

# Technical Service Bulletin



## 91 Bluetooth call quality issues for caller on other end of call

91 12 68 2027718/3 November 12, 2012. Supersedes Technical Service Bulletin Group 91 number 12-53 dated August 6, 2012 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
2011-2013	A6/A7	N/A	Bluetooth Hands-Free Calling
2011-2013	A5 CAB		
2011-2013	TT		

## Condition

REVISION HISTORY		
Revision	Date	Purpose
3	-	Revised <i>Warranty</i> (Adjusted TUs)
2	8/6/2012	Revised <i>Service</i>
1	10/25/2011	Original publication

The driver's voice is difficult to clearly understand by the caller on the other end of the call when using the Bluetooth hands-free telephone system. The driver's voice sounds muffled, as if you are hearing them while under water.

## Technical Background

The microphone seal is damaged during installation in to the roof module.

## Production Solution

Improved microphone installation procedure and optimized microphone seal starting with January 2012 vehicle production. Microphones with improved seals are at the 03S level or greater.

## Service

1. Ensure the customer's phone is listed in the Audi Bluetooth approved list located on the [www.audiusa.com/bluetooth](http://www.audiusa.com/bluetooth) website. Not all Bluetooth call quality issues can be attributed to the microphone. OEM phone manufacturers use different types of Bluetooth chipsets and software which have different characteristics (i.e. timing of timeouts) and as a result these differences can also affect the Bluetooth connection stability and call quality.

**For TT/A5 Cabriolet only:** Road test the vehicle prior to repairs. Drive with the top and windows up and at a speed of 45mph or greater if possible. Make a Bluetooth call to someone back at the workshop to verify the call quality issue. Make sure the *same* person will be available for you to call back the next day once the repairs are completed to verify the call quality improvement.

2. Remove the roof module from the vehicle according to the instructions in the ElsaWeb Repair Manual.  
*Repair Manual>>Electrical System>>Electrical Equipment>>96 Interior Lights, Switches>>Removal and Installation>>Roof Trim Lamps and Switches*
- 3 *Do Not Remove the microphone from the roof module at this step!* The next step is to remove the decorative trim plate from the roof module. This will allow you to inspect the seal of the microphone as it was installed at the factory.
  - a For the A6 and A7 vehicles, first attempt to use your fingers to pry the decorative trim from the base plate. If this does not work then gently use a trim stick/bone tool to pry the decorative trim from the base plate and finish it with your fingers. There are a different number of clips holding the trim plate on to the base plate depending on the trim level of the vehicle (i.e. high-line roof module vs. low-line roof module; see Figure 1 & 2).

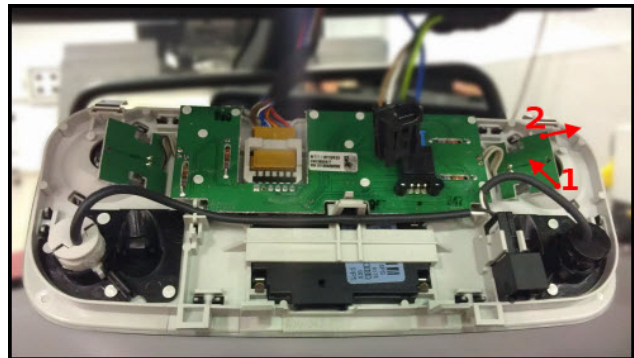


Figure 1. A6, A7 High line roof module.

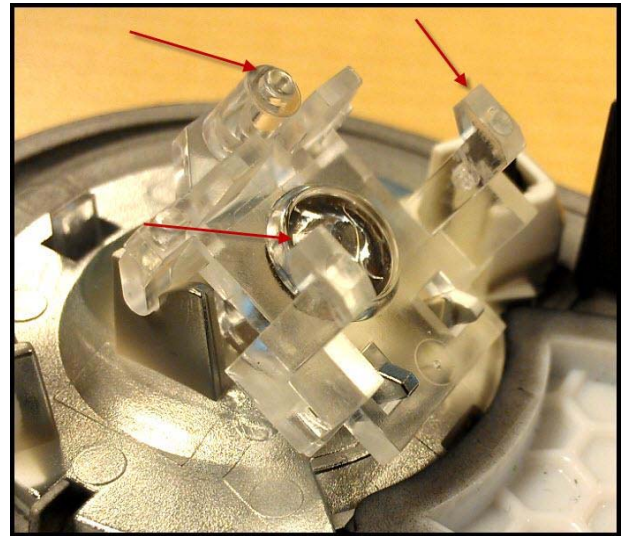


Figure 2. A6, A7 Mid line roof module.

