TECHNICAL INSTRUCTIONS

FOR

SPECIAL SERVICE CAMPAIGN 22TC07

ENGINE ECU SOFTWARE UPDATE

CERTAIN
2020 MODEL YEAR COROLLA VEHICLES

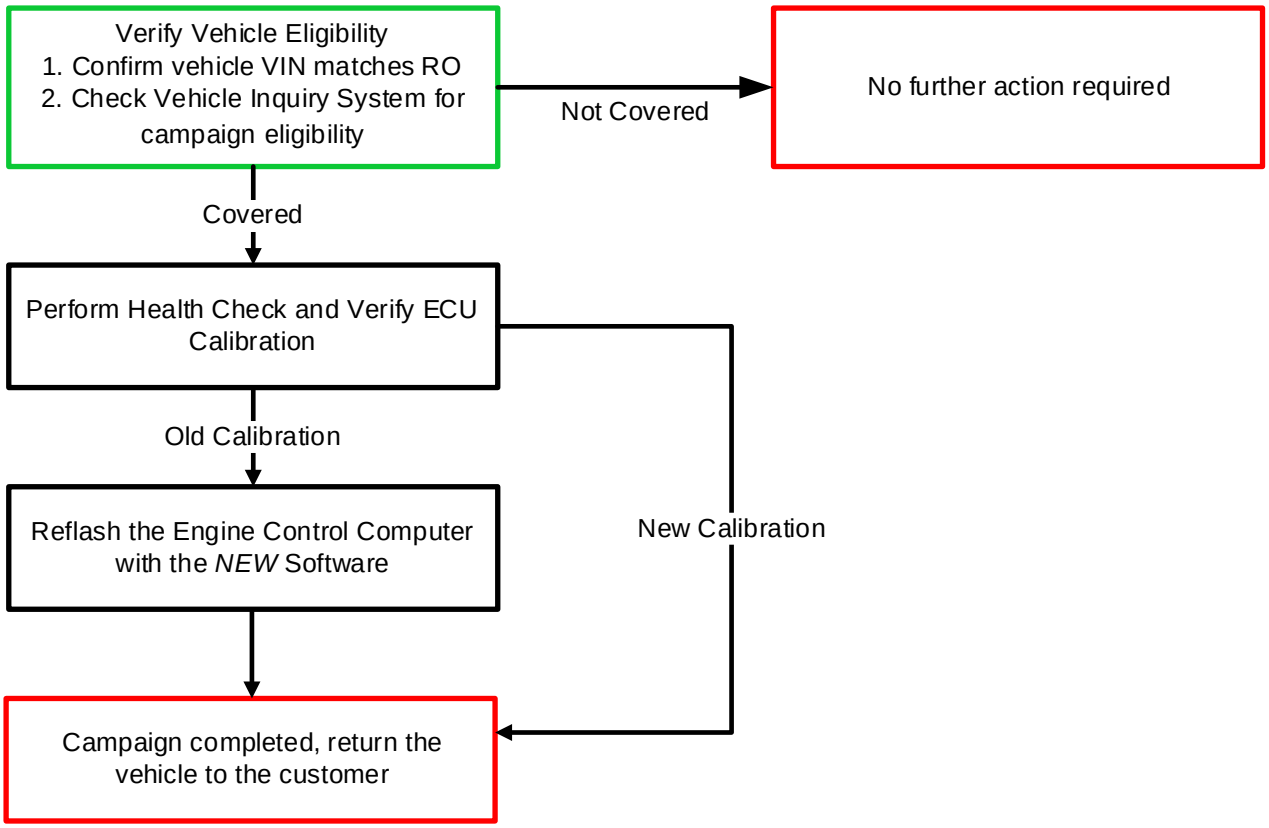
The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this repair are required to successfully complete the most current version of the E-Learning course "Safety Recall and Service Campaign Essentials". To ensure that all vehicles have the repair performed correctly; technicians performing this repair are required to currently have completed all of the following courses:

- **T623 Toyota Electrical Circuit Diagnosis**

Always check which technicians can perform the repair by logging on to https://www.uotdealerreports.com. It is the dealership's responsibility to select technicians with the above certification level or greater to perform this 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

The flow chart is for reference only. DO NOT use it in place of the full technical instructions. Follow ALL steps as outlined in the full technical instructions to confirm the campaign is completed correctly.



