Part 573 Safety Recall Report 22V-661

Manufacturer Name : Toyota Motor Engineering & Manufacturing
Submission Date : SEP 01, 2022
NHTSA Recall No. : 22V-661
Manufacturer Recall No. : See attached report

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 : 83,725
Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2022-2022 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) Only vehicles in the above production range which were equipped with the Brake Actuator Assembly of a specific design and supplier are involved in this recall. Other Toyota vehicles, including 2022 model year Tundra Hybrid and NX Hybrid vehicles, are not equipped with this system. (3) The Skid Control ECU described below is a sub-component of the Brake Actuator Assembly. Note: 100% of the involved vehicles contain a Skid Control ECU which may falsely detect an
overcurrent condition described in Section 5 below. However, whether the issue, in each case, will cause the Electronic Parking Brake not to be engaged depends on the value of an
instantaneous voltage gap which could occur within the Skid Control ECU's ASIC on each vehicle described in Section 6 below.
Production Dates : NOV 02, 2021 - AUG 23, 2022
VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Vehicle 2 :	2022-2022 Lexus NX250
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) Only vehicles in the above production range which were equipped with the Brake Actuator Assembly of a specific design and supplier are involved in this recall. Other Toyota vehicles, including 2022 model year Tundra Hybrid and NX Hybrid vehicles, are not equipped with this system. (3) The Skid Control ECU described below is a sub-component of the Brake Actuator Assembly. Note: 100% of the involved vehicles contain a Skid Control ECU which may falsely detect an overcurrent condition described in Section 5 below. However, whether the issue, in each case, will cause the Electronic Parking Brake not to be engaged depends on the value of an instantaneous voltage gap which could occur within the Skid Control ECU's ASIC on each vehicle described in Section 6 below.
Production Dates :	MAY 28, 2021 - AUG 22, 2022
VIN Range 1 :	Begin : NR End : NR ☐ Not sequential

Vehicle 3 :	2022-2022 Lexus NX350
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) Only vehicles in the above production range which were equipped with the Brake Actuator Assembly of a specific design and supplier are involved in this recall. Other Toyota vehicles, including 2022 model year Tundra Hybrid and NX Hybrid vehicles, are not equipped with this system. (3) The Skid Control ECU described below is a sub-component of the Brake Actuator Assembly. Note: 100% of the involved vehicles contain a Skid Control ECU which may falsely detect an overcurrent condition described in Section 5 below. However, whether the issue, in each case, will cause the Electronic Parking Brake not to be engaged depends on the value of an instantaneous voltage gap which could occur within the Skid Control ECU's ASIC on each vehicle described in Section 6 below.
Production Dates :	APR 08, 2021 - AUG 22, 2022
VIN Range 1 :	Begin : NR End : NR ☐ Not sequential

Description of Noncompliance :

Description of the Noncompliance :	In the subject vehicles, there is a possibility that the Skid Control ECU within the Brake Actuator Assembly may falsely detect an overcurrent condition of the Electronic Parking Brake (EPB) Actuator and enter a failsafe mode, which illuminates the malfunction indicator lamp (MIL), displays a multi-information display (MID) message “Parking Brake Malfunction, Visit Your Dealer,” and prevents the EPB from being engaged or disengaged. If the EPB cannot be engaged prior to first sale, the vehicle would not meet the requirements of FMVSS No. 135 paragraph S7.12.3. If the EPB cannot be engaged, the EPB MIL and MID warnings are ignored, and the vehicle is parked on a grade without being placed into “Park,” the vehicle could rollaway, increasing the risk of a crash.
FMVSS 1 :	135 - Light vehicle brake systems
FMVSS 2 :	NR
Description of the Safety Risk :	If the EPB cannot be engaged, the EPB MIL and MID warnings are ignored, and the vehicle is parked on a grade without being placed into “Park,” the vehicle could rollaway, increasing the risk of a crash.
Description of the Cause :	NR
Identification of Any Warning that can Occur :	NR

Involved Components :

Component Name 1 :	Actuator Assembly, Brake w/ Fluid
Component Description :	Brake Actuator Assembly
Component Part Number :	44050-0C340

Component Name 2 :	Actuator Assembly, Brake w/ Fluid
Component Description :	Brake Actuator Assembly
Component Part Number :	44050-0C350

Component Name 3 :	Actuator Assembly, Brake w/ Fluid
Component Description :	Brake Actuator Assembly
Component Part Number :	44050-0C360

Component Name 4 :	Actuator Assembly, Brake w/ Fluid
Component Description :	Brake Actuator Assembly
Component Part Number :	44050-78320

Component Name 5 :	Actuator Assembly, Brake w/ Fluid
Component Description :	Brake Actuator Assembly
Component Part Number :	44050-F6010

Supplier Identification :

Component Manufacturer

Name :	Robert Bosch GmbH (Blaichach Plant)
Address :	Robert-Bosch-Strasse 1 Blaichach Foreign States
Country :	Germany

Chronology :

After receiving a report in which a customer could not disengage the EPB, in late-January 2022 Toyota and the supplier began a quality investigation of the Brake Actuator System. Toyota continued investigating other allegations of inability to disengage EPB in the market but was unable to duplicate this condition. In late June Toyota received a report from the market in which the EPB could not be engaged. Additional evaluation was conducted by the supplier and found that an instantaneous voltage gap could occur within the ECU's ASIC during the "Motor Test Pulse" self-diagnostic check, and a series of tests confirmed that the element characteristics of resistors within the ECU's noise filter could cause the voltage gap. During the end of July through mid-August, Toyota conducted on-vehicle tests to confirm the Motor Test Pulse failure condition and identified that, under certain conditions, this could prevent the EPB from engaging. Based on the results of the investigation indicating that this phenomenon could occur prior to first sale, on August 26, 2022, Toyota decided that the subject vehicles may not meet the requirement of FMVSS No. 135 paragraph S7.12.3.

Description of Remedy :

Description of Remedy Program :	All known owners of the involved vehicles will be notified via first class mail to return their vehicles to a Toyota or Lexus dealer. For all involved vehicles, the dealers will reprogram the Skid Control ECU at no cost. As the owner notification letters will be mailed out well within the active period of the Toyota or Lexus New Vehicle Limited Warranty ("Warranty"), all involved vehicle owners for this recall would have been provided a repair at no cost under Toyota's or Lexus's Warranty.
How Remedy Component Differs from Recalled Component :	NR
Identify How/When Recall Condition was Corrected in Production :	NR

Recall Schedule :

Description of Recall Schedule :	Notifications to owners of the affected vehicles will occur by October 31, 2022. A copy of the draft owner notification letter(s) will be submitted as soon as available. Notifications to distributors/dealers will be sent by September 1, 2022. Copies of dealer communications will be submitted as they are issued.
Planned Dealer Notification Date :	SEP 01, 2022 - SEP 01, 2022
Planned Owner Notification Date :	OCT 17, 2022 - OCT 31, 2022

* NR - Not Reported