IMPORTANT UPDATE

TECHNICAL INSTRUCTIONS

FOR

SPECIAL SERVICE CAMPAIGN KOA

ENGINE ECU SOFTWARE UPDATE

CERTAIN: 2018 TUNDRA 2018 SEQUOIA

(Reference the separate Technical Instructions for 2018 Camry and Sienna)

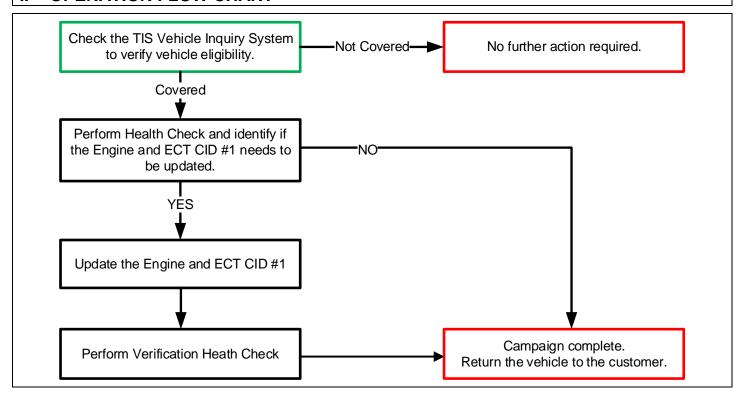
Update 4/5/2019: Note added on p. 5.

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 (any specialty)
- Expert (any specialty)
- Master
- 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 the VIN is involved in this Campaign, and that it has not already been completed prior to dealer shipment or by another dealer.
- TMS warranty will not reimburse dealers for repairs completed on vehicles that are not affected or were completed by another dealer.

III. PREPARATION

A. TOOLS, SUPPLIES & EQUIPMENT

- Standard Hand Tools
- Techstream 2.0 / TIS Techstream / Techstream Lite
- GR8 Battery Diagnostic Station
- T-SB-0134-16

B. PARTS

The only parts required for this campaign is the label below

Part NumberPart DescriptionQuantity00451-00001-LBLAuthorized Modification Label*1

*Labels can be ordered in packs of 25 from the MDC through Dealer Daily website.

IV. BACKGROUND

The engine ECUs in the subject vehicles are equipped with software to monitor the rear oxygen sensors. Under a specific condition, this software may not detect a malfunctioning sensor due to an error in the software. As a result, affected vehicles do not meet certain onboard diagnostic (OBD) regulations.

V. DETERMINE STATUS OF CURRENT CALIBRATION



1. CHECK FOR DTC'S

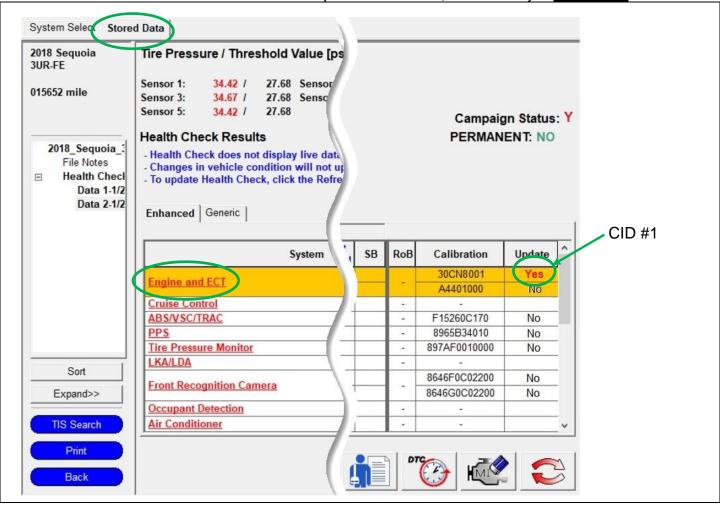
a. Using a Techstream, perform a Health Check to check for any Diagnostic Trouble Codes.

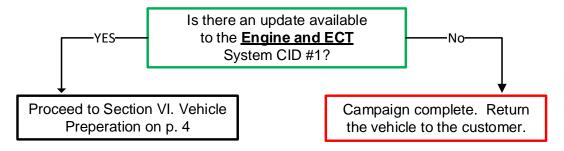
Note: This Campaign covers only the Calibration ID update to the Engine and ECT system, as detailed in these instructions. It does not cover the diagnosis or replacement of any other systems on the vehicle.

