

**TECHNICAL INSTRUCTIONS
FOR
SAFTY (NONCOMPLIANCE) RECALL 22LA04**

Electronic Parking Brake (EPB) May Not Engage or Disengage Properly

**Certain 2022 Model Year NX 250
Certain 2022 Model Year NX 350**

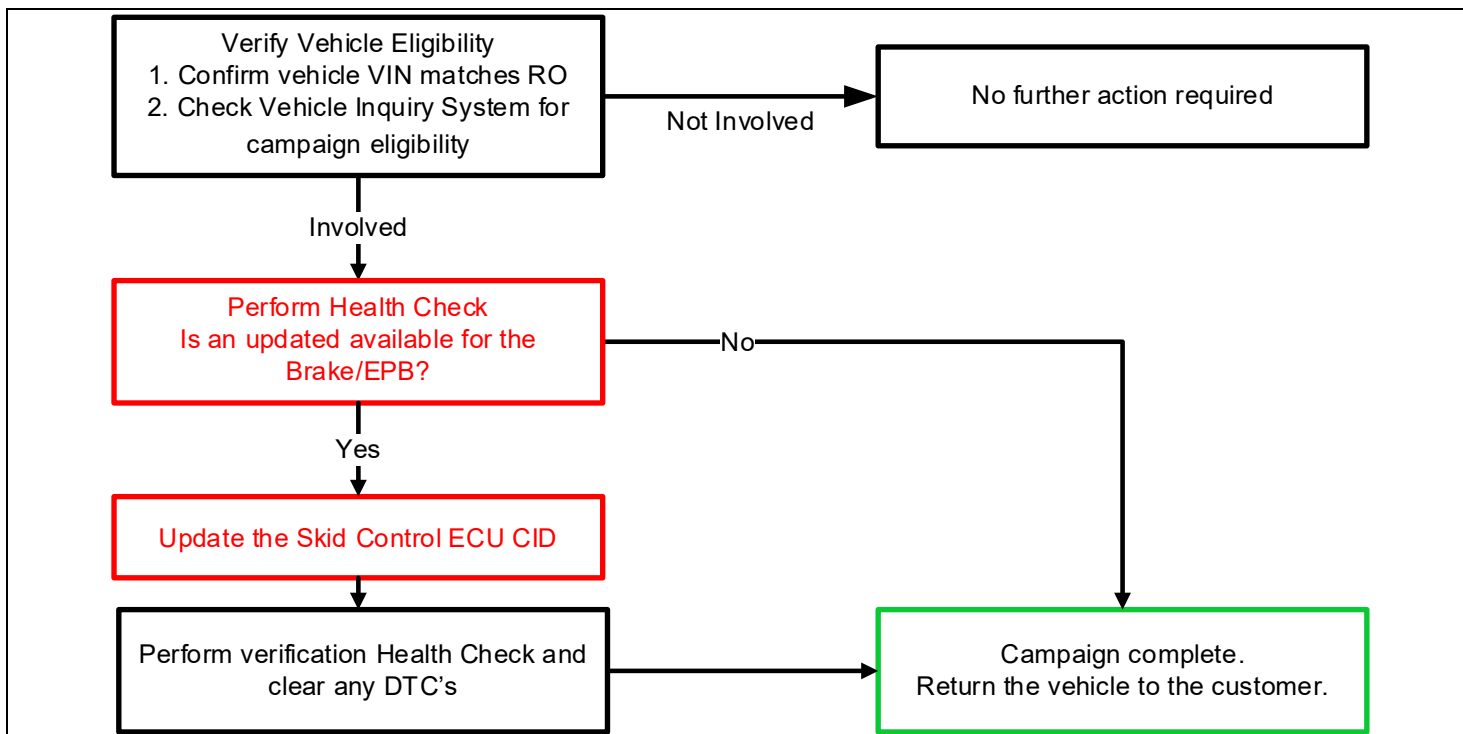
The repair quality of covered vehicles is extremely important to Lexus. All dealership technicians performing this special service campaign are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles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

- L623 Toyota Electrical Circuit Diagnosis

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.

