

Part 573 Safety Recall Report

18V-685

Manufacturer Name : Toyota Motor Engineering & Manufacturing**Submission Date :** JAN 14, 2019**NHTSA Recall No. :** 18V-685**Manufacturer Recall No. :** JOX**Manufacturer Information :**

Manufacturer Name : Toyota Motor Engineering & Manufacturing

Address : 6565 Headquarters Drive

Plano TX 75024

Company phone : 1-800-331-4331

Population :

Number of potentially involved : 168,187

Estimated percentage with defect : NR

Vehicle Information :

Vehicle 1 : 2018-2019 Toyota Tundra

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : (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 and Lexus vehicles utilize an airbag ECU with different software and/or SRS satellite sensors of a different design.

Note: Toyota is unable to provide an estimate of the percentage of the vehicles to actually contain the noncompliance. Whether the condition will occur prior to first sale and constitute a noncompliance will differ depending on part variation and whether normal sensor variances will cause the inappropriate programming of the diagnostic function to set a specific trouble code in each case.

Production Dates : AUG 03, 2017 - SEP 27, 2018

VIN Range 1 : Begin : NR

End : NR

Not sequential

Vehicle 2 : 2018-2019 Toyota Sequoia

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : (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 and Lexus vehicles utilize an airbag ECU with different software and/or SRS satellite sensors of a different design.

Note: Toyota is unable to provide an estimate of the percentage of the vehicles to actually contain the noncompliance. Whether the condition will occur prior to first sale and constitute a noncompliance will differ depending on part variation and whether normal sensor variances will cause the inappropriate programming of the diagnostic function to set a specific trouble code in each case.

Production Dates : AUG 07, 2017 - SEP 26, 2018

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 3 : 2019-2019 Toyota Avalon

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : (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 and Lexus vehicles utilize an airbag ECU with different software and/or SRS satellite sensors of a different design.

Note: Toyota is unable to provide an estimate of the percentage of the vehicles to actually contain the noncompliance. Whether the condition will occur prior to first sale and constitute a noncompliance will differ depending on part variation and whether normal sensor variances will cause the inappropriate programming of the diagnostic function to set a specific trouble code in each case.

Production Dates : APR 20, 2018 - SEP 26, 2018

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 4 : 2019-2019 Toyota Avalon HV

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : (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 and Lexus vehicles utilize an airbag ECU with different software and/or SRS satellite sensors of a different design.

Note: Toyota is unable to provide an estimate of the percentage of the vehicles to actually contain the noncompliance. Whether the condition will occur prior to first sale and constitute a noncompliance will differ depending on part variation and whether normal sensor variances will cause the inappropriate programming of the diagnostic function to set a specific trouble code in each case.

Production Dates : APR 20, 2018 - SEP 25, 2018

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Description of Noncompliance :

Description of the Noncompliance : In the subject vehicles, due to inappropriate programming, the Airbag (SRS) ECU may erroneously detect a fault in one or more of the front or side SRS satellite sensors during a self-check that occurs at each vehicle start up. This condition will cause the vehicle to set a specific trouble code, disable the affected sensor(s), sound a warning buzzer, activate multiple warning lights, and display a message on the combination meter display. If a fault is erroneously detected, the Airbag ECU may not appropriately identify the crash condition if a crash occurs, and the airbags may not deploy as intended. As a result, some requirements of FMVSS No. 208 and 214 may not be met, resulting in an increased risk of injury during a crash.

FMVSS 1 : 208 - Occupant crash protection

FMVSS 2 : 214 - Side impact protection

Description of the Safety Risk : If a fault is erroneously detected, the Airbag ECU may not appropriately identify the crash condition if a crash occurs, and the airbags may not deploy as intended. As a result, some requirements of FMVSS No. 208 and 214 may not be met, resulting in an increased risk of injury during a crash.

Description of the Cause : NR

Identification of Any Warning that can Occur : NR

Supplier Identification :

Component Manufacturer

Name : ZF TRW

Address : 902 S 2nd St

Marshall ILLINOIS 62441

Country : United States

Chronology :

Toyota received reports describing illumination of the SRS warning light. Illumination of the SRS warning light was the result of one of a specific type of diagnostic trouble code (DTC) being set. It was accompanied by a warning buzzer, master warning light illumination, and a message on the multi-information display. Toyota recovered replaced SRS satellite sensors and began an investigation.

In mid-July 2018, the supplier performed bench testing of the sensors, separate from the rest of the SRS system, and did not identify a fault. Testing was then conducted with the sensors connected to the entire SRS system including the ECU and, in some cases, the same DTCs related to the airbag sensors were recreated. If the DTCs were set, they would set during a system diagnostic self-check of the side and front airbag satellite sensors when the ignition is turned on. In early August, a review of the Airbag ECU software identified that the

parameters for this self-check were not correct for the type of satellite sensors used in this system, and may result in a failure of the self-check. Failure of the self-check would disable only the sensor which failed for that key cycle. Each ignition on cycle will perform the self-check, and factors such as heat can affect whether the sensor will pass this check using the incorrect parameters.

A study was initiated to evaluate how the SRS system would function in the event of a crash with any of these satellite sensors disabled. Based on the results of the investigation, the results of the aforementioned analyses, and the field information from the U.S. market indicating that this phenomenon could occur prior to first sale, on September 28, 2018, Toyota decided that the subject vehicles may not meet certain requirements of FMVSS No. 208, and/or FMVSS No. 214.

Description of Remedy :

Description of Remedy Program : All known owners of the subject vehicles will be notified by first class mail to return their vehicles to a Toyota dealer. The dealers will update the software of the Airbag ECU at no cost to owners. As the owner notification letters will be mailed out well within the active period of the Toyota New Vehicle Limited Warranty, all involved vehicle owners for this recall would have been provided a repair at no cost under Toyota's Warranty.

As discussed with the Agency, Toyota is superseding 18V-122 with 18V-685 and will not report further quarterly completions for 18V-122. Vehicles involved in 18V-122 are also included in 18V-685; the remedy in both recalls involves a software update to an ECU. The software remedy for 18V-685 also includes the updates to the software for 18V-122. Thus, any vehicle presented for remedy under 18V-685 will automatically receive the software improvements from the 18V-122 remedy, if not previously completed.

How Remedy Component Differs from Recalled Component : Recalled Component Name: Sensor Assembly, Airbag, Recalled Component Description: Airbag ECU, Recalled Component Part Numbers: 89170-0C570, 89170-0C571, 89170-0C572, 89170-0C580, 89170-0C581, 89170-0C582, 89170-0C590, 89170-0C591, 89170-0C592, 89170-07390 & 89170-07400

Identify How/When Recall Condition was Corrected in Production : NR

Recall Schedule :

Description of Recall Schedule : Notifications to owners of the affected vehicles will begin by late October, 2018. A copy of the draft owner notification letter(s) will be submitted as soon as available. Notifications to distributors/dealers will be sent on

October 5, 2018. Copies of dealer communications will be submitted as they are issued.

Planned Dealer Notification Date : OCT 05, 2018 - OCT 05, 2018

Planned Owner Notification Date : OCT 22, 2018 - NOV 05, 2018

* NR - Not Reported