

Part 573 Safety Recall Report

22V-686

Manufacturer Name : Ford Motor Company**Submission Date :** SEP 14, 2022**NHTSA Recall No. :** 22V-686**Manufacturer Recall No. :** 22C22**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 : 86,050

Estimated percentage with defect : 1 %

Vehicle Information :

Vehicle 1 : 2022-2023 Ford Bronco Sport

Vehicle Type : LIGHT VEHICLES

Body Style :

Power Train : NR

Descriptive Information : Ford's team reviewed supplier process and maintenance records to determine the population of affected parts. The Ford process is capable of tracing LED Driver Module (LDM) production to the vehicle in which the LDM is 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

8,246 Bronco Sport vehicles are affected.

Production Dates : MAR 19, 2022 - JUL 28, 2022

VIN Range 1 : Begin :

NR

End : NR

 Not sequential

Vehicle 2 : 2022-2022 Ford F150

Vehicle Type : LIGHT VEHICLES

Body Style :

Power Train : NR

Descriptive Information : Ford's team reviewed supplier process and maintenance records to determine the population of affected parts. The Ford process is capable of tracing LED Driver Module (LDM) production to the vehicle in which the LDM is installed.

Affected F150 vehicles are equipped with LED Parking lamps.
F150 vehicles with incandescent parking lamps are not affected.

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

77,804 F150 vehicles are affected.

Production Dates : MAR 11, 2022 - JUL 23, 2022

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Description of Defect :

Description of the Defect : Parking lamp flickering may occur during any of the three following scenarios.
Scenario 1: When the customer manually selects the "position lamp on" mode.
Scenario 2: When the customer manually selects "Headlamp On" Mode.
Scenario 3: When the customer is driving in automatic headlamp mode, and the environment gets dark enough to trigger "Night Mode", which turns on the headlamp and parking lamp function.

FMVSS 1 : 108 - Lamps, reflective devices, and assoc. Equipment

FMVSS 2 : NR

Description of the Safety Risk : Vehicles may exhibit a park lamp flickering that does not meet the steady burning requirement of FMVSS 108. A non-steady burning parking lamp could increase the risk of a crash.

Description of the Cause : The frequency of operation of the LED driver module is currently 200Hz. At 200Hz, the lamp is susceptible to flickering due to insufficient capacitance on the capacitor when operating between 2.95 and 3.14 volts and the lamp has LED string voltage greater than 12.5 volts.

Identification of Any Warning that can Occur : None.

Involved Components :

Component Name 1 : LED driver module

Component Description : LED driver module

Component Part Number : NC5A-13B626-FB

Supplier Identification :

Component Manufacturer

Name : Continental Automotive Austria GmbH

Address : Dresdner Strasse 91
1200 Vienna Foreign States .

Country : Austria

Chronology :

July – August 2022

On July 7, 2022, the Hermosillo Plant (HSAP) vehicle team brought an issue pertaining to the parking lamps flickering to Ford's Critical Concern Review Group.

The first vehicle was found by the assembly plant quality personnel during an audit of Bronco Sport. Additional Bronco Sport vehicles were detected by plant personnel in a yard campaign. HSAP quality team found 10 units from a population of 734 where the position lamp starts flickering after a 5 minute functional test. This condition coincided with an LED Driver Module (LDM) part change from version 4.1L to version 4.2.

Certain affected Bronco Sport, F150, and Raptor vehicles are equipped with the LDM version 4.2 that will cause the position lamps to flicker.

On July 5, 2022, Ford Electrical Lighting Module Engineering and the Continental engineers analyzed component voltages to determine which modules and vehicles may have the concern to determine scope.

On July 22, 2022, Ford Electrical Lighting Module Engineering reviewed environmental temperatures during reports of flickering to determine if the condition was related to temperatures.

July – August 2022: Automotive Safety Office evaluated FMVSS 108 requirement for steady burning, searched for and monitored field reports to determine scope of which vehicles may be affected.

August 31, 2022, Ford's Technical Review Group (TRG) reviewed this concern. The subject lamps meet FMVSS 108 component-level compliance tests. However, at the vehicle level, the lamps are objectively not steady burning. The TRG recommended the flickering park lamp condition be reviewed by the Field Review

Committee.

On September 07, 2022, 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.

Description of Remedy :

Description of Remedy Program : Owners will be notified by mail and instructed to take their vehicle to a Ford or Lincoln dealer to have the LED Driver module replaced and/or reprogrammed. 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 2021. The ending date for reimbursement eligibility is estimated to be November 11, 2022.

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

How Remedy Component Differs from Recalled Component : The remedy component is an LED driver module (NC5A-13B626-FB) with updated software. The software update increases the frequency of operation of the LED driver module from 200Hz to 400Hz. The lamp is susceptible to flickering due to insufficient capacitance at the 200 Hz voltage on the capacitor when operating between 2.95 and 3.14 volts and a lamp with LED string voltage greater than 12.5 volts. Increasing the frequency of operation to 400HZ reduces the required capacitance more than 50%. This allows the lamp to operate without flickering.

Identify How/When Recall Condition was Corrected in Production : Not required per 49 Part 573.

Recall Schedule :

Description of Recall Schedule : Notification to dealers is expected to occur on October 31, 2022. Mailing of owner notification letters is expected to begin October 31, 2022 and is expected to be completed by November 4, 2022.

Planned Dealer Notification Date : OCT 31, 2022 - OCT 31, 2022

Planned Owner Notification Date : OCT 31, 2022 - NOV 04, 2022

* NR - Not Reported