NOTE:

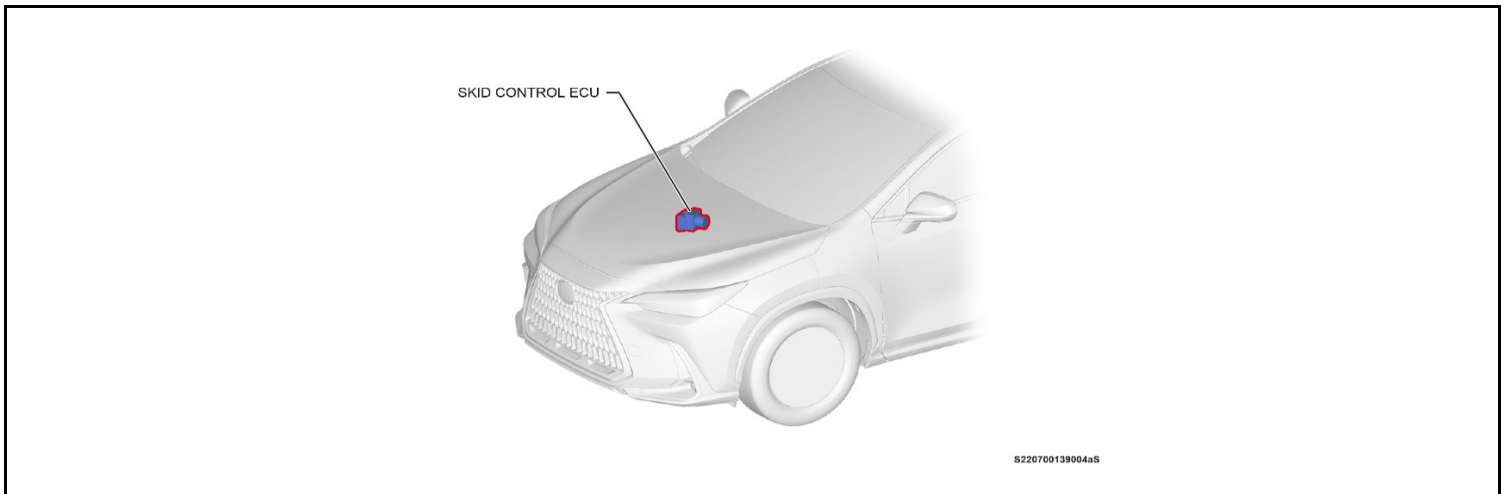
TMNA warranty will not reimburse dealers for repairs completed on vehicles that are not affected or were previously completed, even by another dealer.

III. PREPARATION

A. TOOLS & EQUIPMENT

- L-SB-0001-18
- DCA-8000 Battery Diagnostic Station
- Techstream ADVi / Techstream 2.0 / Techstream Lite
- L-SB-0036-22

IV. BACKGROUND

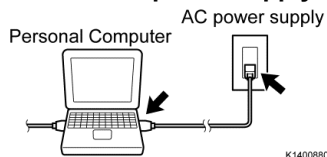


V. SAFETY PRECAUTIONS

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.



Turn off the screen saver and power saving mode.



DO NOT block the ventilation opening.



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 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. If the personal computer stops operating, the communication for reprogramming signals could be stopped, resulting in damage to the ECU.

VI. BRAKE/EPB SYSTEM CALIBRATION ID VERIFICATION



1. CHECK FOR DTC'S

- Using a Techstream, perform a Health Check to check for any Diagnostic Trouble Codes.
- If you see the following DTC's the vehicle may have experienced this concern and may be remedied with the software update.

C061000	Right Electric Parking Brake Actuator Control
C060B00	Left Electric Parking Brake Actuator Control

HINT:

This Campaign covers only the software update to the Brake/EPB System, as detailed in these instructions. It does not cover the diagnosis or replacement of any other systems on the vehicle.

