

## **TECHNICAL INSTRUCTIONS**

**FOR**

**LIMITED-SERVICE CAMPAIGN 22TD05**

**Software Update for “Car Finder” Feature**

**CERTAIN 2023 Model Year bZ4X**

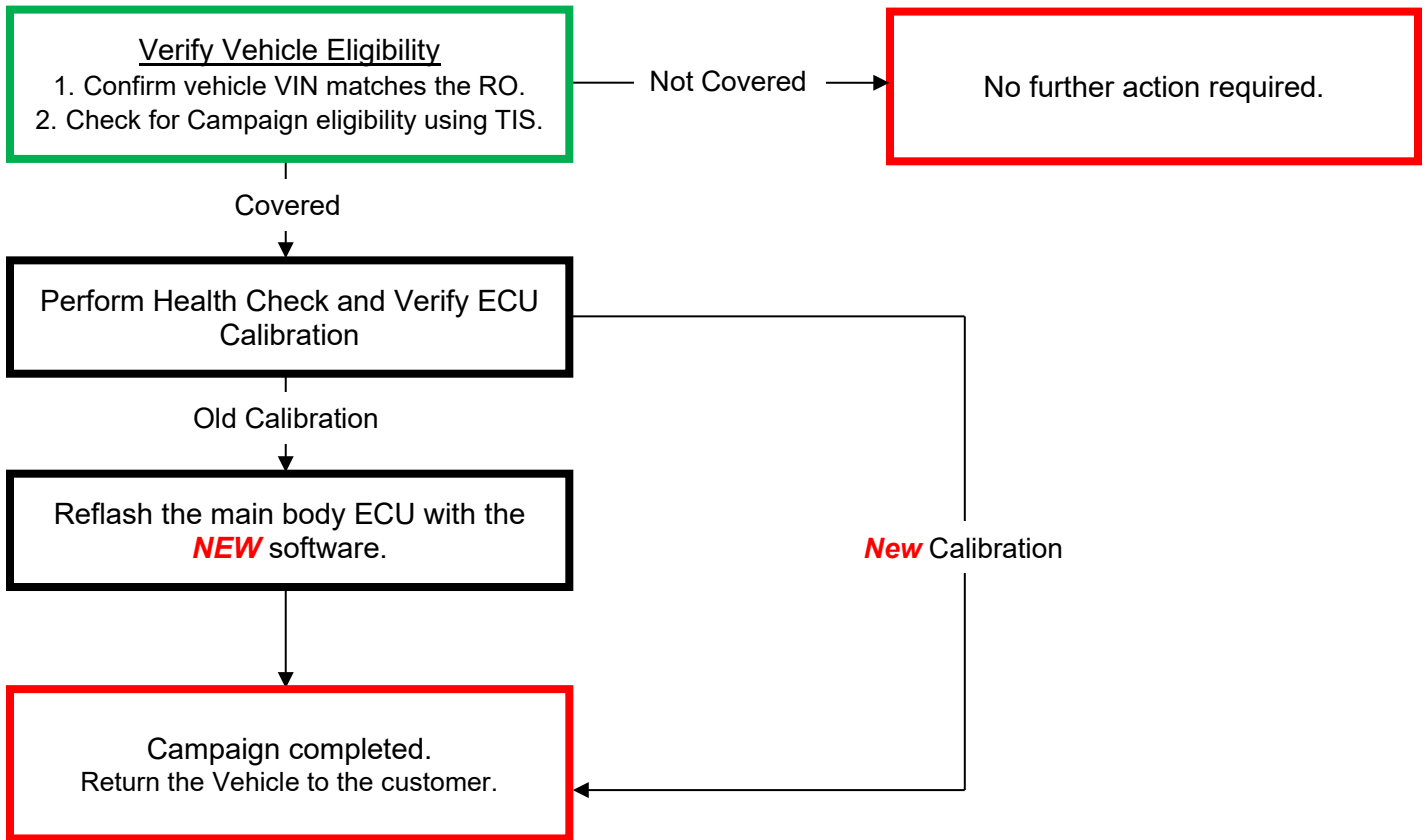
The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this recall are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles have the repair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

- Expert Technician (Hybrid)

It is the dealership’s responsibility to select technicians that have completed the above courses 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

- Compare the vehicles VIN to the VIN listed on the Repair Order to ensure they match.
- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Limited Service 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.