II. IDENTIFICATION OF AFFECTED VEHICLES

1. CHECK VEHICLE FOR CAMPAIGN ELIGIBILITY

a) Compare the vehicles VIN to the VIN listed on the Repair Order to ensure they match.
b) Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Campaign, and that it has not already been completed.

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

III. PREPARATION

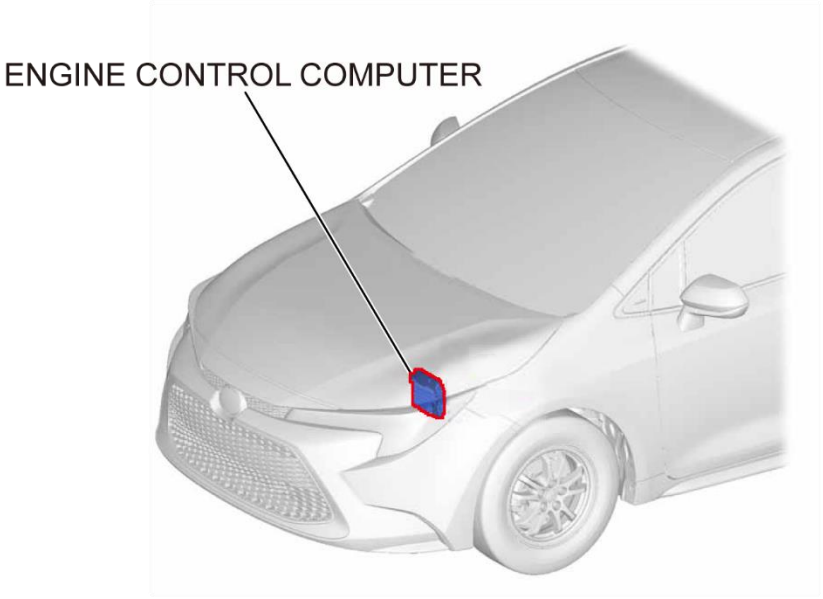
A. TOOLS, SUPPLIES & EQUIPMENT

- Standard Hand Tools
- T-SB-0134-16
- Techstream ADVi / Techstream 2.0 / Techstream Lite
- DCA-8000 Battery Diagnostic Station

IV. BACKGROUND

Due to improper programing in the engine ECU, under certain conditions, the vehicle may stall at low speeds when accelerating from a stop. If this low-speed vehicle stall occurs, steering and braking are not impacted, and the vehicle can be restarted immediately.

Note: this condition may cause DTC P1603 to be present in DTC history. However, it will not cause the MIL to illuminate.

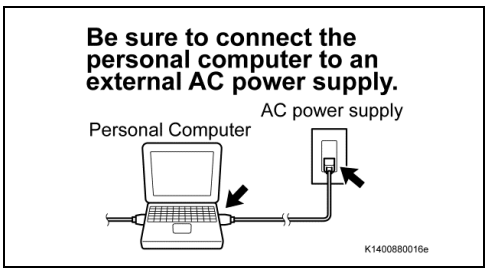


R2204120001a

V. SAFETY PRECAUTIONS

Critical CRITICAL INFORMATION - READ THOROUGHLY

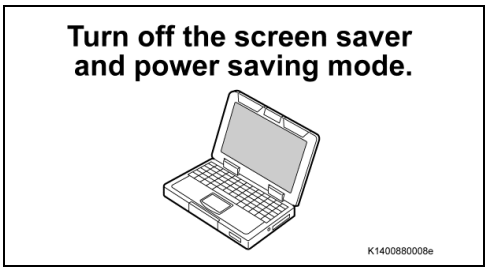
An ECU could be damaged if an error occurs in the communication while reprogramming the ECU. Confirm all work is performed as described in these instructions.



1. STABILIZE THE POWER TO THE PERSONAL COMPUTER SIDE

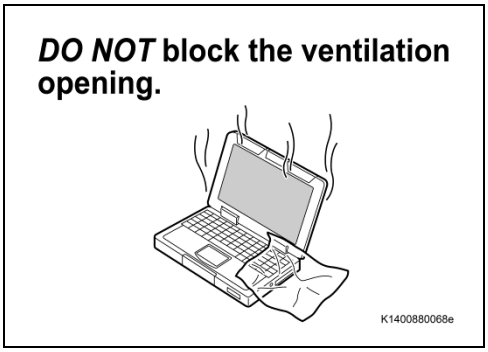
a) Be sure to connect the personal computer to an external AC power supply.