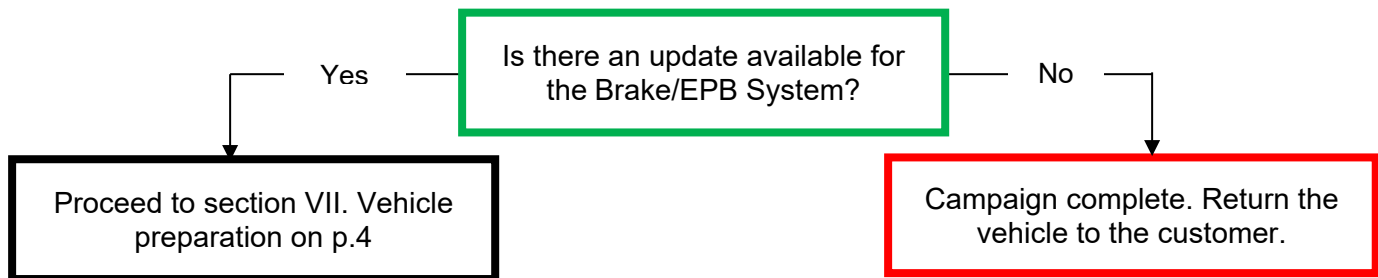
2. CHECK CURRENT CALIBRATION

- Locate the Update column for the Brake/EPB 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.

System	RoB	Calibration	Update	Configure
Brake/EPB	●	*****	Yes	No
Power Window Drive	●	8A270F602100	No	No
Tire Pressure Monitor	●	897AF0201100	No	No
Circumference Monitoring Camera Control Module	●	8679F7816001	No	No
Front Recognition Camera	●	8679F7824011	No	No
Front Radar Sensor	●	8679F7816021	No	No
Clearance Warning	●	8646F7805400	No	No
	●	8821F7801100	No	No
	●	8934F7817040	No	No



◀ CRITICAL MESSAGE ▶

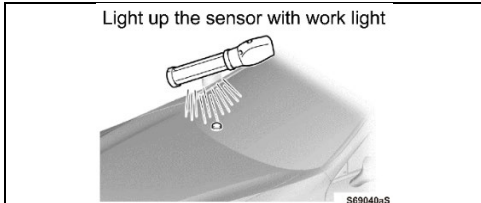
It is critical that L-SB-0001-18 and L-SB-0036-22 in addition to the Technical Instructions for this Recall are followed. This TSB outlines all steps necessary to prevent reprogramming failure. Lexus will not provide reimbursement coverage for reprogramming failures if this TSB is not followed. If you 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 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. (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.

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 skid control ECU will be damaged.

VIII. UPDATE CALIBRATION

1. CONFIRM THE ECU CALIBRATION ID

- Confirm the current calibration ID in the Brake/EPB System.

System Select: **Stored Data**

000527 mile

Tire Pressure / Threshold Value [psi(gauge)]

Sensor 1: 35.41 / 27.68 Sensor 2: 35.41 / 27.68
Sensor 3: 35.66 / 27.68 Sensor 4: 35.41 / 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 top right.

Enhanced | Generic |

Campaign Status: PERMANENT: NO

ECU Security Key: **Necessary**

Current CID

System	RoB	Calibration	Update	Configure
Brake/EPB	●	*****	Yes	No
Electronic Power Steering Drive	●	897AF0201100	No	No
Tire Pressure Monitor	●	8679F7824011	No	No
Circumference Monitoring Camera Control Module	●	8679F7816001	No	No
Front Recognition Camera	●	8646F7805400	No	No
Front Radar Sensor	●	8821F7801100	No	No
Clearance Warning	●	8934F7817040	No	No

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

Brake/EPB Calibrations			
Model	System	Brake/EPB Calibration ID	
		Current Calibration ID	New Calibration ID
NX	Brake/EPB	F15267835400	F15267835500

2. REFLASH THE SKID CONTROL ECU

- Click yes on the health check results screen, or follow the link 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

- 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.

HINT:

If Permanent DTC is output, refer to TIS and delete it.

3. CONFIRM CID UPDATE

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

System Select: **Stored Data**

000527 mile

File Notes
Health Ch
Data 1-
CAN Bus C
Engine
Transmiss
Stop and
Brake/EPE
Four Whe
EMP
Front Rec
Steering #
Air Condit
SRS Airba
Combinati
Navigator
Tire Press

Tire Pressure / Threshold Value [psi(gauge)]

Sensor 1: 35.41 / 27.68 Sensor 2: 35.41 / 27.68
Sensor 3: 35.66 / 27.68 Sensor 4: 35.41 / 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 Health Check screen.

