



Technical Service Bulletin

87 Faint noise heard in cabin from air conditioning circuit

87 18 85 2044717/7 February 13, 2018. Supersedes Technical Service Bulletin Group 87 number 17-84 dated December 12, 2017 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A6, A7	2012 - 2015	All	2.0L or 3.0L gas engine

Condition

REVISION HISTORY		
Revision	Date	Purpose
7	-	Revised <i>Warranty</i> (Change to warranty table labor operation order)
6	12/12/2017	Revised <i>Service</i> (Added bolts for balance weight) Revised <i>Required Parts and Tools</i> (Added bolts for balance weight)
5	09/20/2017	Revised <i>Warranty</i> (Added 2.0 TFSI labor operation)

A faint, high-pitched “whine” or high frequency buzzing noise is heard in the cabin when the air conditioning is set to “Low” and the fan speed is no higher than 2. The audio system must be off and there should be no other noises in the cabin, otherwise the noise may not be heard.

Technical Background

This noise can be created due to an anomaly in the acoustic characteristic in the refrigerant circuit under these specific settings (air conditioning set to “Low” and fan speed no higher than 2). There is no technical fault with the air conditioning system and no functional issue with the climate control system.

Production Solution

Not applicable. The refrigerant circuit architecture in the A6 and A7 models to which this bulletin applies is no longer in production.



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Service

The noise symptom must be readily duplicated before any repair is performed. It is a good idea to ask the customer to duplicate the noise symptom for the technician to ensure that the repair resolves the customer's specific concern.

If the noise cannot be duplicated, do not perform any repair to the vehicle. If the noise can be duplicated consistently, proceed as follows:

1. Perform a complete recovery and flush of the air conditioning refrigerant circuit (Figure 1 and Figure 2).



Figure 1. A/C flushing unit.



Figure 2. Flushing fitting set.



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2. Remove the air conditioning compressor, empty the compressor of the PAG oil completely, then reinstall it to the vehicle. The compressor does not need to be replaced.



Figure 3. Mounting bolt centering sleeves on the air conditioning compressor housing.



Note:

It is imperative that the compressor mounting bolt centering sleeves be reinstalled with the compressor (Figure 3). Failure to reinstall these sleeves will result in compressor failure (as well as possible engine and/or ancillary component damage) in a short period of time. If any sleeves were misplaced during the removal and reinstallation process, new sleeves should be ordered and installed on the compressor housing before reassembly. Compressor or consequential component damage resulting from a failure to install the centering sleeves will not be accepted under warranty.

3. Replace the low side refrigerant line that connects the air conditioning compressor suction port to the hybrid refrigerant line to the expansion valve (Figure 4). Be certain to use new O-rings at these and all refrigerant circuit joints that are disconnected.

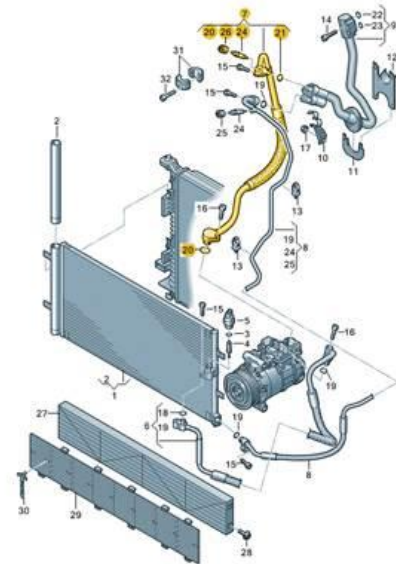


Figure 4. Low side line to be replaced.



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4. Install the balance weight (part number 4G0513621A) with 2 bolts (part number N 10653601) to the line in the position shown in the illustration (Figure 5).

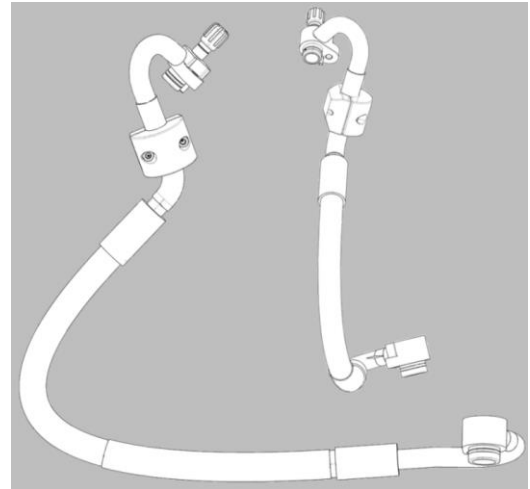


Figure 5. Balance weight position on low side line.

5. Recharge the refrigerant circuit with the specified volume. Replace the PAG oil completely with new PAG oil at the specified volume. Do not reuse the original oil extracted during the system flush. Use only the Denso PAG oil (part number G 052300A2) (Figure 6). Do not use a substitute.



Figure 6. Denso PAG oil.

6. No additional air conditioning components need to be replaced. Recheck the air conditioning system under the same settings used to duplicate the noise symptom and confirm that the noise issue is resolved.



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Warranty

Claim Type:	<ul style="list-style-type: none">• 110 up to 48 Months/50,000 Miles.• G10 for CPO covered vehicles – Verify Owner.• If vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	8745		
Damage Code:	0020		
Labor Operations:	For All Models:		
	Refrigerant drain + fill (if necessary)	8703 1700	60 TU
	Air conditioner clean	8701 2950	110 TU
	For A6 with 2.0 Liter Engine:		
	Compressor remove + reinstall	8734 1913	70 TU
	Charge air cooler remove and reinstall	2143 1913	90 TU
	Receiver-drier insert remove + reinstall	8755 5500	40 TU
	-or-		
	For A6 or A7 with 3.0 Liter Engine:		
	Compressor remove + reinstall (for 3.0 liter A6 or A7)	8734 1941	160 TU
	Additional radiator front remove and reinstall	1980 1941	90 TU
	Charge air compressor remove and reinstall	2114 1941	160 TU
	Charge air coolers remove and reinstall	2143 2091	190 TU
	Receiver-drier insert remove + reinstall	8755 5550	10 TU
Diagnostic Time:	GFF	No allowance	0 TU
	Road test prior to service procedure	0121 0002	10 TU





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	Road test after service procedure	0121 0004	10 TU
Claim Comment:	As per TSB #2044717/7		




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.

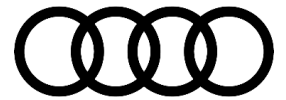
Required Parts and Tools

Part Number	Part Description	Quantity
ROB134APF	 Robinair A/C Service Unit	1
VAS 6338/1	 Refrigerant Circuits Adapter Set	1
4G0260707X Use appropriate part number for the	Air conditioner hose (Compressor to hybrid line)	1



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hose according to the VIN in ETKA		
4G0513621A	 Balance Weight	1
N 10653601	 Bolt	2
G 052300A2	 PAG oil for Denso Refrigerant Compressors	0.5



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Additional Information

All parts and service references provided in this TSB (2044717) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information. Please check the Repair Manual for fasteners, bolts, nuts, and screws that require replacement during the repair.

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