NOTICE:
The ECU could be damaged if the battery voltage of the personal computer drops while reprogramming.



b) Turn off the screen saver and power saving mode of the personal computer so that the power to the hard disk is kept supplied.

NOTICE:
If the screen saver or power saving mode launches while reprogramming, the communication may be disconnected, resulting in the damage of the ECU.



c) ***DO NOT*** block the ventilation opening for the cooling fan of the personal computer.

NOTICE:
If the ventilation opening for the cooling fan is blocked with a sheet cover or the like, the personal computer may be heated excessively, causing the operation of the personal computer to stop.
Due to the stop of the operation, the communication for reprogramming signals could be stopped, resulting in the damage of the ECU.

VI. Engine and ECT SYSTEM CALIBRATION ID VERIFICATION

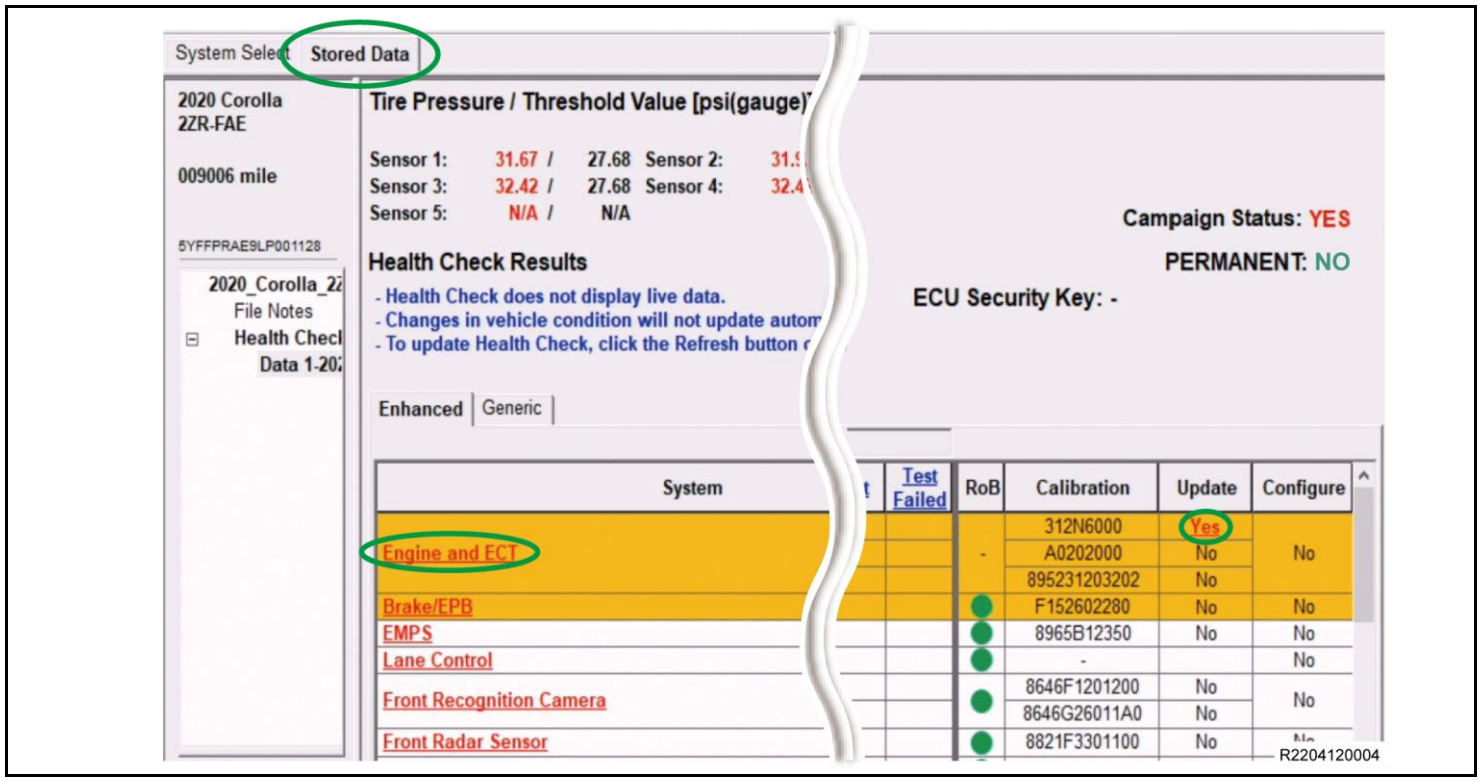
1. CHECK FOR DTC'S

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

NOTICE:
This Campaign covers only the software 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 Update column for the Engine and ECT system in the Stored Data tab for this vehicle.
