

## **TECHNICAL INSTRUCTIONS**

**FOR**

**SAFETY (NONCOMPLIANCE) RECALL 23TA02**

**INSTRUMENT PANEL LCD MONITOR MAY GO BLANK WHILE DRIVING**

**CERTAIN 2022-2023 Model Year Tundra HV  
Certain 2023 Model Year Tundra**

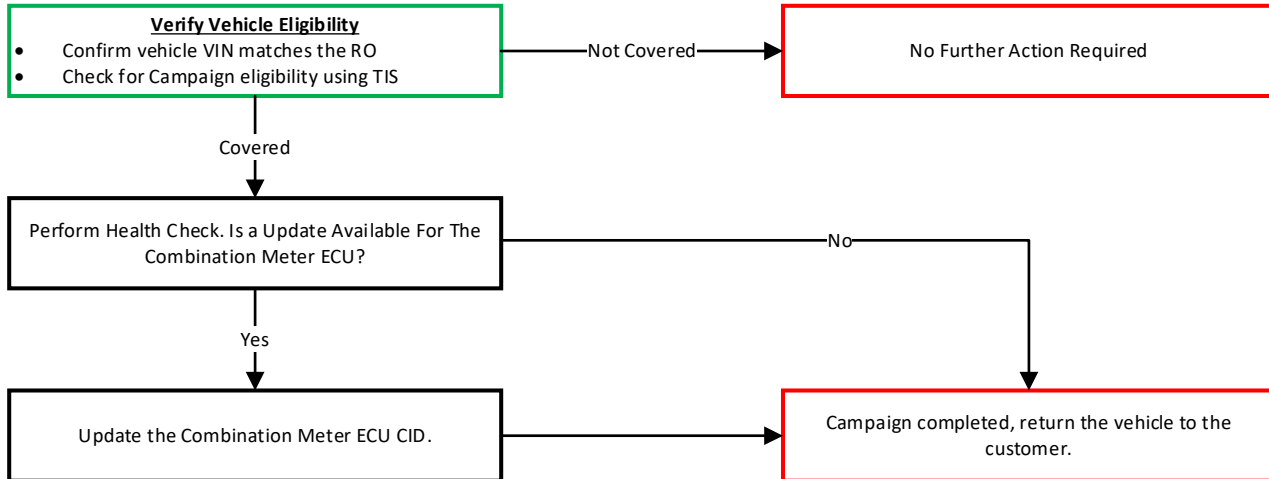
**The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this recall are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles have the repair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

- **TIC206A – Electrical Repair 1**

**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

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 recall, 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.