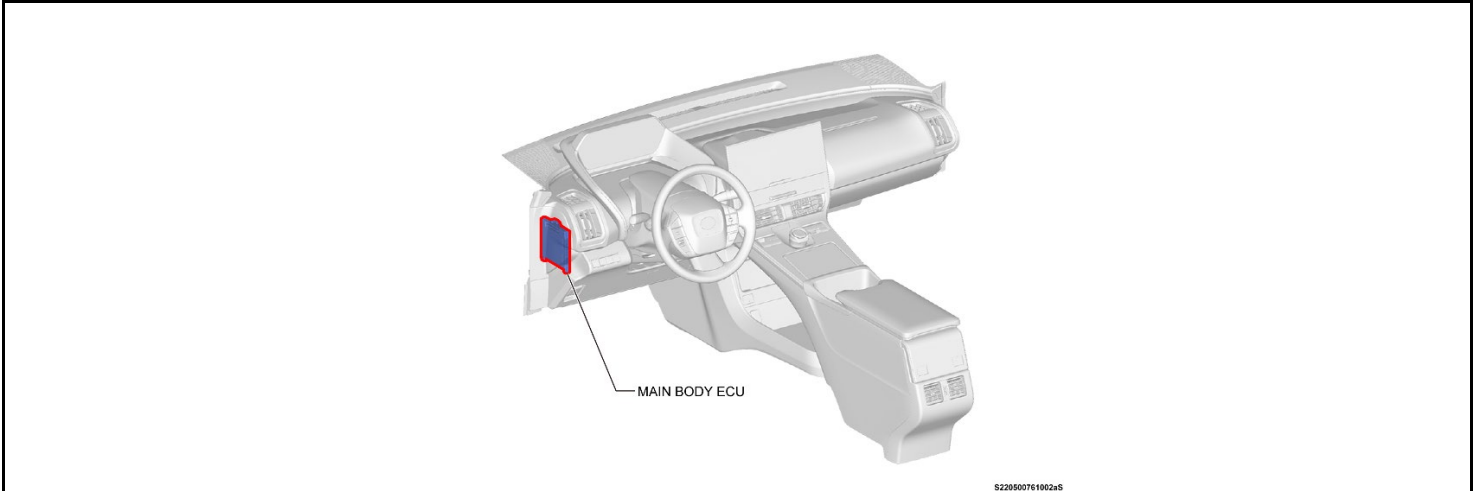
## III. PREPARATION

### A. TOOLS & EQUIPMENT

- Standard Hand Tools
- T-SB-0134-16
- Techstream ADVi / Techstream 2.0 / Techstream Lite
- DCA-8000 Battery Diagnostic Station
- T-SB-0107-20

## IV. BACKGROUND

The subject vehicles are equipped with a Body Control Module (BCM) which, among other tasks, controls the operation of the vehicle's exterior lighting. With a subscription to the Toyota One app, the headlamps can be turned on remotely for approximately 60 seconds to help the owner locate their parked vehicle. Under certain conditions, after this feature has been activated, the headlamps and tail lamps may turn off and/or remain off once the vehicle has been turned on. In all cases, the headlamps and tail lamps can be illuminated manually using the headlamp switch.

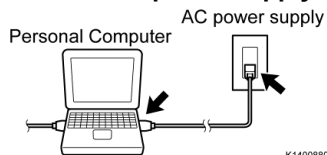


## V. SAFETY PRECAUTIONS

**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.

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



- 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.

**Turn off the screen saver and power saving mode.**



- 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.

**DO NOT** block the ventilation opening.



K1400880068e

- 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. MAIN BODY 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 Main Body System, as detailed in these instructions. It does not cover the diagnosis or replacement of any other systems on the vehicle.

