

46 Brake noise analysis and handling

46 13 53 2034181/1 August 7, 2013.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
TT (without TT RS)	2008 – 2013	All	Not applicable
A3	2005 – 2013		
A4 (B6/B7)	2005 – 2008		
A4 Cabrio (B6/B7)	2005 -2009		
A6 (C6)	2005 – 2011		
A8 (D3)	2004 – 2010		
Audi Q7	2007 – 2013		

Condition

Customer may report hearing brake noise from front or rear brakes. Customers may describe these noises as a squeal, squeak, grinding, groaning, thumping, or creaking.

Technical Background



Note: Before proceeding with any of the following steps, check for any applicable TSBs for brake noise. Also refer to the Audi Brake Systems brochure for helpful information.

Brake noise can be attributed to many causes. Seven of the most common causes are:

1. Brake discs or brake pads are close to or below their wear limit.
2. Aftermarket pads or discs have been installed.
3. Debris (such as small stones, grit, road salt, or sand) between brake disc and brake pad.

- Discs are covered with rust. Rust can form when the vehicle has not been driven for a long period of time (Figure 1).

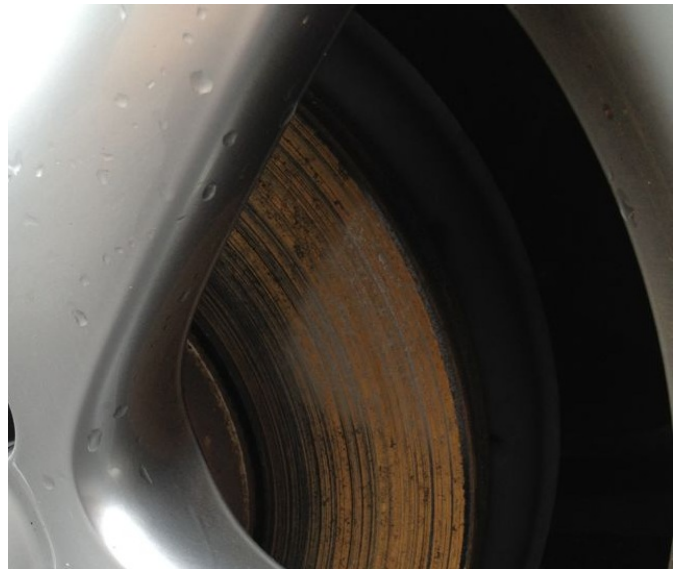


Figure 1. Disc covered with rust.

- Discs are grooved (Figure 2).



Figure 2. Grooved disc.

6. There is chemical contamination on the braking surface of the brake disc due to wheel or tire cleaner being sprayed directly onto the brake disc (Figure 3 and Figure 4).



Figure 3. Discoloration on the brake disc due to chemical contamination from cleaner that was sprayed directly onto the disc.



Figure 4. Small spots and discoloration due to chemical contamination from cleaner that was sprayed directly onto the disc.

7. There are “pad marks” on the brake disc as a result of brake pad material transferring to the discs (Figure 5). Pad marks can occur when a vehicle has been parked for long periods of time in a wet or snowy environment.



Figure 5. Brake pad material has transferred to the discs.

Production Solution

Not applicable.

Service

For vehicles within the New Vehicle Limited Warranty, Audi of America is requesting your cooperation in supplying us with technical information regarding brake noise.

1. Check the overall condition of the brakes to determine if the brake noise is caused by one of the causes listed in the *Technical Background* section of this bulletin. If the noise is not a result of one of these causes, proceed with the following steps.
2. Determine the location of the brake noise (e.g., left front, front axle, rear axle, etc.):
 - Knowing the location of the noise on the vehicle is critical to properly addressing the concern.
 - It may be necessary to have an assistant listening from inside or outside of the vehicle to accurately determine the location.
3. Obtain a sound or video recording and fill out questionnaire:
 - The sound recording can be from a cell phone as long as the noise can be clearly identified.
 - Recordings submitted by customers are also acceptable.
 - In order to minimize file size, only sound recordings are necessary. Videos should only be sent if it is critical for understanding the conditions under which the noise occurs.
 - Fill out as much information as possible in the questionnaire. Some fields are mandatory.

Technical Service Bulletin



4. Clean the brake pads and discs:
 1. With careful consideration of the traffic situation, perform between 2 and 5 ABS stops from speeds above 50 mph. Between each ABS stop, allow the brake components to cool by driving the vehicle for more than one minute at speeds greater than 50 mph.
 2. Let vehicle sit for a couple of hours to cool down.
 3. Test drive again. If the noise was not eliminated after completion of steps 1 and 2 please contact the Audi Technical Assistance Center (TAC) before replacing any parts. This will assist us in diagnosing any potential issues with the condition noted above.
5. Provide feedback to Audi of America:
 1. Fill out the attached questionnaire with as much detail as possible.
 2. Email the questionnaire and sound or video recording to: **chassis@audi.com**.
 3. The Subject line of the email should be the VIN of the vehicle you are working on.
 4. Include the following information in the body email:
 - Mileage
 - TAC access code (if applicable)
 - Repair order number

Warranty

Claim Type:	Use applicable claim type. If vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	Front - 4636		
Damage Code:	0020		
Diagnostic Time:	Road tests (also includes submission of audio file and questionnaire)	4636 8099	70 TU
	Technical diagnosis at dealer's discretion (Refer to Section 2.2.1.2 and Audi Warranty Online for DADP allowance details)		
Claim Comment:	As per TSB #2034181/1		

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.

Additional Information

All parts and service references provided in this TSB (2034181) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information.