Technical Service Bulletin

91 Complaints about GPS or satellite radio reception, repair coaxial cable

91 17 04 2045106/2 January 26, 2017. Supersedes Technical Service Bulletin Group 91 number 16-75 dated September 20, 2016 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A4	2015 - 2016	All	Satellite Radio or GPS
A4 allroad	2016 - 2017	All	Satellite Radio or GPS
A6	2015 - 2017	All	Satellite Radio or GPS
A7	2015 - 2017	All	Satellite Radio or GPS
Q3	2015 - 2017	All	Satellite Radio or GPS
Q7	2016 - 2017	All	Satellite Radio or GPS

Condition

REVISION HISTORY		
Revision	**Date**	**Purpose**
2	-	Revised *Required Parts and Tools* (Updated quantity) Revised title
1	09/20/2016	Initial publication

Customer may report one of the following errors displayed on the MIB display:

- Satellite Radio: Message Displayed “Linking.”
- Satellite Radio: Message Displayed “ANTENNA A technical problem occurred. Please contact your Audi dealer.”
- GPS: Navigation Location Incorrect.

Technical Background

The coaxial connection on the vehicle main wire harness is not fully connected at the shark fin antenna. This causes a dampening effect on the signal, and creates an intermittent loss of data. Due to movement of the coaxial connector, the terminals have been damaged.

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Production Solution

In preparation.

Service

1. Verify the customer complaint:
   - Verify the customer's complaint in an area with a clear view of the sky. GPS and Satellite radio signals may not be available in parking structures, areas with tall buildings, and in certain severe weather situations.
   - Perform a 5 minute road test to allow the GPS signal to refresh and lock.
2. Check DTC fault memory via Guided Fault Finding (GFF):
   - If an open circuit DTC is present with an active/static status for either the GPS or antenna circuit or the satellite radio antenna circuit, then locate the source of the open circuit. This TSB only applies to a poor FAKRA connection at the shark fin antenna.

   Note:

   The 5F module outputs 5VDC +/- 0.5VDC, carried on the coaxial wiring, and powering the antenna circuit. An open circuit can be located by checking the coaxial wiring for this 5VDC voltage.
3. If the customer's complaint is intermittent:
   - Wiggle the FAKRA connections and see if the customers concern can be duplicated. See applicable wiring diagram for connector locations as there maybe additional connections apart from the 5F and the antenna connectors.
   - If a concern is identified with any connector other than the connector at the shark fin antenna, this TSB does not apply.

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4. Replace the FAKRA connector and coaxial connection at the shark fin antenna for the applicable circuit, see instructions below.

   Note:

   The correct circuit can be identified by the color on the antenna connector. See Figure 1. Not all antenna connectors are laid out the same.

   Satellite radio: Green

   Navigation: Blue

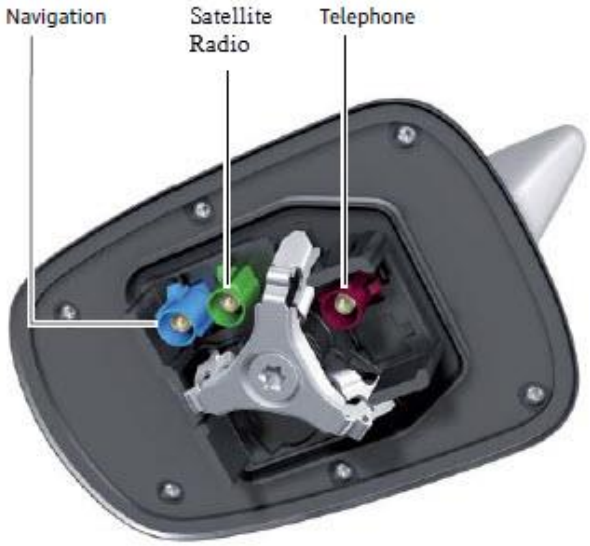

Figure 1. *Identify the correct circuit by the color of the antenna connector. Blue: Navigation. Green: Satellite Radio. Connector placement on antenna will change by vehicle options, reference the wiring diagram for your specific vehicle.*

5. Follow instructions located in the repair manual to access the FAKRA connectors for the shark fin antenna. Only disconnect the connector for the circuit associated with the customer's complaint.

