

Technical Service Bulletin



01 "Switch off the engine and check coolant" message in the instrument cluster, DTC P000000 is stored in the ECM

01 23 46 2058890/4 February 20, 2023. Supersedes Technical Service Bulletin Group 01 number 20-91 dated October 7, 2020, for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
S4, S5, S5 Cabriolet, S5 Sportback, and SQ5	2018	All	Not Applicable
RS5, and RS 5 Sportback	2019		

Condition

REVISION HISTORY		
Revision	Date	Purpose
4	-	Revised <i>Service</i> (Updated SVM table)
3	10/07/2020	Revised <i>Service</i> (Updated SVM table)
2	07/24/2020	Revised <i>Service</i> (Updated SVM table and SSP)

Customer states:

- "Switch off the engine and check coolant" message is displayed in the instrument cluster.

Workshop findings:

The following DTC is stored in the engine control module (ECM), J623 (address word 0001):

- DTC P000000** with symptom code 33688.
- Furthermore, no test plan is suggested in the Guided Fault Finding.

Technical Background

DTC P000000 with symptom 33688 indicates a possible malfunction of the mechanical coolant pump.

Due to a deviation in the tester, no test plan is currently shown for this in ODIS.

The mechanical coolant pump of the EA839 V6TFSI can be switched via a vacuum. More information on the switchable coolant pump can also be found in the Self-Study Program (SSP) 920173 - The Audi 3.0l V6 TFSI EA839 Engine.



Production Solution

Not applicable.

Service

Please carry out the following steps for further diagnostics:

1. Check the cooling system for the correct coolant level in the coolant expansion tank:
 - a. If the coolant level is correct, continue with Step 2.
 - b. If the coolant level is not correct, check the cooling system for leaks. If a leak is found, replace the responsible component according to ELSA. If no leak can be found, but the coolant level is still not correct, top off the cooling system according to ELSA. Continue with Step 2.
2. Using the following table, check whether one of the software versions (or a newer or higher version) is already installed on the engine control unit of the vehicle:
 - a. If an older software version (i.e. an older or lower version) is installed on the vehicle, then use the respective SVM code; if fault reoccurs after a scan continue with step 3.
 - b. If one of the software versions (or a newer or higher version) listed in the table is already installed, continue directly with Step 3. **In this case, a software update does not fix the customer concern.**

Model	Software part number	Version	SVM code
SQ5	80A907559C	0008	01A234
S4/S5	8W0907559H	0009	
RS5	8W0907551A	0004	



3. **Check the operation of the vacuum control of the mechanical coolant pump:**

a. Check for vacuum (using VAS6213) at the output port of solenoid N649 which commands the water pump sleeve (Figures 1 and 2). The engine needs to be cold to generate a command signal to the N649 solenoid to switch to a vacuum. **With the engine cold**, start the engine briefly and monitor that vacuum is created.

b. If there is no vacuum measured at the output port of N649, the cause of the fault could be related to the solenoid valve N649 or the vacuum hoses (check for leaks). In this case, repair and check the operation of the vacuum system.



Figure 1. Checking the vacuum at the output port of N649.



4. If there are no malfunctions found in the vacuum system, check the operation of the water pump sleeve by applying a vacuum to the hose going to the water pump (hose connected to the output port of N649). When applying a vacuum to the pump, pay attention to the clicking sound of the water pump sleeve. If no clicking is heard or felt, replace the mechanical coolant pump.



Figure 2. The output port of N649 (close-up picture).

5. If a leak is found in the cooling system, attach a photo of the concern to the repair order.

Warranty

Claim Type:	• 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/ Damage Code:	• If the software update is effective: Service number/damage code: 2470/0039. • If the solenoid valve N649 is replaced: Service number/damage code: 2169/ 0010. • If the vacuum hoses are replaced/repared: Service number/damage code: 2483/0010. • If the mechanical coolant pump is replaced: Service number/damage code: 1950/ 0010.

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Labor Operations:	Check cooling system and, if necessary, top up (Only if coolant level too low)	1901 01XX	See SRT with associated operations
	Solenoid valve N649	1985 1944	See SRT with associated operations
	Replace the coolant pump	1950 1993	See SRT with associated operations
	Software update	0151 0000	Time stated on the diagnostic protocol (Max 50 TU)
Diagnostic Time:	GFF	0150 0000	Time stated on the diagnostic protocol (Max 50 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 2058890/4		

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

More information on this system can be found in the following resources:

- SSP: 920173 the Audi 3.0l V6 TFSI EA839 Engine.

All part and service references provided in this TSB (**2058890**) 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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