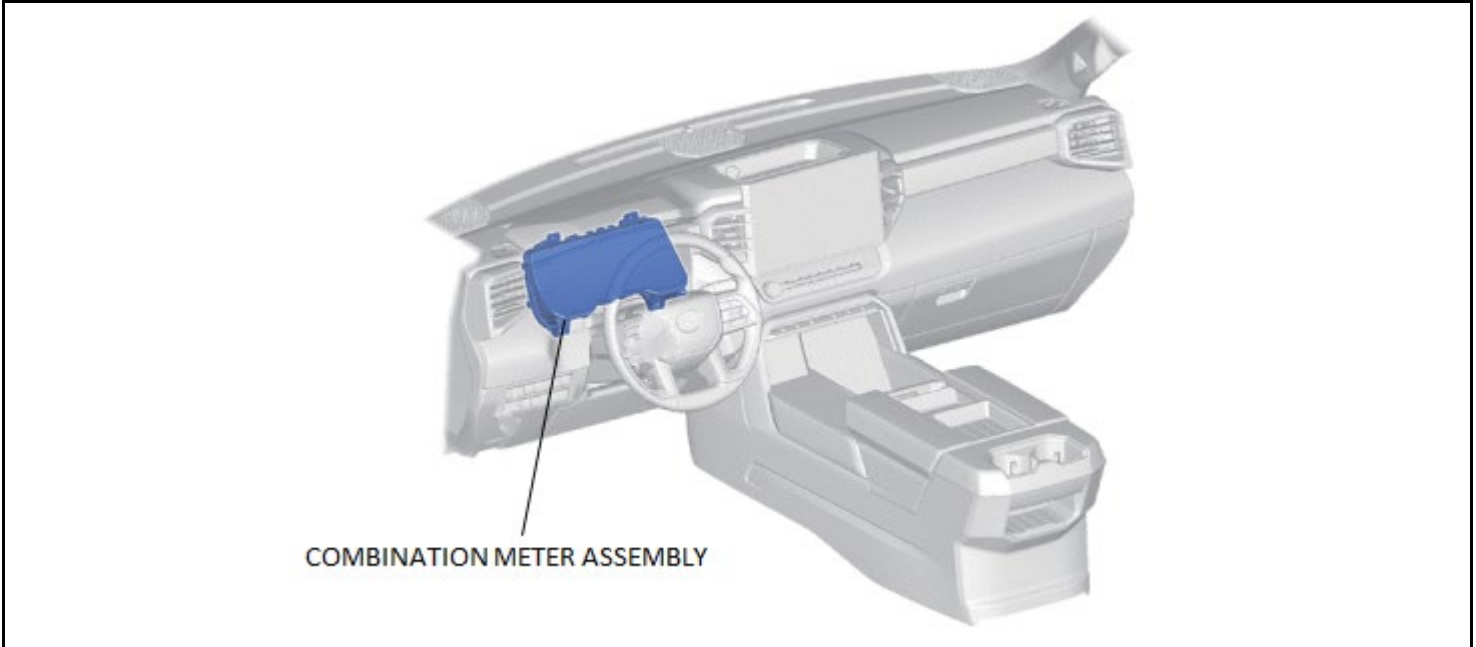
## III. PREPARATION

### 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

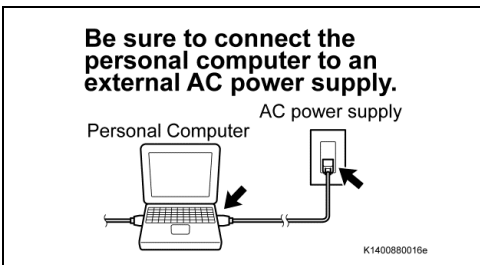
The subject vehicles are equipped with a 12.3-inch Thin Film Transistor (TFT) Liquid Crystal Display (LCD) monitor, which is used to display various information such as warning and indicator lights, vehicle gauges, messages and more. The LCD monitor can go blank due to a software issue. A blank monitor creates a noncompliance with certain federal requirements. This can reduce the driver's recognition of certain operating conditions, which can lead to an increased risk of a crash.



## 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.

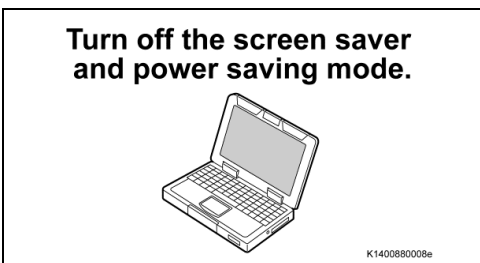


### 1. STABILIZE THE POWER TO THE PERSONAL COMPUTER SIDE

- 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 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. COMBINATION METER ASSEMBLY 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 Combination Meter System, as detailed in these instructions. It does not cover the diagnosis or replacement of any other systems on the vehicle.



**NOTE:**

Before completing Health Check, "Send Vehicle Information" window may be displayed. If displayed, then click "Yes" to send the vehicle information.

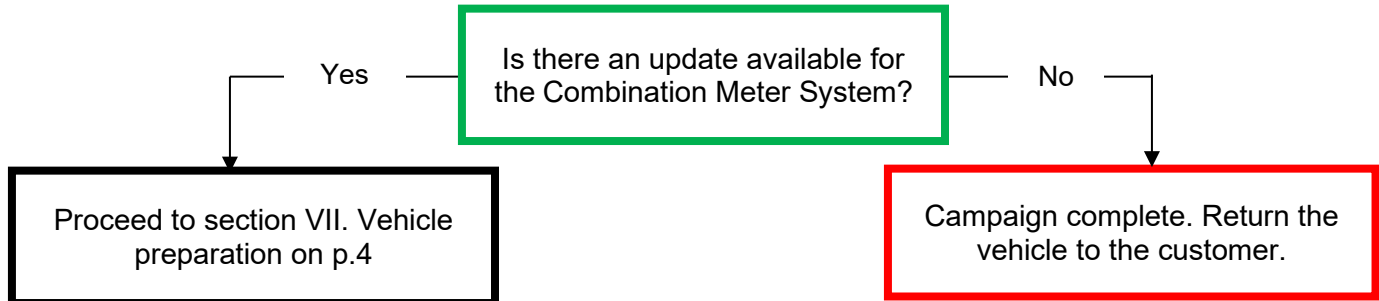
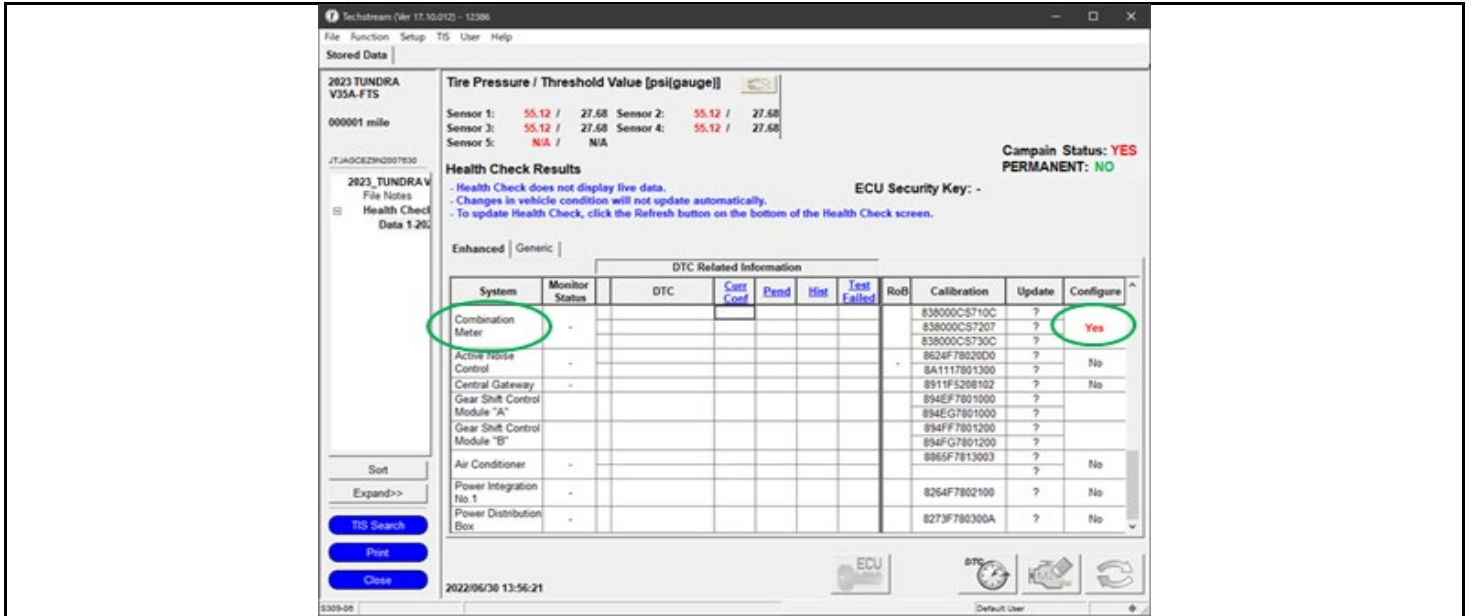
- If "Failed to send data to the server" is displayed, click "No" to close the window and proceed to the next step.

