

## IMPORTANT UPDATE

**TECHNICAL INSTRUCTIONS  
FOR  
SAFETY RECALL 20TA06  
POTENTIAL VEHICLE STALL WHILE DRIVING  
CERTAIN 2020 MODEL YEAR HIGHLANDER**

### **UPDATE 3/24/2020**

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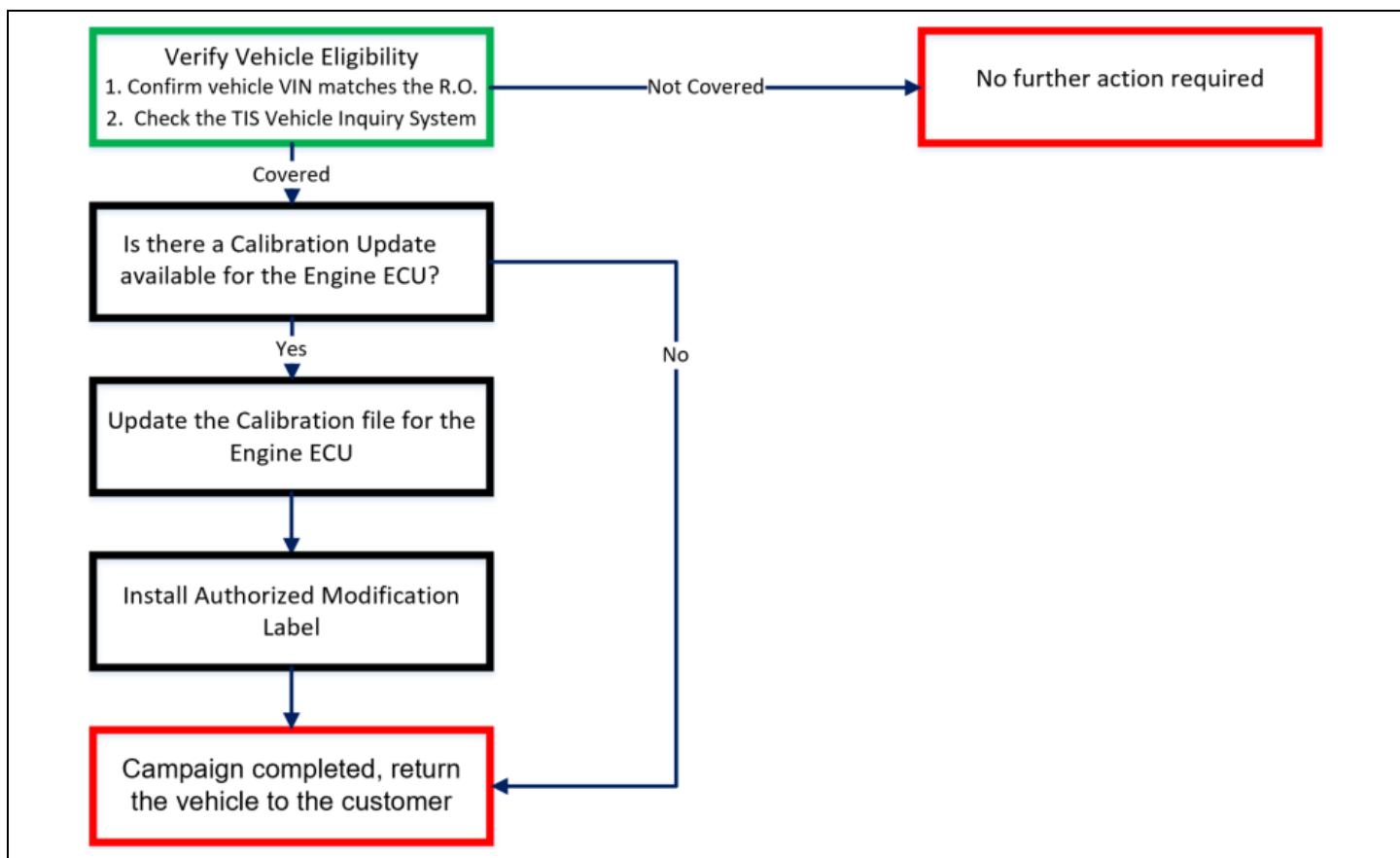
- **Added caution to turn the ignition to the “OFF” position within 3 seconds of the reflash completing to prevent DTC U0155 from occurring**