Enhanced | Generic

Campaign Status: PERMANENT: NO

U Security Key: Necessary

System	B	Calibrati	Update	Configure
Brake/EPB	*****	*****	No	No
Electronic Parking Brake	*****	*****	No	No
Tire Pressure Monitor	*****	*****	No	No
Circumference Monitoring Camera Control Module	*****	*****	No	No
Front Recognition Camera	*****	*****	No	No
Front Radar Sensor	*****	*****	No	No
Clearance Warning	*****	*****	No	No

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New CID's MUST be displayed

Update must say "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.5.

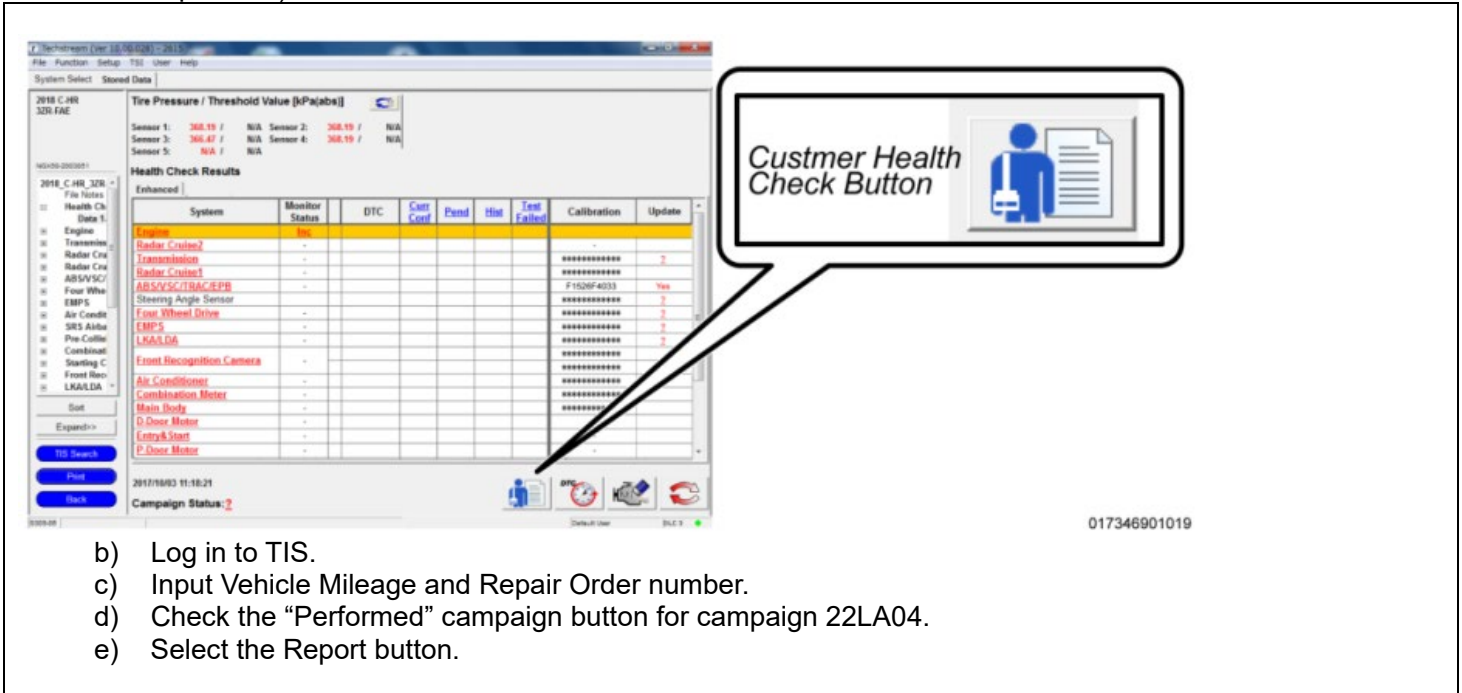
4. PERFORM ZERO POINT CALIBRATION OF BRAKE ACTUATOR FOR RESIDUAL FLUID (ZERO POINT CALIBRATION OF SKID CONTROL ECU MEMORY)
- Start the engine. The brake actuator may produce a loud operating sound when the engine starts for the first time after reprogramming.
 - The zero point calibration is complete when the brake actuator falls silent.

HINT:

The skid control ECU stores the amount of the fluid inside the brake actuator in its memory, and such information will be reset when the ECU is reprogrammed. If the memory is reset, the system rapidly drains the fluid out of the brake actuator when the engine starts, and this may cause the brake actuator to emit a loud operating sound. The zero point calibration is complete once the residual fluid is drained out, and the operating sound returns to normal.