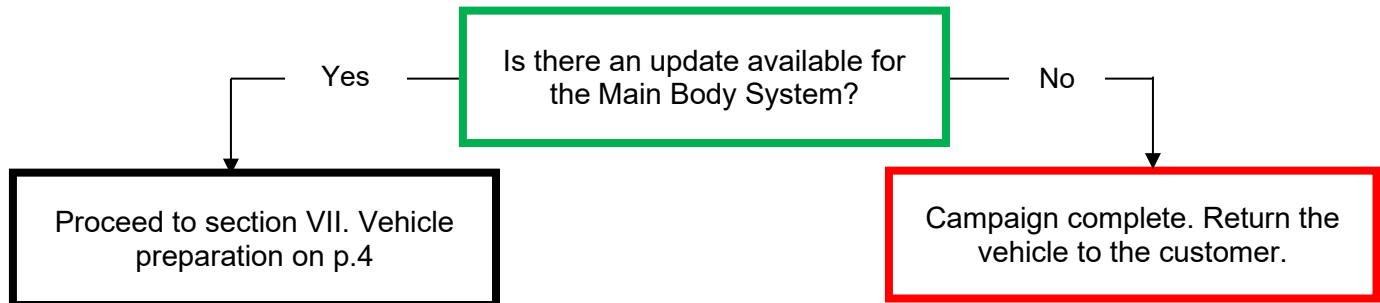
**2. CHECK CURRENT CALIBRATION**

- a) Locate the Update column for the Main Body System in the Stored Data tab for this vehicle.  
 b) Determine the status of an available update; indicated by a YES or NO.

**HINT:**

If the CID's indicate 'Yes', proceed with the update procedure.

System	RoB	Calibration	Update	Configure
Circumference Monitoring Camera Control Module	●	8679F7820011	No	No
Front Recognition Camera	●	8679F7816021	No	No
Clearance Warning	●	8646F7805100	No	No
Smart Access	●	8934F7817020	No	No
SRS Airbag	●	021210040002	No	No
Main Body	●	8917F7822000	No	No
	●	8AA117814000	No	No
	●	*****	Yes	No
	●	02221C030002	No	No



◀ CRITICAL MESSAGE ▶

It is critical that T-SB-0134-16 and T-SB-0107-20 in addition to the Technical Instructions for this LSC are followed. This TSB outlines all steps necessary to prevent reprogramming failure. Toyota will not provide reimbursement coverage for reprogramming failures if this TSB is not followed. If you have a reprogramming failure that requires main body ECU replacement and the Technical Instructions and TSB were followed correctly, please create a case with the Technical Assistance Hotline documenting all information related to the failure. If sufficient reporting is received related to re-flash failure, there will be consideration for reimbursement.

## VII. VEHICLE PREPERATION

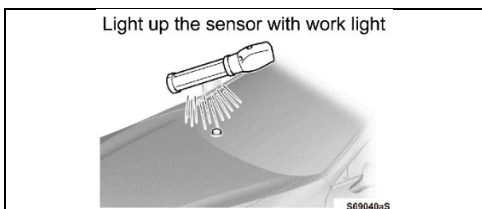
### 1. VEHICLE PREPARATION

- a) Confirm the following conditions:

**Hint:** Press power button until "Power on" is displayed on the dash.



- Vehicle in the IG position (READY 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. (w/ DRL OFF position)
  - Windshield wiper switch in the OFF position.
- b) When the vehicle has no "OFF position" in the light control switch:
- 1) Turn the IG ON.
  - 2) Set the light control switch to the AUTO position and make sure that the exterior lights are turned on.
  - 3) Light up the automatic light control sensor with work light to keep the exterior lights turned off.

### 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.**

#### NOTICE:

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:
- 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 parking assist ECU will be damaged.

## VIII. UPDATE CALIBRATION



### 1. PERFORM VEHICLE HEALTH CHECK

### 2. CONFIRM THE ECU CALIBRATION ID

a) Confirm the current calibration ID in the Main Body System.

System	Test Failed	RoB	Calibration	Update	Configure
Circumference Monitoring Camera Control Module				No	No
Front Recognition Camera				No	No
Clearance Warning				No	No
Smart Access				No	No
SRS Airbag				No	No
<b>Main Body</b>			<b>*****</b>	<b>Yes</b>	No
Power Source Control				No	No