## 2. CHECK CURRENT CALIBRATION

- Locate the Update column for the Combination Meter System in the Stored Data tab for this vehicle.
- 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.



### ◀ CRITICAL MESSAGE ▶

It is critical that T-SB-0134-16 and T-SB-0107-20 in addition to the Technical Instructions for this Safety Recall 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 Combination Meter 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

- Confirm the following conditions:

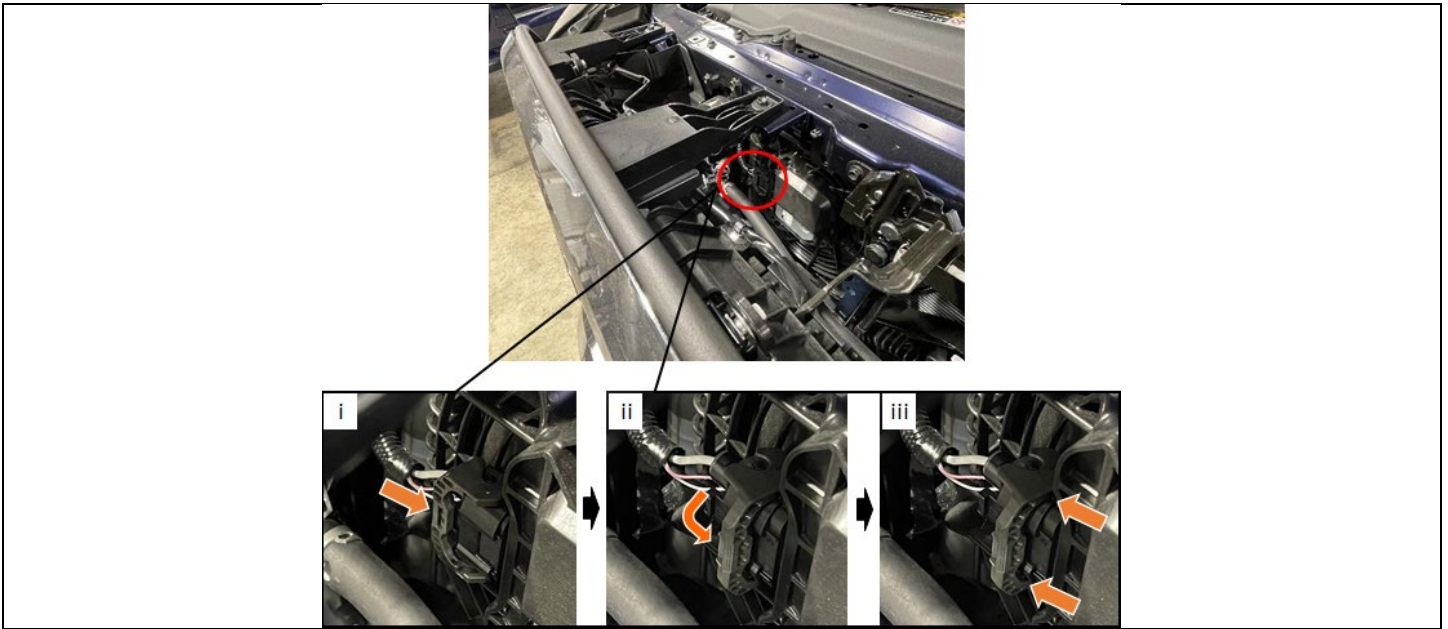
- Vehicle in the IG position (engine off).
- Transaxle in Park.
- Parking brake engaged.
- Turn off all electrical accessories (i.e. climate control, audio system, etc.)
- Headlight switch in the DRL OFF position.
- Windshield wiper switch in the OFF position.

