

**TECHNICAL INSTRUCTIONS
FOR
SPECIAL SERVICE CAMPAIGN 22LC03
SOFTWARE UPDATE FOR A GEAR SHIFT CONTROL MODULE
CERTAIN 2022 NX 350 AND NX 250 VEHICLES**

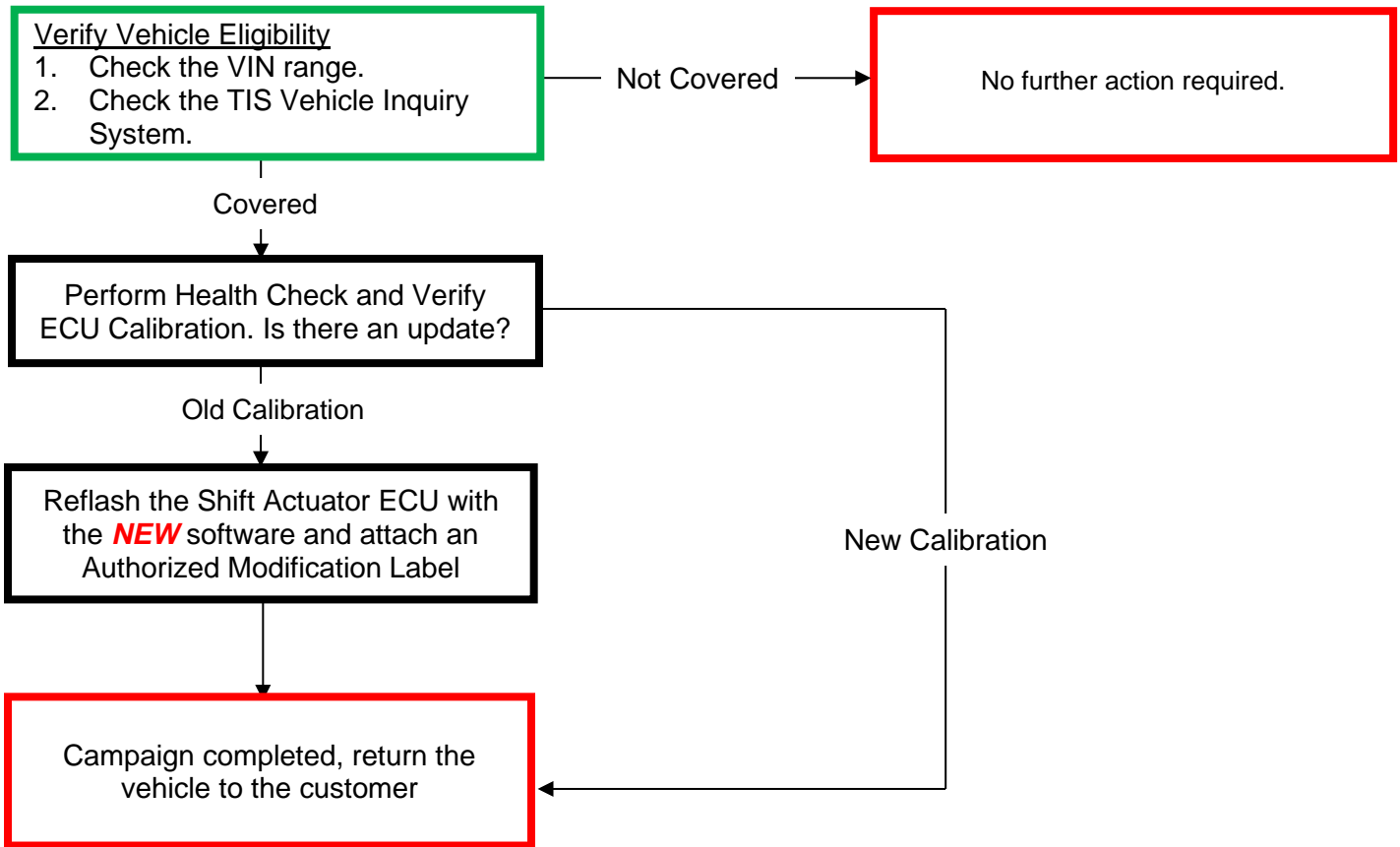
The repair quality of covered vehicles is extremely important to Lexus. All dealership technicians performing this repair are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles have the repair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

L623 – Lexus Electrical Circuit Diagnosis

Always check which technicians can perform the repair by logging on to <https://www.lctpreports.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

- 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, SUPPLIES & EQUIPMENT

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

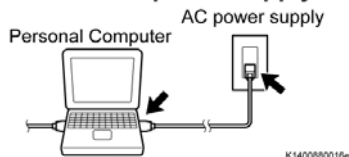
IV. SEAFETY PRECAUTIONS

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

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

NOTE:

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.