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

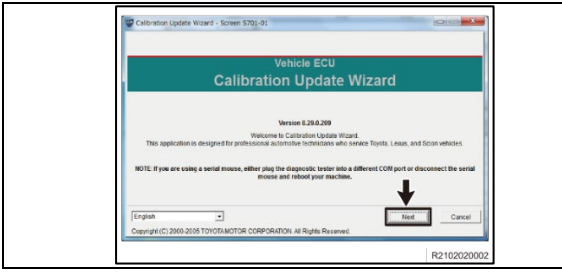
Main Body Calibrations			
Model	System	Main Body Calibration ID	
		Current Calibration ID	<b>New</b> Calibration ID
bZ4X	Main Body	8922F4213004	8922F4213100
		8922F4214004	8922F4214100
		8922F4215004	8922F4215100

### 3. REFLASH THE MAIN BODY ECU

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

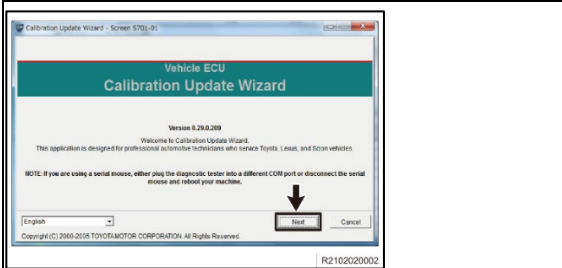
#### NOTICE:

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



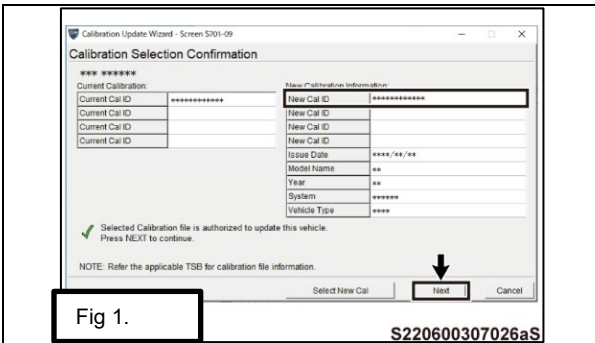
#### 4. LAUNCH CALIBRATION WIZARD

- a) Select "Next"



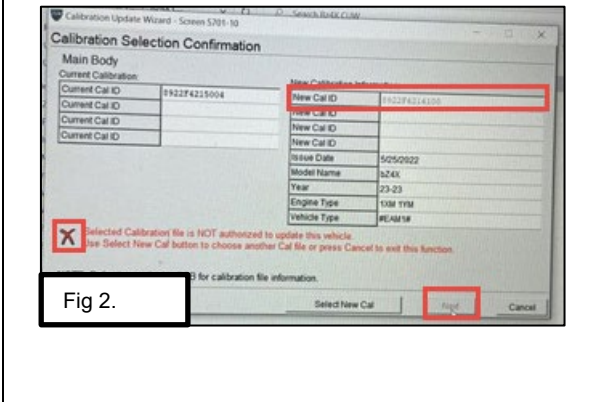
#### 5. SELECT A DEVICE TOOL

- a) Select "Next"

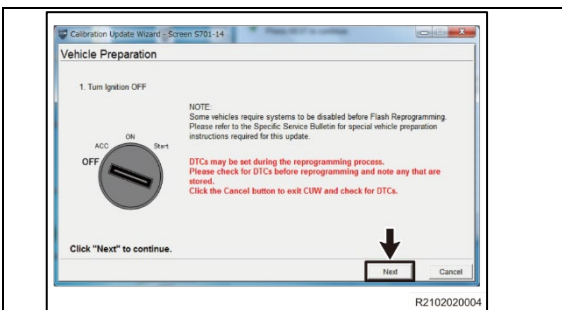


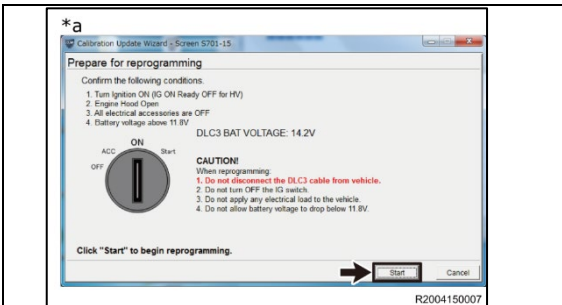
#### 6. CONFIRM THAT "NEW CAL ID" IS CORRECT, AND THEN CLICK ON "NEXT". (FIG 1.)

**Note:** If the incorrect CAL ID file is selected it is not possible to move onto the re calibration. See Fig 2. as example of incorrect Cal ID selected.



