

June 14, 2024

DEFECT INFORMATION REPORT

1. Vehicle Manufacturer Name:

Toyota Motor Corporation [“TMC”]
1, Toyota-cho, Toyota-city, Aichi-pref., 471-8571, Japan

Affiliated U.S. Sales Company:

Toyota Motor North America, Inc. [“TMNA”]
6565 Headquarters Drive, Plano, TX 75024

Manufacturer of Rearview Camera:

KYOCERA Corporation
6 Takeda Tobadono-cho, Fushimi-ku, Kyoto 612-8501, Japan
Phone: +81-075-604-3500

Country of Origin: Japan

2. Identification of Involved Vehicles and Affected Components:

Based on production records, we have determined the involved vehicle population to be the vehicles listed in the table below.

Make/Car Line	Model Year	Manufacturer	Production Period
Toyota / Crown	2023	TMC	February 2, 2023 through August 4, 2023

Applicability	Part Number	Part Name	Component Description
MY2023 Toyota Crown	86790-30290 867B0-30100	CAMERA ASSY, TELEVISION	Rearview Camera

- Note: (1) Although the involved vehicles are within the above production period range, not all vehicles in this range were sold in the U.S.
- (2) This recall covers certain MY 2023 Crown vehicles equipped with a rearview camera manufactured by a specific supplier and during a specific production period. Certain other Toyota or Lexus vehicles are equipped with the same rearview camera from the same production period. While those vehicles have not exhibited a trend in field occurrence, Toyota is confirming other factors that can affect whether water can leak into the camera. Toyota is also planning to confirm component durability performance of the camera for these vehicles. Other Toyota or Lexus vehicles sold in the U.S., beyond those described above, are equipped with a different rearview camera and are not affected by the condition described in this report.

3. Total Number of Vehicles Potentially Involved:

Toyota Crown : 13,077

4. Percentage of Vehicles Estimated to Actually Contain the Defect:

Toyota is unable to estimate the percentage of the involved vehicles to actually contain the defect described in Section 5. However, as the NHTSA manufacturer portal requires an integer value be entered, Toyota has entered the value “1” in response to this question in the portal. For the purpose of this report, “1” means “unknown”.

5. Description of Problem:

The subject vehicles are equipped with a rearview camera, and some are also equipped with a frontview camera, that are used to capture and display images of areas around the vehicle. Due to insufficient laser welding of the camera case at the supplier during a specific production period, there is a possibility that the camera case for these cameras may separate when exposed to external stress over time, allowing water to leak into the camera. If this occurs, the circuit inside the camera can short, leading to an inability to display certain images of areas around the vehicle. If the rearview image becomes inoperative and the driver moves the vehicle in reverse without checking the vehicle’s surroundings, there can be an increased risk of striking and injuring a pedestrian.

6. Chronology of Principal Events:

April, 2023 – December, 2023

In April 2023, Toyota received a field technical report from the Japan market on another model equipped with a Panoramic View Monitor (PVM) indicating that the rearview camera image did not display when the vehicle was shifted into reverse. The rearview camera was recovered and investigated by the supplier, who also performed various tests. It was confirmed that the camera did not display the image and failed an air leak test. After disassembling the camera, the supplier found water inside the camera, insufficient laser welding of the camera case, and corrosion on the circuit board. Toyota hypothesized that water had entered through the insufficiently welded area, which may have caused a short circuit on the circuit board, leading to an inability to display the rearview image. Toyota started investigating the factors that may have led to this condition.

Toyota requested the supplier to investigate the production process history to confirm whether any abnormality was present during the manufacturing of the rearview camera. From this history, the supplier found that a laser reflective sheet was covering a laser hole in one of the laser welding machines during a certain production period. To further evaluate potential effects, the supplier produced parts for testing that contained this replicated welding condition and confirmed that this condition led to the insufficient welding. However, after further testing, the camera casing with insufficient welding passed an air leak test and did not allow water entry inside the camera.

Considering that vehicle usage could, in theory, affect an insufficiently welded camera case, an evaluation of the potential effects of vehicle vibration began. This first required measuring vibration for various models during vehicle operation and then establishing test conditions for controlled bench testing.

January, 2024 – June, 2024

In January 2024, the supplier began vibration bench testing over several months based on the vehicle operation vibration data collected, above. It was found that vehicle vibration could cause a separation within the insufficiently welded area, resulting in a poor seal of the camera casing. In April 2024, Toyota began water leak testing on cameras that had a separated casing from the aforementioned vibration testing and confirmed that water could enter the camera through the insufficiently welded area.

Based on the results of the above testing, Toyota identified that external stresses such as vehicle vibration may separate an insufficiently welded area of the camera casing, which may allow water to enter inside the camera. If this occurs, the circuit inside the camera can short, leading to an inability to display certain images of areas around the vehicle.

During this investigation, Toyota monitored the field data in the U.S. for this issue. In June 2024, Toyota reviewed the latest field reports, dealer field reports, customer complaints, VOQs, legal claims and warranty claims in the U.S. for all vehicle models equipped with this camera in different vehicle locations and continued to observe that Crown vehicles had a trend of allegations of blurry, fuzzy, or foggy images for the rearview camera.

Considering the above testing and reviewed field data, Toyota determined that the rearview camera image can become inoperable in these Crown vehicles. If the rearview image becomes inoperative and the driver moves the vehicle in reverse without checking the vehicle's surroundings, there can be an increased risk of striking and injuring a pedestrian.

June 7, 2024

Based on the results of the above investigation, Toyota decided to conduct a voluntary safety recall campaign to address the potential for a water leak to lead to non-operation of the rearview camera image in these Toyota Crown vehicles.

As of June 6, 2024, based on a diligent review of records, Toyota's best engineering judgment is that there are 3 Toyota Field Technical Reports and 166 warranty claims that have been received from U.S. sources in the involved Crown vehicles that relate or may relate to this condition and which were considered in the decision to submit this report.

7. Description of Corrective Repair Action:

All known owners of the subject vehicles will be notified to return their vehicles to a Toyota dealer. For all involved vehicles, dealers will inspect the rearview camera serial number to determine if it is involved. Where an involved camera is identified, dealers will replace the camera with a new one at no cost.

While the non-operation of the frontview camera does not present an unreasonable risk to safety, Toyota will also inspect the frontview camera serial number. Where an involved camera is identified, dealers will replace the camera with a new one at no cost for additional customer satisfaction.

Reimbursement Plan for pre-notification remedies

As the owner notification letters will be mailed out well within the active period of the Toyota New Vehicle Limited Warranty (“Warranty”), all involved vehicle owners for this recall would have been provided a repair at no cost under Toyota’s Warranty.

8. Recall Schedule:

Notifications to owners of the affected vehicles will occur by August 13, 2024. A copy of the draft owner notification will be submitted as soon as it is available.

9. Distributor/Dealer Notification Schedule:

Notifications to distributors/dealers will be sent on June 14, 2024. Copies of dealer communications will be submitted as they are issued.

10. Manufacturer’s Campaign Number:

Toyota [Interim/Remedy] 24TB08/24TA08