

Date of submission 2023-11-13

FSA #23S48 Amendment #1

23S48 – MULTIPLE VEHICLE LINES WITH DIGITAL REARVIEW CAMERA

Chronology

On **May 5, 2023**, Ford's Field Review Committee (FRC) approved Field Service Action (FSA) 23S23 for Explorer, Aviator, and Corsair rear view camera blue screen; at the time the root cause was unknown and the remedy was not defined. Vehicles in this population remained under a Type 1 stop ship. After the approval of this program in FRC, Ford kicked-off several workstreams to understand root cause(s) for this concern.

May-June 2023: Ford and its suppliers worked to perform a deep-dive analysis of the internal camera connector, reviewed IPMB and camera software, and developed testing to replicate the condition on a camera system. In May 2023, Ford and its suppliers were able to reproduce the issue in the vehicle and at a component level. The supplier ran key life testing and Ford developed Highly Accelerated Life Test (HALT) testing to replicate camera concerns in the laboratory environment.

July 2023: Ford and its supplier determined that camera hardware contributed to the blue or blank screen condition when a customer is in a backing event on the Aviator, Explorer, and Corsair vehicle lines and began validation of a hardware remedy. Once Ford determined that hardware root cause(s) affected rear view cameras, a read-across was conducted to determine other vehicle lines with shared camera hardware and to review the field performance of those cameras. Ford CCRG opened an investigation into the other applications sharing this rearview camera design: Navigator, Bronco, and Transit vehicles with 360 view feature, and Transit and Aviator vehicles with High-Definition Rear View Camera feature. These were not previously included in FSA 23S23 or other rear view camera recalls which were focused on software.

On **July 25, 2023**, Ford's Critical Concern Review Group (CCRG) opened an investigation pertaining to Aviator, Transit, Bronco, and Navigator vehicles with Magna Zurich Lite IC and Magna Zurich HD cameras not previously included in FSA 23S23 or other rear view camera recalls. The CCRG's investigation identified elevated warranty rates and/or similar projected rates for this condition on the Navigator, Aviator, 2021 Model Year (MY) Bronco, and Transit 360-degree vehicle lines.

On **August 18, 2023**, Ford's field Review Committee reviewed this concern and approved a field action on the Navigator, Aviator, 2021 Model Year Bronco, and Transit 360-degree vehicle lines.

On **November 3, 2023**, Ford's Field Review Committee reviewed and approved the amended population which includes the population of vehicles built prior to production implementation of the remedy.

2022-2023 MY Transit vehicles with HD digital rearview cameras and 2022-2023 MY Bronco rear-only cameras have lower warranty rates and Ford continued its investigation to understand the lower warranty rates on these vehicle lines.

For the 2022-23 MY Transit HD vehicles, the CCRG looked at connected vehicle data which showed a higher failure rate for this vehicle line than was reported through warranty repairs. On August 25, 2023, Ford's Field Review Committee reviewed and approved an amendment to add 2022-23 MY Transit HD vehicles to the field action.

2022-2023 MY Bronco have a statistically significant lower warranty rate indicating that other differences exist and Ford is continuing to investigate. The lower rate coincides with the movement of the camera assembly line to a new assembly plant, and initial component inspections are indicating improved internal connector alignment. Ford will proactively monitor warranty data and continue hardware analysis and testing.

Between April 24, 2018, and August 3, 2023, there have been 3,486 warranty reports alleging occurrence of rear camera blue images or full blue or black screens in the included population. Ford is aware of 2 VOQs related to this concern.

Ford is not aware of any injuries related to this concern. There are 2 allegations of minor crashes due to the loss of rearview image.