## 2. HYBRID MODEL ONLY: STOP THE OPERATION OF THE ELECTRIC FAN

- a. Disconnect the connector from the cooling fan.

### NOTE:

- **DO NOT** pull from the wire side.



**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. 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.

### NOTICE:

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

## 4. 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 120v outlet during this procedure.**

### NOTICE:

If the Techstream communication with the vehicle fails during the re-flash procedure, the Combination Meter ECU will be damaged.

## VIII. UPDATE CALIBRATION



### 1. PERFORM VEHICLE HEALTH CHECK

Note: Take note of vehicle mileage PRIOR to starting the software update for the Combination Meter ECU.

### 2. CONFIRM THE ECU CALIBRATION ID

- a) Confirm the current calibration ID in the Combination Meter System.

The screenshot shows a diagnostic tool window with the following data:

**Tire Pressure / Threshold Value [psi(gauge)]**

Sensor 1:	55.12 / 27.68	Sensor 2:	55.12 / 27.68
Sensor 3:	55.12 / 27.68	Sensor 4:	55.12 / 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 automatically.
- To update Health Check, click the Refresh button on the bottom of the Health Check screen.

**ECU Security Key:** -

**Campaign Status:** YES  
**PERMANENT:** NO

**DTC Related Information**

System	Monitor Status	DTC	Curr. Conf.	Pend.	Hint	Test Failed	RoB	Calibration	Update	Configure
Combination Meter	-							53800C5110C 83800C97207	?	Yes
Active Noise Control	-							83800C5730C	?	
Central Gateway	-							8A1117801300	?	No
Gear Shift Control Module "A"	-							8911F5208102	?	No
Gear Shift Control Module "B"	-							894EF7801000	?	
Air Conditioner	-							894EG7801000	?	
Power Integration No.1	-							894FF7801200	?	No
Power Distribution Box	-							894FG7801200	?	No
								8965F7813003	?	No
									?	
								8254F7802100	?	No
								8273F780300A	?	No

The calibration IDs to re-flash in this campaign are as shown in the table below. (Pages 7-8)

**Combination Meter System Calibrations**

Model	Current Calibration ID	<b>New</b> Calibration ID
TUNDRA	CID-1: 838000CS7107 838000CS7108 838000CS710A 838000CS710B 838000CS710C  CID-2: 838000CS7207  CID-3: 838000CS7307 838000CS7308 838000CS730A 838000CS730B 838000CS730C 838000CS730D	CID-1: 838000CS710D CID-2: 838000CS7207 CID-3: 838000CS730E
	CID-1: 838000CV9107 838000CV9108 838000CV910A 838000CV910B 838000CV910C  CID-2: 838000CS7207  CID-3: 838000CS7307 838000CS7308 838000CS730A 838000CS730B 838000CS730C 838000CS730D	CID-1: 838000CV910D CID-2: 838000CS7207 CID-3: 838000CS730E
TUNDRA	CID-1: 838000CW3107 838000CW3108 838000CW310A 838000CW310B 838000CW310C  CID-2: 838000CS7207  CID-3: 838000CS7307 838000CS7308 838000CS730A 838000CS730B 838000CS730C 838000CS730D	CID-1: 838000CW310D CID-2: 838000CS7207 CID-3: 838000CS730E
	CID-1: 838000CX2107 838000CX2108 838000CX210A 838000CX210B 838000CX210C  CID-2: 838000CS7207  CID-3: 838000CS7307 838000CS7308 838000CS730A 838000CS730B 838000CS730C 838000CS730D	CID-1: 838000CX210D CID-2: 838000CS7207 CID-3: 838000CS730E



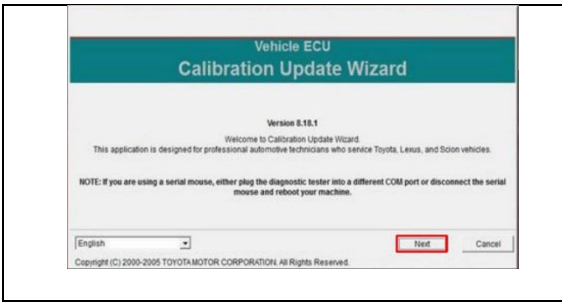
TUNDRA HEV	CID-1: 838000CW4107 838000CW4108 838000CW410A 838000CW410B 838000CW410C  CID-2: 838000CS7207  CID-3: 838000CS7307 838000CS7308 838000CS730A 838000CS730B 838000CS730C 838000CS730D	<b>CID-1: 838000CW410D</b> <b>CID-2: 838000CS7207</b> <b>CID-3: 838000CS730E</b>
	CID-1: 838000CX3107 838000CX3108 838000CX310A 838000CX310B 838000CX310C  CID-2: 838000CS7207  CID-3: 838000CS7307 838000CS7308 838000CS730A 838000CS730B 838000CS730C 838000CS730D	<b>CID-1: 838000CX310D</b> <b>CID-2: 838000CS7207</b> <b>CID-3: 838000CS730E</b>
TUNDRA HEV	CID-1: 838000CW7107 838000CW7108 838000CW710A 838000CW710B 838000CW710C  CID-2: 838000CS7207  CID-3: 838000CS7307 838000CS7308 838000CS730A 838000CS730B 838000CS730C 838000CS730D	<b>CID-1: 838000CW710D</b> <b>CID-2: 838000CS7207</b> <b>CID-3: 838000CS730E</b>

