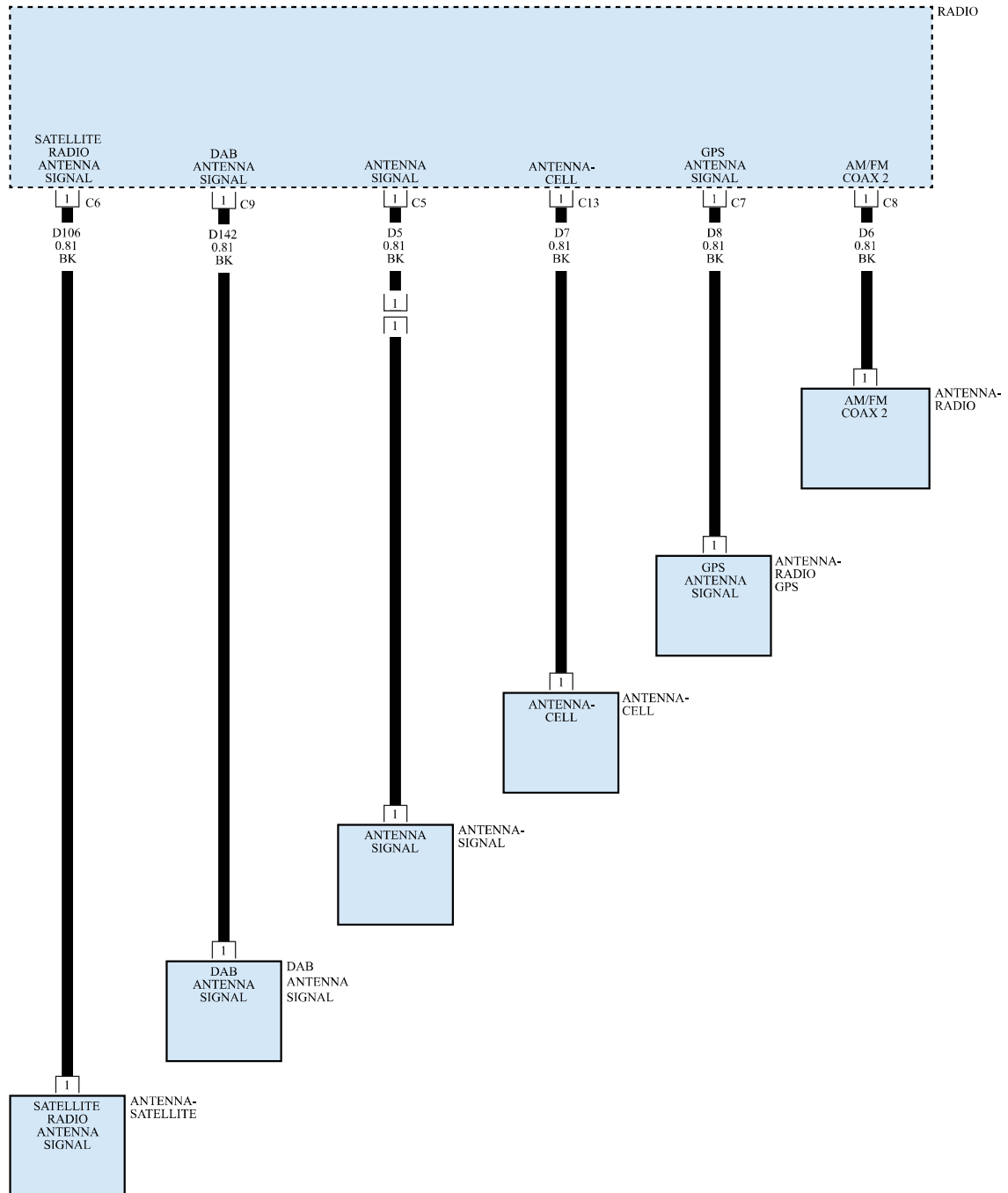
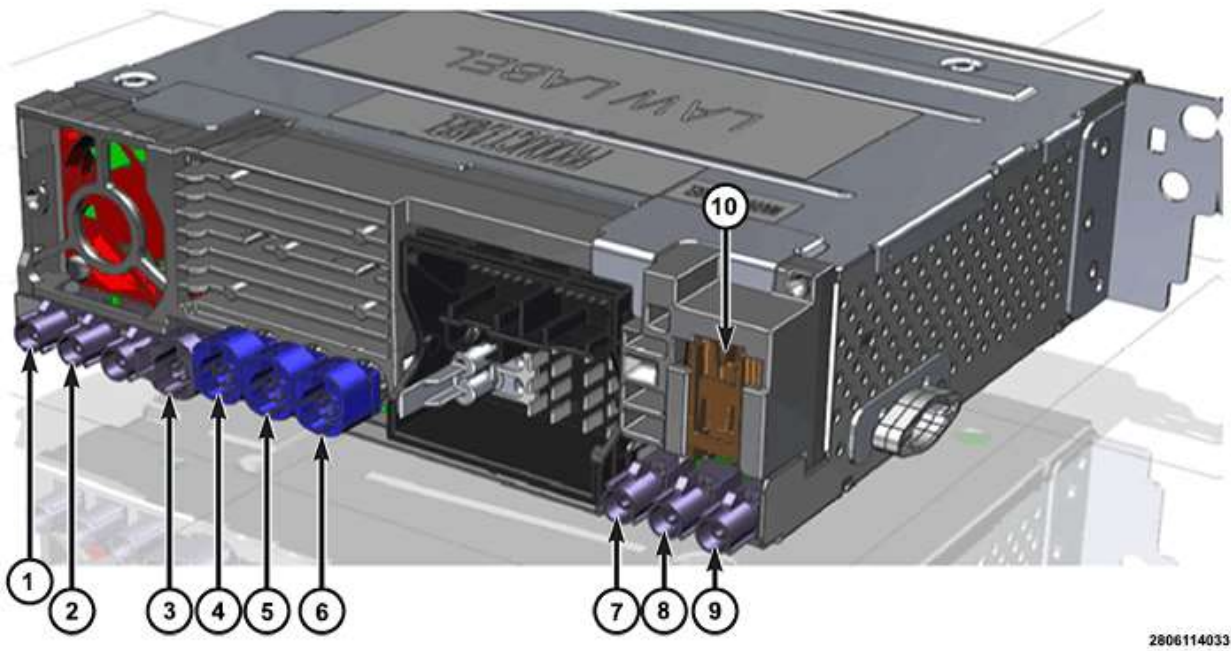


