

Mercedes-Benz Part 573 Submission

Submitted to Portal May 24, 2024

Chronology-Only section

Chronology of Defect/Noncompliance Determination Supplement for ODI 22-00855-31051-10

In October 2023, MBAG investigated a single field report from a Mercedes-Benz dealership in Denmark describing a warning message in the new vehicle's instrument cluster related to the high voltage battery system that appeared prior to delivery of the vehicle to the customer. In November 2023, MBAG received a report alleging reduced drive power with a similar warning message in the US. In parallel, MBAG conducted further investigations of the described occurrences. MBAG initially hypothesized that the reported occurrences might stem from a fault in the battery management system of the high-voltage battery. However, further analyses showed that if the battery management system in certain vehicle models received an extraordinarily high volume of diagnostic requests from the vehicle's control units, the module's memory could be overloaded. In that event, the battery control module would re-set, in accordance with the design specifications. Between December 2023 and April 2024, MBAG conducted further investigations to determine the conditions and circumstances that might trigger a high volume of diagnostic requests from the control modules. This investigation has not identified any initial functional defect in software of those control units. However further testing indicated that a diagnostic data overflow to the battery management system could result in reduced power output or, in rare circumstances, a loss of propulsion.

The cause was narrowed down to various control units that were installed starting with change year 2023/1. Based on this knowledge, the known field cases were re-examined in April 2024. According to the results of the analysis the vehicles from all known field cases were produced after the referenced change year. Based on this finding, in May 2024 MBAG reviewed production records to determine the potentially affected vehicle population. On May 17, 2024, MBAG determined that a potential safety risk cannot be ruled out and decided to conduct a recall.

MBAG is currently aware of 17 field reports received from December 11, 2023 to March 26, 2024 in the US. MBAG is aware of no other information (such as the numbers of deaths and/or injuries) related to this defect in the USA.