b) Determine the status of an available update; indicated by a YES or NO.



Is there an update available for the Engine and ECT System?

Yes → Proceed to section VII. Vehicle preparation on p.5

No → Campaign complete. Return the vehicle to the customer.

◄ CRITICAL MESSAGE ►

It is critical that T-SB-0134-16 in addition to the Technical Instructions for this Special Service Campaign are followed. T-SB-0134-16 outlines all steps necessary to prevent reprogramming failure.

VII. VEHICLE PREPARATION

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

a) Connect the DCA-8000 or other type of a power supply (not a battery charger) to the 12 V battery.
b) Tap the Reflash icon from the Main Menu screen of the DCA-8000.

Critical

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.

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 120 V source.
   - The DLCIII cable is in good condition.

Critical

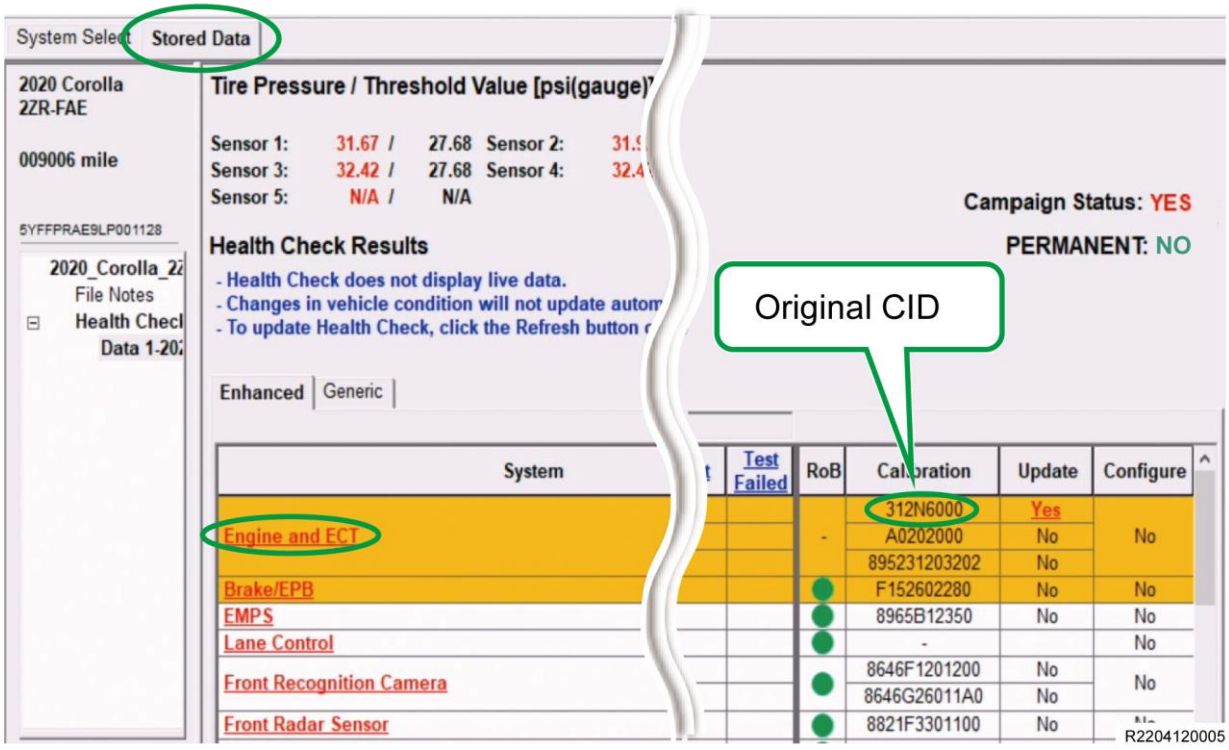
The Techstream's battery voltage must also be maintained during the re-flash procedure. If necessary, plug the Techstream into a 120 V outlet during this procedure.