B157A-13 - DIGITAL AUDIO BROADCASTING DAB ANTENNA - CIRCUIT OPEN

For a complete wiring diagram, refer to the **Wiring Information**.





2806114033

Call Out	Connector	Call Out	Connector
1	GPS	6	USB3
2	BT	7	FM2
3	APIX	8	AM/FM1
4	USB1	9	DAB
5	USB2	10	SDAR

Theory of Operation

The radio supplies the amplified antenna power circuit with voltage. A 5-volt (GPS/SDARs) signal is transmitted over the center coaxial cable from the radio to the antenna.

Antenna concerns can be diagnosed using special tool #9977-6 or #9977B, Antenna Test Kit. The Antenna Test Kit contains substitute antennas and cables, along with test connectors, that assist in checking the resistance of cables on the vehicle. A

When Monitored and Set Conditions

When Monitored: This diagnostic runs continuously when one of the following conditions are met:

- Ignition on.
- Engine on.

Set Conditions:

- Module is powered.
- System voltage is greater than 9 volts and less than 16 volts.

Possible Causes

DAB ANTENNA AND RADIO/ETM CONNECTIONS

DAB ANTENNA SIGNAL CIRCUIT OPEN OR HIGH RESISTANCE

DAB ANTENNA

RADIO/ETM

Always perform the PRE-DIAGNOSTIC TROUBLESHOOTING PROCEDURE before proceeding. (Refer to 28 - DTC-Based Diagnostics/Standard Procedure) .

