

Part 573 Safety Recall Report

23V-687

Manufacturer Name : Ford Motor Company**Submission Date :** OCT 13, 2023**NHTSA Recall No. :** 23V-687**Manufacturer Recall No. :** 23S56**Manufacturer Information :**

Manufacturer Name : Ford Motor Company

Address : 330 Town Center Drive

Suite 500 Dearborn MI 48126-2738

Company phone : 1-866-436-7332

Population :

Number of potentially involved : 34,762

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2021-2022 Ford Mustang Mach-E

Vehicle Type : LIGHT VEHICLES

Body Style : ALL

Power Train : HYBRID ELECTRIC

Descriptive Information : The recalled Bussed Electrical Center parts NK48-10C666-AA, NK48-10C666-BA, or LK98-10C666-AB were introduced into production on 05/27/2020 and were taken out of production on 05/24/2022.

Affected vehicles are equipped with the extended range battery.

These vehicles are not produced in VIN order. Information as to the applicability of this action to specific vehicles can best be obtained by either calling Ford's toll-free line (1-866-436-7332) or by contacting a local Ford or Lincoln dealer who can obtain specific information regarding the vehicles from the Ford On-line Automotive Service Information System (OASIS) database.

Production Dates : MAY 27, 2020 - MAY 24, 2022

VIN Range 1 : Begin :

NR

End : NR

 Not sequential**Description of Defect :**

Description of the Defect : Direct Current ("DC") fast charging and repeated wide open pedal events can cause the high voltage battery main contactors to overheat. Overheating may lead to arcing and deformation of the electrical contact surfaces, which can result in a contactor that is prevented from closing or a contactor that welds closed.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : An overheated contactor that is prevented from properly closing while

Description of the Safety Risk : driving can result in a loss of motive power, which can increase the risk of a crash.

Description of the Cause : The high voltage battery Bussed Electrical Center (BEC) main contactor design and part-to-part variation is not robust to heat generated from multiple wide-open pedal and DC Fast-Charge events. Damage to the Extended Range and GT contactors caused by heat and accumulated wear during customer usage prior to the software update may reduce the effectiveness of the software deployed with 22S41. If the contactors are damaged, the contactors may be prevented from properly closing or weld closed when driving.

Identification of Any Warning that can Occur : For those vehicles that previously received the 22S41 remedy, in most cases, the software will proactively detect damage to the contactors and display a warning to the customer.

If the contactors weld closed while driving, there will be no immediate effect on vehicle operation. Upon the next key cycle, a wrench light will be illuminated, vehicle diagnostics will set a DTC and vehicle will not start.

If the contactors are prevented from properly closing while driving, vehicle diagnostics will set a DTC, a wrench light will be illuminated, the vehicle will display "Stop Safely Now" and the vehicle will immediately lose motive power. The vehicle will coast to a stop, and all 12V systems including power brakes and steering will remain functional.

Involved Components :

Component Name 1 : Bussed Electrical Center

Component Description : BEC – Extended Range RWD

Component Part Number : NK48-10C666-AA

Component Name 2 : Bussed Electrical Center

Component Description : BEC – Extended Range AWD

Component Part Number : NK48-10C666-BA

Component Name 3 : Bussed Electrical Center

Component Description : BEC – GT

Component Part Number : LK98-10C666-AB

Supplier Identification :

Component Manufacturer

Name : TE Connectivity
Address : Blvd. Industrial Norte #23 & Blvd. Solid
Hermosillo Foreign States 83118
Country : Mexico

Chronology :

Chronology is provided as an attachment

Description of Remedy :

Description of Remedy Program : Owners will be directed to take their vehicle to a Ford or Lincoln dealer to complete a replacement of the Bussed Electrical Center (BEC) also referred to as the High Voltage Battery Junction Box (HVBJB) as per workshop manual. There will be no charge for this service.

Ford provided the general reimbursement plan for the cost of remedies paid for by vehicle owners prior to notification of a safety recall in May 2023. The ending date for reimbursement eligibility is estimated to be March 31, 2024.

Ford will forward a copy of the notification letters to dealers to the agency when available.

How Remedy Component Differs from Recalled Component : The updated BEC (NK48-10C666-AC, NK48-10C666-BC, LK98-10C666-AD) design has flat contact surfaces and the groove on the movable contactor surface is removed.

Identify How/When Recall Condition was Corrected in Production : The updated BEC hardware design was introduced into production on May 25, 2022.

Recall Schedule :

Description of Recall Schedule : Notification to dealers is expected to occur on October 16, 2023. Mailing of owner notification letters is expected to begin October 30, 2023 and is expected to be completed by November 10, 2023.

Planned Dealer Notification Date : OCT 16, 2023 - OCT 16, 2023

Planned Owner Notification Date : OCT 30, 2023 - NOV 10, 2023

* NR - Not Reported