NOTICE:
If the Techstream communication with the vehicle fails during the re-flash procedure, the engine control computer will be damaged.

VIII. UPDATE CALIBRATION

1. CONFIRM THE ECU CALIBRATION ID

a) Confirm the current calibration ID in the Engine and ECT System.



The calibration IDs to re-flash in this campaign are as shown in the table below.

Vehicle Specification		Engine Control Computer Calibrations	
MODEL	Specification	CURRENT CID	NEW CID
COROLLA	CVT	312N6000	312N6200
		312N6100	
	6F (Manual)	312N7000	312N7100

NOTICE:
If the Engine ECU has the New CID's, no update is necessary.

2. REFLASH THE ENGINE CONTROL COMPUTER

a) Click yes on the health check results screen, or follow the links on the table above to begin the reflash process.

NOTICE:
Reflash failure should be extremely rare and can be avoided by following all instructions and reprogramming best practices.

IX. COMPLETE REPAIR

1. DISCONNECT THE DCA-8000

2. PERFORM VERIFICATION HEALTH CHECK

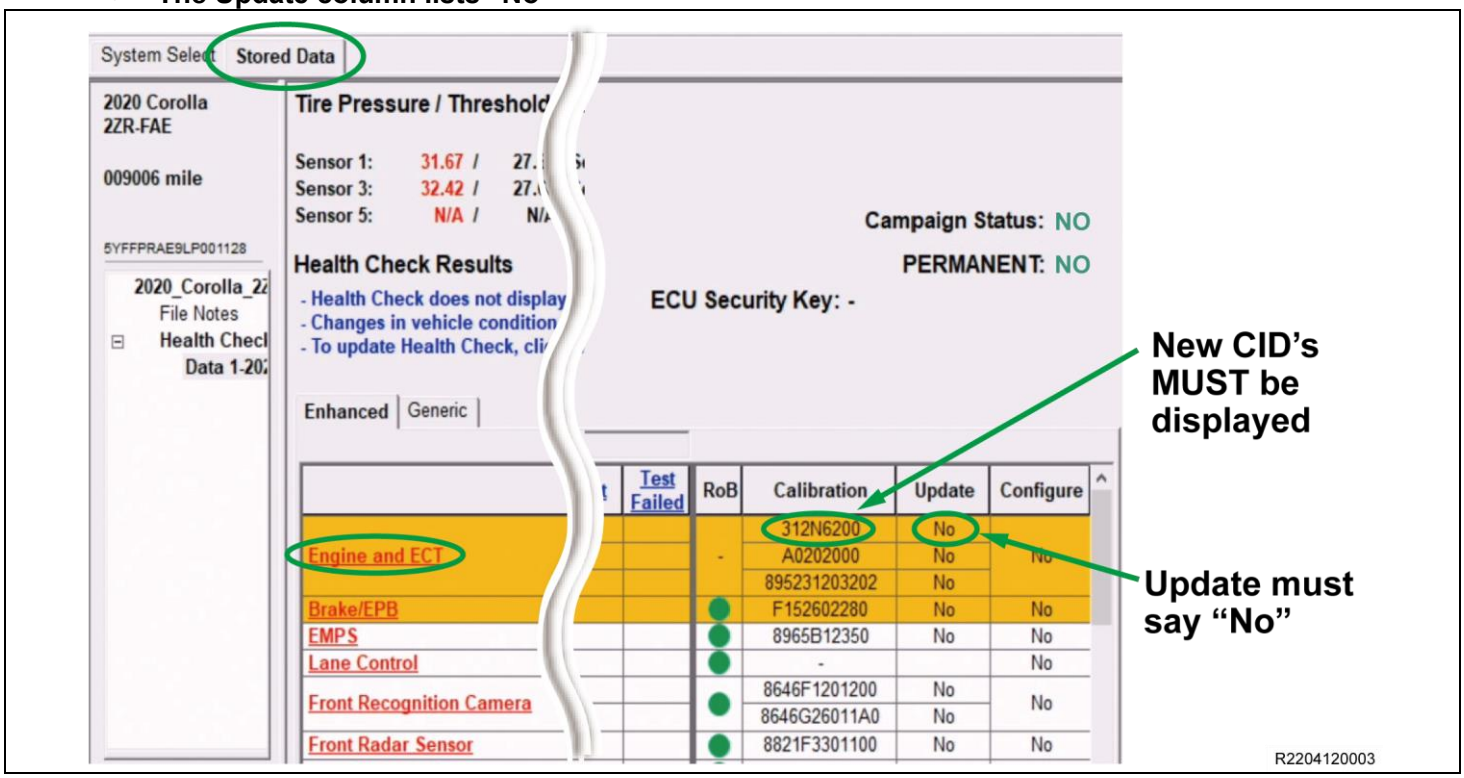
a) Using a Techstream, perform a Health Check.
b) Clear DTC's that may have set during the re-flash procedure.
c) Re-run the Health Check to confirm that no DTC's reappear.