**The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this recall are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles have the repair performed correctly; technicians performing this recall repair are required to currently hold at least one of the following certification levels:**

- **Certified Technician (any specialty)**
- **Expert Technician (any specialty)**
- **Master Technician**
- **Master Diagnostic Technician**

**It is the dealership’s responsibility to select technicians with the above certification level or greater to perform this recall repair. Carefully review your resources, the technician skill level, and ability before assigning technicians to this repair. It is important to consider technician days off and vacation schedules to ensure there are properly trained technicians available to perform this repair at all times.**

## I. OPERATION FLOW CHART



## II. IDENTIFICATION OF AFFECTED VEHICLES

- Check the TIS Vehicle Inquiry System to confirm that each VIN is eligible for this Safety Recall, and that it has not already been completed prior to dealer shipment or by another dealer.

Note: TMNA warranty will not reimburse dealers for repairs completed on vehicles that are not affected or were completed by another dealer.

## III. PREPARATION

### 1. PARTS

Part Number	Part Description	Quantity
00451-00001-LBL*	Authorized Modification Label	1

\*Labels can be ordered in packs of 25 from the MDC through the Dealer Daily Website

### 2. TOOLS, SUPPLIES & EQUIPMENT

- Standard Hand Tools
- Techstream 2.0 / TIS Techstream / Techstream Lite **(MUST BE UPDATED TO WINDOWS 10)**
- DCA Battery Diagnostic Station
- T-SB-0134-16

**DO NOT USE THE CLEAR CASE MOONGOOSE CABLE FOR THIS REFLASH**

There is a know issue when performing this reflash with the *Clear Case Moongoose Cable* that will result in ECU failure. This issue is not found with any other cable type.

**TECHSTREAM UNITS MUST BE UPDATED TO WINDOWS 10 BEFORE ATTEMPTING A REFLASH**



## IV. BACKGROUND

The subject vehicles are equipped with a feature that stops and restarts the engine. Under certain driving patterns and vehicle conditions, this feature may not operate correctly resulting in a vehicle stall. If a vehicle stall occurs, an audible chime will sound and multiple warning indicators will illuminate. If a vehicle stall occurs while driving at higher speeds, this could increase the risk of a crash.

## V. DETERMINE CALIBRATION UPDATE STATUS



### 1. PERFORM HEALTH CHECK

- Using a Techstream, perform a Health Check.

**Note:** *This Safety Recall covers only the Engine ECU, as detailed in these instructions. It does not cover the diagnosis or replacement of any other parts on the vehicle.*

### 2. DETERMINE CALIBRATION UPDATE STATUS

- Locate the Update column for the Engine ECU in the Stored Data tab.
- Determine the status of an available update; indicated by a YES or NO.

System Select **Stored Data**

Tire Pressure / Threshold Value [psi/g]

Sensor 1: 31.42 / 27.68 Sensor 2: 27.68 / 27.68  
Sensor 3: 29.93 / 27.68 Sensor 4: 27.68 / 27.68  
Sensor 5: N/A / N/A

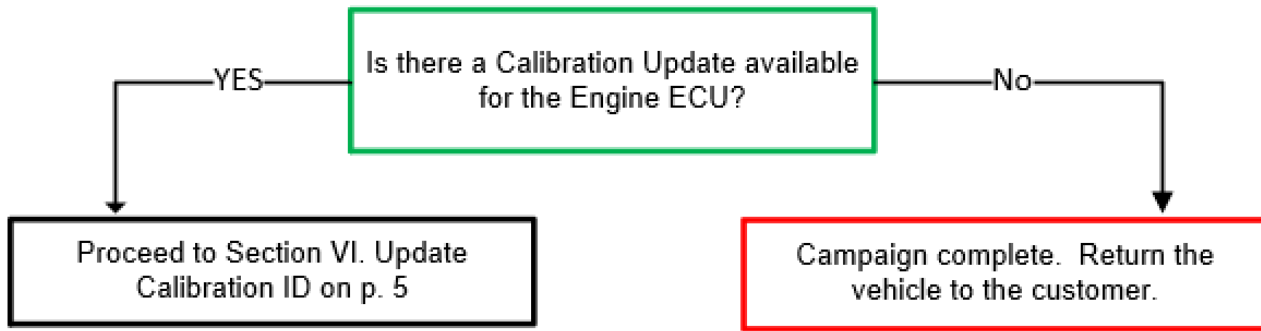
Health Check Results

- Health Check does not display live data.
- Changes in vehicle condition will not update.
- To update Health Check, click the Refresh button.