- Turn off the screen saver and power saving mode of the personal computer so that power to the personal computer is stable.

NOTE:

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.



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

NOTE:

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

V. SHIFT ACTUATOR ECU CALIBRATION ID VERIFICATION



1. CHECK FOR DTC'S

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

NOTE:

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

2. CHECK CURRENT CALIBRATION

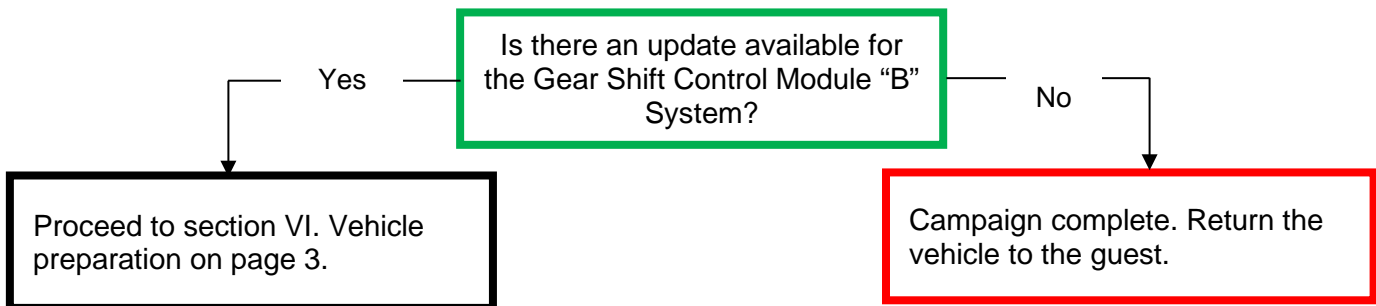
- Locate the Update column for the Gear Shift Control Module “B” system in the Stored Data tab for this vehicle.
- Determine the status of an available update; indicated by a YES or NO.

HINT:

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

The screenshot shows the Techstream interface with the 'Stored Data' tab selected. The 'Update' column for the 'Gear Shift Control Module B' system is highlighted with a green circle, indicating that an update is available. The 'Campaign Status' is 'YES' and 'PERMANENT' is 'NO'.

System	Monitor Status	DTC	Curr Conf	Pend	Hist	Test Failed	RoB	Calibration	Update	Configure
Combination Meter	-							8380078D610B 8380078D6205 8380078D6305	No No No	No
Active Noise Control	-							8624F78020D0 8A1117801300	No No	No
Central Gateway	-							8911F5208102	No	No
Gear Shift Control Module "A"	-							894EF7801000 894EG7801000	No No	No
Gear Shift Control Module "B"	-							894FF7801200 894FG7801200 8865F7813003	Yes Yes No	No
Air Conditioner	-							?		No
Power Integration No.1	-							8264F7802100	No	No
Power Distribution Box	-							8273F780300A	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 Special Service Campaign are followed. This TSB outlines all steps necessary to prevent reprogramming failure.

