIM connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW the TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new FCDIM. REFER to: Front Control/Display Interface Module (FCDIM) (415-00A Information and Entertainment System - General Information - Vehicles Without: SYNC, 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.