Enhanced | Generic

Campaign Status: **Yes**  
PERMANENT: **NO**

System	SB	RoB	Calibration	Update
Radar Cruise2	-	-	-	-
<b>Engine</b>	-	-	896630735000	<b>Yes</b>
Transmission	-	-	896650706000	Yes
Radar Cruise1	-	-	-	-
Parking Assist Camera	-	-	867B02D167 867B12D004	No No
ABS/VSC/TRAC/EPB	-	-	F152607140	No
EMPS	-	-	8965B41080	No



Note: If the Engine ECU already has the updated Calibration ID, the campaign is complete. No further action is required. Submit the warranty claim using op code FB0001 to complete this vehicle.

## VI. UPDATE CALIBRATION ID

The ECU reprogramming procedure is detailed in [T-SB-0134-16](#). Reference this Bulletin for additional detailed procedures and information.

### 1. VEHICLE PREPARATION

a. Confirm the following conditions:

- Vehicle in the IG position (engine off).
- Transaxle in Park.
- Parking brake engaged.
- Turn off all electrical accessories (i.e. climate control, audio system, etc.)
- Headlight switch in the DRL OFF position.
- Windshield wiper switch in the OFF position.

### 2. CONNECT THE 12v BATTERY TO A POWER SUPPLY (GR8)

- a. Connect the DCA or other type of a power supply (not a battery charger) to the 12v battery.
- b. Select the Power Supply Mode from the Charge Menu of the DCA.



**A power supply *MUST* be used during reprogramming. ECU damage will occur if the battery voltage is not properly maintained during this re-flash procedure.**

**Note:** A power supply must be connected directly to the 12v battery terminals and **NOT** the remote jump posts under the hood (if equipped).

### 3. VERIFY TECHSTREAM SETUP

a. Verify that the Techstream meets the following conditions:

- **Techstream is updated to WINDOWS 10**
- The latest version of software is loaded.
- The Techstream battery is fully charged. If not, connect the Techstream to a 120v source.
- The DLCIII cable is in good condition.

	<p><b><u>DO NOT USE A CLEAR CASE MOONGOOSE CABLE OTHERWISE ECU FAILURE MAY OCCUR</u></b></p>  <p><b>The Techstream battery must be maintained during the update procedure. If necessary, plug the Techstream into a 120v outlet to ensure that a failure does not occur.</b></p>
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**Note:** If the Techstream communication with the vehicle fails during the re-flash procedure, the Engine ECU will be damaged and must be replaced.

#### 4. UPDATE THE CALIBRATION ID

a. Identify the current Calibration ID for the Engine ECU on the Stored Data tab.

The screenshot shows the 'Stored Data' tab with the following information:

- Tire Pressure / Threshold Value [psi(g)]:**
  - Sensor 1: 31.42 / 27.68
  - Sensor 2: 27.68
  - Sensor 3: 29.93 / 27.68
  - Sensor 4: 27.68
  - Sensor 5: N/A / N/A
- Health Check Results:**
  - Health Check does not display live data.
  - Changes in vehicle condition will not update.
  - To update Health Check, click the Refresh button.
- Campaign Status:** Yes
- PERMANENT:** NO
- System Table:**

System	SB	RoB	Calibration	Update
Radar Cruise2	-	-	-	-
<b>Engine</b>	-	-	896630735000	Yes
Transmission	-	-	896650706000	Yes
Radar Cruise1	-	-	-	-
Parking Assist Camera	-	-	67B02D167	No
ABS/VSC/TRAC/EPB	-	-	67B12D004	No
EMPS	-	-	152607140	No
	-	-	8965B41080	No

b. Locate the vehicles Current CID in the chart below.

c. Select the corresponding NEW CID link to load the update.

d. Follow the on-screen instructions to complete the ECU re-flash procedure.

