

TECHNICAL INSTRUCTIONS
FOR
23TD03
DATA COMMUNICATION MODULE (DCM) REPROGRAM
CERTAIN 2022-2023 MODEL YEAR GR86

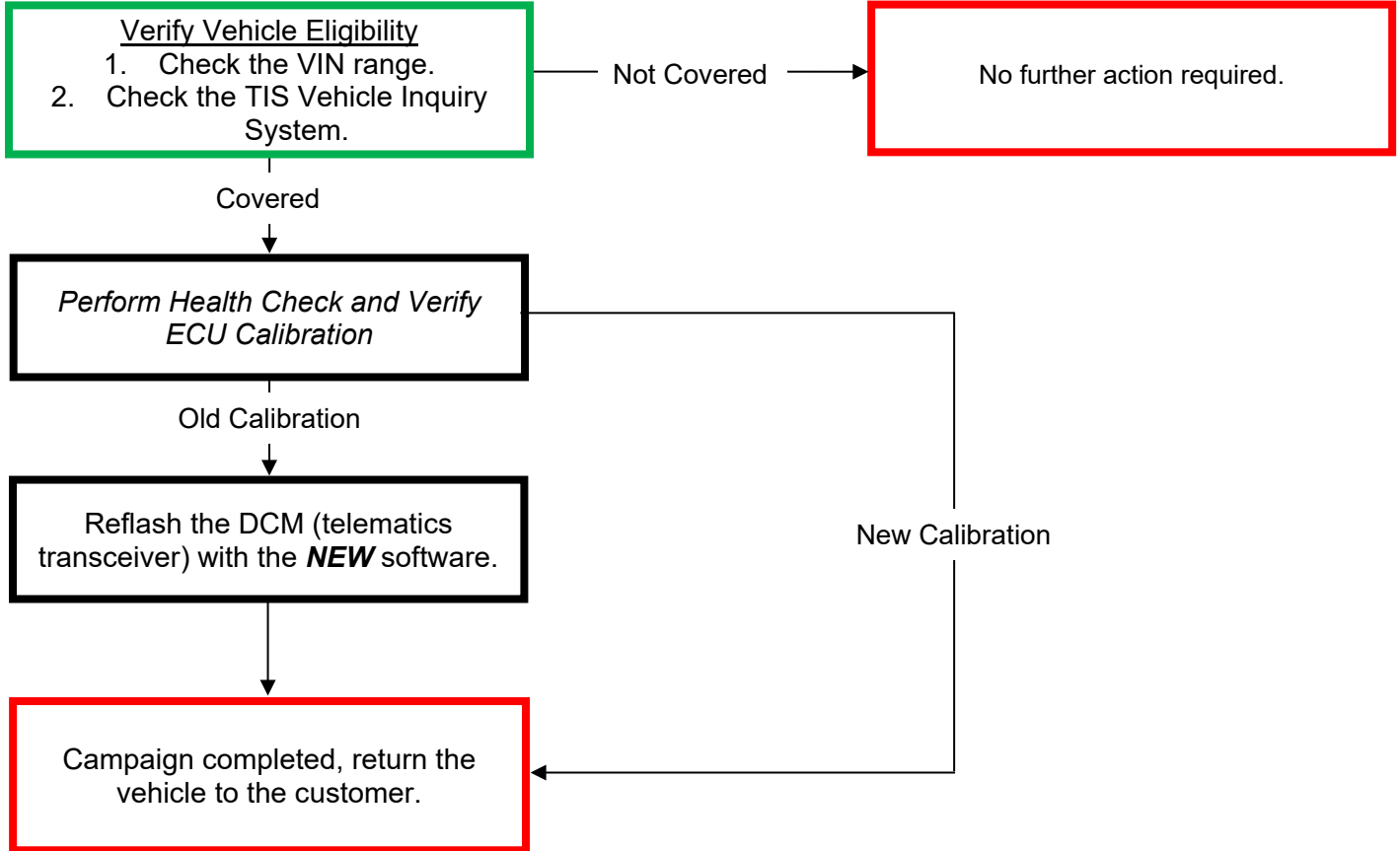
The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this repair are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles have the repair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

- TIC206A – Electrical Repair 1

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 Campaign, and that it has not already been completed.

