

## **23S02 Amendment 1**

### **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 22, 2021, NHTSA contacted Ford regarding (3) Vehicle Owner Questionnaires (VOQs) related to allegations of a blue image in the rear camera display after the completion of 21S44. Product Development (PD) and Ford Customer Service Division (FCSD) teams identified an issue with the service tool that resulted in dealers not installing the 21S44 remedy software in vehicles. This issue was promptly corrected for service, and VINs that had been repaired were re-opened for 21S44 remedy in November, 2021.

On January 26, 2022, NHTSA provided an additional (5) VOQs related to allegations of a blue image in the rear camera display after the completion of 21S44. Ford responded to NHTSA on February 23, 2022 with a summary of findings regarding the VOQs and the service tool issue and remedy.

On March 15, 2022, Ford's Critical Concern Review Group (CCRG) opened an investigation after receiving 13 VOQs related to a blue image in the rear camera display after the completion of 21S44.

From March through June 2022, Ford continued to work with suppliers to analyze claims relating to blue screens. Analyzing claims was complicated by 2 unique failure modes (full blue screen and rear only blue image) which resulted in similar claims. Ford worked with suppliers, analyzed over 100 cameras replaced in the field for blue screen symptoms, and analyzed returned IPMB modules, eliminating potential root causes. Ford and supply base were unable to replicate the concern in the laboratory or in-vehicle until December, 2022.

From June through October, 2022, Ford continued to work with suppliers to analyze claims relating to blue screens. In July 2022, Ford identified a susceptibility of the system to enter standby mode due to lack of reinitialization strategy; however, Ford was not able to replicate this susceptibility in a vehicle. Work started with the supplier to eliminate the potential for this susceptibility to occur.

Throughout the time period from March 2022 to November 2022, Ford continued to monitor warranty claims attributed to this concern, and rates remained at a low level.

On December 7, 2022, the CCRG observed an increasing trend in warranty rates for blue screen on vehicles produced after the 21S44 clean point, after 9 months in service. Ford's CCRG issued a Stop-Ship for the affected vehicle lines.

As of November 30, 2022, there have been 2115 warranty reports alleging occurrence of rear camera blue images for vehicles produced with software version IT 15.4. As of January 5, 2023, there have been 21 NHTSA (VOQs) for customers experiencing rear camera blue image related to this concern, with 16 VOQs confirmed to have occurred post FSA 21S44 completion.

On January 13, 2023, Ford's Field Review Committee reviewed the concern and approved a field action.

Ford is aware of 17 reported minor accidents allegedly resulting from blue screen symptoms, and not aware of any reports of injury related to this condition.

Ford has not identified a root cause for the loss of video frames in the camera system. Ford's IPMB supplier has implemented a response strategy to remedy the concern. As the root cause cannot be attributed to a component at this time, Ford has removed the supplier information. Ford and their suppliers are continuing to investigate the concern to determine root cause.