

Ford Motor Company (Ford) Recall No. 24S11 Chronology

CERTAIN 2023 MODEL YEAR F-150 LIGHTNING VEHICLES - HIGH VOLTAGE BATTERY BUS BAR RETENTION NUTS LOOSE OR MISSING

Date of Submission: February 23, 2024

Chronology of Defect / Noncompliance Determination

Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision.

On December 14, 2023, Ford's Critical Concern Review Group (CCRG) opened an investigation into a field report and an associated warranty report for a 2023 model year F-150 BEV that came to a stop and would not restart. The reports indicated that the dealership found a missing nut on the high voltage (HV) battery bus bar that is affixed to the High Voltage Battery Junction Box, also referred to as the Bussed Electrical Center (BEC), within the HV battery pack.

Engineering evaluated the returned parts and confirmed that the damage was consistent with the missing nut. The missing nut caused an area of high resistance resulting in arcing at the joint which triggered diagnostic trouble codes (DTCs) disabling the HV system. The DTCs resulted in loss of motive power without restart.

The CCRG reviewed plant process records at the high voltage battery assembly facility to determine if installation of a retention nut could have been missed during the assembly process. All bus bar joints in the BEC assembly are secured during initial assembly using Direct Current (DC) nut runners with torque and angle verification. The CCRG investigation determined that a bus bar retention nut was potentially removed in error during a rework operation for an unrelated issue. Ford records show that the high voltage battery assembly for the subject vehicle of the warranty/field report went through a rework operation on March 15, 2023. There was no additional verification of retention nut torque during the remainder of the assembly process. The impacted vehicle population consists of batteries that were (a) built from February 1 through March 31, 2023 and (b) reworked and reintroduced to the assembly line after the BEC fastener rundown operation.

As of February 14, 2024, Ford Motor Company is aware of one field report (received September 18, 2023) and one warranty report (received October 9, 2023) related to this concern, both for the same incident.

On February 16, 2024, Ford's Field Review Committee reviewed the concern and approved a field action.

Ford is not aware of any reports of accident or injury related to this condition.