NOTICE:

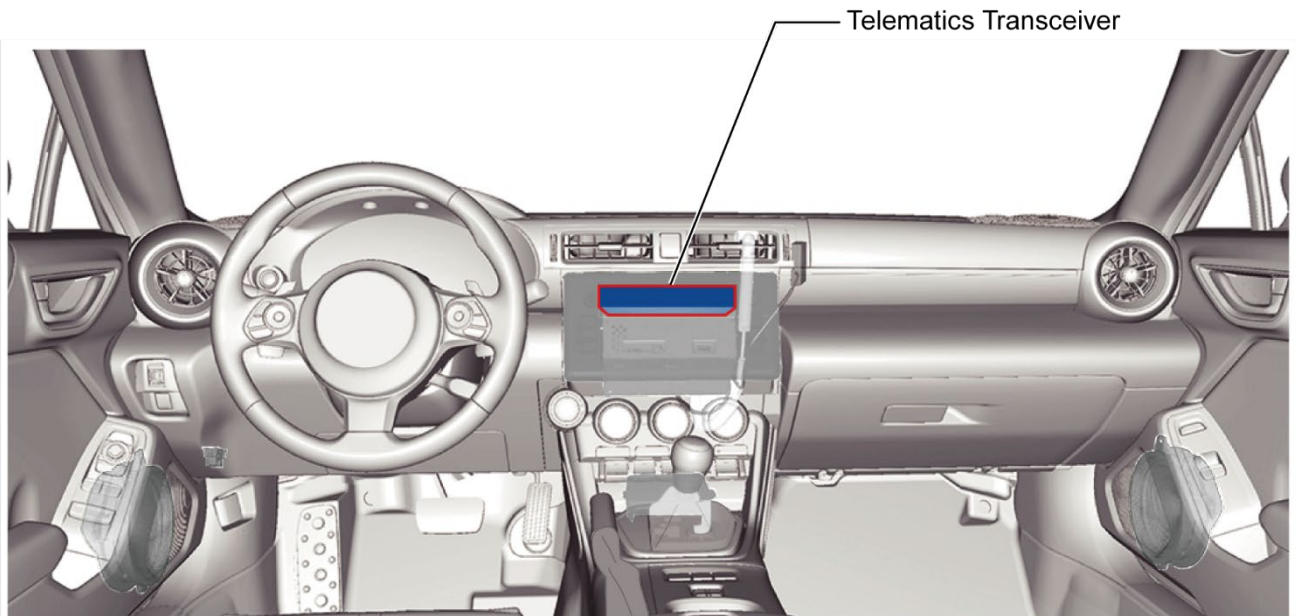
TMNA warranty will not reimburse dealers for repairs completed on vehicles that are not affected or were previously completed, even by another dealer.

III. PREPARATION

A. TOOLS & EQUIPMENT

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

IV. BACKGROUND



R2301170003

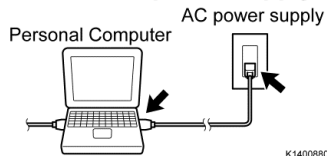
V. SAFETY PRECAUTIONS



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.



