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Emily Frascaroli, Global Director

Automotive Safety Office
Environmental & Safety Compliance

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May 15, 2024

Memo to File

Subject: Ford Motor Company (Ford) Recall No. **24S24** – Certain 2021-2024 model year Ford Bronco Sport vehicles and 2022-2023 model year Ford Maverick vehicles – Loss of Motive Power.

In accordance with the requirements of 49 CFR Part 573 Defect and Non-Compliance Information Reports, Ford Motor Company will be electronically filing the attached information for voluntary safety recall #24S24, via NHTSA's website at <http://www.safercar.gov>.

Sincerely,

DocuSigned by:



FD1692468D2241B

For:
Emily Frascaroli
Attachment

49 CFR Part 573 – DEFECT INFORMATION REPORT
24S24 – CERTAIN 2021-2024 FORD BRONCO SPORT and 2022-2023 MAVERICK VEHICLES – LOSS OF
MOTIVE POWER

Manufacturer: Ford Motor Company

Defect or Non-Compliance: ☒ Defect ☐ Noncompliance

Please select this box if you intend to file a petition pursuant to 49 CFR 556. N/A

Vehicles Information

Model yr Start: 2021

Model yr End: 2024

Make: Ford

Model: Bronco Sport

Production date Begin: 02/05/2020

Production date End: 03/13/2024

Type: LIGHT VEHICLES

Body Style: All

Powertrain: All

Descriptive Information:

Ford's team reviewed manufacturing records to determine the population of affected vehicles. The Ford process is capable of tracing Powertrain Control Module and Body Control Module calibrations to the vehicle in which the calibrations are installed.

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.

402,978 Ford Bronco Sport vehicles are affected.

Model yr Start: 2022

Model yr End: 2023

Make: Ford

Model: Maverick

Production date Begin: 02/03/2021

Production date End: 10/28/2022

Type: LIGHT VEHICLES

Body Style: All

Powertrain: All

Descriptive Information:

Ford's team reviewed manufacturing records to determine the population of affected vehicles. The Ford process is capable of tracing Powertrain Control Module and Body Control Module calibrations to the vehicle in which the calibrations are installed.

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.

53,587 Ford Maverick vehicles are affected.

VIN Range

Begin:

End:

X Not Sequential Vins

Number potentially involved: 456,565

Estimated percentage of involved with defect: 100%

[illegible]

Describe the defect/noncompliance:

An insufficient calibration strategy for detecting sudden battery degradations during a drive cycle can lead to (a) a vehicle that is unable to restart after an auto start/stop event or (b) experience a stall while coming to a stop at low speed. Either may be accompanied by a loss of 12-volt accessories, including hazard lights.

If a noncompliance, provide the applicable FMVSS: N/A

Describe the cause:

The BCM and PCM calibrations are unable to detect a sudden change in the 12-volt battery State of Charge (SOC) during a drive cycle.

Describe the safety risk:

A loss of motive power can increase the risk of a crash.

Identify any warning which can precede or occur: None

Check if this recall only affects products in certain geographic regions. N/A

If applicable, identify the manufacturer of the defective or noncompliant component. If the manufacturer of the component is unknown, provide the information for the company that supplied the subject component.

☒ Component manufacturer ☐ Component manufacturer is unknown, information is for our supplier

Company Information

Company Name: Ford Motor Company
Address 1: 1 American Rd
Address 2:
City: , Dearborn
State: Michigan
Zip Code: 48126
Country: USA

Involved Components

If the defect or non compliance involves a specific component(s), identify that component(s) below.