The ECU reprogramming procedure is detailed in [T-SB-0134-16](#). Reference this Bulletin for detailed procedures and information.

#### NOTE:

The ignition needs to be turned to the "OFF" Position within 3 seconds of the screen below displaying to prevent DTC U0155 from occurring

The screenshot shows the following information:

- Flash Calibration Update Successful**
- CAL 1 has been loaded successfully.
- Diagram of an ignition switch with positions: OFF, ACC, ON, Start.
- Instruction: 1. Turn Ignition OFF
- Callout box: Turn Ignition OFF within 3 seconds of this screen displaying to avoid permanent codes

Vehicle Specification		Engine ECU Calibrations	
Model Year / Model	Drive	Current CID	New CID
2020 HIGHLANDER	AWD	896630E64000	<a href="#">896630E64100</a>
	FWD	896630E62000	<a href="#">896630E62100</a>

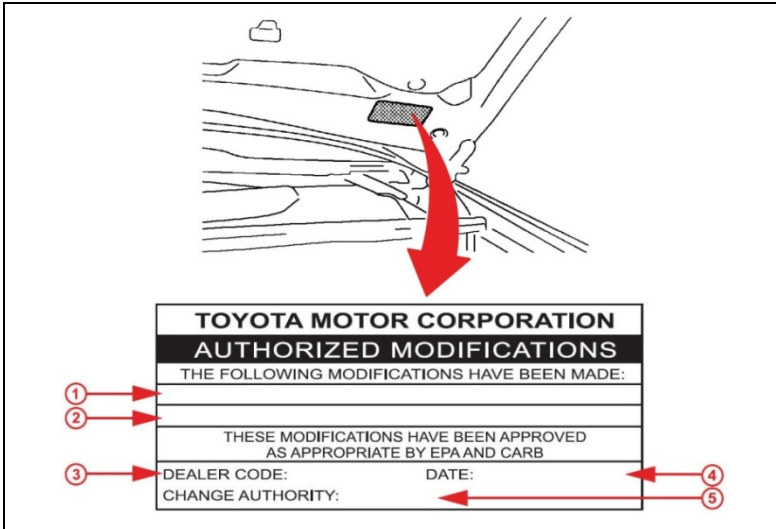
## 5. CHECK FOR DTCs

- a. Perform a Health Check.
- b. Clear DTC's that may have set during the re-flash procedure.
- c. Re-run the Health Check to confirm that no DTC's reappear.

**NOTE: If DTC U0155 is found under the Generic tab follow the procedure in the Appendix Section B for instructions**

## 6. ATTACH THE AUTHORIZED VEHICLE MODIFICATION LABEL

- a. Fill out the label.
- b. Affix the label to the under-side of the hood.