2. CHECK CURRENT CALIBRATION

a. Locate the <u>Update</u> column for the <u>Engine and ECT</u> System in the Stored Data tab for this vehicle.

b. Determine the status of an available update for CID #1; indicated by a Yes or No.





VI. VEHICLE PREPERATION

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 GR8 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 GR8.



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 <u>NOT</u> the remote jump posts under the hood (if equipped).

3. VERIFY TECHSTREAM SETUP

- a. Verify that the Techstream meets the following conditions:
 - 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.



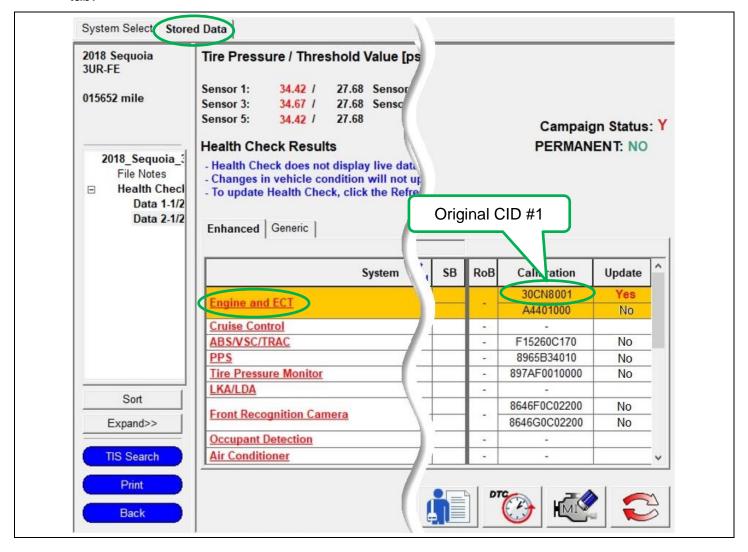
The Techstream's battery voltage must be maintained during the update procedure. If necessary, plug the Techstream into a 120v outlet during this procedure.

Note: If the Techstream's communication with the vehicle fails during the update procedure, the Engine ECU will be damaged.

VII. UPDATE CALIBRATION

1. UPDATE THE CALIBRATION ID

a. Identify the vehicles Original CID #1 for the **Engine and ECT** System on the Stored Data tab.



- b. Locate the vehicles Original CID #1 in the chart on the following page.
- c. Select the corresponding NEW CID link to load the update.
- d. Follow the on-screen instructions to complete the Calibration Update procedure.

The CID Update Procedure is detailed in <u>T-SB-0134-16.</u> Please reference this Bulletin for more detailed procedures and information.

Note: To insure the update process is completed before turning the ignition off, it is recommended to add a 10 second delay between step H and step I of <u>T-SB-0134-16</u>. For example, after the Flash Calibration process has completed (Step H), wait 10 seconds before turning off the ignition (Step I).



Be extremely careful to select the correct <u>NEW CID</u> that corresponds to the <u>Current CID</u>.

Vehicle Specification		ECU Calibrations		
Model	Engine / Drive	System	Current CID #1	New CID
TUNDRA	3UR-FE / RWD	Engine and ECT	30CN 0000	30CN0100
			30CN1000	30CN1100
			30CN 2000	30CN2100
	3UR-FE / 4WD	Engine and ECT	30CN <mark>0001</mark>	30CN0101
			30CN1001	30CN1101
			30CN 2001	30CN2101
	3UR-FBE(FFV) / RWD	Engine and ECT	30CN 4000	30CN4100
			30CN 5000	30CN5100
			30CN 6000	30CN6100
	3UR-FBE(FFV) / 4WD	Engine and ECT	30CN 4001	30CN4101
			30CN 5001	30CN5101
			30CN 6001	<u>30CN6101</u>
		Engine and	30CN 7000	30CN7100
SEQUOIA	3UR-FE / RWD	ECT	30CN <mark>8000</mark>	30CN8100
	3UR-FE / 4WD	Engine and ECT	30CN 7001	30CN7101
			30CN 8001	30CN8101
	3UR-FBE (FFV) / 4WD	Engine and ECT	30CP 0000	30CP0100

Note: If the Engine and ECT System already has the New CID, the campaign is complete.