7. Cut off a section from the vehicle's coaxial wiring for the applicable antenna circuit. Make sure the removed section is the same length as the Adapter Antenna Cable (part number 000098710A). Measure this cut based off the cabling you receive, see Figure 2.

Figure 2. *Measure you're the cut point on the vehicle's antenna coaxial wiring (A) based off the length of the replacement coaxial "Adapter Antenna Cable" (B). The removed length of cable from A should be equal to the length of cable B.*

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8. Utilizing VAS6720 (Aerial Cable Repair Set), identify the coaxial wiring type used in your application (RG174 or RTK031). Reference the vehicle repair manual, or the instructions provided with the VAS6720 and install a female coaxial terminal onto the vehicle side of the coaxial harness. See Figure 3, item A for visual of coaxial cable with female coaxial terminal installed.

   Utilize the correct female coaxial terminal for the type of coaxial wire in the vehicle. The VAS6720 contains a tool to identify the coaxial type.

   - RG174: 000979910A
   - RTK031: 000979910

9. Install FAKRA connector part number 6Q0035576K onto the female coaxial terminal you installed in the previous step. Ensure the FAKRA connector is fully seated onto the coaxial connector and the locking tab is pressed all the way down. See Figure 3 for example.

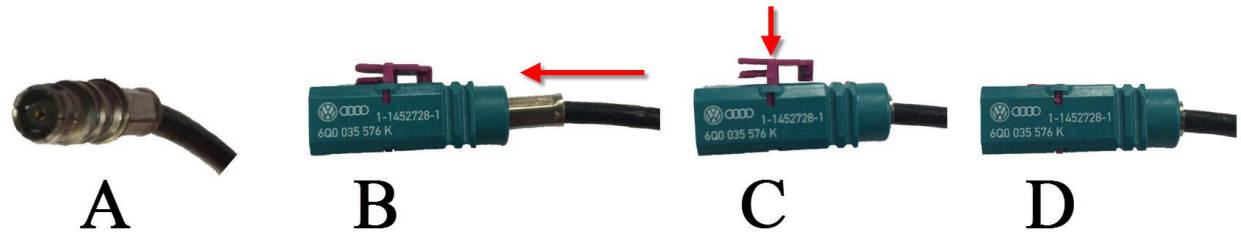

Figure 3. *A: Coaxial wire with female coaxial terminal end installed. B: Insert female coaxial terminal end into FAKRA connector until fully seated. C: Coaxial female terminal is fully seated in FAKRA connector, press down the locking tab of the FAKRA connector. D: Completed assembly.*

10. Install the Adapter Antenna Cable onto the shark fin antenna and connect it to the newly installed FAKRA connector from the previous step. Wrap the new FAKRA connection with cloth tape (part number 000979950) to avoid any unwanted noises.