- b For the TT/A5 Cabriolet vehicles, the decorative trim plate *should only be pried from the base plate after the LED circuit boards are removed from the plastic LED jewels*. If this is not done prior to removing the trim, the plastic LED jewels can break and cause a rattle once the roof module is reassembled. As seen in Figure 3, first pry up on the top of the small circuit-board in direction indicated by arrow 1 (away from LED Jewel). It will only need to be lifted about 1-2mm, then pull up on the circuit-board in the direction indicated by arrow 2. This will release the circuit-board from the clear LED jewel. Repeat for the other side. Figure 4 shows the three attachment points of the LED Circuit board to the LED jewel.



**Figure 3.** *Prying the LED circuit-board of the jewel.*



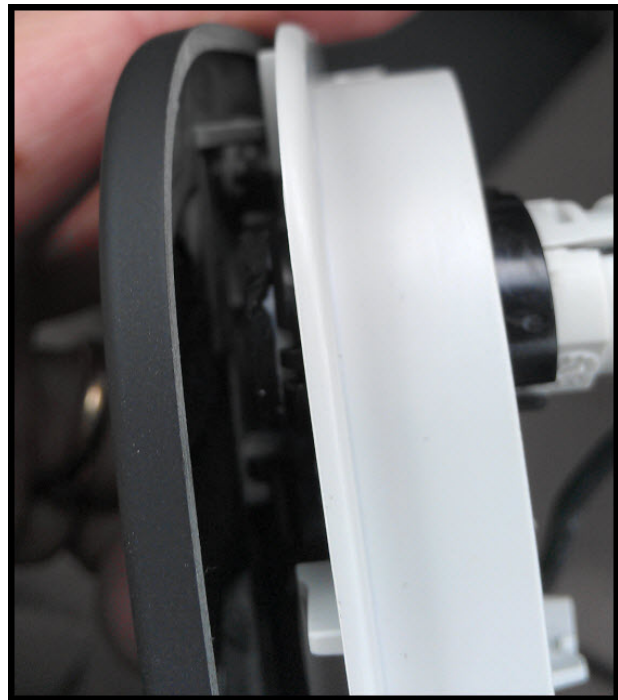
**Figure 4.** *LED jewel attachment points.*

- c Once the LED jewels are free from the circuit-boards, the decorative trim plate can now be pried apart from the base plate. This can be accomplished by using your fingers and slowly prying the two pieces apart. There are many clip points along the edge holding the two halves together, thus slowly sliding your finger all the way around the perimeter between the trim plate and base plate is the easiest and most effective way to separate the two parts without damaging them.



**Note:**

The use of a bone tool or screw driver is not recommended for this roof module assembly because it can damage the soft touch paint on the edge of the decorative trim. Damage to paint on the sides of the trim can be visible once the part is reinstalled in the headliner.

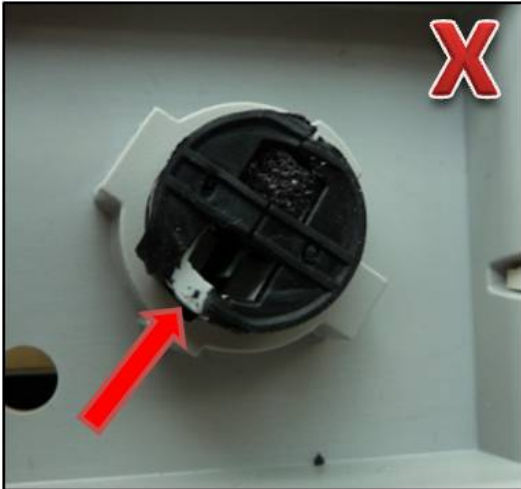


*Figure 5. Prying the trim plate from the base plate.*

4. Inspect the seal of the microphone for damage. There are two normal splits in the rubber seal. This is normal as long as the two halves of the seal are touching each other. If they are loose and move freely then this indicates damage to the seal. Figure 6 illustrates an undamaged seal and Figures 7 and 8 illustrate *damaged* seals.



*Figure 6. Undamaged seal.*



*Figure 7. Damaged seal, example 1.*



*Figure 8. Damaged seal, example 2.*

5. If any seals are damaged, replace the microphone set. Install the replacement microphone with the decorative trim removed from the base plate. This will allow you to inspect the new microphone seal after it has been snapped in to place. Take care when doing so to prevent any damage to the new microphone's rubber seal. Installing it perpendicular to the base plate, and doing so slowly, will help prevent any damage to the seal. Figure 9 illustrates the proper installation technique and Figures 10 and 11 illustrate the *improper* installation of a microphone. Figure 12 shows the resultant damage of improper installation.



