Technical Service Bulletin

93 DTCs P0AA1 P0AA2 P0AA4 P0AA5 P0AE2 P0AE3 P1609 P168A P1A01 P1A37 P1D5F P1D65 in the Hybrid Battery Management
93 21 60 2065473/1 December 22, 2021

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
e-tron GT	2022	All	Not Applicable

Condition

Customer states:

- Various concerns about the high-voltage system or the vehicle.
- After switching the ignition on the power meter does not show it is ready and no battery charge level is shown.

Workshop findings:

One or more of the following DTC(s) may be stored in the Hybrid Battery Management (BECM), J840 (address word 008C):

- DTC P0AE200 (Hybrid/EV Battery Precharge Contactor Circuit Stuck Closed).
- DTC P0AE300 (Hybrid/EV Battery Precharge Contactor Circuit Stuck Open).
- DTC P160900 (Crash shut-off was triggered).
- DTC P168A00 (Reversible crash shut-off was triggered).
- DTC P1A0100 (Crash signal monitoring failed).
- DTC P1A3700 (Controller for cells of high voltage/hybrid battery electrical error).
- DTC P1D5F00 (Hybrid/high-voltage battery controller for battery cells cell voltage too high).
- DTC P1D6500 (Hybrid/high-voltage battery controller for battery cells insufficient cell voltage).
- DTC P0AA100 (Hybrid/EV Battery Positive Contactor Circuit Stuck Closed).
- DTC P0AA200 (Hybrid/EV Battery Positive Contactor Circuit Stuck Open).
- DTC P0AA400 (Hybrid/EV Battery Negative Contactor Circuit Stuck Closed).
- DTC P0AA500 (Hybrid/EV Battery Negative Contactor Circuit Stuck Open).

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Technical Background

Due to a software issue in the Hybrid Battery Management (BECM), J840 the above faults can't be processed by the scan tool. The Hybrid Battery Cell Modules may be locked and can't be unlocked with the installed software.

Production Solution

Not applicable.

Service

Tip:

Do not end the diagnostic session during the process. Work through all steps in the same Diagnostic session so the faults and test plans are not lost.

If the above concern has been confirmed with one or more of the above DTCs perform the following:

- Read all instructions in this Technical Bulletin *before* starting the repair procedure to understand the steps that have to be performed.
- Start Guided Fault Finding diagnosis and allow the system to calculate the test plans according to the fault entries.
- Proceed with the SVM update procedure as follows below.

Note:

Before this SVM update is started the High Voltage System must be De-energized according to the scan tool directions.

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DANGER

High voltage increases the risk of fatal injury.

Severe bodily injury or death by electrocution or electric arcs is possible.

- **Have an Audi high-voltage technician or an Audi high-voltage expert de-energize the high-voltage system.**

 VAS 6649 is always used.

 VAS 6650 is used when de-energized.

SVM Update Instructions

1. Follow all instructions in TSB 2011732: 00 Software Version Management (SVM), operating instructions.
2. Update the Hybrid Battery Management (J840) using the SVM action code as listed in the table below, if necessary:

 Note:

To prevent the high-voltage battery from charging during the software update, the high-voltage charging cable on vehicles with high-voltage components must be unplugged BEFORE the SVM code is entered. Charging the high-voltage battery during a software update can cause damage to the high-voltage components.

Control unit identification	Part number	Software version	Hardware part number	Software version (or Higher)	SVM Code Input
Hybrid Battery Management J840 Diagnostic address 008C	9J1915234N	1441	9J1915234AK	1641	8CA008
	9J1915234AA	1441			

3. After the update is completed, re-energize the High Voltage system following the instructions in the scan tool.

WARNING

High voltage increases the risk of fatal injury.

Severe bodily injury or death by electrocution or electric arcs is possible.

- **have an Audi high-voltage technician or and Audi high-voltage expert bring the high-voltage system back into service.**

4. Process the DTCs memory entries according to the test plan calculated at the beginning.

Note:

The remaining diagnosis of the DTCs is a separate repair. The DTCs above are not caused by the original software, however, they can't be diagnosed until the software is updated. Review the outcome of the DTCs to determine warranty coverage. If warranty applies, submit the claim separately using appropriate coding.

Warranty

Claim Type:	Use applicable claim type. If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	9325		
Damage Code:	0041		
Labor Operations:	HV System deactivate and activate	9310 8300	20 TU
	Software update	0151 0000	50 TU
Diagnostic Time:	GFF	0150 0000	Time stated on diagnostic protocol (Max 50 TU)
	Road test prior to service procedure	No allowance	0 TU

	Road test after service procedure	No allowance	0 TU
Claim Comment:	As per TSB # 2065473/1		

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.

Required Parts and Tools

Additional Information

All part and service references provided in this TSB (2065473) 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.