

## Ford Motor Company (Ford) Recall No. 24S66 Chronology

### CERTAIN 2023 and 2024 FORD SUPER DUTY VEHICLES – TAILGATE TOP VIEW CAMERA WATER INTRUSION

**Date of Submission:** October 25, 2024

#### **Chronology of Defect / Noncompliance Determination**

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

#### February 2024 – March 2024

On February 6, 2024, a prototype modifications supplier working on a 2023 model year (MY) Super Duty marketing vehicle observed a black screen while attempting to view the tailgate top camera image. Ford Engineering investigated the concern and identified the potential for water ingress at the interface between the connector on the tailgate top camera and the mating connector interface seal on the coaxial cable.

The camera in the top of the tailgate was introduced during 2023 MY Super Duty production and is an available feature on certain Super Duty variants. The tailgate top camera provides additional camera images when the tailgate is down and is a separate camera from the primary rear view camera mounted on the tailgate.

Ford's initial investigation identified multiple causal factors for water ingress related to component manufacture and design. The camera connector was oblong and out of tolerance. Additionally, the mating connector sealing ribs on the coaxial harness connector were out of tolerance. The investigation also revealed that the camera bracket had not been designed or tested for water ingress scenarios.

On February 25, 2024, Ford implemented a software robustness action to allow the Image Processing Module A (IPMA) to continue the initialization process even if one camera failed to initialize, as in the case of a tailgate top camera. To address the dimensional tolerance quality concerns, Kentucky Truck Plant (KTP) issued a Stop Ship on March 1, 2024.

On March 7, 2024, Ford's Critical Concern Review Group (CCRG) opened an investigation into the tailgate top camera concern. Initially, Ford's analysis indicated that water ingress at the tailgate top camera would not affect the primary rear view camera display.

On March 14, 2024, KTP implemented containment actions for the Stop Ship, which consisted of installing a dimensionally correct connector pigtail between the camera and the coax cable connector to prevent water ingress to the system.

#### April 2024 – July 2024

In April 2024, the Advanced Driver Assistance System (ADAS) team identified some customer claims that water intrusion had caused a black screen for all cameras, including the primary rear view camera system. Between June and July 2024, Ford reviewed available field data and warranty claims for customer complaints that the Tailgate Park Assist Sensor Interface Module (TPASIM) had set a Diagnostic Trouble Code (DTC) and displayed a black or blue screen on the primary rear view camera display while in reverse with the tailgate in the closed position. Based on the available data at that time, Ford

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decided to continue monitoring warranty and DTC data, review warranty return parts, and have the ADAS team conduct additional vehicle/bench testing to understand the potential effect on the vehicle and the primary rear view camera.

### August 2024-September 2024

Through September 2024, the CCRG team conducted additional testing and reviewed warranty return parts to understand the effect of water ingress at the tailgate top camera interface and subsequent corrosion of the related pin in the TPASIM module. The CCRG investigation concluded that although water intrusion at the tailgate top camera interface initially manifests as loss of the tailgate top camera view, damage to adjacent pins in the TPASIM can occur over time, potentially leading to the loss of the primary rear view camera image.

Ford is aware of 130 warranty reports associated with this concern, received from September 5, 2023 to August 22, 2024. Ford is aware of 11 field reports associated with this concern, received from October 2, 2023 to May 15, 2024.

On **October 18, 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.