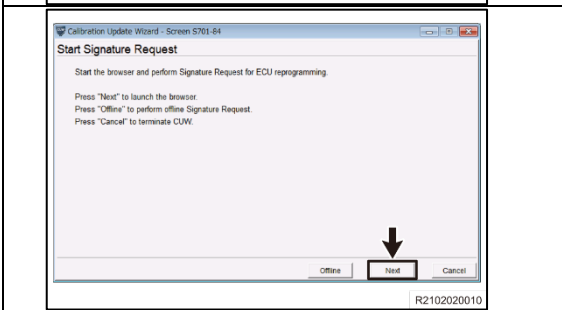
#### 7. FOLLOW THE ON-SCREEN INSTRUCTIONS





## 8. FOLLOW THE ON-SCREEN INSTRUCTIONS

**Notice:** DO NOT turn the IG ON with the brake pedal depressed.



## 9. PERFORM SECURITY SIGNATURE TO THE SERVER

- a. Follow the instructions on screen

**Hint:** The reprogramming will not begin without the security signature



## 10. LOGIN TO TIS

- a. Input TIS login credentials and select "Login"

**Note:** This step requires internet.



## 11. PERFORM SECURITY SIGNATURE TO THE SERVER

- a. Input TIS login credentials and select "Login"



## 12. PERFORM SECURITY SIGNATURE TO THE SERVER

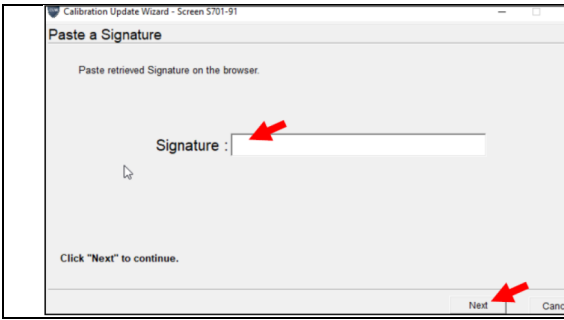
- a. Select "Send"



## 13. COPY SIGNATURE FROM TIS

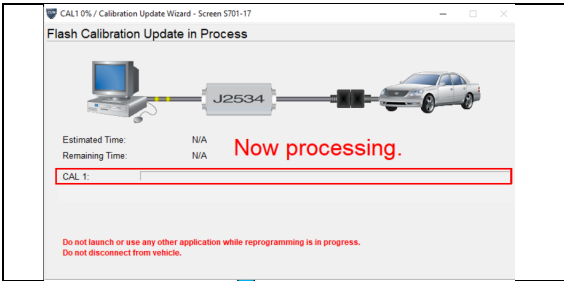
- b. Select "Copy to Clipboard"



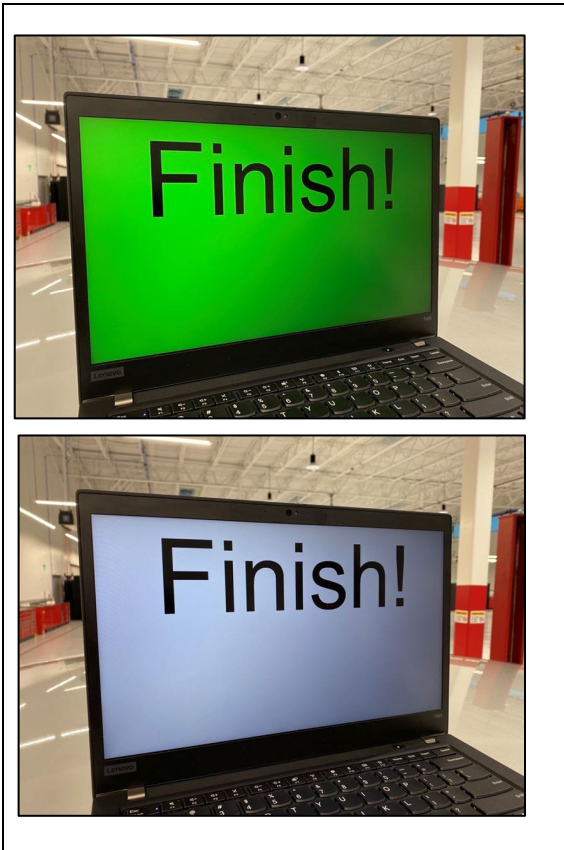


#### 14. PASTE SIGNATURE INTO TECHSTREAM

- b. Select "Next"



#### 15. RECALIBRATION WILL NOW BEGIN



#### 16. COMPLETE REPAIR

- a. The following Screens will appear at the end of the reflash.