**3. REFLASH THE COMBINATION METER 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.



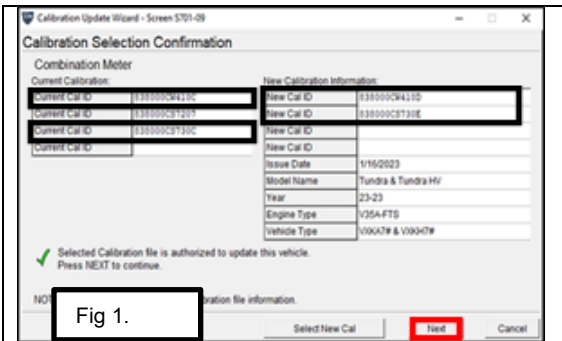
#### 4. LAUNCH CALIBRATION WIZARD

a) Select "Next"



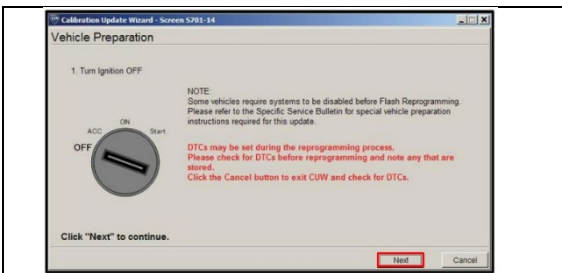
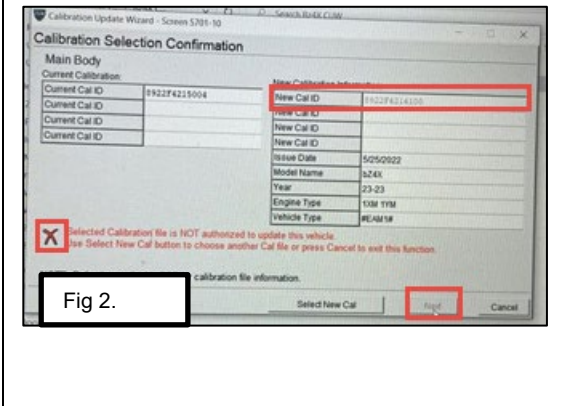
#### 5. SELECT A DEVICE TOOL

a) Select "Next"

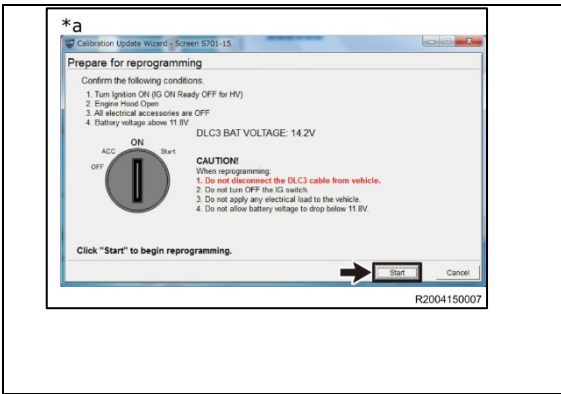


#### 6. CONFIRM THAT "NEW CAL ID" IS CORRECT, AND THEN CLICK ON "NEXT". (Fig 1.)

**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.



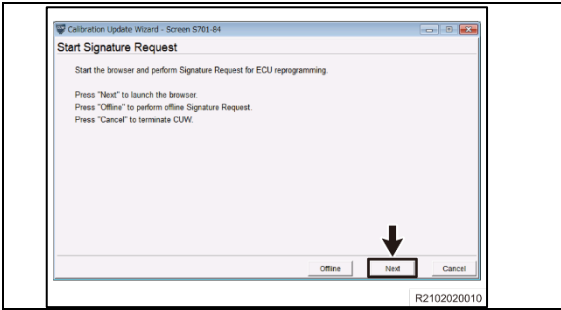
#### 7. TURN THE IGNITION OFF, THEN CLICK "NEXT"



**8. FOLLOW THE ON-SCREEN INSTRUCTIONS AND CONFIRM THE FOLLOWING, THEN CLICK “NEXT”**

- a) PC is connected to VIM.
- b) Ignition is ON and engine is OFF
- c) Hood is open.
- d) All accessories are OFF
- e) Battery voltage is above 11.8V

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



**9. PERFORM SECURITY SIGNATURE TO THE SERVER, THEN HIT “NEXT”**

- 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”.



