



Technical Service Bulletin

87 Air conditioning does not cool, DTC B16A284 is stored in the thermal management control module
87 23 53 2061660/2 August 24, 2023. Supersedes Technical Service Bulletin Group 87 number 20-12 dated December 15, 2020 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A8, A8 e quattro, and S8	2020 – 2021	All	Not Applicable

Condition

REVISION HISTORY		
Revision	Date	Purpose
2	-	Revised <i>Warranty</i> (Updated Labor Ops)
1	12/15/2020	Initial publication

Customer states:

- When the air conditioning system is activated the system does not generate cold air.
- It is not possible to activate the air conditioning system using the HVAC controls.
- The A/C button does not respond when pressed.

Workshop findings:

- The air conditioning circuit head pressures are checked and are confirmed low.
- The refrigerant in the circuit is recovered and found to be very low or empty.

The following DTC may be stored in the thermal management control module, J1024 (address word 00C5):

- **DTC B16A284** (Refrigerant pressure for cooling passenger compartment Signal too low).

Technical Background



Technical Service Bulletin

A refrigerant leak test reveals a leak at the bolted connections of the refrigerant line with inner heat exchanger that connects the main circuit to the rear evaporator. When the line is removed an incorrect and/or damaged O-ring seal is found (Figure 1).



Figure 1. Damaged refrigerant line O-ring seal.

The refrigerant line with inner heat exchanger is located inside the left front wheel housing liner (Figure 2).

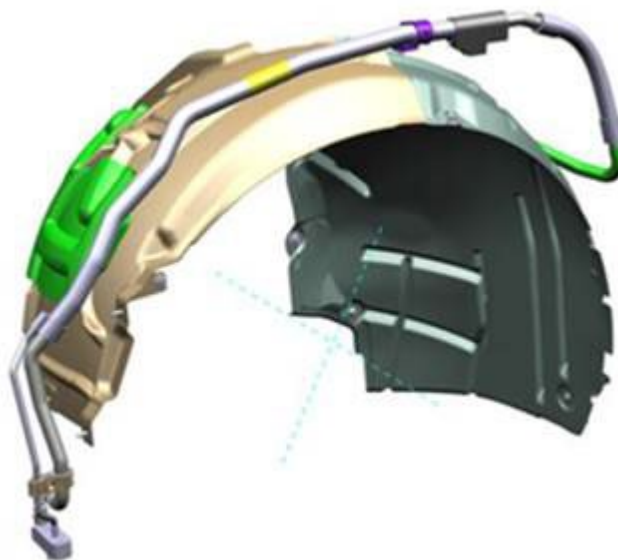


Figure 2. Location of the refrigerant line with inner heat exchanger that connects the main refrigerant circuit to the rear evaporator

Production Solution



Technical Service Bulletin

The O-ring seal type and installation procedure improved at the refrigerant line supplier.

Service

1. Perform an air conditioning circuit leak test diagnosis using either contrast dye or by pressurizing the circuit with compressed nitrogen and investigating the leak location with a soapy water solution at each end of this refrigerant line. Provided no damage to the mating sections of the line are found replace the O-ring seals on either end of the line. If a leak is not found at either end of this refrigerant line, continue with the leak diagnosis and repair.
2. Please take photos of the customer 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.
 - Where it is appropriate, mark the affected place for a reference to the concern for analysis.

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:	8744		
Damage Code:	0050		
Labor Operations:	Refrigerant drain and fill (with contrast)	8703 1700	See SRT with associated operations
	Front wheel housing liner remove and reinstall	6616 1999	30 TU
	Check air conditioning system for leaks	8701 0150	See SRT with associated operations
	Subsequent evacuation and recharge after leak found at line	8703 1799	40 TU
	Refrigerant line with inner heat exchanger remove, replace seal rings and reinstall line	8744 1999	30 TU
Diagnostic Time:	GFF	0150 0000	Time stated on the diagnostic




Technical Service Bulletin

			protocol (Max 30 TU)
	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 2061660/2		

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
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA
4E0260749B	 Seal ring	02
3D0260749C	 Seal ring	01

Tool Number	Tool Description
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Technical Service Bulletin

NITROKITG	 <p data-bbox="675 646 1133 678">Automotive A/C Nitrogen Leak Test Kit</p>
VAS 6160/VAS 6150	VAS tester with current version of ODIS (Windows 10)

Additional Information

All parts and service references provided in this TSB (**2061660**) are subject to change and/or removal.

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