### 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.

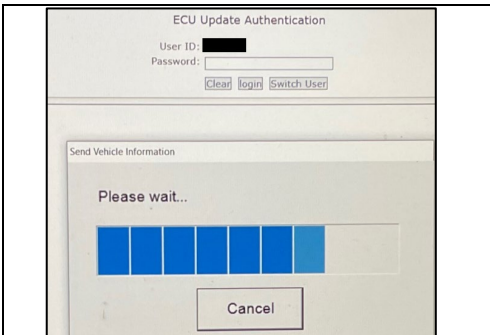
Critical

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

# 3. COMPLETE ECU UPDATE AUTHENTICATION

- a. Input TIS Credentials

**HINT:** Health check will complete once TIS credentials have been entered



# 4. COMPLETE HEALTH CHECK AND CONFIRM CID UPDATE

- a. On the Stored Data tab, confirm the following for the Main Body System:
  - The Calibration number has the "New CID" number.
  - The Update column lists "No"

System Select: **Stored Data**

\*\*\*\*\*  
\*\*\*\*\*

001396 mile

\*\*\*\*\*

\*\*\*\*\*  
File Notes  
Health Check  
Data 1-20;

Tire Pressure / Threshold Value [psi(gauge)]

Sensor 1: 29.93 / 26.69    Sensor 2: 30.18 /  
Sensor 3: 29.93 / 27.93    Sensor 4: 30.43 /  
Sensor 5: N/A / N/A

**Health Check Results**

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

Enhanced | Generic

System	B	Calibration	Update	Configure
Circumference Monitoring Camera Control Module		8679F7820011	No	No
		8679F7816021	No	No
Front Recognition Camera		8646F7805100	No	No
Clearance Warning		8934F7817020	No	No
Smart Access		021210040002	No	No
SRS Airbag		8917F78220	No	No
<b>Main Body</b>		8AA41704-000	No	No
		*****	No	No
License Plate Control		UZZZ10030002	No	No

Campaign Status PERMANENT: NO

Security Key: -

**New CID's MUST be displayed**

**Update must say "No"**

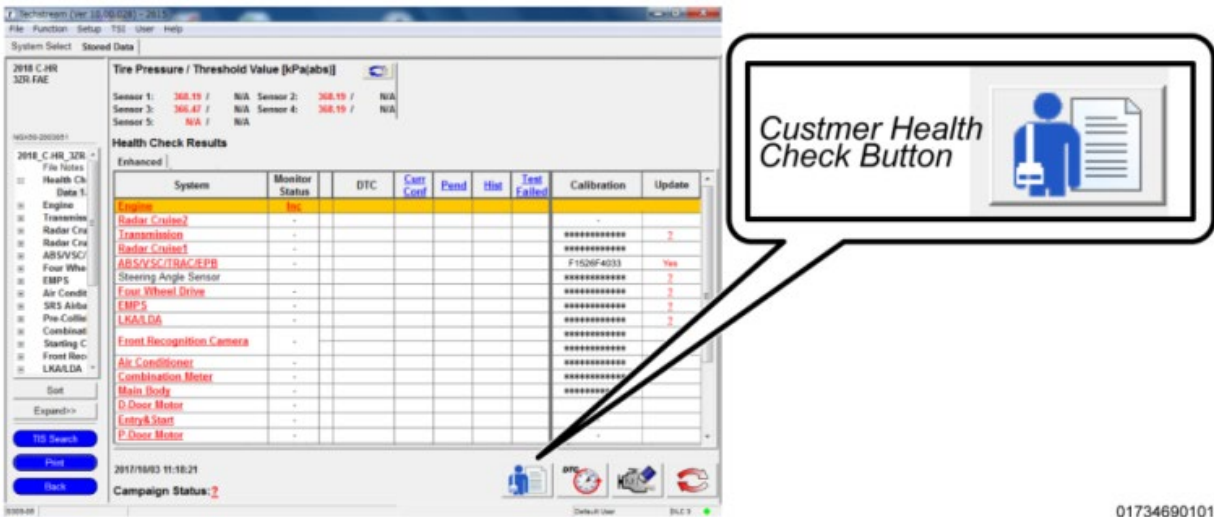
S220500761010aS

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.5.

