Toyota Motor North America, Inc.

Vehicle Safety & Compliance Liaison Office Mail Stop: W4-2D 6565 Headquarters Drive Plano, TX 75024

April 17, 2024

DEFECT INFORMATION REPORT

1. <u>Vehicle Manufacturer Name</u>:

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 Rear door outside handle:

TOKAI RIKA CO., LTD. 3-260 Toyota, Oguchi-cho, Niwa-gun, Aichi-pref. 480-0195, Japan Telephone: +81-587-95-5211

Country of Origin: Japan

2. <u>Identification of Involved Vehicles and Affected Components:</u>

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 / Prius	2023-2024	TMC	October 11, 2022 through April 3, 2024
Toyota / Prius Prime			October 13, 2022 through April 3, 2024

Applicability	Part Number	Part Name	Component Description
MY2023-2024 Toyota Prius, Prius Prime	69230-47060	Switch Assy, RR Door Handle Opener RH	Right rear door outside handle
	69240-47040	Switch Assy, RR Door Handle Opener LH	Left rear door outside handle

- 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 issue only affects MY 2023-2024 Prius/Prius Prime vehicles equipped with rear door outside handles with a door opener switch manufactured by a specific supplier and during a specific production period. Other Toyota or Lexus vehicles sold in the U.S. are not equipped with a door opener switch or are equipped with a different door opener switch and do not have the condition described in this report.

3. <u>Total Number of Vehicles Potentially Involved:</u>

Prius	:	42,561
Prius Prime	:	13,129
Total	:	55,690

4. <u>Percentage of Vehicles Estimated to Actually Contain the Defect:</u>

Unknown. Toyota is unable to provide an estimate of the percentage of vehicles to actually contain the defect. Whether a sufficient amount of water enters the door opener switch and causes a short circuit that could lead to a door opening depends on various conditions, as described further below. 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. <u>Description of Problem</u>:

The subject vehicles are equipped with an electric rear door lock system which includes a door opener switch and a rear door lock release actuator to release the latch from outside of the vehicle. Due to insufficient waterproofing of the door opener switch, if a large amount of water splashes on the switch (for example, at a car wash), there is a possibility that the water could enter the switch and cause a short circuit. If the door is not locked, the short circuit could cause the door to open unexpectedly. If this occurs, there will be a notification on the combination meter, and a buzzer will sound if the vehicle is in motion. A door opening while the vehicle is moving or during a crash could increase the risk of injury to occupants.

6. <u>Chronology of Principal Events</u>:

Early March 2024 – Mid April 2024

In early March 2024, Toyota received a field report about a vehicle in the Japan market indicating that a left rear door suddenly opened while driving. During the dealer inspection, an abnormality was found in the voltage value between certain connector terminals of the door opener switch mounted on the left rear door outside handle. The left rear door outside handle was recovered and sent to the supplier for the further investigation.

During the investigation of the recovered part, the supplier found signs of water intrusion on the circuit board inside the door opener switch. Toyota began investigating how water can bypass the rear door outside handle and contact the sealed portion of the switch by conducting water splash testing. It was found that water from the outside can reach and contact the sealed portion of the switch by passing through gaps between components of the door outside handle if water is sprayed (via handheld pressure washer) directly on the door opener switch.

From the above results, in order to understand how water can enter through the switch body and sealant, the supplier performed water immersion testing using new door opener switches, but was unable to reproduce water intrusion on these switches. Toyota and the supplier hypothesized that the sealant could partially separate from the switch body in normal usage of the vehicle and in temperature variations.

The supplier then compared material characteristics of both the switch body and sealant. Toyota found that there was a difference in the thermal expansion coefficient between the switch body and sealant. Toyota and the supplier presumed that the partial separations of sealant were caused by repeated thermal expansion and contraction during vehicle use.

The supplier then performed water immersion testing using switches that had experienced thermal cycle testing. As a result, Toyota confirmed that water entered from the interface between the switch body and sealant in one of the switches.

Based on the above investigations, Toyota determined that the sealant used on the switch body may partially separate due to thermal expansion and contraction in normal vehicle use, leading to insufficient waterproof performance. In this condition, if a large amount of water splashes on the switch (for example, at a car wash), the water could enter the switch and cause a short circuit. If the door is not locked (for example, in case an automatic door lock feature is set to deactivate), the short circuit could cause the door to open unexpectedly.

April 11, 2024

Based on the results of the above investigation, Toyota decided to conduct a voluntary safety recall campaign.

As of April 10, 2024, based on a diligent review of records, Toyota's best engineering judgment is that there are no Toyota Field Technical Reports and no warranty claim that have been received from U.S. sources that relate or may relate to this condition and which were considered in the decision to submit this report.

7. <u>Description of Corrective Repair Action:</u>

All known owners of the subject vehicles will be notified to return their vehicles to a Toyota dealer. The dealer will replace both right and left rear door opener switches with improved ones, free of charge.

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. <u>Recall Schedule</u>:

Notifications to owners of the affected vehicles will occur by June 16, 2024. A copy of the draft owner notification will be submitted as soon as it is available.

9. <u>Distributor/Dealer Notification Schedule</u>:

Notifications to distributors/dealers will be sent on April 17, 2024. Copies of dealer communications will be submitted as they are issued.

10. <u>Manufacturer's Campaign Number:</u>

Interim / Remedy: 24TB06 / 24TA06