Possible Sources

- Expired subscription
- Obstructions in the antenna's line of sight
- Incorrectly matched ESN
- Satellite radio antenna coaxial cable
- Satellite radio antenna
- ACM

DIAGNOSIS AND TESTING > INFORMATION AND ENTERTAINMENT SYSTEM > PINPOINT TESTS > PINPOINT TEST B : THE SATELLITE RADIO IS INOPERATIVE, HAS POOR RECEPTION OR SOUND QUALITY, OR HAS NO SOUND - IF EQUIPPED > PINPOINT TEST B : THE SATELLITE RADIO IS INOPERATIVE, HAS POOR RECEPTION OR SOUND QUALITY, OR HAS NO SOUND - IF EQUIPPED

B1 VERIFY AN ACTIVE SUBSCRIPTION

Operate the audio system in satellite radio mode and observe the infotainment display.

Does the display indicate that the subscription has expired?

Yes	The subscription has expired. INSTRUCT the customer to contact SIRIUS to reactivate the subscription.

No	GO to B2

B2 CHECK THE RECEPTION

Drive the vehicle to an open location that is free from obstacles such as tall buildings or large trees.

Using a diagnostic scan tool, view the ACM Parameter Identifications (PIDs).

Monitor the satellite signal strength (SAT_SIG_STR) PID.

If the PID reads "No Signal" or "Poor," move the vehicle to another area and retest until "Good," "Very Good," or "Excellent" PID values are obtained.

Can a "Good," "Very Good," or "Excellent" PID value be obtained?

Yes	GO to B3

No	GO to B6

B3 CHECK THE SATELLITE RADIO SYSTEM FOR CORRECT OPERATION

Operate multiple channels with the audio system in satellite radio mode.

Does the satellite radio system receive multiple channels with normal sound quality?

Yes	The system is operating correctly at this time. The concern was a result of obstructions in the antenna's line of sight.

No	GO to B4

B4 CHECK FOR PROMOTIONAL CHANNEL 184

Select channel 184.

Does the satellite radio system receive channel 184 with normal sound quality?

Yes	GO to B5

No	GO to B6

B5 VERIFY THAT THE VIN (VEHICLE IDENTIFICATION NUMBER) AND ESN (ELECTRONIC SERIAL NUMBER) ON FILE MATCH THE VIN (VEHICLE IDENTIFICATION NUMBER) AND ESN (ELECTRONIC SERIAL NUMBER) FROM THE VEHICLE

Retrieve the satellite radio ESN by tuning to channel 0.

Contact the SIRIUS Dealer Support Line (888-465-8528).

Ensure that the VIN and ESN SIRIUS has on the customer's file match the VIN and ESN retrieved from the vehicle.

Follow the actions from step 2 to obtain "Good," "Very Good," or "Excellent" reception.

Operate the audio system in satellite radio mode.

NOTE: It may take up to 30 minutes for the activation signal to be received and satellite radio functions to operate.

Request for SIRIUS to send the activation signal to the vehicle 2-3 times.

Operate multiple channels with the audio system in satellite radio mode.

Does the satellite radio system receive multiple channels with normal sound quality?

Yes	The system is operating correctly at this time. The concern was a result of the activation signal needing to be resent or the VIN and ESN SIRIUS had on file not matching the VIN and ESN from the vehicle.

No	GO to B6

B6 CHECK FOR ACM (AUDIO FRONT CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

Ignition ON.

Using a diagnostic scan tool, clear the ACM Diagnostic Trouble Codes (DTCs).

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

Are any Diagnostic Trouble Codes (DTCs) recorded in the ACM?

Yes	* For DTC B1A89:11 or DTC B1A89:13, GO to B7* For all other Diagnostic Trouble Codes (DTCs), REFER to: Audio Unit Antenna Cable . See DTC Chart: ACM.

No	GO to B20

B7 CHECK THE LOWER SATELLITE RADIO ANTENNA COAXIAL CABLE CORE AND SHIELD FOR A SHORT TO VOLTAGE

Ignition OFF.

Disconnect: Satellite radio antenna coaxial cable at the ACM. REFER to: Satellite Radio Antenna Cable .

Disconnect: Satellite radio antenna inline coaxial cable connection behind the glove box. REFER to: Satellite Radio Antenna Cable .

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio antenna coaxial cable core at the ACM		Ground
Satellite radio antenna coaxial cable shield at the ACM		Ground

Is any voltage present?

Yes	REPAIR, or INSTALL a new lower satellite radio antenna coaxial cable. REFER to: Satellite Radio Antenna Cable .

No	GO to B8

B8 CHECK THE LOWER SATELLITE RADIO ANTENNA COAXIAL CABLE CORE FOR A SHORT

TO GROUND

Ignition OFF.

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio antenna coaxial cable core at the ACM	Ω	Ground

Is the resistance greater than 10, 000 ohms?

Yes	GO to B9

No	REPAIR, or INSTALL a new lower satellite radio antenna coaxial cable. REFER to: Satellite Radio Antenna Cable .

B9 CHECK THE LOWER SATELLITE RADIO ANTENNA COAXIAL CABLE CORE AND SHIELD FOR AN OPEN

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio coaxial cable core at the ACM	Ω	Satellite radio antenna coaxial cable core at the inline connection (ACM side of cable)
Satellite radio antenna coaxial cable shield at the ACM	Ω	Satellite radio antenna coaxial cable shield at the inline connection (ACM side of cable)

Are the resistances less than 1 ohm?