*Figure 9. Proper installation.*



*Figure 10. Installing microphone at an angle.*



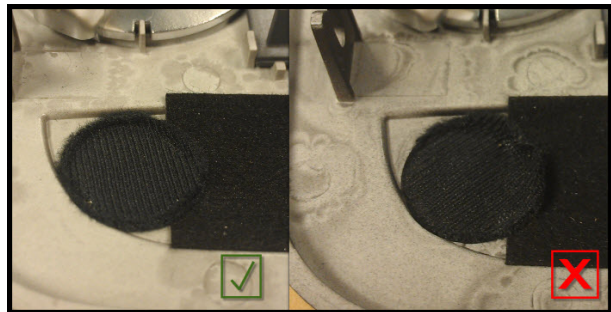
*Figure 11. Seal may be pinched.*



*Figure 12. Damage caused by pinched seal.*

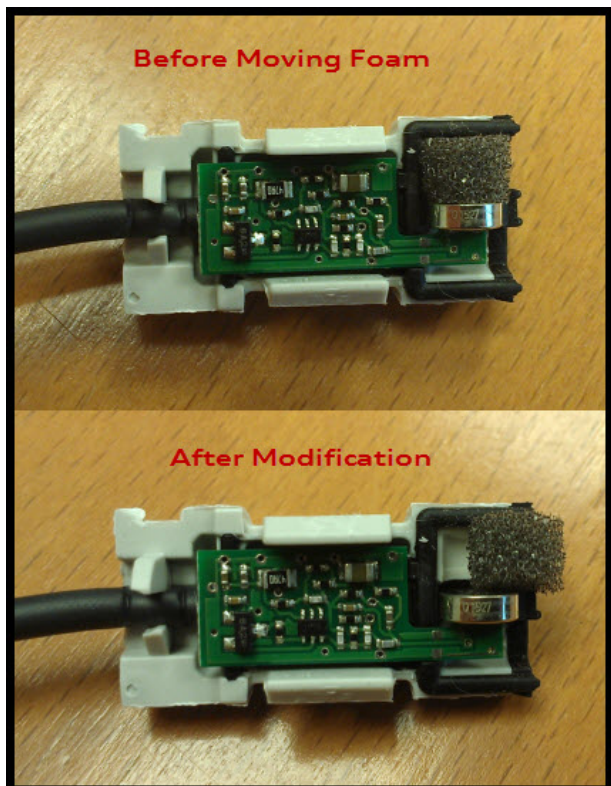
6. If the seals are not damaged, ensure the microphones are firmly seated. There should be a loud snap heard and felt when the microphone is fully seated.

7. **For TT/A5 Cabriolet only:** Visually inspect the round felt material on the underside of the decorative trim (Figure 13). This felt material pushes against the microphone's rubber seal and forms a barrier. If the material is bunched up and off center it can potentially cause an issue with the call quality by allowing unwanted noise to reach the microphone. Replace the decorative trim according to ETKA if damage is found with the felt material or if the felt is not centered perfectly.



*Figure 13. Felt on backside of decorative trim.*

8. **For TT/A5 Cabriolet only:** Before installing the new microphone, partially pull out the foam which is inserted inside the microphone (Figure 14). This will allow for a better seal against the felt material.



*Figure 14. Foam is partially pulled out of the microphone.*

9. **For TT/A5 Cabriolet only:** Road test the vehicle with the top up at a speed greater than 45mph if possible. Call the same person back at the workshop so they can verify the improved sound quality. If you still feel the sound quality is poor please contact the Technician's Assistance Center helpline.



# Technical Service Bulletin



10. If the seals and microphones are installed properly, continue with diagnosis.

Refer to TSB 2026895, *91 Microphone testing tips* and TSB 2026888, *91 Bluetooth Phone: Poor call quality*.

## Warranty

<b>Claim Type:</b>	Use applicable claim type. If vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
<b>Service Number:</b>	9157		
<b>Damage Code:</b>	0010		
<b>Labor Operations:</b>	Remove and install interior light.	9620 1900	See Elsa Web for TUs
	Remove and install telephone microphones.	9157 1950	10 TU
	Extended Road Test before and after repair	9157 9999	A-Time (Not to exceed 40 TU)
<b>Diagnostic Time:</b>	GFF	No allowance	0 TU
	Road test prior to service procedure	No allowance	10 TU
	Road test after service procedure	No allowance	10 TU
	Technical diagnosis at dealer' s discretion (Refer to Section 2.2.1.2 and Audi Warranty Online for DADP allowance details)		
<b>Claim Comment:</b>	As per TSB # 2027718/3		

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
See ETKA	Microphone	1

## Additional Information

The following Technical Service Bulletin(s) may be necessary to complete this procedure:

- TSB 2026895, *91 Microphone testing tips*
- TSB 2026888, *91 Bluetooth Phone: Poor call quality*

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