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

3. CONFIRM CID UPDATE

a) On the Stored Data tab, confirm the following for the Engine and ECT System:

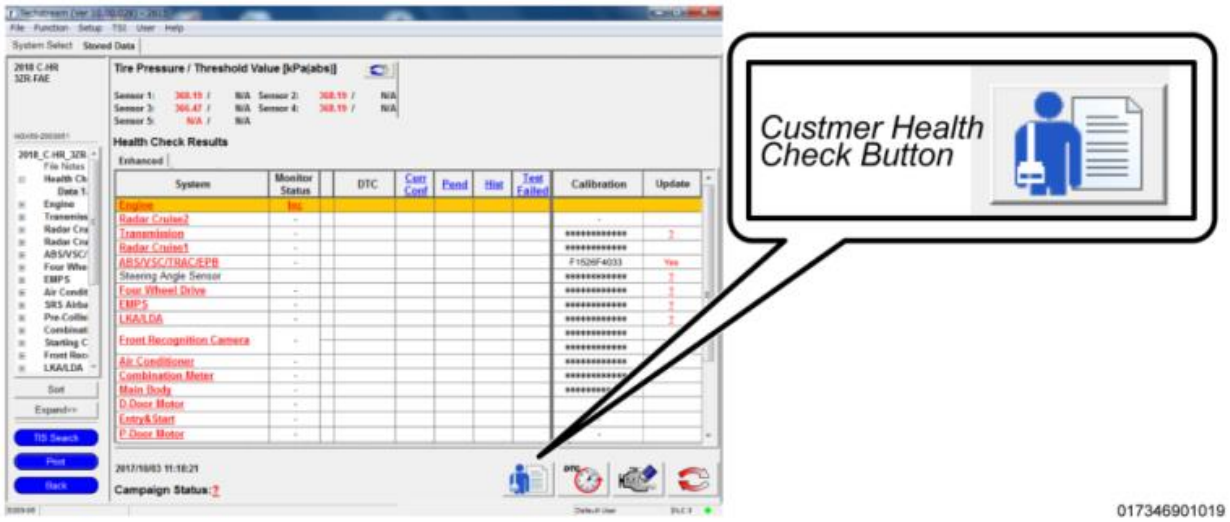
- **The Calibration number has the "New CID" number.**
- **The Update column lists "No"**