- 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. TELEMATICS SYSTEM CALIBRATION ID VERIFICATION

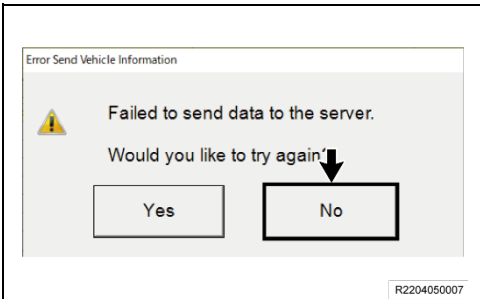


1. CHECK FOR DTC'S

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



NOTICE:

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

- a) Locate the Update column for the Telematics system in the Enhanced 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 Select | **Stored Data** | Combination Meter Live | Cal Update

2023 86
FA24

Production Date
- 7/2022
JF1ZNBC

2023_86_FA24_J
File Notes

Health Check
Data 1-2/2
Data 2-2/2

Sort

Expand>>

TIS Search

Tire Pressure / Threshold Value [psi(gauge)]

Sensor 1:	32.90	/	27.67	Sensor 2:	32.65	/	27.67
Sensor 3:	32.90	/	27.67	Sensor 4:	32.65	/	27.67
Sensor 5:	N/A	/	N/A				

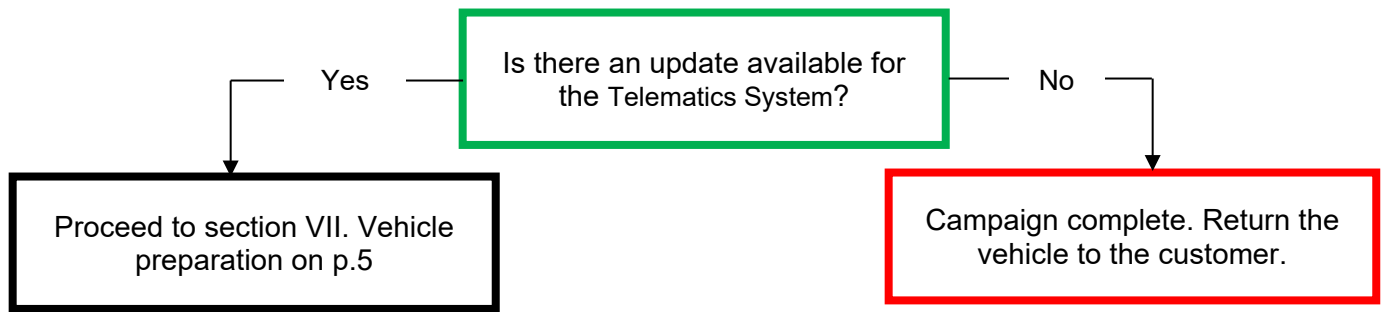
Health Check Results

- 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.

Campaign Status: CLOSED
PERMANENT: NO
ECU Security Key: Refer to Repair Manual

Enhanced | Generic

System	Monitor Status	DTC	DTC Related Information				RoB	Calibration	Update	Configure
			Curr Conf	Pend	Hist	Test Failed				
Airbag	-	B1661	X				-	9118060002	No	No
Air Conditioner	-	B14A1				X	-	-		No
Cockpit Control	-	B224A	X				-			No
		B2258	X							
Combination Meter	-	B1502	X				-	0000010004	No	No
		B1509	X							
Telematics System	-	B2A04	X				-	2400210440	Yes	No
		B2A08	X							
		B2A09	X							
		B2A0A	X							
		B2A0B	X							
Reverse Automatic Braking	-	U115B			X					No
Reverse Automatic Braking	-	B2C22	X				-	-		No



◀ CRITICAL MESSAGE ▶

It is critical that T-SB-0134-20 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 skid control 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 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 (DCA-8000)

- 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.

A power supply MUST be used during reprogramming. Please ensure DCA-8000 is connected and set to power supply mode. Voltage MUST be set to 13.5V.



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

*****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.



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.

*****If the Techstream communication with the vehicle fails during the re-flash procedure, the telematics transceiver will be damaged.**

4. CHECK AND RECORD THE SUBSCRIPTION STATUS

- a) Check and record the subscription status:
 System Select -> Telematics System -> Data List -> Subscription Status

NOTICE:

Check and record the current Subscription Status as it may change after reprogramming.

