

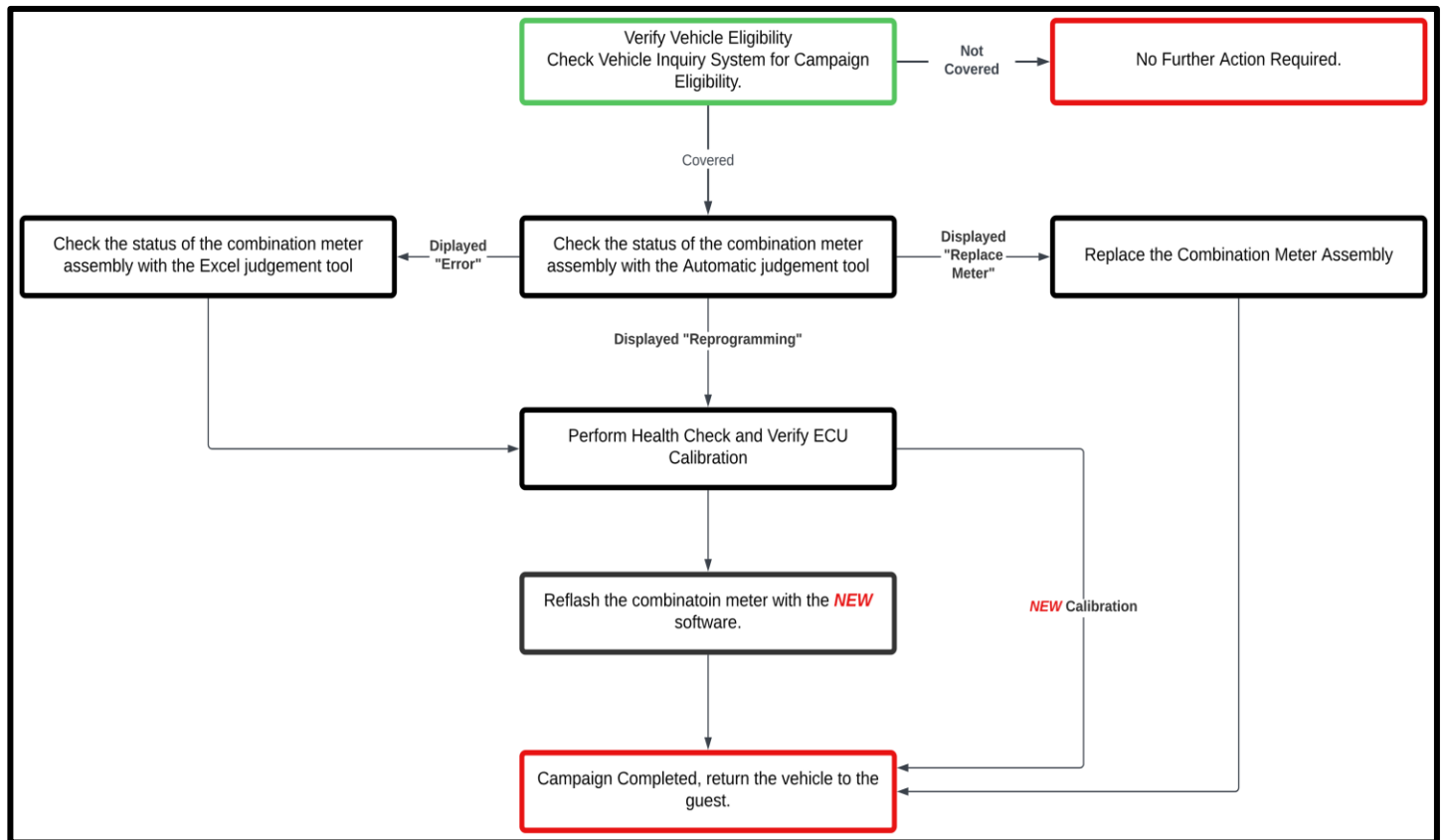
TECHNICAL INSTRUCTIONS
FOR
25LA05 Phase 4
COMBINATION METER ASSEMBLY INSPECTION
CERTAIN 2024 TX 550h+ vehicles

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 currently hold at least one of the following certification levels:

- LIC206A – 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



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.

Even if the program ID after the combination meter assembly replacement is the ID subject to reprogramming, reprogramming is not necessary.

