Technical Service Bulletin

87 Air conditioning does not cool
87 24 77 2072351/2 July 3, 2024. Supersedes Technical Service Bulletin Group 87 number 23-65 dated December 13, 2023 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
Q4 e-tron, and Q4 e-tron Sportback	2022 - 2024	All	Not Applicable

Condition

REVISION HISTORY		
Revision	**Date**	**Purpose**
2	-	Revised *Service* (Photo/video requirement added) Revised *Warranty* (Remove compressor replacement SRT) Revised *Additional Information* (Add reference to TSB 2041717)
1	12/14/2023	Initial publication

Customer states:

The air conditioning does not cool.

Workshop findings:

The symptom can be duplicated. The air conditioning compressor will not activate due to low refrigerant volume in the circuit.

Technical Background

A refrigerant leak is found at one or more refrigerant circuit components, refrigerant line connections or the air conditioning compressor.

Production Solution

An improvement to the air conditioning compressor has been implemented in production.

Service

The vehicles for which this TSB applies are equipped with a R744 refrigerant system. The diagnostic method for determining the location of a refrigerant leak prohibits the introduction of contrast agent (e.g., UV leak identification dye) or any other additive not specifically indicated in ElsaPro to this refrigerant circuit platform. Leak diagnosis must be carried out using calibration gas or compressed nitrogen with a spray solution of soap and water only. Unapproved additives to this refrigerant circuit will cause component damage. Refer to TSB 2064077 for additional information on the diagnostic process.

1. A common area where a refrigerant leak may be discovered is at the air conditioning compressor, specifically at the pressure relief valve. Figure 1 illustrates the location of the pressure relief valve. The leak here is likely to be rapid and the approved diagnostic methods should quickly confirm a leak in this area of the compressor.

Figure 1. *Pressure relief valve on the air conditioning compressor.*

2. Figure 2 shows a close-up view of an active leak at the compressor pressure relief valve using a diagnostic method with compressed nitrogen and the application of a soap and water solution.

Figure 2. *Active compressor pressure relief valve leak.*

3. In cases where a leak is diagnosed at the pressure relief valve the air conditioning compressor must be replaced. Ensure that the correct amount of refrigerant oil in the total refrigerant circuit is restored after compressor replacement.

4. Please take photos of the customers' concern and upload them into DOC-IT with the repair order. Photos should
   - Have a date stamp and VIN reference.
   - Be taken in focus and with sufficient light.

Warranty

Claim Type:	• 110 Up to 48 Months/50,000 Miles. • G10 for CPO Covered Vehicles – Verify Owner. • If the vehicle is outside of any warranty, this Technical Service Bulletin is informational only.		
Service Number:	8734		
Damage Code:	0050		
Labor Operations:	Air conditioner check	8701 0150	See SRT with associated operations
	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 2072351/2		

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**

1EA820808X (Use the appropriate compressor part number in ETKA using the VIN from the vehicle being serviced).	 Air conditioner compressor	1

Additional Information

The following Technical Service Bulletin(s) will be necessary to complete this procedure:

- TSB 2064077, *87 Air conditioning refrigerant circuit diagnostic method using calibration gas.*
- TSB 2067716, *87 Air conditioning does not cool.*
- TSB 2041717, *87 GFF test plan required for A/C compressor replacements regardless of concern.*

All parts and service references provided in this TSB (**2072351**) are subject to change and/or removal.