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

1. Turn the ignition on.
2. With the scan tool, create a Vehicle Scan Report and attach it to the repair order.
3. With the scan tool, read the RADIO/ETM DTCs.

Is the DTC active?

Yes

- Go To Step 2

No

- Perform the TESTING FOR AN INTERMITTENT CONDITION procedure. (Refer to 28 - DTC-Based Diagnostics/Standard Procedure) .

2. CHECK (D142) DIGITAL AUDIO BROADCASTING (DAB) ANTENNA SIGNAL CIRCUIT AND CONNECTIONS

1. Turn the ignition off.
2. Inspect the DAB Antenna cable connection at the Radio.
3. Inspect the DAB Antenna cable connection at the Radio Antenna.

Were any problems found?

Yes

- Repair the (D142) DAB Antenna Signal circuit/connection as needed.
- Perform the Body VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Body Control (BCM) /Standard Procedure).

No

- Go To Step 3

3. CHECK (D142) DAB ANTENNA SIGNAL CIRCUIT FOR AN OPEN OR HIGH RESISTANCE

1. From the 9977-6 Radio Antenna Diagnostic Kit, connect the appropriate length adapter cable between the Radio and Radio Antenna.
2. Turn the ignition on.
3. With the scan tool, erase DTCs.
4. Cycle the ignition switch from on to off, wait five seconds and then back to on.

Is the DTC active?

Yes

- Go To Step 4

No

- Repair the (D142) DAB Antenna Signal circuit for an open circuit or high resistance.
- Perform the Body VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Body Control (BCM) /Standard Procedure).

4. CHECK DAB ANTENNA OPERATION

1. Turn the ignition off.
2. Replace the Digital Audio Broadcasting (DAB) Antenna in accordance with Service Information.
3. Turn the ignition on.
4. With the scan tool, erase DTCs.
5. Cycle the ignition switch from on to off, wait five seconds and then back to on.

Is the DTC active?

Yes

- Go To Step 5

No

- Perform the Body VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Body Control (BCM) /Standard Procedure).
- Test Complete.

5. CHECK RELATED HARNESS CONNECTIONS

1. Disconnect all RADIO/ETM Module harness connectors.
2. Disconnect all related in-line harness connections (if equipped).
3. Disconnect the related component harness connectors.
4. Inspect harness connectors, component connectors, and all male and female terminals for the following conditions:
 - Proper connector installation.
 - Damaged connector locks.
 - Corrosion.
 - Other signs of water intrusion.

- Weather seal damage (if equipped).
- Bent terminals.
- Overheating due to a poor connection (terminal may be discolored due to excessive current draw).
- Terminals that have been pushed back into the connector cavity.
- Perform a terminal drag test on each connector terminal to verify proper terminal tension.

Repair any conditions that are found.

5. Reconnect all RADIO/ETM Module harness connectors. Be certain that all harness connectors are fully seated and the connector locks are fully engaged.
6. Reconnect all in-line harness connectors (if equipped). Be certain that all connectors are fully seated and the connector locks are fully engaged.
7. Reconnect all related component harness connectors. Be certain that all connectors are fully seated and the connector locks are fully engaged.
8. With the scan tool, erase DTCs.
9. Using the recorded Environmental Data, along with the When Monitored and Set Conditions above, operate the vehicle in the conditions that set the DTC.
10. With the scan tool, read RADIO/ETM Module DTCs.

Did the DTC return?

Yes

- Replace the RADIO/ETM in accordance with the Service information. (Refer to 08 - Electrical/8A - Audio and Video/RADIO/Removal and Installation) .
- Perform the Body VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Body Control (BCM) /Standard Procedure).

No

- Perform the Body VERIFICATION TEST. (Refer to 28 - DTC-Based Diagnostics/MODULE, Body Control (BCM) /Standard Procedure).
- Test complete.