

Technical Service Bulletin



46 Brake noise analysis and handling

46 15 99 2034181/9 January 15, 2015. Supersedes Technical Service Bulletin Group 46 number 14-91 dated July 22, 2014 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
R8	2014-2015	All	Without ceramic brakes
S6/S7	2013-2015	All	4.0T
A6	2013	051000 - 999999	2.0T
A6	2014-2016	All	2.0T
A6/A7	2012-2016	All	3.0T
A6/A7	2014-2016	All	3.0TDI
A8	2012	All	4.2L
A8	2013-2016	All	4.0T
A8	2015-2016	All	3.0T
A8	2015-2016	All	3.0TDI
S8	2013-2015	All	Not Applicable
A8	2013-2015	All	W12
A5	2013	025203 – 999999	2.0T
A5	2014-2016	All	2.0T
S5	2013	025221 – 999999	3.0T
S5	2014-2016	All	3.0T
A5 Cabrio	2013	900474 – 999999	2.0T
A5 Cabrio	2014-2016	All	2.0T
S5 Cabrio	2013	900474 – 999999	3.0T
S5 Cabrio	2014-2016	All	3.0T
A4	2013	A125000 – A999999	Not Applicable

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A4	2013	N020500 – N999999	Not Applicable
A4	2014-2015	All	2.0T
S4	2013	124100 - 999999	3.0T
S4	2014-2016	All	3.0T
Allroad	2013	125000 – 999999	2.0T
Allroad	2014-2015	All	2.0T
Q5	2013	010909 – 999999	Hybrid
Q5	2014	All	Hybrid
SQ5	2014-2015	All	3.0T
RS 5	2013	902740 - 999999	4.2L Without ceramic brakes
RS 5	2014-2015	All	4.2L Without ceramic brakes
RS 5 Cabrio	2013	900474 - 999999	4.2L Without ceramic brakes
RS 5 Cabrio	2014-2015	All	4.2L Without ceramic brakes
TT/TTS	2013 -2015	All	2.0T
TT RS	2013	901093 - 999999	2.5T
A3	2015 - 2016	All	1.8T & 2.0T
S3	2015 - 2016	All	2.0T
Q3	2015 - 2016	All	Not Applicable

Condition

REVISION HISTORY		
Revision	Date	Purpose
9	-	Revised header data (Added models & model years) Revised <i>Service</i> (Updated contact process)
8	7/22/2014	Revised header data (Updated model codes)
7	3/25/2014	Revised header data (Updated model codes)
6	02/3/2014	Revised header data (Updated model codes) Revised <i>Technical Background</i> (Updated Note)
5	01/24/2014	Revised header data (Restructured model codes)
4	01/02/2014	Revised header data (Added model years)
3	12/5/2013	Revised <i>Warranty</i> (Changed codes)
2	8/16/2013	Revised header data (Corrected applicable model code)
1	08/07/2013	Initial publication

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

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Note: Before proceeding with any of the following steps, check for any applicable TSBs for brake noise. This TSB should not be used if another brake noise TSB is available for the vehicle. For additional helpful information, refer to the Audi Brake Systems brochure.

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.

- 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).

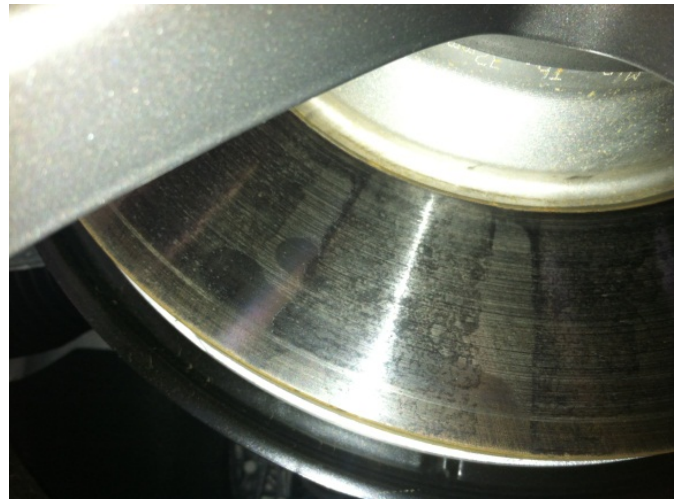


Figure 3. Discoloration on the brake disc due to chemical contamination from cleaner that was sprayed directly onto the disc.



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.
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

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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, attach questionnaire and sound or video recording to an Audi Technical Assistance Center (TAC) ticket and contact TAC before replacing any parts. This will assist us in diagnosing any potential issues with the condition noted above.

5. Use one of the options below to provide feedback to Audi of America.

If a TAC ticket <u>was opened</u>, include the following information with the TAC ticket:	If a TAC ticket <u>was not opened</u>, email the following information to chassis@audi.com:
<ul style="list-style-type: none">• Completed Brakes Acoustic Questionnaire• Sound or video recording• Photos of the affected brake discs and pads that clearly show the condition of the braking surface	<ul style="list-style-type: none">• In the subject line, type out the VIN• Attach the following to the email:<ul style="list-style-type: none">• Completed Brakes Acoustic Questionnaire• Sound or video recording• Photos of the affected brake discs and pads that clearly show the condition of the braking surface• In the body of the email, include:<ul style="list-style-type: none">• Dealer code• VIN• RO number• Mileage

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Warranty

Claim Type:	Use applicable claim type. If vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	Front - 4617		
Damage Code:	0020		
Labor Operations:	Clean brake pads and discs Includes: Road tests, submission of audio file and questionnaire	4617 8099	70 TU
Diagnostic Time:	GFF Technical diagnosis at dealer's discretion (Refer to Section 2.2.1.2 and Audi Warranty Online for DADP allowance details)	No allowance	0 TU
Claim Comment:	As per TSB #2034181/9		

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.