## 5. PRINT CUSTOMER HEALTH CHECK REPORT

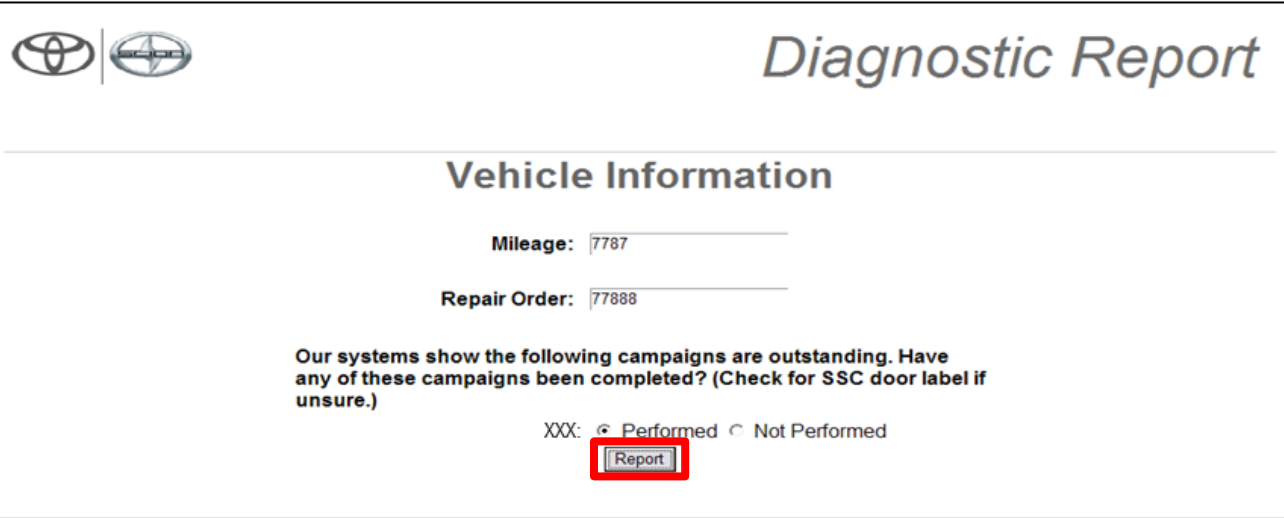
- a. From the Stored Data tab, select the Customer Health Check Report button (TIS will launch when button is pressed).



The screenshot shows the TIS software interface with the 'Health Check Results' table. The table has columns for System, Monitor Status, DTC, Cutt Coef, Pend, Hist, Test Failed, Calibration, and Update. A callout box labeled 'Customer Health Check Button' points to the 'Report' button in the bottom right corner of the interface.

System	Monitor Status	DTC	Cutt Coef	Pend	Hist	Test Failed	Calibration	Update
Engine	OK							
Radial Cruise2	-							
Transmission	-							
Radial Cru	-						*****	2
Radial Cruise1	-						*****	2
ABS/ESC/	-						F1520F4033	Yes
Four Whe	-						*****	2
Steering Angle Sensor	-						*****	2
EMPS	-						*****	2
Four Wheel Drive	-						*****	2
Air Condit	-						*****	2
SRS Airba	-						*****	2
Pac-Cabin	-						*****	2
Combina	-						*****	2
Steering C	-						*****	2
Front Rec	-						*****	2
LKA/LDA	-						*****	2
Suit	-						*****	2
D-Door Motor	-						*****	2
Entry Start	-						*****	2
P-Door Motor	-						*****	2

- a) Log in to TIS.
- b) Input Vehicle Mileage and Repair Order number.
- c) Check the "Performed" campaign button for campaign 22TD05.
- d) Select the Report button.



The screenshot shows the Diagnostic Report form. The form displays vehicle information including Mileage (7787) and Repair Order (77888). A red box highlights the 'Report' button.