VIII. UPDATE CALIBRATION

1. CONFIRM THE ECU CALIBRATION ID

a) Confirm the current calibration ID in the Telematics System.

System Select
Stored Data
Combination Meter Live
Cal Update

2023 86
FA24

Production Date
- 7/2022
JF1ZNBC

2023_86_FA24_J
File Notes
Health Check
Data 1-2/2
Data 2-2/2

Sort

Expand>>

TIS Search

Tire Pressure / Threshold Value [psi(gauge)]

Sensor 1:	32.90	/	27.67	Sensor 2:	32.65	/	27.67
Sensor 3:	32.90	/	27.67	Sensor 4:	32.65	/	27.67
Sensor 5:	N/A	/	N/A				

Campaign Status: CLOSED
PERMANENT: NO

ECU Security Key: Refer to Repair Manual

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.

Enhanced
Generic

DTC Related Information											
System	Monitor Status		DTC	Curr Conf	Pend	Hist	Test Failed	RoB	Calibration	Update	Configure
Airbag	-	❄	B1661	X				-	9118060002	No	No
Air Conditioner	-		B14A1				X	-	-		No
Cockpit Control	-	❄	B224A	X				-			No
			B2258	X							
Combination Meter	-	❄	B2259	X				-	0000010004	No	No
			B1502	X							
Telematics System	-		B1509	X				-	2400210440	Yes	No
			B2A04	X							
			B2A08	X							
			B2A09	X							
			B2A0A	X							
			B2A0B	X							
			U115B	X			X				
Reverse Automatic Braking	-	❄	B2C22	X				-			No

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

Model	System	Telematics Calibrations	
		Current Calibration ID	NEW Calibration ID
GR86	Telematics	2400210440	4401210400

NOTICE:

If the telematics system has the New CID's, no update is necessary.

2. REFLASH THE TELEMATICS TRANSCEIVER

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.

HINT:

Even if the value of "Now processing. CAL 1" shows 100% please wait about 3 minutes before changing the display.

IX. COMPLETE REPAIR



1. 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.



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

2. CONFIRM CID UPDATE

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

System Select | **Stored Data** | Combination Meter Live | Cal Update

2023 86
FA24

Production Date
- 7/2022
JF1ZNBC18P8751159

2023_86_FA24_J
File Notes
Health Check
Data 1-2/2
Data 2-2/2

Sort
Expand>>
TIS Search

Tire Pressure / Threshold Value [psi(gauge)]

Sensor 1: 32.90 / 27.67 Sensor 2: 32.65 / 27.67
Sensor 3: 32.90 / 27.67 Sensor 4: 32.65 / 27.67
Sensor 5: N/A / N/A

Campaign Status: **CLOSED**
PERMANENT: **NO**
ECU Security Key: **Refer to Repair Manual**

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.

Enhanced | Generic

System	Monitor Status	DTC	DTC Related Information				RoB	Calibration	Update	Configure
			Curr Conf	Pend	Hist	Test Failed				
Airbag	-	B1661	X				-	9118060002	No	No
Air Conditioner	-	B14A1				X	-	-		No
Cockpit Control	-	B224A	X				-	-		No
		B2258	X							
Combination Meter	-	B2259	X				-	0000010004	No	No
		B1502	X							
Telematics System	-	B1509	X				-	4401210400	No	No
		B2A04	X							
		B2A08	X							
		B2A09	X							
		B2A0A	X							
B2A0B	X									
Reverse Automatic Braking	-	U115B				X				
Reverse Automatic Braking	-	B2C22	X				-	-		No



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.