VI. VEHICLE PREPERATION

1. VEHICLE PREPERATION

- 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 THE DCA-8000

- a) Connect the DCA-8000 to the 12V battery.
- b) Select the Power Supply Mode from the Main Menu 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 120V 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:

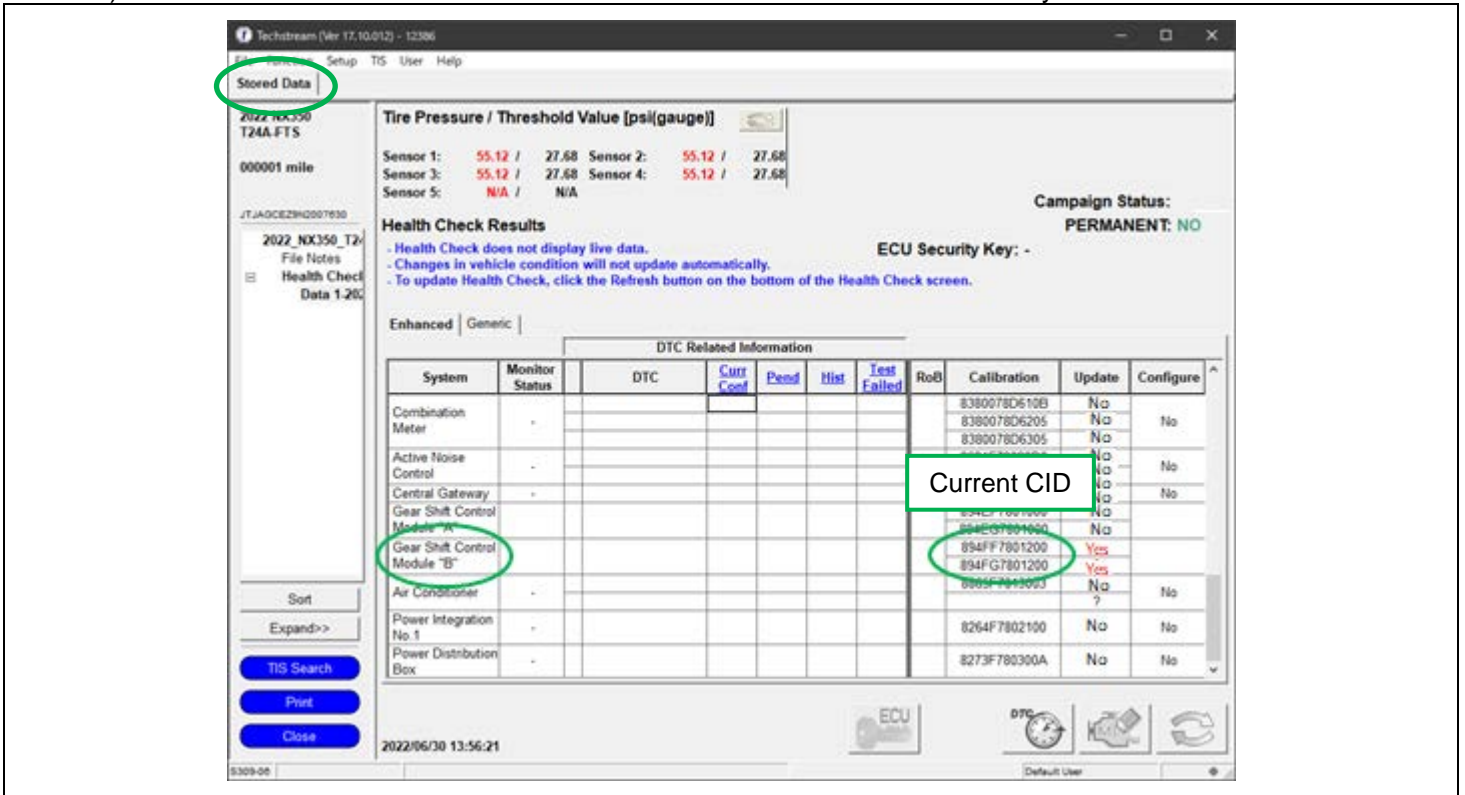
If the Techstream communication with the vehicle fails during the re-flash procedure, the Shift Actuator ECU will be damaged.

- b) This vehicle has additional security measures requiring a signature from the server when performing ECU reprogramming.

VII.UPDATE CALIBRATION

1. CONFIRM THE CALIBRATION ID FOR THE GEAR SHIFT CONTROL MODULE “B” SYSTEM

a) Confirm the current calibration ID in the Gear Shift Control Module “B” System.



