

Technical Service Bulletin



46 Squeal from the front brakes - Audi e-tron quattro

46 23 42 2056700/4 March 17, 2023. Supersedes Technical Service Bulletin Group 46 number 21-20 dated January 8, 2021, for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
e-tron quattro	2019	All	Not Applicable
e-tron Sportback quattro	2020		

Condition

REVISION HISTORY		
Revision	Date	Purpose
4	-	Revised <i>Required Parts and Tools</i>
3	01/08/2021	Revised <i>Required Parts and Tools</i> (Added Part) Revised <i>Additional Information</i> (Added reference)
2	05/06/2020	Revised <i>Warranty</i> (Updated Claim Types)

Customer states:

- They hear a squealing noise in multiple frequencies (1.7 KHz, 2.5 KHz, and 10.5 KHz) from front brakes in the following conditions:
 - a. Driving forward or reverse, warm brakes, slow speeds (10.5 KHz).
 - b. Driving forward or reverse, cold brakes, first application, slow speeds, (1.7 KHz and 2.5 KHz).
 - c. Ambient temperatures and humidity conditions may vary.



Please review the audio/video example below: <https://audi-external.kzoplatfrom.com/player/medium/1541501619189847414> (Figure 1).



Figure 1. QR code to supporting video.



Note:

- A. Frequencies can be identified with our Audi Frequency Analysis App, review TSB 2051095: 46 *Audi frequency analysis* for further information.
- B. Please describe the frequency found in the vehicle in the warranty claim comments section (1.7 KHz and/or 2.5KHz and/or 10.5KHz).

Technical Background

Not Applicable

Production Solution

Not Applicable

Service

1. Parts replacement:

Replace front brakes pads according to the instructions in ELSA at Repair Manual, *Chassis >> Brake System >> 46 Mechanical Components >> Front Brakes >> Brake pads, Removing and Installing 1LE, 1LF, 1ZK.*

2. Brake Embedding:

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- A. Perform 10 stops from approximately 35 mph to 10 mph with medium to high brake application.
- B. Drive approximately 2 minutes at 40 mph without braking to allow the brakes to cool down.
- C. Repeat steps A and B if necessary.



Note:

- This bulletin does not apply if there is an improper operation or misuse of the vehicle.
- Do not perform ABS stops as a way of embedding the brakes. Brake pads and discs may be permanently damaged if brakes are overheated prior to being properly embedded.



Tip: Rust/Corrosion build-up, grooves, or glazing on the brake surface of the brake disc may cause noise and must be considered when replacing brake pads. If this TSB has not been completed, complete the repairs as outlined in this TSB. If this TSB has already been completed and the noise has returned, please review TSB 2034181: *46 Brake noise analysis and handling*.

Warranty

Claim Type:	<ul style="list-style-type: none">• 110 up to 48 Months/50,000 Miles.• If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	4636		
Damage Code:	0010		
Labor Operations:	Wheels remove + reinstall front	4405 2000	See SRT with associated operations
	Brake pads front remove + reinstall	4636 2050	See SRT with associated operations
Diagnostic Time:	GFF	No allowance	0 TU
	Road test prior to the service procedure	0121 0002	10 TU
	Road test after the service procedure	0121 0004	10 TU
Claim Comment:	As per TSB 2056700/4		

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

The part numbers mentioned in this TSB are different than the ones listed in ETKA. Only use parts listed in this TSB, this includes superseding part numbers!		
Part Number	Part Description	Quantity
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA
See ETKA	Set of front brake pads	01
G052150A2	Lithium grease	0.1
See ETKA	Spring	02
See ETKA	Sender wire	02

Additional Information

More information on this system can be found in the following resources:

- Elsa: Chassis >> Brake System >> 46 Mechanical Components >> Front Brakes >> Brake pads, Removing and Installing 1LE, 1LF, 1ZK.

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

- TSB 2051095, *46 Audi frequency analysis*.
- TSB 2034181, *46 Brake noise analysis and handling*.

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