



SIB 61 03 24

2024-02-01

## BEV/PHEV CCU - PROGRAMMING ABORT LINKED TO THE HV CHARGE SOCKET

<input type="checkbox"/>	THIS REPAIR IS MOBILE FRIENDLY
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**MODEL**

E-Series	Model Description
G26	i4 Gran Coupe Battery Electric Vehicle (BEV)
G60	i5 Sedan (BEV)
G70	i7 Sedan (BEV)
G70	750e xDrive Sedan Plug-in Hybrid Electric Vehicle (PHEV)
i20	iX Sports Activity Vehicle (SAV)
G09	BMW XM Sports Activity Vehicle (PHEV)
G05	X5 Sports Activity Vehicle (PHEV)

**SITUATION**

Gen 5 BEV/PHEV vehicles may set the Combined Charging Unit (CCU) in programming abort due to no communication to the HV charge socket electronics.

**CAUSE**

The CCU checks for the coding file for the charging socket via the CCU CAN. When the wrong charge socket is installed or there is a communication breakdown between the CCU and the charge socket electronics, the CCU will “drop” the coding file for the charge socket.

This will set the faults listed below for “hardware inconsistent” and put the CCU in “**programming abort**,” whereby **fault S0768 Programming Abort** will be stored along with one or more of the faults listed below.

0321A9 - High voltage charging socket: hardware inconsistent

0321AA - High voltage charging socket: software inconsistent

CCU\_P1 S0768 Programming abort: Combined charging unit

**The following DTCs point to a missing connection:**

D7975D - Message (status of charging socket flap) missing, receiver CCU, transmitter high-voltage charging socket

D79763 - Message (status display of charging process status) missing, receiver CCU, transmitter high-voltage charging socket

D79769 - Message (status of charging plug lock) missing, receiver CCU, transmitter high-voltage charging socket

D7976C - Message (AC charging, temperature of high-voltage charging socket) missing, receiver CCU, transmitter high-voltage charging socket

D7976F - Message (DC charging, temperature of high-voltage charging socket) missing, receiver CCU, transmitter high-voltage charging socket rear

D797C3 - Message (status of high-voltage charging socket) missing, receiver CCU, transmitter high-voltage charging socket.

## **CORRECTION**

**Caution: Do not program a CCU that has fault S0768 Programming Abort stored!**

If the vehicle is programmed with the fault “S0768 Programming Abort,” the CCU will go offline.

An indication of this is that the CCU will appear “Blue” in the ISTA module tree. Instead, follow the procedure below.

Information is found in Repair Instruction 61 00... “Observe safety instructions when handling electric vehicles”.

### **Additional Information:**

**Scheduled Maintenance, or Quality Certification 1 (Pre-Delivery Inspection) on Electric or Hybrid vehicles does not require HV technical training.**

Prior to disconnecting, or the removal of any HV component, the HV system needs to be disabled and secured (by means of the HV Disconnect Switch) by a properly trained technician, who has a minimum HV Qualification level after completing the Technical Training Course ST1824 (Alternative Drive Part 1). Once the vehicle’s HV system is disabled (the “Blitz” - lightning bolt icon displayed in instrument cluster, see below), a technician without HV Certification may remove a HV component (e.g., EH Heater, EKK Compressor, EME Control Unit, et.), except for the High Voltage Battery.



High Voltage Battery removal and rework can be performed ONLY by a HV Specialist Technician (certified by the Technical Training Course ST1825 – Alternative Drive Part 2), AND with a HV Battery Certification level corresponding to a specific Electric or Hybrid vehicle (e.g., to repair GEN4 battery of G05 PHEV, certification from Technical Training Course “ST2006 – SP44 HV Battery” is required).

Therefore, to perform this SIB 61 24 22 a GEN5 battery Certification is required from Technical Training Course “ST2205 Generation 5 High-voltage” class).

If the fault codes mentioned above are stored regarding the charge socket and/or communication, and after you have tested everything below, please submit a TSARA case titled:

- “Charge Socket Communication/Programming Abort” for assistance

## **PROCEDURE**

**Follow the test plans for the following faults first!**

0321A9 - High voltage charging socket: hardware inconsistent

0321AA – High voltage charging socket: software inconsistent

**Do not attempt to program the car until the communication is reestablished with the charge socket, or the CCU will be offline as mentioned above.**

Once the communication is reestablished and the faults can be cleared, the CCU will be able to be recovered.

Checks and possible causes:

- The charging socket electronics may be defective, not responding to the CCU request
- The charging socket is the wrong part number for this vehicle

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- The replacement charging socket may require a retrofit 8WN depending on the production date (\*BEV only)
- Check the charging socket fuse (make sure it is not blown)
- Check 12V power supply and ground connections at the charging socket
- Check the harness between the CCU and the charge socket
- The CCU CAN communication may be down or faulty
- The PINs at the harness 12v connectors CCU or Charge socket
- The CCU power supply, fuse, grounds
- Internal fault of the CCU

\*With regards to GEN 5 BEV vehicles-

**Starting with production 03/2023, a unified charging socket was introduced for all variants.**

**In case of a HV charging socket replacement on a Gen 5 BEV vehicle, the “Conversion charging socket with alternative microprocessor (SA 8WN)” may be required.**

**This hint is only found in electronic parts catalogue (ETK) under the required part.**

**Attention! For vehicles without SA 8WN-**

**The SA 8WN must be installed in the “Vehicle Order.” Use the retrofit "Conversion to charging socket with alternative microprocessor" button via ISTA.**

With option 8WN, the matching coding file (SWFK) for the new generation charging socket will be computed and stored in the CCU.

**Note-**

**The ISTA test plans for the stored faults will ask if the charging socket was replaced.**

**If the vehicle is a BEV, ISTA will check if it requires the SA 8WN conversion for the charging socket installed.**

## **CLAIM INFORMATION**

This Service Information Bulletin provides technical, diagnosis, and repair-related information.

Damage and/or issues caused by outside influences are not covered under the BMW limited warranties.

### **Eligible and Covered Work/Repairs**

Repairs performed to address verified defects in materials and/or workmanship are covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks.

To submit a claim, please follow the established and applicable warranty policy and procedures (Labor/Part/Sublet) that apply to the repair being performed.

Refer to AIR for the corresponding Repair Code for the claim submission. Obtain flat rate labor operation codes that apply (including diagnosis\*) and their flat rate unit (FRU) allowances.

Only one Main labor operation code can be claimed per repair visit.

(\* ) Based on which one applies to your center, please refer to **SI B01 01 20 or B01 07 20** for the applicable procedure for documenting, claiming, and explaining, on the RO and in the claim comments, your diagnosis work time (WT), job/repair work time (WT), and the vehicle repairs your center performed, unless otherwise required by State law.

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Technical Feedback	To submit feedback for the technical topic of this bulletin: Submit your feedback in the rating box at the top of this bulletin
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Parts Feedback	To submit feedback for the PARTS section of this bulletin: Submit an IDS ticket to the Parts Department