- REMOVE THE POWER SUPPLY FROM THE BATTERY
- DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

[Refer to TIS for instructions on MAINTENANCE / FA24 BATTERY / REMOVAL](#)



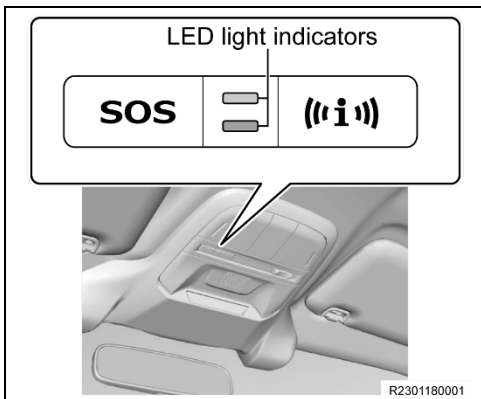
Make sure to wait for 1 minute after disconnecting the battery negative terminal, otherwise the Subscription Status may not be updated.

5. RECONNECT CABLE TO NEGATIVE BATTERY TERMINAL

[Refer to TIS for instructions on MAINTENANCE / FA24 BATTERY / INSTALLATION](#)

6. CHECK IF TELEMATICS SUBSCRIPTION STATUS IS UPDATED AFTER REFLASHING THE TELEMATICS TRANSCEIVER

- a) Check the subscription status:
System Select -> Telematics System -> Data List -> Subscription Status
- b) Confirm the Subscription Status is the same as the status which was recorded before reprogramming.

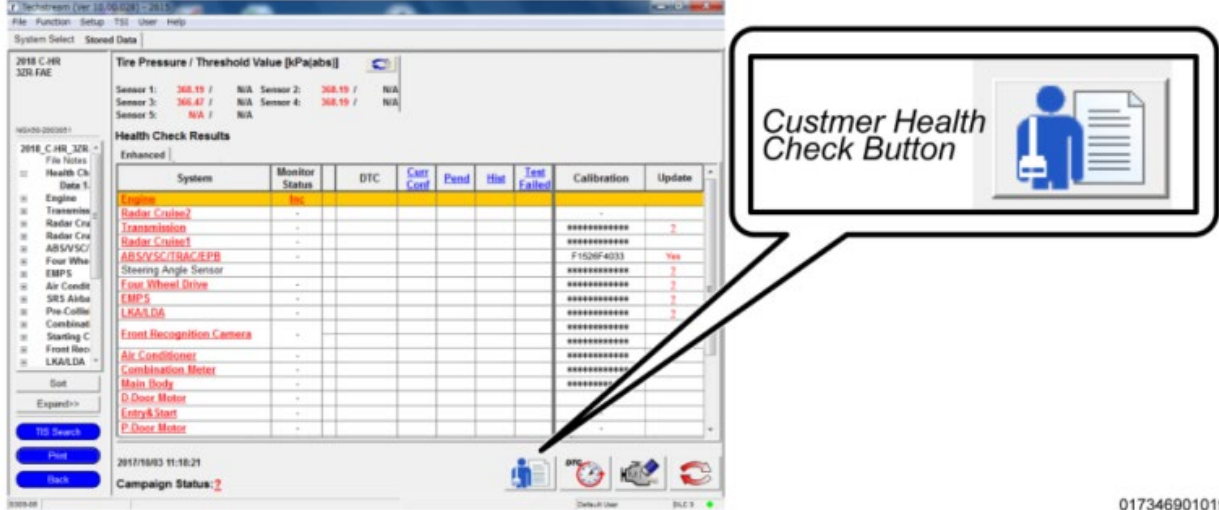


7. PUT TELEMATICS TRANSCEIVER IN SLEEP MODE

- a) Turn the ACC On.
- b) Turn the IG Off.
- c) Open/close the driver-side door and then close all doors and hood.
- d) Check the map light assembly to see the LED light indicator of telematics system is off, and then leave it for 5 minutes.

