



Technical Service Bulletin

19 Engine: cooling system - engine overheats, red coolant temperature warning, MIL on - 4.0 ltr. V8 TFSI; P029900

19 24 68 2074303/3 September 23, 2024. Supersedes Technical Service Bulletin Group 19 number 24-62 dated July 3, 2024 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
RS 6 Avant, and RS 7	2021 – 2025	All	4.0l V8 TFSI
A8	2019 – 2021		
S8	2020 – 2024		
SQ7, and SQ8	2020 – 2022		
SQ8	2021 – 2022		
RS Q8	2020 - 2023		

Condition

REVISION HISTORY		
Revision	Date	Purpose
4	-	Revised <i>Service</i> (Measure description changed)
3	07/31/2024	Revised <i>Condition</i> (Added DTC description) Revised <i>Technical Background</i> (Added DTC description) Revised header (Added DTC)
2	07/03/2024	Revised <i>Warranty Accounting table</i> (Adjusted service number)

Customer statement:

- The engine is overheating.
- The coolant temperature gauge is in the red.
- The red coolant temperature warning light appears in the instrument cluster.

and/or

- Exhaust emissions warning lamp is on.



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Workshop findings:

- The customer complaint can be reproduced, and the engine temperature is in the red. In addition, the event memory entry P0299 (Turbo/Super Charger Underboost) may be logged in some cases.

or

- Event memory entry P0299 (Turbo/Super Charger Underboost) logged.

Technical Background 1

EA825 V8 TFSI engines across all power classes are currently equipped with a switchable mechanical coolant pump.

It is activated via the electric changeover valve N649.

When N649 is activated, it switches a vacuum to the mechanical coolant pump. This pushes a locking sleeve over the pump impeller, which can cause coolant to stagnate.

When N649 is not activated, no vacuum is switched to the mechanical coolant pump, and the coolant pump is not covered. In this case, the coolant is pumped through the coolant pump impeller.

The charge pressure control for the EA825 V8 TFSI turbochargers is electropneumatic.

This means that charge pressure positioners V465 and V546 are electropneumatic pressure converters. Depending on activation (PWM) by the engine control unit, they are able to induce a calculated negative pressure (characteristic curve). This determines the opening path of the wastegate. They are open when they are not activated.

SSP 676 contains more information on the EA825 V8 TFSI engine cooling system.

Production Solution

Not applicable.

Service



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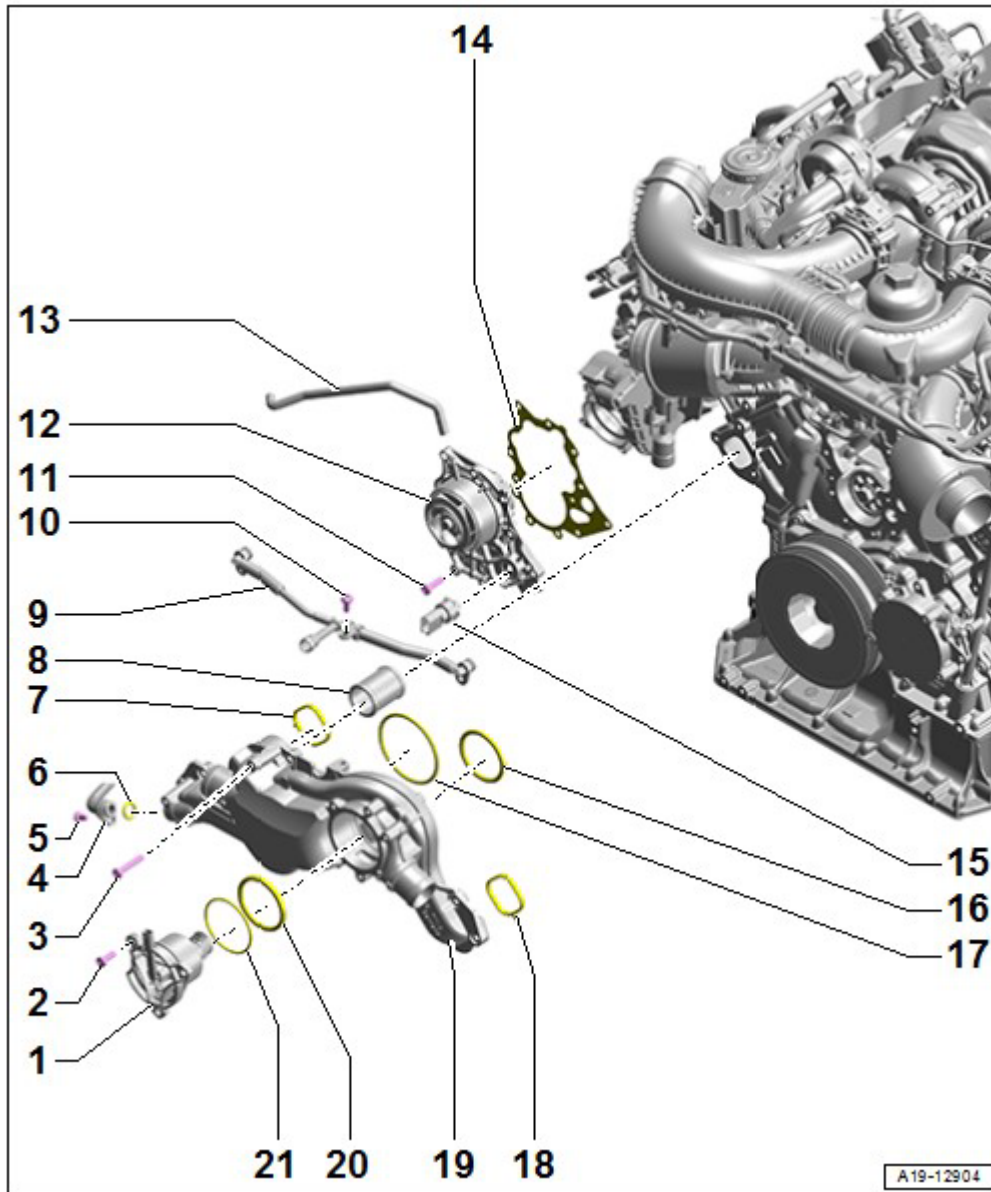