Component Name: Body Control Module
Component Description: Body Control Module Calibration – Bronco Sport
Component Part Number: M1PT-14F390-AC*

Component Name: Body Control Module
Component Description: Body Control Module Calibration – Maverick Gas
Component Part Number: NZ6T-14F390-AD*

Component Name: Body Control Module
Component Description: Body Control Module Calibration – Maverick HEV
Component Part Number: NZ6T-14F390-BD*

Component Name: Powertrain Control Module
Component Description: Powertrain Control Module Calibration – MY2021
Component Part Number: M1PA-12A650-*

Component Name: Powertrain Control Module
Component Description: Powertrain Control Module Calibration – MY2022
Component Part Number: N1PA-12A650-*

Component Name: Powertrain Control Module
Component Description: Powertrain Control Module Calibration – MY2023
Component Part Number: P1PA-12A650-*

Component Name: Powertrain Control Module
Component Description: Powertrain Control Module Calibration – MY2024
Component Part Number: R1PA-12A650-*

Chronology of Defect / Noncompliance Determination

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

On **October 25, 2023**, The National Highway Traffic Safety Administration's Office of Defects Investigation (NHTSA ODI) requested information regarding allegations of loss of motive power (LOMP) followed by a loss of 12-volt accessories on 2021 MY Bronco Sport vehicles. NHTSA provided 29 potentially responsive Vehicle Owner Questionnaires (VOQs) that indicated that most customers' concerns were resolved with a 12-volt battery replacement.

On **November 28, 2023**, Ford's Critical Concern Review Group (CCRG) opened an investigation into this concern.

From **November 2023 through January 2024**, the Low Voltage Power Supply Engineering team evaluated field returns and warranty data for 2021 Bronco Sport vehicles focusing on 12-volt batteries and low voltage systems.

From **December 2023 through March 2024**, the Low Voltage Power Supply Engineering team conducted system and vehicle level testing and teardowns with batteries with various physical conditions and state of charge. The testing revealed that the Body Control Module (BCM) and Powertrain Control Module (PCM) calibrations are unable to detect the battery failure on these vehicles, which can result in a LOMP if the alternator is unable to keep up with the electrical load demand or if an Auto Stop-Start event is initiated.

On **January 31, 2024**, NHTSA's ODI opened Preliminary Investigation PE24-002 into this concern.

As of **February 8, 2024**, Ford is aware of 917 warranty reports, 11 field reports, and 54 customer complaints related to this concern. There are 3 unverified reports of fire and 2 property damage claims.

As of **February 8, 2024**, Ford is not aware of any accidents or injuries attributed to this condition.

On **April 5, 2024** Ford's Field Review Committee reviewed the concern and approved a field action.

Identify the Remedy

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement.

Owners will be notified by mail and instructed to take their vehicle to a Ford or Lincoln dealer to have the BCM and PCM calibrations updated. 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 July 1, 2024.

Describe what distinguishes the remedy component from the recalled component.

The update BCM calibrations M1PT-14F390-ACG (Bronco Sport), NZ6T-14F390-ADD (Maverick Gas), NZ6T-14F390-BDB (Maverick HEV) will provide improved detection of 12V battery SOC during drive cycles, inhibit auto stop/start in the event of a low SOC, and provide notification to the driver if the battery is degraded. The updated PCM calibrations M1PA-12A650-UE (MY21), N1PA-12A650-AE (MY22), P1PA-12A650-AF (MY23), R1PA-12A650-AD (MY24) will increase the alternator output threshold to maintain vehicle operation if a low 12V battery SOC is detected during a drive cycle.

Identify and describe how and when the recall condition was corrected in production.

Not required per 49 Part 573.

Identify the Recall Schedule

Describe the recall schedule for notifications.

Notification to dealers is expected to occur on May 13, 2024. Mailing of owner notification letters is expected to begin June 3, 2024 and is expected to be completed by June 7, 2024.

Planned Dealer Notification Begin Date: 05/13/2024

Planned Dealer Notification End Date: 05/13/2024

Planned Owner Notification Begin Date: 06/03/2024

Planned Owner Notification End Date: 06/07/2024

Manufacturer's identification code for this recall (if applicable): 24S24

Manufacturer Comments to NHTSA Staff

National media attention is likely as with most Ford recalls when posted to NHTSA's safecar.gov website. Ford will provide public comments when requested. A news release will not be issued.

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

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