8. PRINT CUSTOMER HEALTH CHECK REPORT

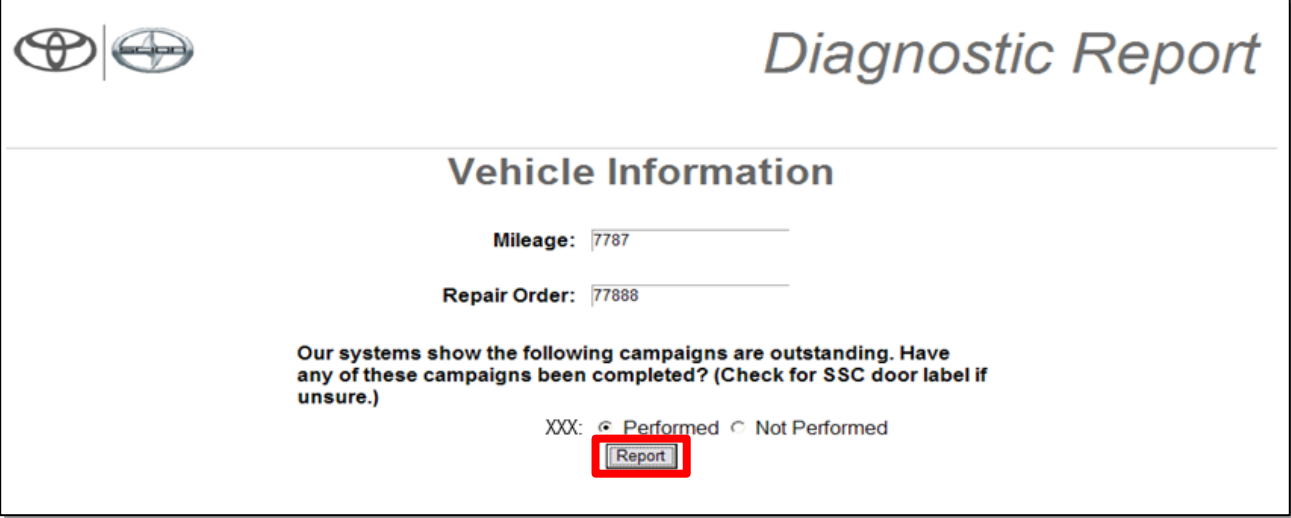
- a) From the Stored Data tab, select the Customer Health Check Report button (TIS will launch when button is pressed).



The screenshot shows the TIS software interface with the 'Health Check Results' table. The table lists various systems and their status. A callout box labeled 'Customer Health Check Button' points to a button icon in the bottom right corner of the interface.

System	Monitor Status	DTC	Curr Cert	Pend	Stat	Test Failed	Calibration	Update
Engine	OK							
Radar Cruise2	-						*****	2
Transmission	-						*****	2
Radar Cruise1	-						*****	2
ABS/VSC	-						F1526F4033	Yes
Four Wheel Steering Angle Sensor	-						*****	2
Four Wheel Drive	-						*****	2
EMP-S	-						*****	2
LEAS DA	-						*****	2
Front Recognition Camera	-						*****	2
Air Conditioner	-						*****	2
Combination Meter	-						*****	2
Main Body	-						*****	2
D Door Motor	-						*****	2
Entry & Start	-						*****	2
P Door Motor	-						*****	2

- b) Log in to TIS.
- c) Input Vehicle Mileage and Repair Order number.
- d) Check the "Performed" campaign button for campaign 23TD03.
- e) Select the Report button.



The screenshot shows the 'Diagnostic Report' form. The form displays 'Vehicle Information' with fields for Mileage (7787) and Repair Order (77888). Below the information, there is a message about outstanding campaigns and a 'Report' button highlighted with a red box.

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

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

◀ VERIFY REPAIR QUALITY ▶

- Confirm the reflash completes successfully to the NEW CID.
 - Confirm there are no DTCs in the Telematics System.
 - Confirm the Subscription Status is the same as the status which was recorded before reprogramming.
- If you have any questions regarding this update, please contact your area representative.

X. APPENDIX

A. CAMPAIGN DESIGNATION DECODER