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).



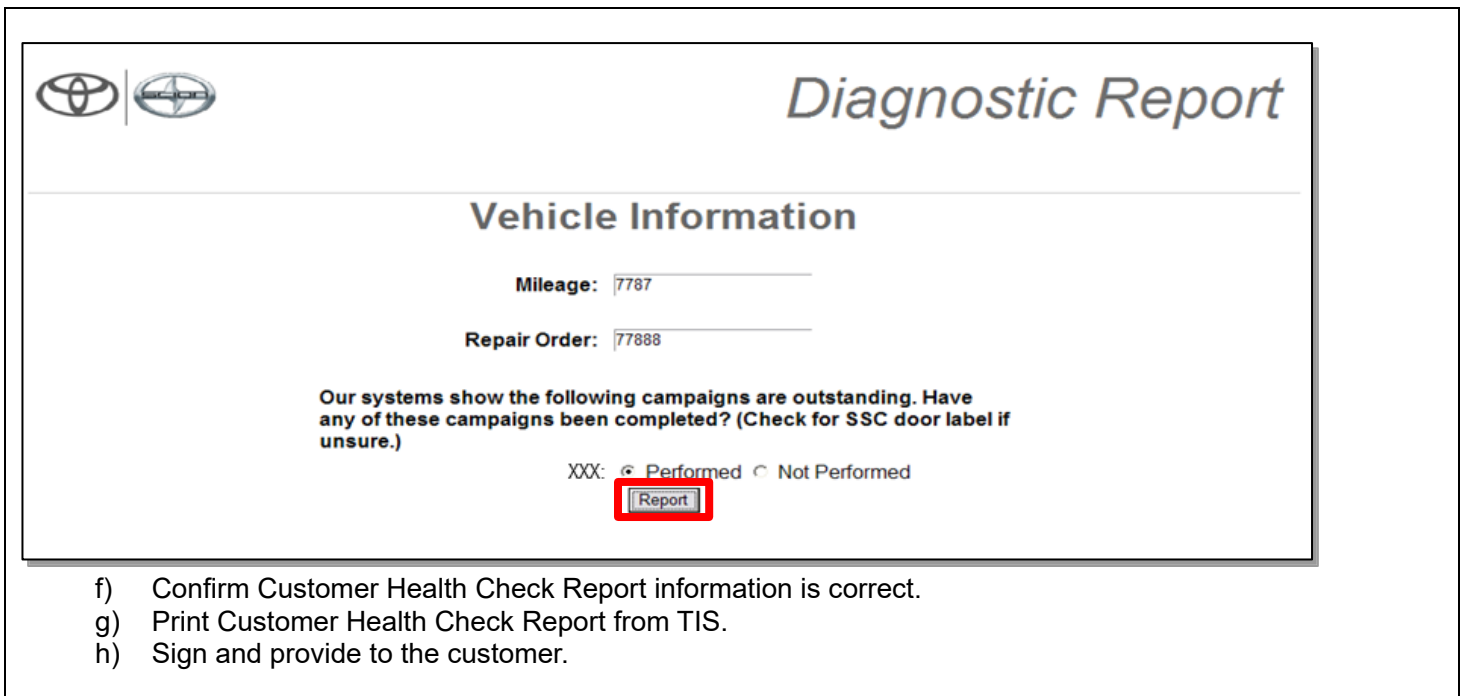
The screenshot shows the TIS software interface with the 'Health Check Results' table. The table lists various vehicle systems and their status. A callout box labeled 'Customer Health Check Button' points to a button icon in the bottom right corner of the interface.

System	Monitor Status	DTC	Ctrl Code	Pend	Hist	Test Failed	Calibration	Update
Engine	Inc							
Radar_Cruise2								
Transmission								
Radar_Cru								
Radar_Cru1								
ABS/ESC/								
Four Wheel								
EMPS								
Air Condit								
SRS Airba								
Pre-Collis								
Combinat								
Starting C								
Front Res								
LKAS/LDA								
Suit								
Expand								
TIS Search								
Print								
Back								

2017/10/03 11:10:21
Campaign Status: 2

017346901019

- b) Log in to TIS.
c) Input Vehicle Mileage and Repair Order number.
d) Check the "Performed" campaign button for campaign 22LA04.
e) Select the Report button.