1	ECM P/N
2	New Calibration ID
3	Dealer Code
4	Date Completed
5	Campaign Code (20TA06)



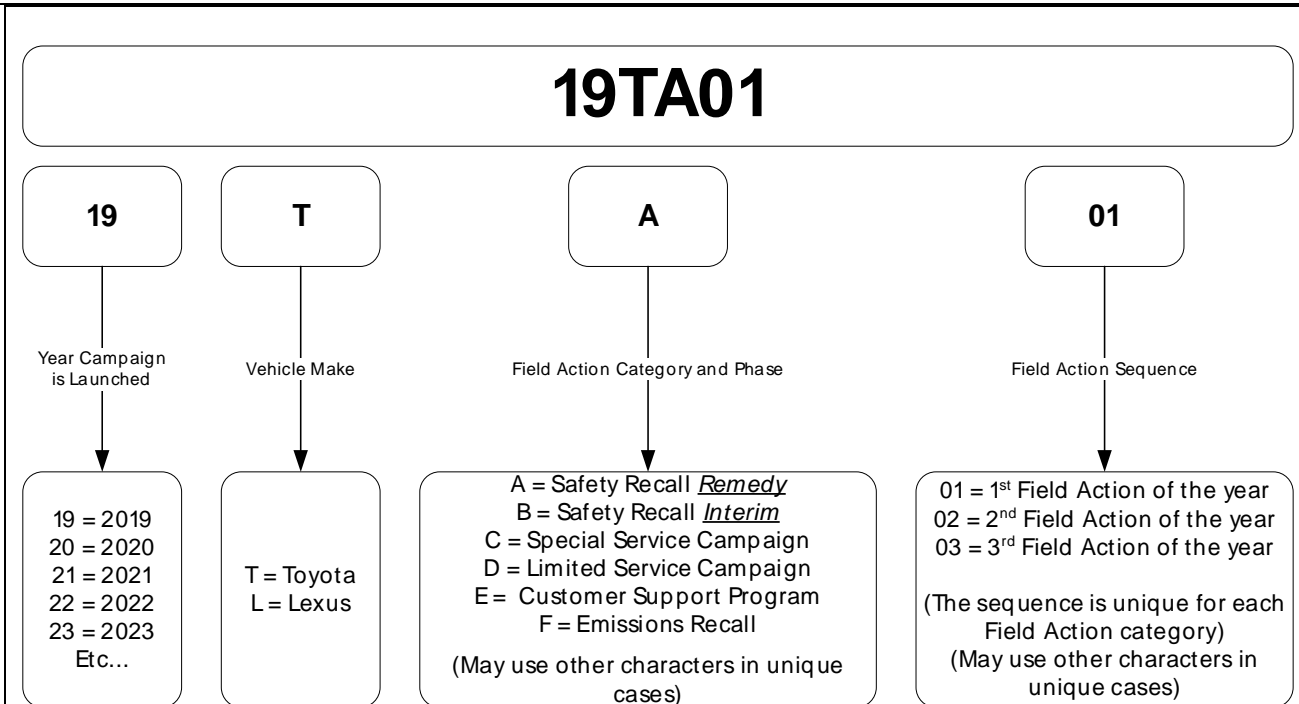
## ◀ VERIFY REPAIR QUALITY ▶

- Confirm the ECM Calibration has been updated successfully to the NEW CID.
- Confirm that an Authorized Modification Label has been installed
- Confirm that no DTCs are present

If you have any questions regarding this Safety Recall please contact your regional representative

### VII. APPENDIX

#### A. CAMPAIGN DESIGNATION DECORDER



Examples:

19TA01 = Launched in 2019, Toyota, Safety Recall Remedy Phase, 1<sup>st</sup> Safety Recall Launched in 2019  
 20TC02 = Launched in 2020, Special Service Campaign, 2<sup>nd</sup> Special Service Campaign Launched in 2020  
 21TE05 = Launched in 2021, Customer Support Program, 5<sup>th</sup> Customer Support Program Launched in 2021

#### B. DTC U0155 CLEARING PROCEDURE

##### 1 IF DTC U0155 IS SET AS PERMANENT

a. Use the procedure if you find that DTC U0155 is set as permanent under the Generic tab

Tire Pressure / Threshold Value [psi/gauge]

Sensor 1: 43.15 / 27.08 Sensor 2: 56.36 / 27.08  
 Sensor 3: 56.36 / 27.08 Sensor 4: 44.29 / 27.08  
 Sensor 5: 56.36 / 27.08

Health Check Results

- Health Check does not display live data.  
 - Changes in vehicle condition will not update automatically.  
 - To update Health Check, click the Refresh button on the bottom of the Health Check screen.


If X is found here,  
follow the steps below

System	Monitor Status	DTC	Conf	Phase	Perm	Calibration	Update
Engine	Yes	U0155	X		X	000000000000	1
Radar Cruise	Yes	U0155	X		X		
Transmission	Yes	U0155	X		X	000000000000	1

b. Follow the steps on the next page to clear DTC U0155

Start Engine and run for 10 seconds

Turn Engine OFF until Park and Odometer lights are off (about 30 seconds)



Start Engine and run for 10 seconds

Turn Engine OFF until Park and Odometer lights are off (about 30 seconds)

Start Engine and run for 10 seconds

Turn Engine OFF until Park and Odometer lights are off (about 30 seconds)

Start Engine and run for 10 seconds

Refresh DTC information and confirm U0155 is no longer Perm (if still Perm, repeat process)

Clear DTCs