



27 Electrical or drive system fault, Battery management 2 (48V battery) DTC P0AA100

27 23 58 2070813/1 July 3, 2023.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A7, A8, Q7, and Q8	2019 – 2023	All	Active Roll Stabilization
S7, S8, SQ7, SQ8, and RS Q8	2020 – 2023		
A8 e quattro	2020 – 2021		
RS 7	2021 – 2023		
A7 e quattro	2021 - 2022		

Condition

Customer states:

The instrument cluster displays the following messages:

“Electrical system: fault. Please contact workshop”

and/or

“Drive system: fault. Please contact workshop”

Workshop findings:

The following DTC may be stored in the battery management 2 (48V battery) (address word 0021):

- **DTC P0AA100:** Hybrid/EV Battery Positive Contactor Circuit Stuck Closed.

Technical Background

A Software related issue in 48V battery in connection with active roll stabilization.

The DTC can be stored when the engine is turned on after the 48V system has been deactivated for more than 16 minutes.

On vehicles with active roll stabilization (PR number 2MQ), the 48V system is activate even when the engine is not running.

This means that capacitors on the 48V system are charged when the ignition is on.

Steps to reproduce:

1. The vehicle is switched off and remains switched off for more than 16 minutes.



2. The vehicle comes out of bus sleep mode as the customer unlocks and enters the vehicle; this activates the roll stabilization and therefore also the 48V system.
3. The customer then leaves the vehicle again.
4. The customer returns within 16 minutes and switches on the ignition.
5. DTC P0AA100 is set.


If voltage is present before and after the open relay during diagnosis (due to the charged capacitors), this is logged as event memory entry **P0AA100**.

Production Solution

New software implemented in model year 2024.

Service

SVM Update Instructions

 **NOTICE**

Always use DoIP when flashing a control module via ODIS in supported vehicles. To Activate DoIP, select *Administration>>General>>GFF Process>>DoIP communication>>Only allow DoIP communication*. This setting will automatically reset when the diagnostic session is ended. You can tell if DoIP is active by observing a red LED on the VAS 6154(A)

1. Follow all instructions in TSB 2011732: *00 Software Version Management (SVM), operating instructions*.
2. Update the battery management 2 (48V Battery) (address word 0021) using the SVM action code as listed in the table below, if necessary:

Model	Old Software Part Number	Old Software Version	New Software Part Number (or higher)	New Software Version (or higher)	SVM Code Input
A6/A7/A8/Q7/Q8	4N0.915.105.B	0108 0109	4N0.915.105.E	0113	21A003
	4N0.915.105.D	0206 0207	4N0.915.105.F	0211	

Warranty

Technical Service Bulletin



Claim Type:	<ul style="list-style-type: none"> • 110n 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:	2708		
Damage Code:	0039		
Labor Operations:	Software Update (Includes checking for DTCs)	0151 0000	Time stated on the diagnostic protocol (Max 100 TU)
Diagnostic Time:	GFF	No allowance	0 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 2070813/1		

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

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

- TSB 2011732: *00 Software Version Management (SVM), operating instructions.*

All part and service references provided in this TSB (**2070813**) 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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