**Diagnostic Report**

**Vehicle Information**

Mileage: 7787

Repair Order: 77888

Our systems show the following campaigns are outstanding. Have any of these campaigns been completed? (Check for SSC door label if unsure.)

XXX:  Performed  Not Performed

**Report**

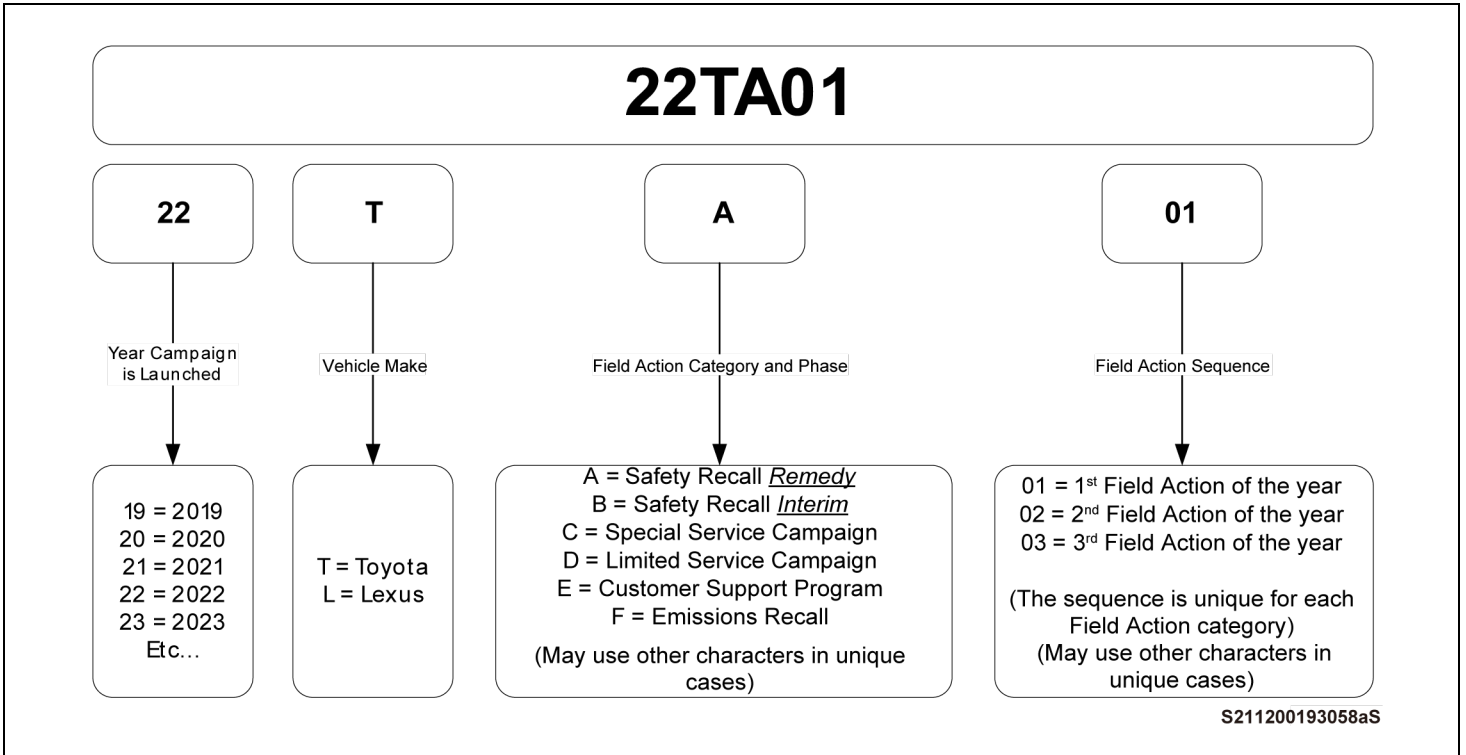
- e) Confirm Customer Health Check Report information is correct.
- f) Print Customer Health Check Report from TIS.
- g) Sign and provide to the customer.

**◀ VERIFY REPAIR QUALITY ▶**

- Confirm the BCM Calibration has been updated successfully to the NEW CID.
- Confirm there are no DTC's after the Calibration update.
- If you have any questions regarding this Campaign, please contact your regional representative

**X. APPENDIX**

**A. CAMPAIGN DESIGNATION DECODER**



**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**