



Technical Service Bulletin

46 Audi frequency analysis

46 22 33 2051095/7 June 9, 2022. Supersedes Technical Service Bulletin Group 46 number 22-31 dated May 19, 2022, for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
All Audi vehicles	2010 – 2023	All	Not Applicable

Condition

REVISION HISTORY		
Revision	Date	Purpose
7	-	Revised <i>Service</i> (Updated Procedure)
6	05/19/2022	Revised <i>Service</i> (Updated Procedure)
5	02/22/2022	Revised header (Added model year)

This bulletin is informational only and can help technicians to identify noise frequency for specific concerns related to the brake system, especially brake squeal.

Technical Background

Brake squeal is the most common brake noise concern received from customers. This bulletin will help you to identify the correct frequency for the concern.

Knowing the exact frequency can help Audi of America to understand the issue and find a feasible solution (for example new pad materials, new pad geometry, new backing plate, new spring design, balance weight, etc.).

Remember that brake squeal is a normal result of multiple factors acting on the brake system.

Brake squeal is not a defect.

Production Solution

Not applicable.

Service

1. Download the Audi Frequency Analysis App according to the instructions below:



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Apple: <https://apps.apple.com/us/app/audi-frequency-analysis/id1589055470>

Android: <https://play.google.com/store/apps/details?id=de.audi.frequenzanalyseapp&gl=DE>

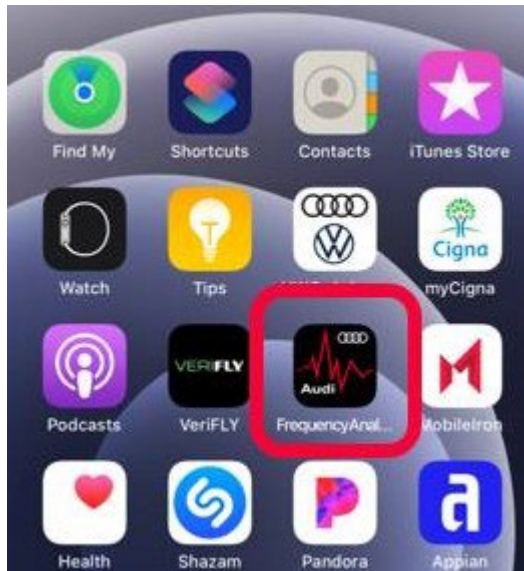
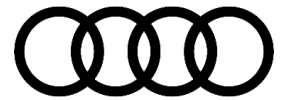


Figure 1. Example of Apple Audi Frequency Analysis App.



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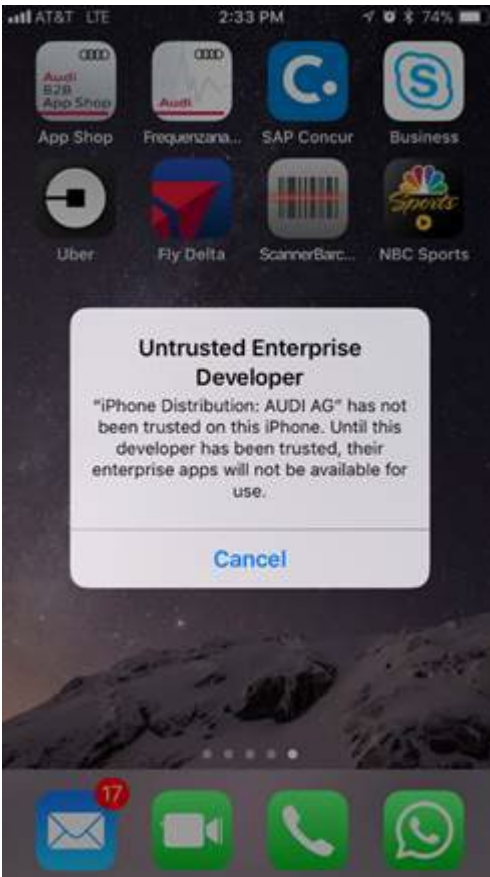


Figure 2. Error message “Untrusted Enterprise Developer”.

If you receive the following iPhone error message (Figure 2) “Untrusted Enterprise Developer” after clicking on the app then follow the tip below.



Tip: Go to: *Phone Settings >> General >> Profiles & Device Management >> Enterprise APP >> Audi AG >> Trust Audi AG.*

2. After opening app, see the following example of the main screen, see the following example of the main screen (Figure 3).
3. To start frequency analysis, select “Record” (Aufnehmen). There are other functions also available (Figure 4):
 - Play (Abspielen)
 - Cut (Schneiden)
 - Export (Exportieren)



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Figure 3. Example of the main screen.



Figure 4. To start the analysis, select *Aufnehmen*.

4. You will be able to record the brake squeal from inside or outside the vehicle, depending on conditions.
5. Example of a typical brake squeal at 1.6 KHz. The red scale can be moved to identify the main frequency causing the brake squeal. Be aware that there are a lot of surrounding noises that can disguise the main frequency focus (Figure 5).
6. Example of a typical brake squeal at 3.2 KHz. Also at the top right the date is recorded, the exact frequency, and the level of noise in dB (Figure 6).



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Figure 5. Other sounds can disguise the main frequency.



Figure 6. Typical brake squeal frequency recording.