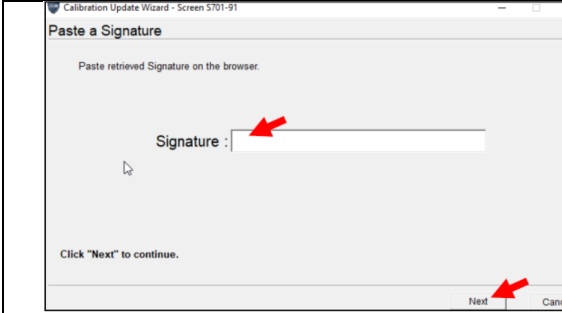
**12. PERFORM SECURITY SIGNATURE TO THE SERVER**

- a. Select “Send”

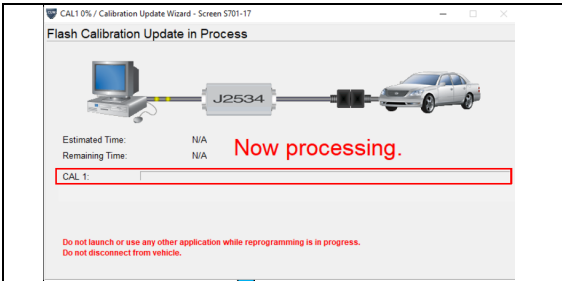


### 13. COPY SIGNATURE FROM TIS

- b. Select "Copy to Clipboard"

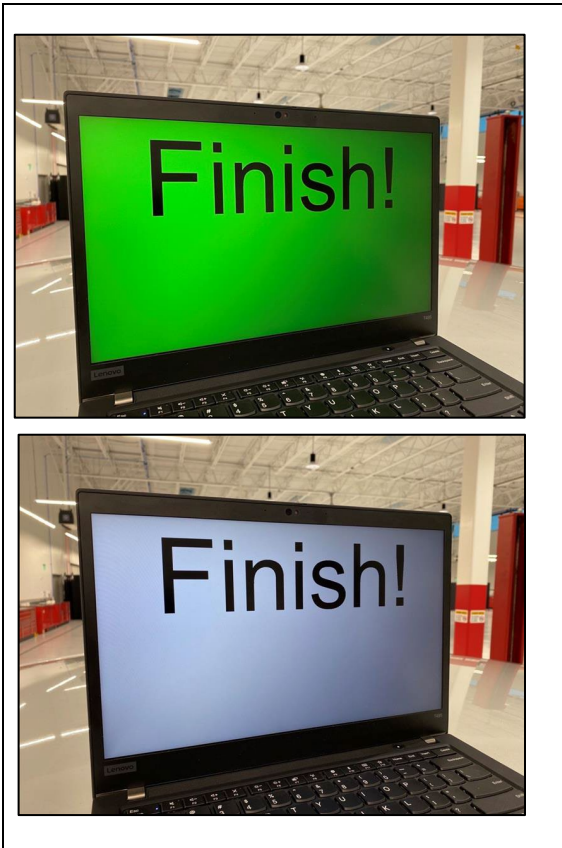


### 14. PASTE SIGNATURE INTO TECHSTREAM, THEN SELECT "NEXT"



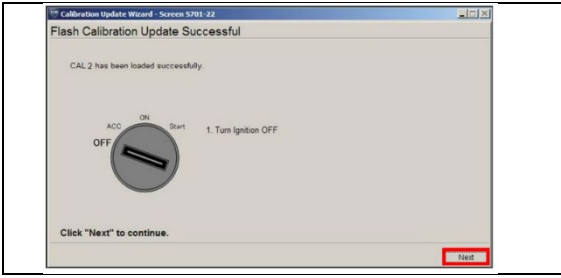
### 15. RECALIBRATION WILL NOW BEGIN

- a) **Do Not** disturb the vehicle during flash reprogramming.

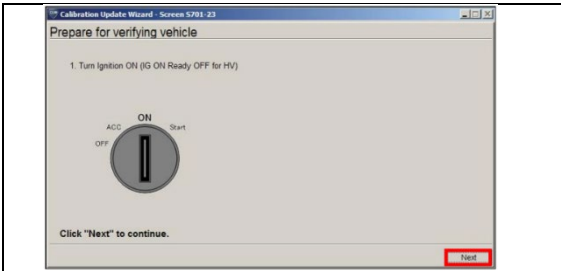


### 16. RECALIBRATION FINISHED

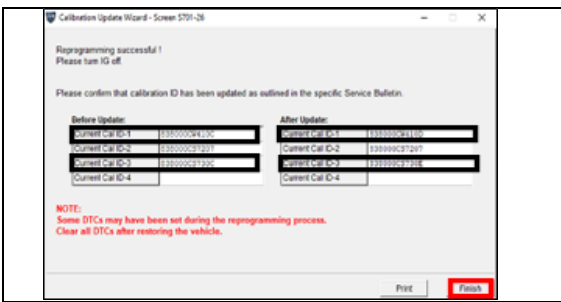
- a. The following Screens will appear at the end of the reflash.



