

Toyota Motor Engineering & Manufacturing North America, Inc.

Vehicle Safety & Compliance Liaison Office 19001 South Western Avenue Torrance, CA 90501

November 22, 2016

#### **DEFECT INFORMATION REPORT**

## 1. Vehicle Manufacturer Name:

Toyota Motor Manufacturing, Indiana, Inc. ["TMMI"] 4000 Tulip Tree Drive, Princeton, IN 47670-4000

### Affiliated U.S. Sales Company:

Toyota Motor Sales, USA, Inc. ["TMS"] 19001 South Western Avenue, Torrance, CA 90501

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

Based on production records, we have determined the involved vehicle population as in the table below.

Make/Car Line	Model Year	Manufacturer	Production Period
Toyota / Sienna	2011-2016	TMMI	January 4, 2010 through August 12, 2016

Applicability	Part Number	Part Name	Component Description		
Not applicable					

Note: The fuse indicated in the Description of Problem is operating as designed; the issue is the performance of the sliding door under certain limited operating conditions.

- (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) Other Toyota/Lexus vehicles are not included in this recall because they do not have the sliding door mechanism described in this report, or they utilize a different design in the sliding door motor circuit which does not have the concern described below.

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

744,437

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

Unknown

# 5. <u>Description of Problem:</u>

The subject vehicles are equipped with power sliding doors which contain motors to open or close the door based upon certain inputs. There is a possibility that, under certain limited conditions which impede the opening of the door, such as when the door becomes frozen with ice, the sliding door motor could stall when the door is operated. If the motor stalls, high current in the door motor circuit could be generated, operating the fuse for the door motor. If the fuse is operated with the sliding door latch mechanism in an unlatched position, the door could open while driving, increasing the risk of injury to a vehicle occupant.

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

## <u>January</u>, 2014 - Mid April, 2015

In January 2014, Toyota received a dealer report from the U.S. market indicating that the left side sliding door would not close properly in a 2014 Sienna. During the inspection of the vehicle by the dealer technician, it was found that the fuse for the sliding door motor had operated. It was also confirmed that the door cable was not attached to the latch mechanism in the front lock assembly and that the cable end was bent. The sliding door front lock assembly was returned to the supplier for investigation; it was found that the latch mechanism functioned normally when the cable end was set back into place and there was no dimensional abnormality of the cable which could lead to the cable detachment. Toyota also confirmed the current production condition of the cable installation process and found no abnormalities. Toyota concluded that this report was an isolated case and decided to monitor the field.

Between February, 2014 and mid-April, 2015, Toyota received an additional three dealer reports and one Field Technical Report from the U.S. market indicating that a sliding door would not close/latch properly and that the fuse for the sliding door motor had operated. An inspection of these vehicles and investigation of the recovered parts found binding in the rear lock mechanism of some vehicles possibly caused by corrosion/debris in the rear lock. However, no specific trend was identified at the time, and Toyota continued its investigation and monitoring of the field.

# November, 2015 - Late April, 2016

In November, 2015, Toyota received three Field Technical Reports from the U.S. market indicating that the left side sliding door would not latch. Two of the three reports also indicated that the left side sliding door opened while driving. Toyota inspected the vehicles

and confirmed that the fuse for the sliding door motor had operated; however, no corrosion was observed in the rear lock assembly of these vehicles. One of the three reports indicated that the operation of the fuse occurred at low temperatures. To understand the phenomenon's potential relationship to temperature and investigate the cause of the operated fuse, Toyota collected the lock assemblies, slide door motors, and wire harness from two of three inspected vehicles mentioned above.

In parallel with vehicle and part investigation efforts, between December, 2015 and April, 2016, Toyota continued to sporadically receive Field Technical Reports and warranty claims, and analyzed those that related to operation of the sliding door motor fuse. It was found that complaints of difficulty in proper closing of the sliding door related to an operated door motor fuse increased during the winter season and were concentrated in cold climate areas. Based on this analysis, and in order to duplicate the scenario of the operated fuse, Toyota conducted a series of duplication tests specifically focused on seasonality factors.

# May 2016 - Early November, 2016

Toyota continued its investigation and duplication efforts, analyzing various components of the sliding door. Based on the investigation and duplication testing results, it was determined that, under certain limited conditions which impede the opening of the door, such as when the door becomes frozen with ice, the sliding door motor could stall when the door is operated, which could generate high current in the door motor circuit and result in the operation of the fuse for the door motor. If the fuse is operated with the sliding door latch mechanism in an unlatched position, the door may not close properly if opened, and in limited circumstances, could open while driving.

#### November 17, 2016

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

As of November 8, 2016, based on a diligent review of records, Toyota's best engineering judgment is that there are 9 Toyota Field Technical Reports (including one unverified report) and 390 unverified warranty claims that have been received from U.S. sources that relate to this condition and which were considered in the decision to submit this report. Multiple counts of the same incident are counted separately.

## 7. Description of Corrective Repair Action:

#### **TBD**

#### Reimbursement Plan for pre-notification remedies

The owner letter will instruct vehicle owners who have paid to have this condition remedied prior to this campaign to seek reimbursement pursuant to Toyota's General Reimbursement Plan.

# 8. <u>Recall Schedule</u>:

Interim notifications to owners of the affected vehicles will occur by January 21, 2017. A copy of the draft owner notification letter will be submitted as soon as available.

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

Notifications to distributors/dealers will be sent on November 22, 2016. Copies of dealer communications will be submitted as they are issued.

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

G04