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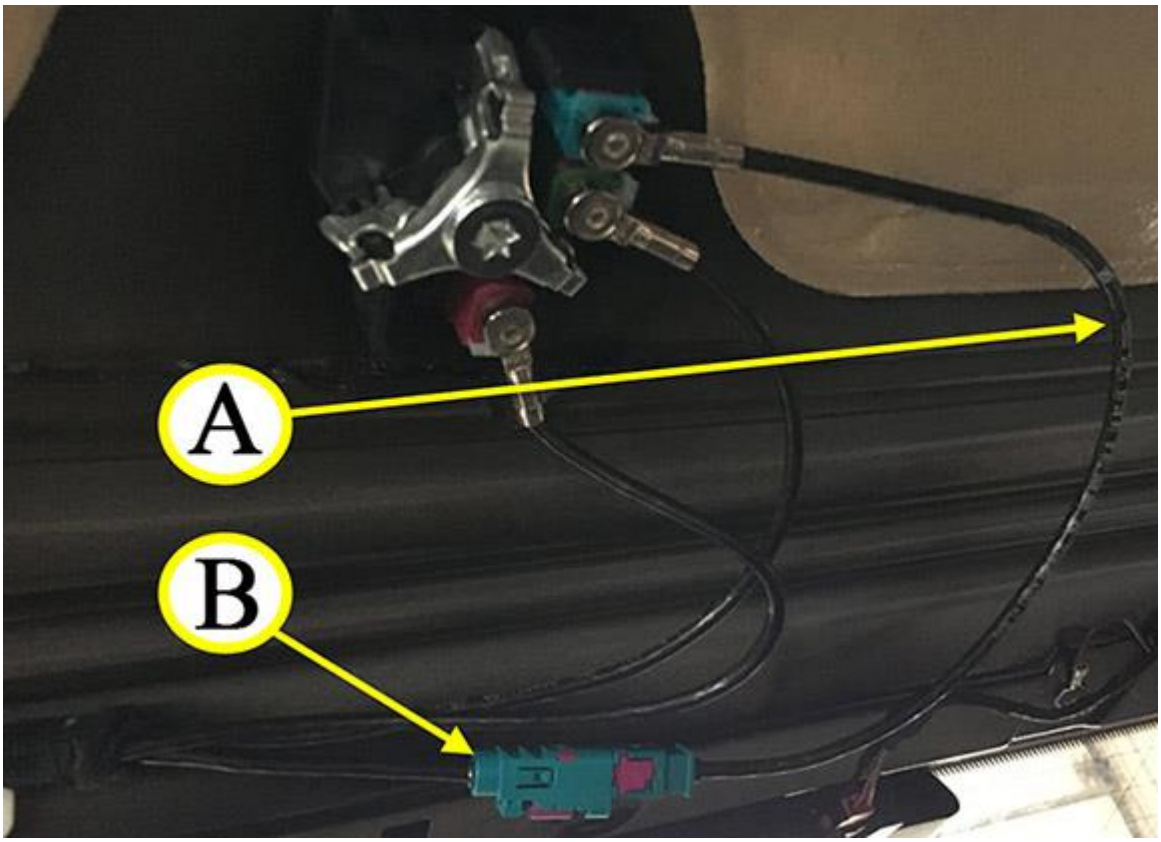

Figure 4. *Install the Adapter Antenna Cable (A) onto the shark fin antenna and connect to the newly created FAKRA connection (B). Wrap a layer of cloth tape around FAKRA connection B to avoid any unwanted noises.*

11. Reinstall parts that were removed to access the shark fin antenna as outlined in the repair manual.
12. Clear all DTC's and upload GFF log to paperless.
13. Perform road test and verify proper functionality of the repaired antenna circuit.

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Warranty

Claim Type:	• 110 up to 48 Months/50,000 Miles. • G10 for CPO Covered Vehicles – Verify Owner. • If vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	9709		
Damage Code:	0026		
Labor Operations:	**All models:**		
	Central wiring harness repair – 1 Cable	9709 4151	30 TU
	A4 Sedan (2017+) and Q3:		
	Headliner remove + reinstall	7084 19XX	See ELSA
	A4 Sedan (2015-2016), A4 allroad (2015 - 2017), A6, A7, and Q7:		
	Antenna remove + reinstall	9138 19XX	See ELSA
Diagnostic Time:	GFF **or (when applicable)** GFF – Checking and clearing fault codes included in existing labor operations	0150 0000	Time stated on diagnostic protocol (Max 50 TU)
	Road test prior to service procedure	0121 0002	10 TU
	Road test after service procedure	0121 0004	10 TU
	Technical diagnosis at dealer's discretion (Refer to Section 2.2.1.2 and Audi Warranty Online for DADP allowance details)		

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Claim Comment:	As per TSB #2045106/2

All warranty claims submitted for payment must be in accordance with the *Audi Warranty Policies and Procedures Manual*. Claims are subject to review or audit by Audi Warranty.

Required Parts and Tools

Part Number	Part Description	Quantity
000098710A	Adapter antenna cable	1
6Q0035576K	Connector housing for antenna	1
VAS6720	Aerial Cable Repair Set	1
000979950	Cloth adhesive tape	Consumable; accounting under warranty/goodwill not permitted.
Only claim one of the connectors listed below depending on the coaxial line type installed in the vehicle		
000979910A	Aerial Female Connectors – RG174 Line	1
000979910	Aerial Female Connectors – RTK031 Line	1

Additional Information

All parts and service references provided in this TSB (2045106) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information.

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