17. TURN THE IGNITION OFF FOR A MINIMUM OF 10 SECONDS, THEN CLICK “NEXT”



18. TURN THE IGNITION TO THE ON POSITION, THEN CLICK “NEXT”



19. CONFIRM CALIBRATIONS WERE SUCCESSFULLY UPDATED THEN CLICK “FINISH”

## IX. COMPLETE REPAIR

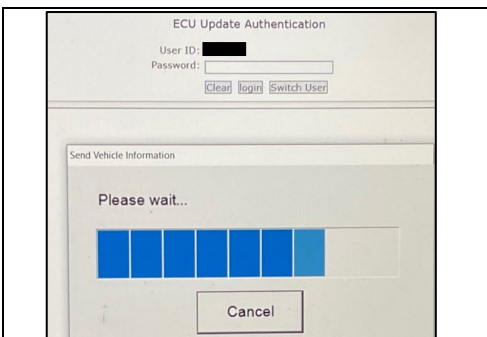
### 1. DISCONNECT THE DCA-8000



### 2. PERFORM VERIFICATION HEALTH CHECK

- Using a Techstream, perform a Health Check.
- Clear DTC's that may have set during the re-flash procedure.
- 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.



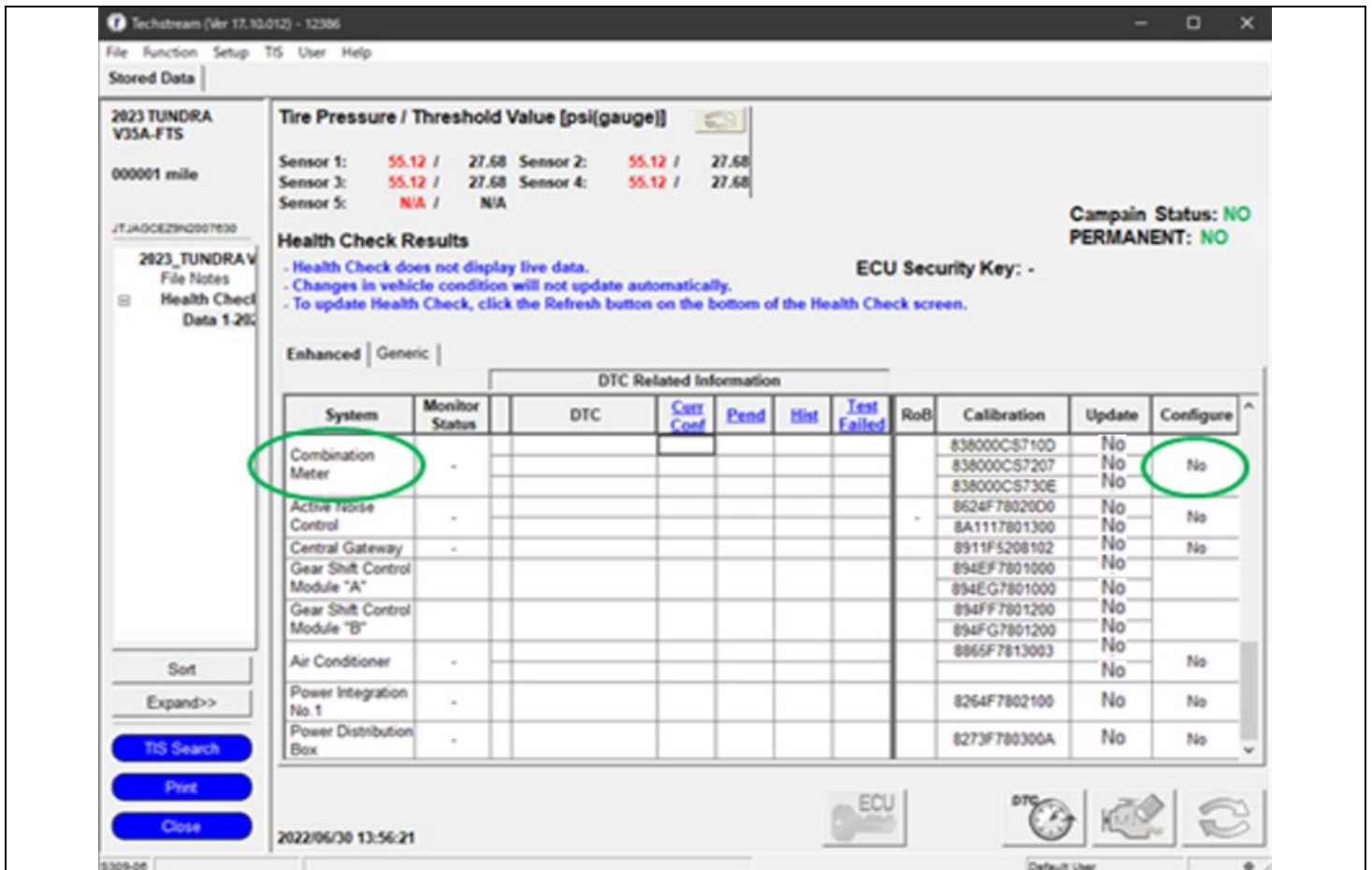
### 3. COMPLETE ECU UPDATE AUTHENTICATION

- Input TIS Credentials

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

### 4. COMPLETE HEALTH CHECK AND CONFIRM CID UPDATE

- On the Stored Data tab, confirm the following for the Combination Meter System:
  - The Calibration number has the “**New CID**” number.
  - The Update column lists “No”