Yes	GO to B10

No	REPAIR, or INSTALL a new lower satellite radio antenna coaxial cable. REFER to: Satellite Radio Antenna Cable .

B10 CHECK THE LOWER SATELLITE RADIO ANTENNA COAXIAL CABLE CORE AND SHIELD FOR A SHORT TOGETHER

Measure:

Positive Lead	Measurement / Action	Negative Lead

Satellite radio antenna coaxial cable core at the ACM	Ω	Satellite radio antenna coaxial cable shield at the ACM

Is the resistance greater than 10, 000 ohms?

Yes	GO to B11

No	REPAIR, or INSTALL a new lower satellite radio antenna coaxial cable. REFER to: Satellite Radio Antenna Cable .

B11 CHECK THE UPPER SATELLITE RADIO ANTENNA COAXIAL CABLE CORE AND SHIELD FOR A SHORT TO VOLTAGE

Ignition OFF.

Connect: Satellite radio antenna inline coaxial cable connection behind the glove box. REFER to: Satellite Radio Antenna Cable .

Disconnect: Satellite radio antenna coaxial cable at the antenna unit. REFER to: Audio Unit Antenna .

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio antenna coaxial cable core at the ACM	V	Ground
Satellite radio antenna coaxial cable shield at the ACM	V	Ground

Is any voltage present?

Yes	REPAIR, or INSTALL a new upper satellite radio antenna coaxial cable. REFER to: Satellite Radio Antenna Cable .

No	GO to B12

B12 CHECK THE UPPER SATELLITE RADIO ANTENNA COAXIAL CABLE CORE FOR A SHORT TO GROUND

Ignition OFF.

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio antenna coaxial cable core at the ACM	Ω	Ground

Is the resistance greater than 10, 000 ohms?

Yes	GO to B13

No	REPAIR, or INSTALL a new upper satellite radio antenna coaxial cable. REFER to: Satellite Radio Antenna Cable .

B13 CHECK THE UPPER SATELLITE RADIO ANTENNA COAXIAL CABLE CORE AND SHIELD FOR AN OPEN

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio coaxial cable core at the ACM	Ω	Satellite radio antenna coaxial cable core at the antenna unit (harness side of cable)
Satellite radio antenna coaxial cable shield at the ACM	Ω	Satellite radio antenna coaxial cable shield at the antenna unit (harness side of cable)

Are the resistances less than 1 ohm?

Yes	GO to B14

No	REPAIR, or INSTALL a new upper satellite radio antenna coaxial cable. REFER to: Satellite Radio Antenna Cable .

B14 CHECK THE UPPER SATELLITE RADIO ANTENNA COAXIAL CABLE CORE AND SHIELD FOR A SHORT TOGETHER

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio antenna coaxial cable core at the ACM	Ω	Satellite radio antenna coaxial cable shield at the ACM

Is the resistance greater than 10, 000 ohms?

Yes	GO to B15

No	REPAIR, or INSTALL a new upper satellite radio antenna coaxial cable. REFER to: Satellite Radio Antenna Cable .

B15 CHECK THE SATELLITE RADIO ANTENNA UNIT CORE AND SHIELD FOR A SHORT TO VOLTAGE

Ignition OFF.

Connect: Satellite radio antenna coaxial cable at the satellite radio antenna unit.

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio antenna coaxial cable core at the ACM		Ground
Satellite radio antenna coaxial cable shield at the ACM		Ground

Is any voltage present?

Yes	INSTALL a new satellite radio antenna. REFER to: Satellite Radio Antenna .

No	GO to B16

B16 CHECK THE SATELLITE RADIO ANTENNA UNIT CORE FOR A SHORT TO GROUND

Ignition OFF.

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio antenna coaxial cable core at the ACM	Ω	Ground

Is the resistance greater than 10, 000 ohms?

Yes	GO to B17

No	INSTALL a new satellite radio antenna. REFER to: Satellite Radio Antenna .

B17 CHECK THE SATELLITE RADIO ANTENNA UNIT CORE AND SHIELD FOR A SHORT TOGETHER

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio antenna coaxial cable core at the ACM	Ω	Satellite radio antenna coaxial cable shield at the ACM

Is the resistance greater than 10, 000 ohms?

Yes	GO to B18

No	INSTALL a new satellite radio antenna. REFER to: Satellite Radio Antenna .

B18 CHECK THE SATELLITE RADIO ANTENNA UNIT SHIELD FOR CONTINUITY TO GROUND

Disconnect: Satellite radio antenna coaxial cable at the antenna unit.

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio antenna unit shield at the antenna unit (component side)	Ω	Ground

Is the resistance less than 1 ohm?

Yes	GO to B20

No	GO to B19

B19 CHECK THE SATELLITE RADIO ANTENNA UNIT SHIELD FOR CONTINUITY TO ANTENNA UNIT BASE

Remove the satellite radio antenna. REFER to: Satellite Radio Antenna .

Measure:

Positive Lead	Measurement / Action	Negative Lead
Satellite radio antenna unit shield at the antenna unit (component side)	Ω	Satellite radio antenna base (unpainted surface)

Is the resistance less than 1 ohm?