

# Technical Service Bulletin



## 46 Brake noise analysis and handling

46 13 63 2034181/3 December 5, 2013. Supersedes Technical Service Bulletin Group 46 number 13-56 dated August 16, 2013 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
R8	2014	All	Without ceramic brakes
A6	2013	051000 - 999999	2.0T
A6	2012-2014	All	3.0T & 4.0T
A7	2012-2014	All	All
A5/S5	2013	902741 - 999999	All
A5/S5	2014	All	All
A5/S5 Cab	2013	900474 - 999999	All
A5/S5 Cab	2014	All	All
A4/S4	2013	125000 - 999999	Ingolstadt-built
A4/S4	2013	020500 - 999999	Neckarsulm-built
A4/S4	2014	All	All
Allroad	2013	125000 - 999999	2.0T
Allroad	2014	All	2.0T
Q5 hybrid	2013	010908 - 999999	Hybrid
Q5 hybrid	2014	All	Hybrid
RS5	2013	902741 - 999999	Without ceramic brakes
RS5	2014	All	Without ceramic brakes
RS5 Cab	2013	900474 - 999999	Without ceramic brakes
RS5 Cab	2014	All	Without ceramic brakes
TT RS	2013	901093 - 999999	2.5T

## Condition

REVISION HISTORY		
Revision	Date	Purpose
2	-	Revised header data (Corrected applicable model code) Revised <i>Warranty</i> (Changed codes)
1	08/07/2013	Initial publication

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. There is debris (such as small stones, grit, road salt, or sand) between brake disc and brake pad.
4. Discs are covered with rust. Rust can form when the vehicle has not been driven for a long period of time (Figure 1).



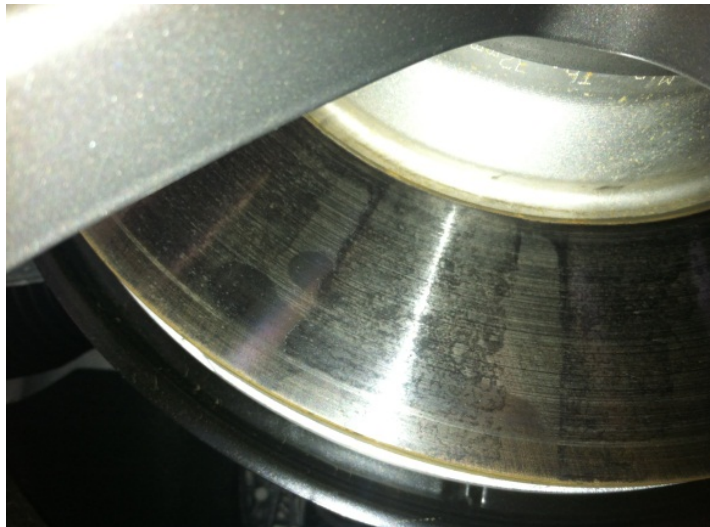
*Figure 1. Disc covered with rust.*

5. 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.
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 two 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 contain 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



# Technical Service Bulletin



## 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>	Front - 4617		
<b>Damage Code:</b>	0020		
<b>Diagnostic Time:</b>	Clean brake pads and discs Includes: Road tests, submission of audio file and questionnaire	4617 8099	70 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 #2034181/3		

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.

## 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.