Figure 1. Assembly overview – coolant pump/thermostat incl. switchable mechanical coolant pump, number 12.



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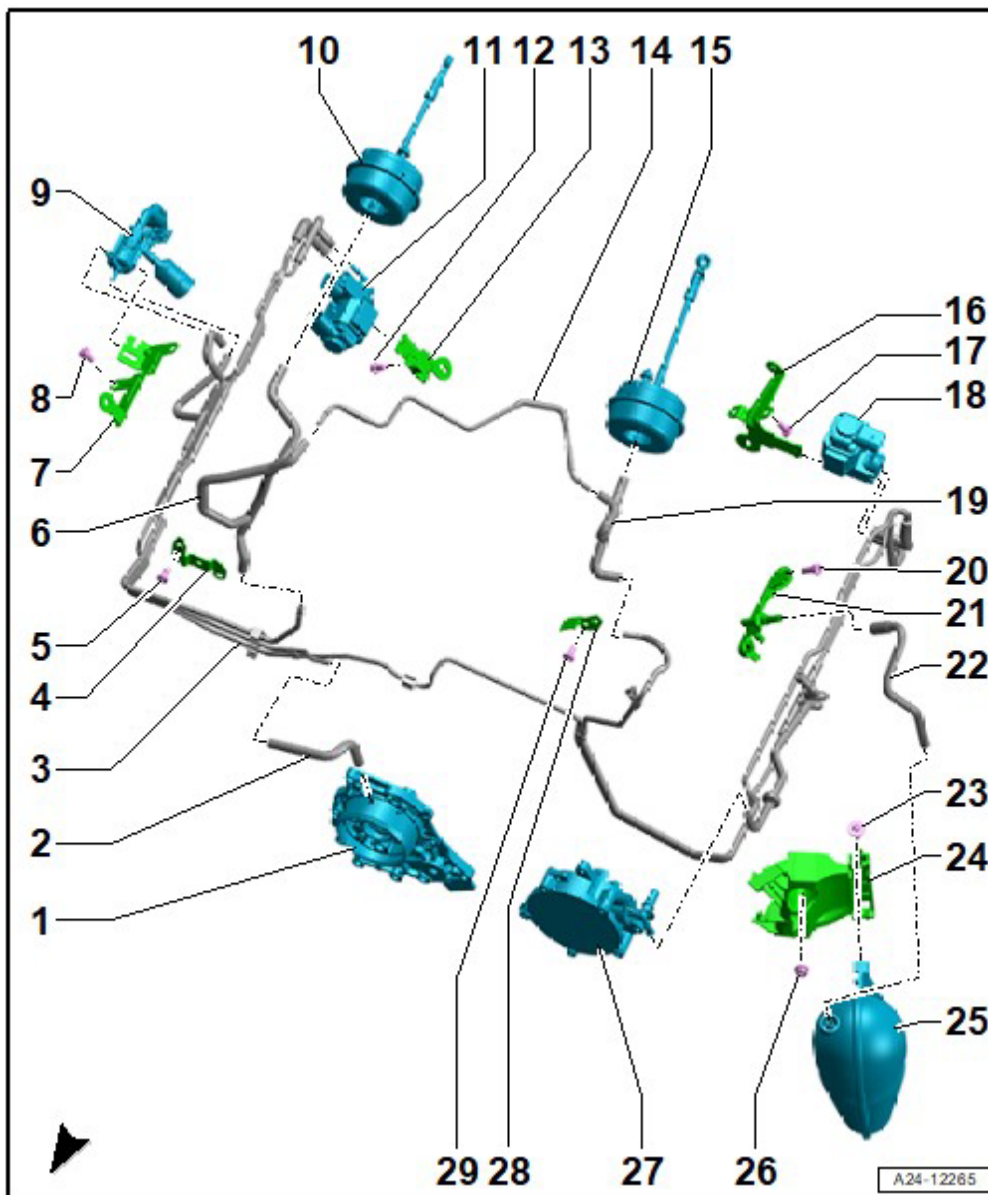


Figure 2. Assembly overview – vacuum system incl. N649, number 9.

Warranty

Claim Type:	<ul style="list-style-type: none">If the vehicle is outside of any warranty, this Technical Service Bulletin is informational only.
Service Number:	1985



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Damage Code:	0010		
Labor Operations:	Remove and install valve N649	1984 19xx	See SRT with associated operations
	Remove and install coolant pump (if necessary)	1950 19xx	See SRT with associated operations
	GFF	0150 0060	Labor according to the diagnostic log
Claim Comment:	As per TSB 2074303/4		

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 part and service references provided in this TSB (**2074303**) are subject to change and/or removal. Always check with your Parts Department and/or ETKA for the latest information and parts bulletins. Please check the Repair Manual for fasteners, bolts, nuts, and screws that require replacement during the repair.

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