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

Gear Shift Control Module “B” System Calibrations		
System	Current Calibration ID	New Calibration ID
Gear Shift Control Module “B”	Main: 894FF7801100 Sub: 894FG7801100	Installation File Main: 894FF7801300 Sub: 894FG7801300
	Main: 894FF7801200 Sub: 894FG7801200	

2. REFLASH THE CONTROL COMPUTER

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

NOTICE:

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

VIII. 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.



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 Gear Shift Actuator Module "B" System:

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

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.

DTC Related Information

System	Monitor Status	DTC	Curr Conf	Pend	Hist	Test Failed	RoB	Calibration	Update	Configure
Combination Meter	-							83800780610B	No	No
Active Noise Control	-							838007806205	No	No
Central Gateway	-							8624F78020D0	No	No
Gear Shift Control Module "A"	-							8A1117801300	No	No
Gear Shift Control Module "B"	-							8911F5208102	No	No
Air Conditioner	-							894EF780100A	No	No
Power Integration No. 1	-							894FG7801300	No	No
Power Distribution Box	-							8264F7802100	No	No
								8273F780300A	No	No

New CID's MUST be displayed

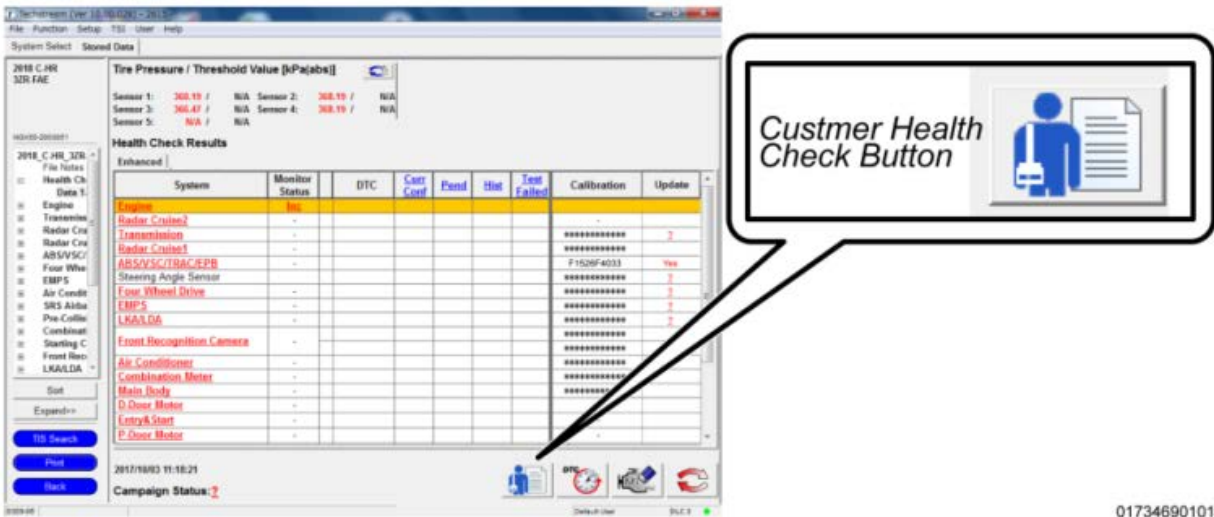
Update must say "no"



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 page 5.

