

DCDC Sensor fault codes due to faulty wake-up behavior

Topic number	LI54.10-P-079533
Version	1
Function group	54.10 - Battery, power supply, voltage converter
Date	8/4/25
Validity	The DC/DC converter type that is installed in model series 243 and 465 can be affected.
Reason for change	

Complaint

243: Red 12V battery message, white HV warning message, warning message in the IC and if applicable for vehicles with BMS30EB02 yellow HV drive system

465: Red 12V battery message, white HV warning message, warning message in the IC

If the initial warning messages are ignored, additional further warning messages (e.g. red HV warning message and yellow HV drive system warning message) are displayed.

The DC/DC converter has saved the four following fault codes at most: P0C3B00, P0E9700, P0E5400, P0C4000.

In some cases, not all of these DTCs are triggered.

The following DTCs either be triggered additionally or, in rare cases, without the previous DTCs: P1D0B00, P1CA000, U011500.

243: As a consequence, on vehicles with BMS30EB02, the DTC for the auxiliary assembly fuse P0E2F00 can be set in this.

This triggers the yellow HV drive system warning message.

Attachments	
File	Description
DCDC223 243 Sensor issue gelbe Hybrid Antriebssystem WEM.jpg	243 yellow HV drive system warning message - can only be deleted via XENTRY



Cause

This may result in incorrect wake-up behavior of the DC/DC converter.

The DCDC DTCs and warning messages may appear with a time delay.

When accessing the vehicle, the white (243/465) HV warning message is displayed.

When the HV system is switched on (charging, 12V supports, precon, ignition on), the yellow HV drive system warning message is displayed on the 243 with BMS30EB02 (see below for details).

When the vehicle is started/PT-ready (displayed in the IC), the red 12V battery warning message is displayed for 243 and 465.

Since the BMS on 243 uses the HV voltage value to check the auxiliary assembly fuse, the auxiliary assembly DTC can (with BMS30EB02) be stored as a consequence and the second (yellow) HV drive system warning message can be displayed in the IC.

Remedy

Check of the DC/DC converter via XENTRY Diagnosis

- Actuate BUCK mode for approx. 30 s
- The output current normally jumps to a high value (e.g. 100 A) and then falls slowly to the current specified value e.g. 50 A and then only changes slowly and in small increments.

243 EB311/312 (BMS30EB01):

Perform a reset of the DC/DC converter, e.g. through a BUS idle or by clearing the fault memory, to exit the error state.

243 EB330 (BMS30EB02):

Clear the fault memory, since the DTC for the auxiliary assembly fuse and the yellow hybrid drive system warning message can only be reset in this way.

465:

Perform a reset of the DC/DC converter, e.g. through a BUS idle or by clearing the fault memory, to exit the error state.

Information:

Cause analysis is still ongoing in order to determine a long-term remedy.

Replacing the DC/DC converter will not remedy the issue, as the latest HW and SW versions also still exhibit the same fault profile.

Disclaimer

NOTE: The information contained in this document is intended for use by trained, professional technicians with the knowledge to properly and safely perform diagnosis and repairs on Mercedes-Benz vehicles, using Mercedes-Benz approved tools and equipment. It informs service technicians about conditions that could occur in certain vehicles and provides information that could assist in proper vehicle diagnosis, service, or repair. It does not indicate that a defect is present in any vehicle referenced in this document nor does it imply warranty coverage. DO NOT assume that a symptom or condition, or a described cause of a symptom or condition, affects any particular vehicle or groups of vehicles, or that a described repair applies to any particular vehicle or groups of vehicles. There can be multiple causes resulting in the same or similar symptoms or conditions described in this document, and trained professional service technicians must use their diagnostic skills to make evaluations on a case-by-case basis. The information contained in this document does not guarantee warranty coverage nor does it extend the vehicle's warranty in any way.

Symptoms	
Overall vehicle > Power supply > Battery/On-board electrical system > Battery/on-board electrical system display message > Low voltage Charge battery	
Overall vehicle > Power supply > High-voltage on-board electrical system > High-voltage battery > Display message	
Power generation > Engine management > Electric drive > Electric machine > Power reduced	
Control unit/fault code	
Control unit	Fault text
N83/1 - DC/DC converter (DDW) (DCDC223)	P1D0B00 - The internal power supply has a malfunction. _
	U011500 - Communication with control unit 'Drivetrain' has a malfunction. _
	P1CA000 - Initial startup was not performed. _
	P0E5400 - Current sensor A of the DC/DC converter has a short circuit to positive. _
	P0C3B00 - Temperature sensor A of the DC/DC converter has a short circuit to positive. _
	P0E9700 - Voltage sensor C of the DC/DC converter has a malfunction. _
	P0C4000 - Temperature sensor B of the DC/DC converter has a short circuit to positive. _
N82/9 - Battery management system (BMS) (BMS30E-B02)	P0E2F00 - Electrical fuse B for the high voltage has a malfunction. _

XENTRY Tips

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note
		H	54720	