## 5. CONFIRM THE COOLING FAN HAS BEEN RECONNECTED

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 "Combination Meter System Calibrations" Page 6-7

## 6. 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).

2018 C.H.R. 32R FAE

Tire Pressure / Threshold Value [kPa(abs)]  
Sensor 1: 308.19 / N/A Sensor 2: 308.19 / N/A  
Sensor 3: 308.47 / N/A Sensor 4: 308.19 / N/A  
Sensor 5: N/A / N/A

Health Check Results  
Enhanced |

System	Monitor Status	DTC	Curr Conf	Pend	Hint	Test Failed	Calibration	Update
Engine	Yes							
Radar Cruise2	-							
Transmission	-						*****	2
Radar Cruise1	-						F1526F4033	Yes
ABS/ESC/	-						*****	2
Four Wheel	-						*****	2
EMPS	-						*****	2
Air Condit	-						*****	2
SRS Airbu	-						*****	2
Pipe Collie	-						*****	2
Combinaat	-						*****	2
Steering C	-						*****	2
Front Rec	-						*****	2
LNALDA	-						*****	2
Front Recognition Camera	-						*****	2
Air Conditioner	-						*****	2
Combination Meter	-						*****	2
Blain Body	-						*****	2
D Door Motor	-						*****	2
Entry&Start	-						*****	2
P Door Motor	-						*****	2

Sort  
Expand>>  
TIS Search  
Print  
Check


2017/06/30 11:18:21  
Campaign Status: 2

Customer Health Check Button

017346901019

- 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.

 *Diagnostic Report*

---

**Vehicle Information**

Mileage:

Repair Order:

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

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

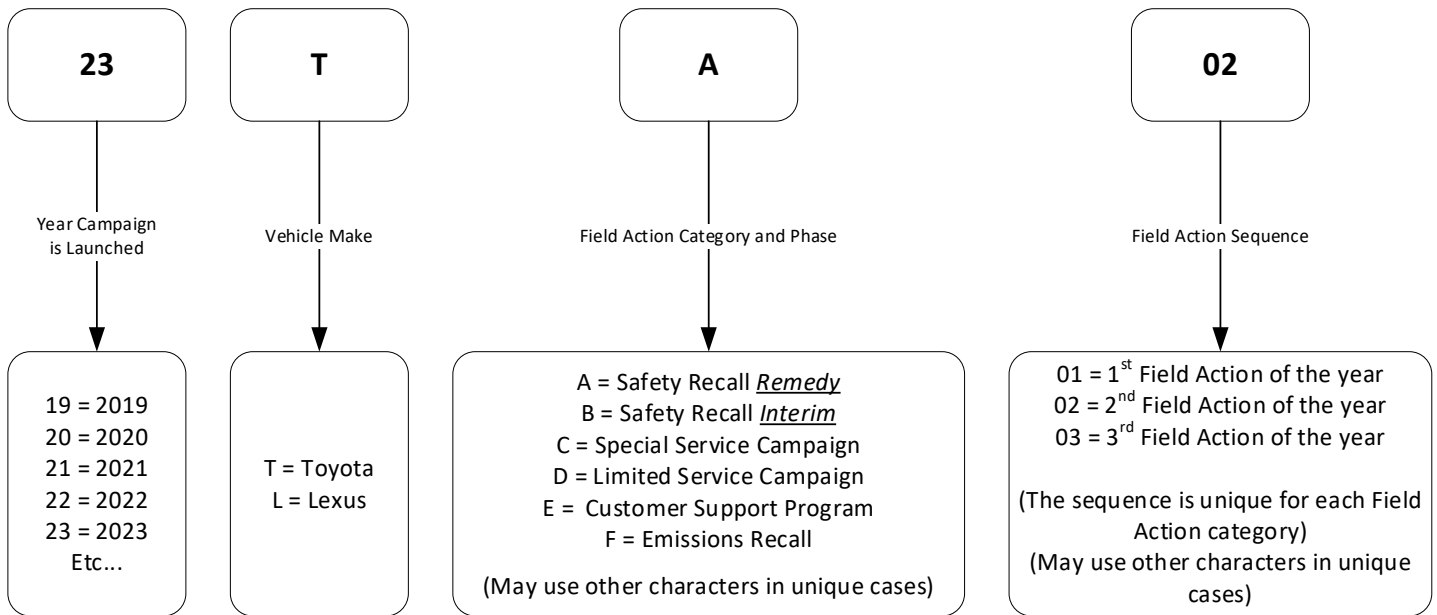
**◀ VERIFY REPAIR QUALITY ▶**

- Confirm the Combination Meter ECU Calibration has been updated successfully to the NEW CID.
- Confirm the Cooling Fan has been reconnected
- 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**

# 23TA02



## 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**