



Technical Service Bulletin

87 Various HVAC system malfunctions, DTC B11AF07 and/or B109207 stored in the climatronic module or the BCM 1

87 20 03 2055257/5 February 19, 2020. Supersedes Technical Service Bulletin Group 87 number 19-02 dated December 9, 2019 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
Q8	2019	All	Not Applicable
A4, A4 allroad, and Q7	2017 - 2019	All	Not Applicable
A5, A5 Sportback, A5 Cabriolet, and Q5	2018 - 2019	All	Not Applicable

Condition

REVISION HISTORY		
Revision	Date	Purpose
5	-	Revised <i>Service</i> (Addition of a software update and additional system checks)
4	12/09/2019	Revised <i>Production Solution</i> (Elimination of the reference to the supplier Magna) Revised <i>Service</i> (Elimination of the reference to the supplier Magna)
3	12/03/2019	Revised header (Added MY19 Q8) Revised title (Additional module for DTCs) Revised <i>Condition</i> (Additional module for DTCs)

Customer states:

- The customer describes a problem with the HVAC system specifically with the air flow and ventilation system or temperature controls not responding to commands or slow to react.

Workshop findings:

One or more of the following DTCs for the HVAC adjustment motors are stored in the climatronic control module, J255 (address word 0008) or the central electric module 1 (BCM 1), J519 (address word 0009).

The adjustment motor DTCs will indicate a mechanical fault with the adjustment motors. For example:

- DTC B11AF07** (regulator motor of fresh air flap, mechanical fault).
- DTC B109207** (regulator motor of air recirculation flap, mechanical fault).



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The DTCs could be logged as sporadic or static.

Technical Background

The HVAC adjustment motor is blocked mechanically at its end stop and cannot move.

Production Solution

There has been a gradual change to an alternative supplier of the HVAC adjustment motors in production.

Service

1. With the ignition on (with battery charger or engine running), set the HVAC control to full LO on the driver's side, full HI on the passenger's side and in AUTO, 3-zone (Figure 1).



Figure 1. Starting HVAC control setting.

2. For all vehicles below (except Q8), update the software of the Front A/C Display Control Head using the SVM code 08A031.

Model	Old Target Data Container Number	Old Target Data Container Version (or lower)	New Target Data Container Number (or higher)	New Target Data Container Version (or higher)	SVM Code Input
A4, Allroad, A5 Coupe, A5 Sportback, A5 Cabriolet, and Q5	8W0820043N	0095	8W0820043N	0101	08A031
	8W0820043S	0251	8W0820043S	0262	08A031
	8W0820043T	0251	8W0820043T	0262	08A031
	8W0820043F	0095	8W0820043F	0101	08A031
Q5	8W0820043R	0241	8W0820043R	0254	08A031
Q7	4M0820043T	0112	4M0820043T	0122	08A031
	4M0820043R	0112	4M0820043R	0122	08A031



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	4M0820043Q	0112	4M0820043Q	0122	08A031
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3. After the update run the adjustment motor end stop adaptation in *Guided Functions >> Basic Settings*.
4. Recheck the DTC memory. If a DTC such as B11AF07 (regulator motor of fresh air flap, mechanical fault) or DTC B109207 (regulator motor of air recirculation flap, mechanical fault) are present in the climatronic control module in 'static' status, replace the HVAC adjustment motor with the part number 4M0 820 511 A.
5. Clear DTC memory and run a functional check of all the adjustment motors by changing the settings using the HVAC control. After each functional test wait at least 5 seconds to allow the system to achieve the desired result. Adjust the settings as follows:
6. Auto, 72°F (22°C), Sync (Figure 2).



Figure 2. Auto, 72°F (22°C), Sync.

7. Auto, LO, Sync (Figure 3).



Figure 3. Auto, LO, Sync.

8. Auto, HI, Sync (Figure 4).



Figure 4. Auto, HI, Sync.

9. Auto, 72°F (22°C), Sync, air recirculation mode (Figure 5).



Figure 5. Auto, 72°F (22°C), Sync, air recirculation mode.

10. 72°F (22°C), Sync, max defrost (Figure 6).



Figure 6. 72°F (22°C), Sync, max defrost.



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11. 72°F (22°C), Sync, air distribution to footwell, medium blower speed (Figure 7).



Figure 7. 72°F (22°C), Sync, air distribution to footwell, medium blower speed.

12. 72°F (22°C), Sync, air distribution to central vent, medium blower speed (Figure 8).



Figure 8. 72°F (22°C), Sync, air distribution to central vent, medium blower speed.

13. Recheck the DTC memory. Any additional adjustment motors with this malfunction will store DTC B11AF07 (regulator motor of fresh air flap, mechanical fault) or DTC B109207 (regulator motor of air recirculation flap, mechanical fault) as 'static'. If this is the case, replace the HVAC adjustment motor with the part number 4M0 820 511 A.
14. If all adjustments function correctly and no DTC's are stored or DTC's are sporadic and can be successfully erased, this update and functional check are complete.

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 the vehicle is outside any warranty, this Technical Service Bulletin is informational only. 		
Service Number:	8720		
Damage Code:	0040		
Labor Operations:	Functional check of adjustment motors	8704 9999	20 TU
	Refer to the applicable SRTs for the positioning motor remove and reinstall using ElsaPro	See SRT	See SRT
Diagnostic Time:	GFF	0150 0000	Time stated on the diagnostic protocol (Max 100 TU)




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	Road test prior to the service procedure	No allowance	0 TU
	Road test after the service procedure	No allowance	0 TU
Claim Comment:	As per TSB #2055257/5		

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

Always check with your Parts Department and/or ETKA for the latest information and parts bulletins.		
Part Number	Part Description	Quantity
4M0820511A	 Motor for adjustment	As necessary
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA

Additional Information

All parts and service references provided in this TSB (2055257) are subject to change and/or removal.

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