The screenshot shows the Diagnostic Report form. The form displays vehicle information including Mileage (7787) and Repair Order (77888). It also shows 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

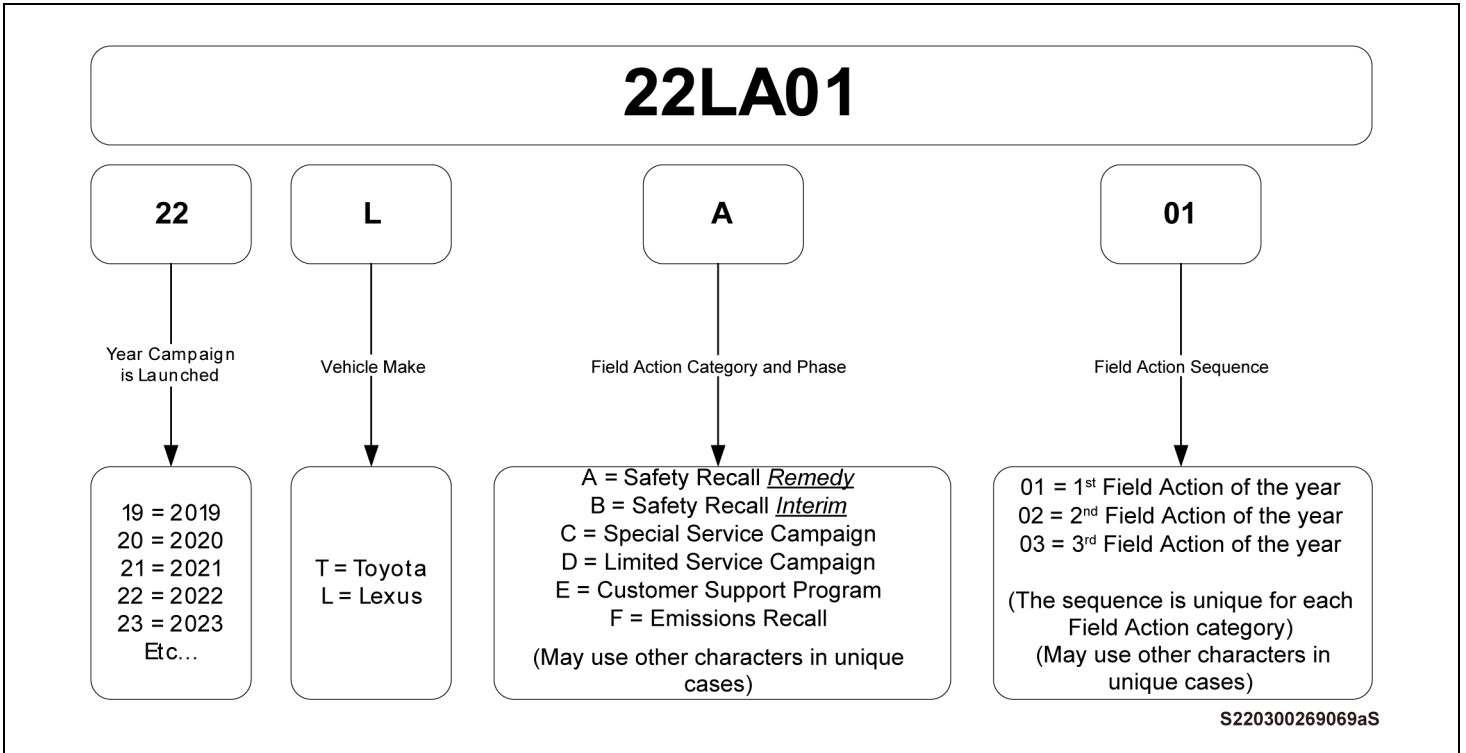
- f) Confirm Customer Health Check Report information is correct.
g) Print Customer Health Check Report from TIS.
h) Sign and provide to the customer.

◀ VERIFY REPAIR QUALITY ▶

- Confirm the system Calibration has been updated successfully.
- Confirm there are no DTC's after the Calibration update.
- If you have any questions regarding this update, please contact your area 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