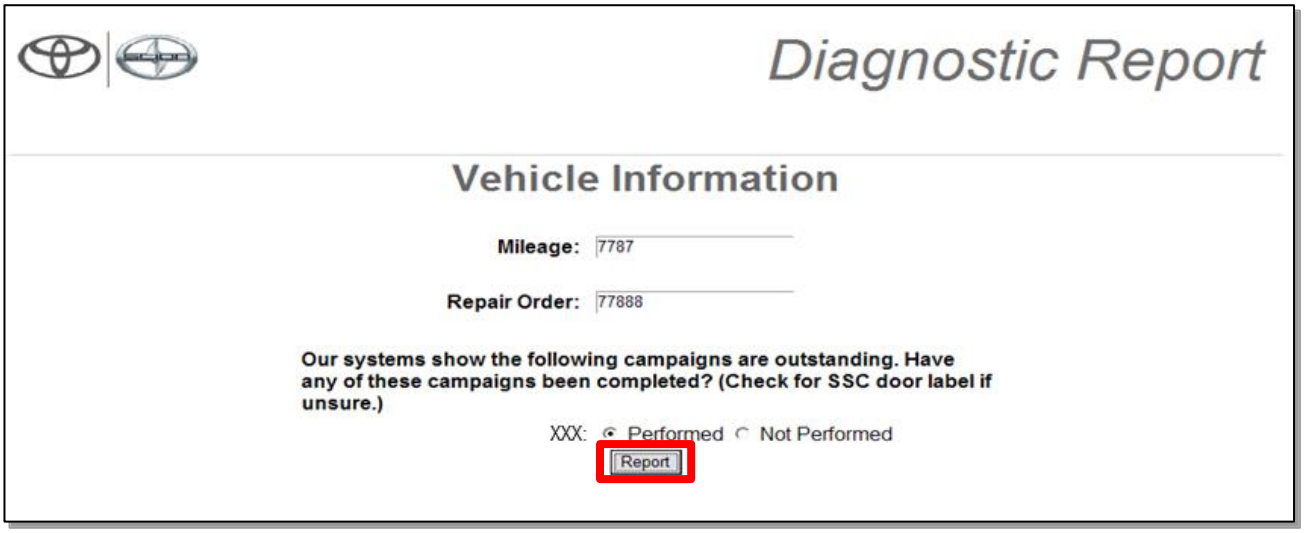
Critical	**Confirm the CID's has been updated successfully to the NEW CID's by someone other than the individual who performed the repair. Refer to p.6.**

4. 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 22TC07.
e) Select the Report button.

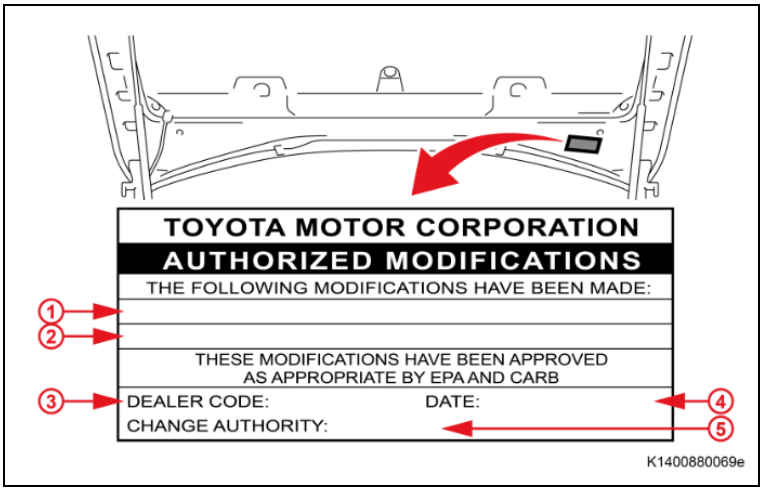


f) Confirm Customer Health Check Report information is correct.
g) Print Customer Health Check Report from TIS.
h) Sign and provide to the customer.

X. ATTACH THE AUTHORIZED VEHICLE MODIFICATION LABEL

a. Fill out the label.

b. Affix the label to the under-side of the hood.



1	Repair ECU P/N
2	Calibration ID
3	Dealer Code
4	Date Completed
5	Campaign Code (22TC07)

◄ VERIFY REPAIR QUALITY ►

- **Confirm the system Calibration has been updated successfully**
- **Confirm there are no DTCs in the Engine and ECT system**
- **If you have any questions regarding this update, please contact your area representative.**

XI. APPENDIX

A. CAMPAIGN DESIGNATION DECODER

19TA01

19	T	A	01
Year Campaign is Launched	Vehicle Make	Field Action Category and Phase	Field Action Sequence
19 = 2019 20 = 2020 21 = 2021 22 = 2022 23 = 2023 Etc...	T = Toyota L = Lexus	A = Safety Recall *Remedy* B = Safety Recall *Interim* C = Special Service Campaign D = Limited Service Campaign E = Customer Support Program F = Emissions Recall (May use other characters in unique cases)	01 = 1st Field Action of the year 02 = 2nd Field Action of the year 03 = 3rd Field Action of the year (The sequence is unique for each Field Action category) (May use other characters in unique cases)

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