4. PRINT CUSTOMER HEALTH CHECK REPORT

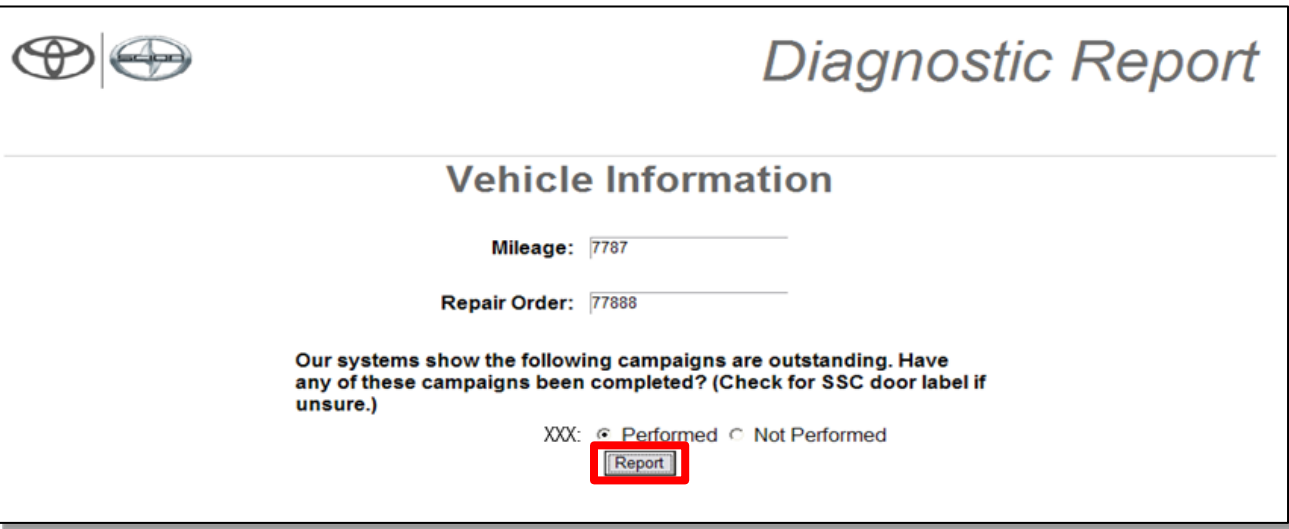
- a) From the Stored Data tab, select the Customer Health Check Report button (TIS will launch when button is pressed).



The screenshot shows the TIS software interface with the 'Health Check Results' table. The table has columns for System, Monitor Status, DTC, Cost, Pendl, Hist, Test Failed, Calibration, and Update. 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	Cost	Pendl	Hist	Test Failed	Calibration	Update
Engine	OK							
Transmission	OK							
Radar Cru	OK						*****	2
ABS/ESC	OK						F1520F4033	Yes
Steering Angle Sensor	OK						*****	2
Front Wheel Drive	OK						*****	2
EMPS	OK						*****	2
LAAS/DA	OK						*****	2
Front Recognition Camera	OK						*****	2
Air Conditioner	OK						*****	2
Combination Meter	OK						*****	2
Main Body	OK						*****	2
D-Door Motor	OK						*****	2
Entry&Start	OK						*****	2
P-Door Motor	OK						*****	2

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



The screenshot shows the 'Diagnostic Report' form. It includes the Toyota and Lexus logos, the title 'Diagnostic Report', and a section for 'Vehicle Information' with fields for Mileage (7787) and Repair Order (77888). Below this, there is a section for outstanding campaigns with a 'Report' button highlighted in red.

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.)

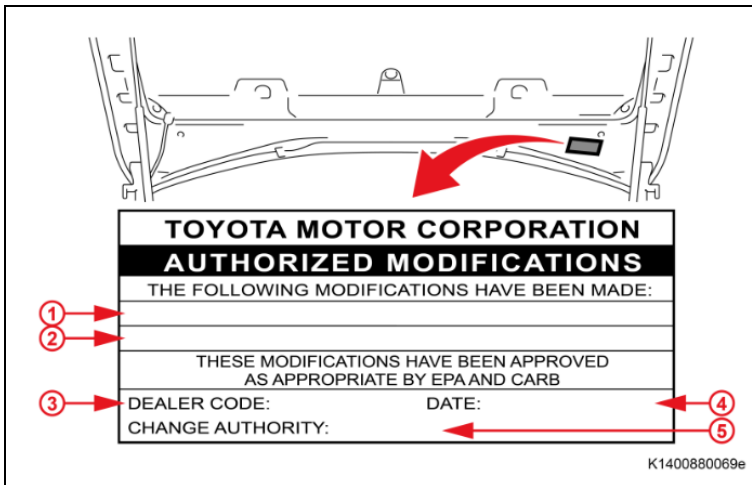
XXX: Performed Not Performed

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.

IX. 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 (22LC03)

◀ VERIFY REPAIR QUALITY ▶

- Confirm the DCA-8000 is set up properly prior to beginning the reprogramming.
- Confirm the reflash completes successfully.
- Confirm there are no DTCs after the Calibration update.
- If you have any questions regarding this update, please contact your area representative.

X. APPENDIX

A. CAMPAIGN DESIGNATION DECODER

