

- Wiring, terminals, or connectors
- Ignition system
- Noise suppression equipment
- AM/ FM antenna coaxial cable
- LHR fender-mounted AM/ FM mast antenna
- ACM

DIAGNOSIS AND TESTING > INFORMATION AND ENTERTAINMENT SYSTEM > PINPOINT TESTS > PINPOINT TEST A : POOR RECEPTION OR CONTINUOUS SEEK OR SCAN - AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION) > PINPOINT TEST A : POOR RECEPTION OR CONTINUOUS SEEK OR SCAN - AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION)

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.

Is poor reception only present with the engine running?

Yes	GO to A2
No	GO to A4

A2 CHECK THE GENERATOR

Ignition OFF.



NOTE: 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 C102C.

Start the engine.

Operate the audio system in AM/ FM mode.

Is the reception OK?

Yes	INSTALL a new generator. For vehicles with the 2.7L EcoBoost (238kW/324PS), REFER
------------	---

	to: Generator - 2.7L EcoBoost (238kW/324PS) . For vehicles with the 3.5L Duratec (209kW/284PS), REFER to: Generator - 3.5L Duratec (209kW/284PS) . For vehicles with the 3.5L EcoBoost (272kW/370PS), REFER to: Generator - 3.5L EcoBoost (272kW/370PS) . For vehicles with the 5.0L 32V Ti-VCT, REFER to: Generator - 5.0L 32V Ti-VCT .
--	--

No	GO to A3
-----------	----------

A3 CHECK THE IGNITION CIRCUITS

Ignition OFF.

Connect: Generator B+ Cable C102C.

Visually inspect the engine compartment and make sure all ignition coils are correctly and securely connected, and that there are no visible cracks 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 temporarily ground various parts of the vehicle (examples include: engine, fenders, quarter panels, body sheet metal) to the frame. When the noise is eliminated, PROVIDE a permanent ground where necessary.
------------	---

No	REPAIR the ignition system as necessary.
-----------	--

A4 CHECK THE AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION) COAXIAL CABLE JUMPER CORE AND SHIELD FOR A SHORT TO VOLTAGE

Ignition OFF.

Disconnect: AM/ FM coaxial cable jumper at the ACM. REFER to: Audio Unit Antenna Cable .

Disconnect: AM/ FM inline coaxial cable connection behind the glove box. REFER to: Audio Unit Antenna Cable .

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
AM/ FM antenna coaxial cable core at the ACM		Ground
AM/ FM antenna coaxial cable shield at the ACM		Ground

Is any voltage present?

Yes	REPAIR, or INSTALL a new AM/ FM coaxial cable jumper. REFER to: Audio Unit Antenna Cable .
------------	--

No	GO to A5
-----------	----------

A5 CHECK THE AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION) COAXIAL CABLE JUMPER CORE FOR A SHORT TO GROUND

Ignition OFF.

Measure:

Positive Lead	Measurement / Action	Negative Lead
AM/ FM antenna coaxial cable core at the ACM	Ω	Ground

Is the resistance greater than 10, 000 ohms?

Yes	GO to A6
------------	----------

No	REPAIR, or INSTALL a new AM/ FM coaxial cable jumper. REFER to: Audio Unit Antenna Cable .
-----------	--

A6 CHECK THE AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION) COAXIAL CABLE JUMPER CORE AND SHIELD FOR AN OPEN

Measure:

Positive Lead	Measurement / Action	Negative Lead
AM/ FM antenna coaxial cable core at the ACM	Ω	AM/ FM antenna coaxial cable core at the inline connection
AM/ FM antenna coaxial cable shield at the ACM	Ω	AM/ FM antenna coaxial cable shield at the inline connection

Are the resistances less than 1 ohm?

Yes	GO to A7
------------	----------

No	REPAIR, or INSTALL a new AM/ FM coaxial cable jumper. REFER to: Audio Unit Antenna Cable .
-----------	--

A7 CHECK THE AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION) COAXIAL CABLE JUMPER CORE AND SHIELD FOR A SHORT TOGETHER

Measure:

Positive Lead	Measurement / Action	Negative Lead
AM/ FM antenna coaxial cable core at the ACM	Ω	AM/ FM antenna coaxial cable shield at the ACM

Is the resistance greater than 10, 000 ohms?

Yes	GO to A8
------------	----------

No	REPAIR, or INSTALL a new AM/ FM antenna coaxial cable. REFER to: Audio Unit Antenna Cable .
-----------	---

A8 CHECK THE AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION) ANTENNA/COAXIAL CABLE PIGTAIL CORE AND SHIELD FOR A SHORT TO VOLTAGE

Ignition OFF.

Connect: AM/ FM inline coaxial cable connection behind the glove box.

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
AM/ FM antenna coaxial cable core at the ACM		Ground
AM/ FM antenna coaxial cable shield at the ACM		Ground

Is any voltage present?

Yes	INSTALL a new AM/ FM antenna/coaxial cable pigtail. REFER to: Audio Unit Antenna .
------------	--

No	GO to A9
-----------	----------

A9 CHECK THE AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION) ANTENNA/COAXIAL CABLE PIGTAIL CORE FOR A SHORT TO GROUND

Ignition OFF.

Measure:

Positive Lead	Measurement / Action	Negative Lead
AM/ FM antenna coaxial cable core at the ACM	Ω	Ground

Is the resistance greater than 10, 000 ohms?

Yes	GO to A10
------------	-----------

No	INSTALL a new AM/ FM antenna/coaxial cable pigtail. REFER to: Audio Unit Antenna .
-----------	--

A10 CHECK THE AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION) ANTENNA/COAXIAL CABLE PIGTAIL CORE AND SHIELD FOR A SHORT TOGETHER

Measure:

Positive Lead	Measurement / Action	Negative Lead
AM/ FM antenna coaxial cable core at the ACM	Ω	AM/ FM antenna coaxial cable shield at the ACM

Is the resistance greater than 10, 000 ohms?

Yes	GO to A11
------------	-----------

No	INSTALL a new AM/ FM antenna/coaxial cable pigtail. REFER to: Audio Unit Antenna .
-----------	--

A11 CHECK THE AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION) ANTENNA/COAXIAL CABLE PIGTAIL SHIELD FOR CONTINUITY TO GROUND

Measure:

Positive Lead	Measurement / Action	Negative Lead
AM/ FM antenna coaxial cable shield at the ACM	Ω	Ground

Is the resistance less than 1 ohm?

Yes	GO to A13
------------	-----------

No	GO to A12
-----------	-----------

A12 CHECK THE AM (AMPLITUDE MODULATION) / FM (FREQUENCY MODULATION) ANTENNA/COAXIAL CABLE PIGTAIL SHIELD FOR CONTINUITY TO ANTENNA UNIT BASE

Remove the AM/ FM antenna/coaxial cable pigtail. REFER to: Audio Unit Antenna .

Measure:

Positive Lead	Measurement / Action	Negative Lead
AM/ FM inline coaxial cable	Ω	AM/ FM antenna base