

Part 573 Safety Recall Report

23V-801

Manufacturer Name : Ford Motor Company**Submission Date :** NOV 28, 2023**NHTSA Recall No. :** 23V-801**Manufacturer Recall No. :** 23C38**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 : 5,118

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2022-2023 Ford F-150 Lightning

Vehicle Type : LIGHT VEHICLES

Body Style : PICKUP TRUCK

Power Train : NR

Descriptive Information : Affected F-150 Lightning vehicles are equipped with a 15-inch touchscreen and had SYNC software version 1.9.4 installed during Over-the-Air (OTA) update 6.3.0.

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.

5,118 F-150 Lightning vehicles are affected.

Production Dates : OCT 14, 2021 - APR 18, 2023

VIN Range 1 : Begin :

NR

End : NR

 Not sequential**Description of Noncompliance :**

Description of the Noncompliance : Affected vehicles may have software logic that does not reset the Electronic Stability Control (ESC) system to default operation at the initiation of each ignition cycle. Section 5.4.1 of FMVSS No. 126 requires that the vehicle's ESC system return to the manufacturer's original default ESC mode at the initiation of each ignition cycle

FMVSS 1 : 126 - Electronic stability control systems

FMVSS 2 : NR

Description of the Safety Risk : The vehicle operator may not notice that the vehicle operates differently after receiving the OTA Update 6.3.0 and now remains in Off-Road Mode with a

reduced ESC state after cycling the ignition. If the vehicle operator does not notice the ESC Off telltale in the cluster, they may not know the vehicle is in a reduced ESC state. For these vehicles, failing to revert back to a normal ESC-On state after being in Off-Road mode makes the vehicles noncompliant to FMVSS No. 126, increasing the risk of crash.

Description of the Cause : An Over-the-Air software update introduced incorrect software logic that caused user-selectable drive modes, including ESC status, to carry over between ignition cycles instead of returning to default ESC operation with each ignition cycle.

Identification of Any Warning that can Occur : At key ignition, the cluster will display the "ESC Off" (skidding car) telltale.

Involved Components :

Component Name 1 : APIM

Component Description : Accessory Protocol Interface Module

Component Part Number : PU5T-14G682-EL

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

Chronology :

October-November 2023

On November 9, 2023, an issue pertaining to the persistence of user-selected drive modes, including ESC status, between ignition cycles on certain 2022 and 2023 model year Ford Lightning vehicles was brought to Ford's Critical Concern Review Group (CCRG) for review. The carry over of drive modes between ignition cycles was first identified during the weekend of October 27, 2023, when Ford personnel noticed that the last selected drive mode began to carry over between ignition cycles after receiving Over-the-Air (OTA) software update 6.3.0 (SYNC version 1.9.4). The OTA software deployments were halted on October 27, 2023 for an unrelated concern.

Certain drive modes, such as Off-Road Mode, change the performance of Electronic Stability Control (ESC)

operation. The F-150 Lightning Off-Road mode has a less restrictive ESC function to allow for improved traction on loose surfaces such as soft soil. The CCRG investigation determined that the SYNC 1.9.4 update caused the reduced ESC function tied to Off-Road mode to carry over between drive cycles without user input instead of returning to default ESC operation with each drive cycle.

Federal Motor Vehicle Safety Standard (FMVSS) No.126 Electronic Stability Control Systems allows a driver to turn off the ESC operation in certain circumstances. However, Section 5.4.1 of FMVSS No, 126 explicitly requires that the vehicle's ESC system return to the manufacturer's original default ESC mode at the initiation of each ignition cycle. The CCRG reviewed the certain exclusions in Section 5.4.1 of FMVSS No. 126, but determined that they do not apply to these F-150 Lightnings.

CCRG reviewed the deployment records for the OTA and determined that 5,118 number of vehicles received the OTA update version 6.3.0.

On November 17, 2023, 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 : The remedy for this program is a software update to Accessory Protocol Interface Module (APIM). Ford began Ford Power-Up Over-the-Air deployments to update the APIM software for affected vehicles in November 2023. Alternatively, owners will have the option to take their vehicle to a Ford or Lincoln dealer to complete the software update. 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 January 5, 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 software on the Accessory Protocol Interface Module (APIM), part number PU5T-14G682-EL, will be updated to no longer store the drive mode settings from the previous ignition cycle.

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 November 30, 2023.

Mailing of owner notification letters is expected to begin December 18, 2023 and is expected to be completed by December 22, 2023.

Planned Dealer Notification Date : NOV 30, 2023 - NOV 30, 2023

Planned Owner Notification Date : DEC 18, 2023 - DEC 22, 2023

* NR - Not Reported