VIII. COMPLETE REPAIR



1. PERFORM VERIFICATION HEALTH CHECK

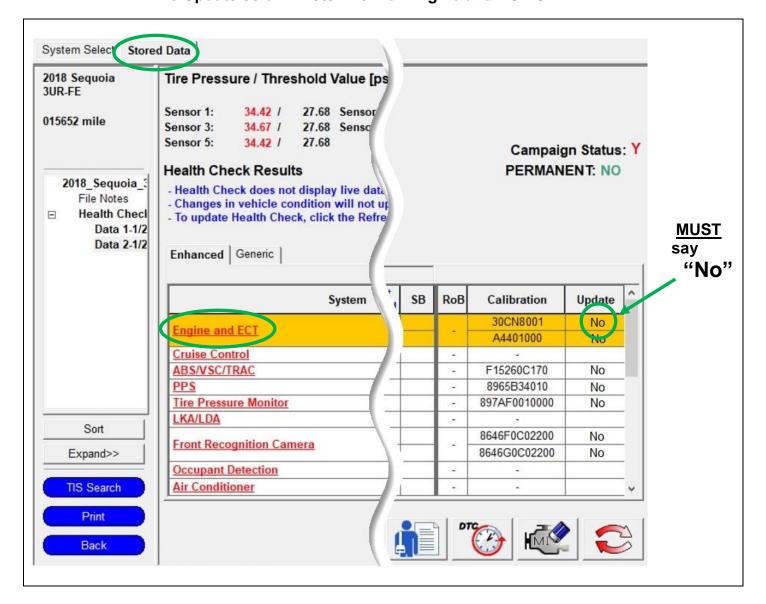
- a. Using a Techstream, perform a Health Check.
- b. Clear DTC's that may have set during the re-flash procedure.
- c. Re-run the Health Check to confirm that no DTC's reappear.



THIS VERIFICATION HEALTH CHECK IS NECESSARY to update the results and CID's to the National database.

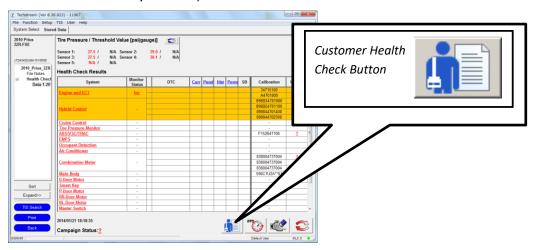
2. CONFIRM CID UPDATE

- a. On the Stored Data tab, confirm the following for the **Engine and ECT** Systems:
 - The Update column lists "No" for Engine and ECT CID #1



3. PRINT CUSTOMER HEALTH CHECK REPORT

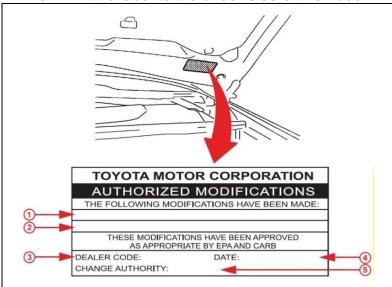
a. From the Stored Data tab, select the Customer Health Check Report button (TIS will launch when button is pressed).



- b. Log in to TIS.
- c. Input Vehicle Mileage and Repair Order number.
- d. Check the "Performed" campaign button for campaign KLA.
- e. Select the Report button.
- f. Confirm Customer Health Check Report information is correct.
- g. Print Customer Health Check Report from TIS.
- h. Sign and provide to the customer.

4. ATTACH THE AUTHORIZED VEHICLE MODIFICATION LABEL

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



1	Engine and ECT CID's	
2	(Calibration ID's)	
3	(Dealer Code)	
4	(Date Completed)	
5	Safety Recall K0A	

Calibration ID's listed for the Engine and ECT System after completing the final Health Check. The CID's will vary from car to car.

IX. REASSEMBLY

1. REMOVE THE POWER SUPPLY FROM THE BATTERY

▼ VERIFY REPAIR QUALITY

- Confirm the system Calibration has been updated successfully.
- Confirm there are no DTC's after the Calibration update.

X. APPENDIX

A. PARTS DISPOSAL

As required by Federal Regulations, please make sure all recalled parts (original parts) removed from the vehicle are disposed of in a manner in which they will not be reused, *unless requested for parts recovery return*.

B. CAMPAIGN DESIGNATION DECORDER