7. To create an audio file from the frequency app for attachment to a TAC case, follow the steps below (figures 7 – 9).



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Figure 7. Take a clear sound recording and then select the "More" icon.

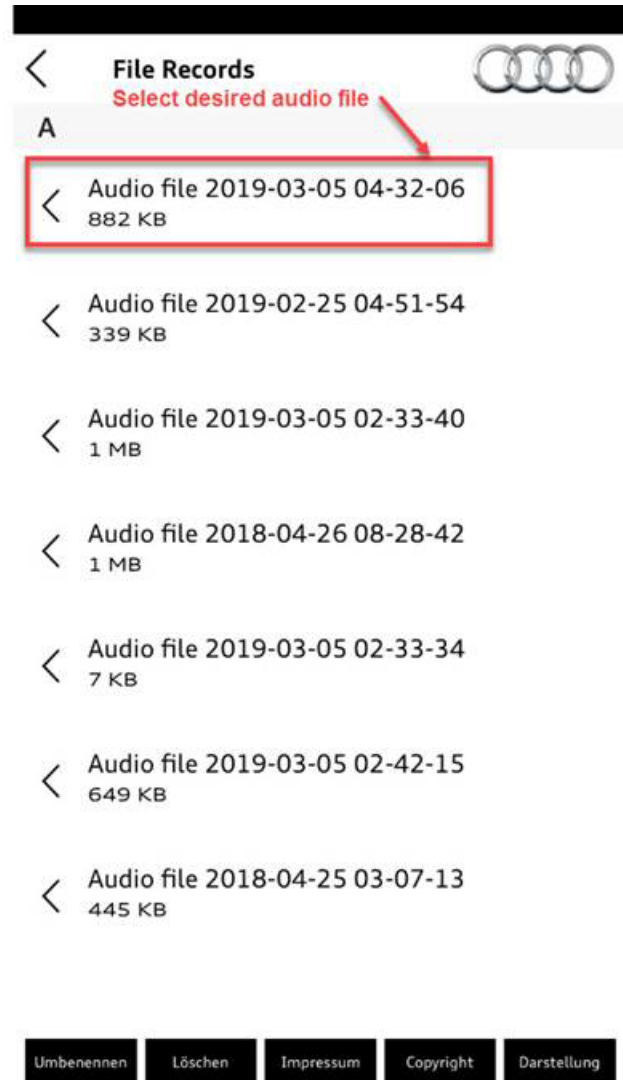


Figure 8. Select the desired Audi file



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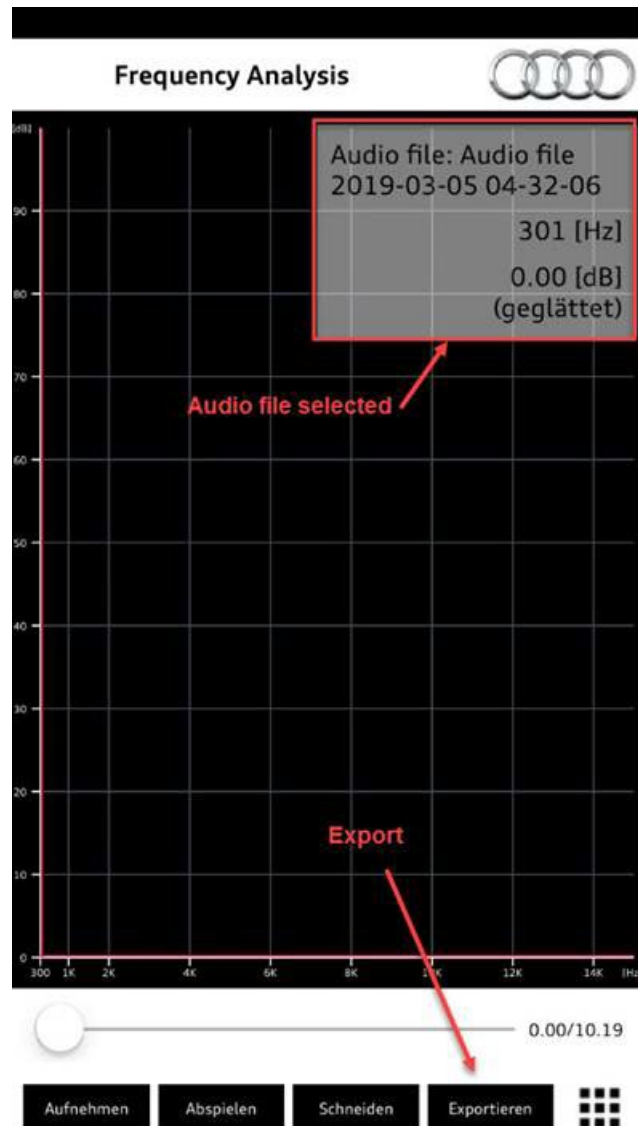


Figure 9. Then select "Exportieren (Export)" and send the file to the source used to attach the document to a TAC Case.

Warranty

This TSB is informational only and not applicable to any Audi Warranty.



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Additional Information

All parts and service references provided in this TSB (**2051095**) are subject to change and/or removal. Always check with your Parts Department and/or ETKA for the latest information and parts bulletins. Please check the Repair Manual for fasteners, bolts, nuts, and screws that require replacement during the repair.

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