III. PREPARATION

A. PARTS

Part Number	Part Description	Quantity
83A00-0E241	Combination Meter Assembly	1

B. TOOLS & EQUIPMENT

- L-SB-0001-18 Rev. 2
- DCA-8000 Battery Diagnostic Station
- GTS+

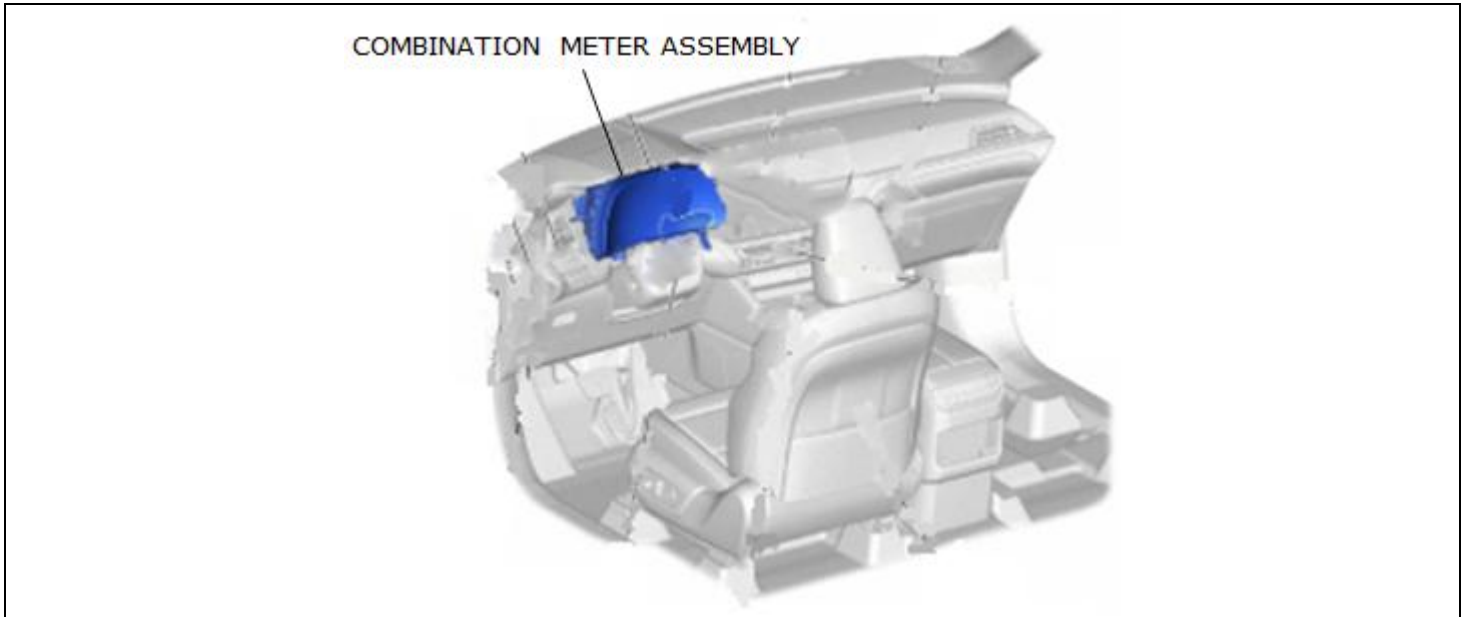
C. MATERIALS & SUPPLIES

- Torque Wrench
- Protective Tape
- Protective Gloves

IV. WORK PROCEDURE TABLE OF CONTENTS

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UPDATE CALIBRATION	SECTION XIII.
COMPLETE REPAIR	SECTION XIV.
APPENDIX	SECTION XV.

V. BACKGROUND

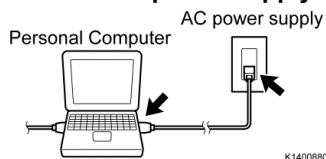


VI. SAFETY PRECAUTIONS

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

- 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 the power to the hard disk is kept supplied.

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.



- c) **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 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.

VII. DOWNLOAD AND CONFIGURE AUTOMATIC INSPECTION TOOL

2. CREATE A NEW FOLDER ON THE C DRIVE AND NAME IT REPRODATA.

3. Download the Automatic inspection tool:

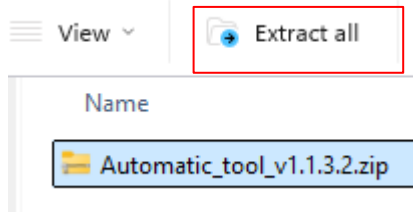
- a) [Link for Automatic Inspection tool](#)

HINT:

If the Automatic Inspection Tool starts while GTS+ is running, the Automatic Inspection Tool will not operate, so always turn off GTS+. If the problem persists, restart the computer.

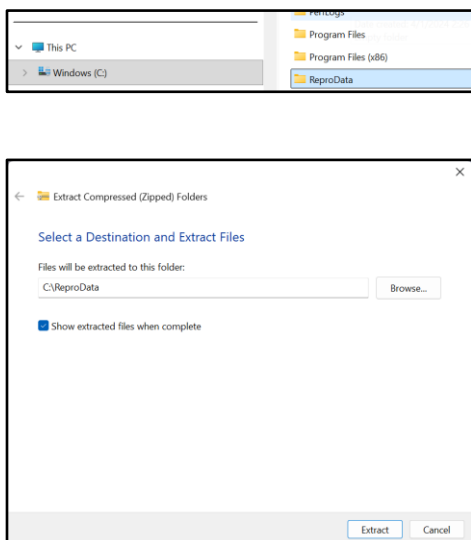
4. Extract the files from the automatic inspection tool

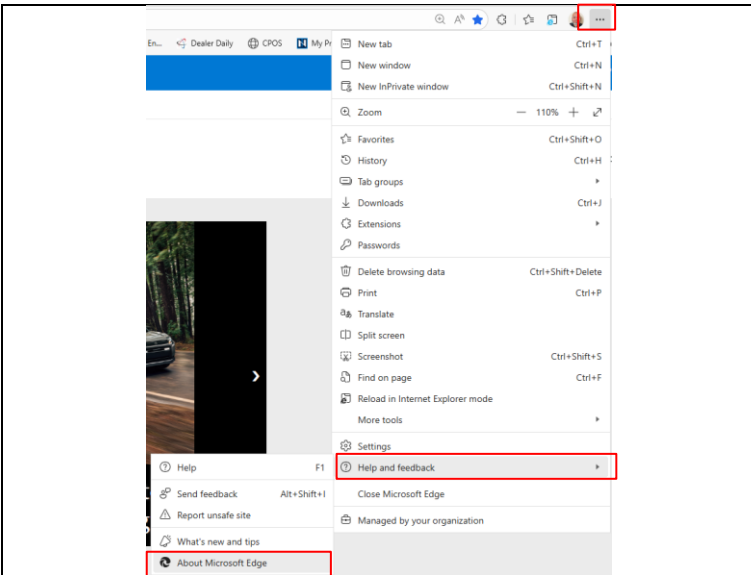
- a) Highlight Automatic tool and extract



D. PLACE THE FILES IN THE REPRODATA FOLDER

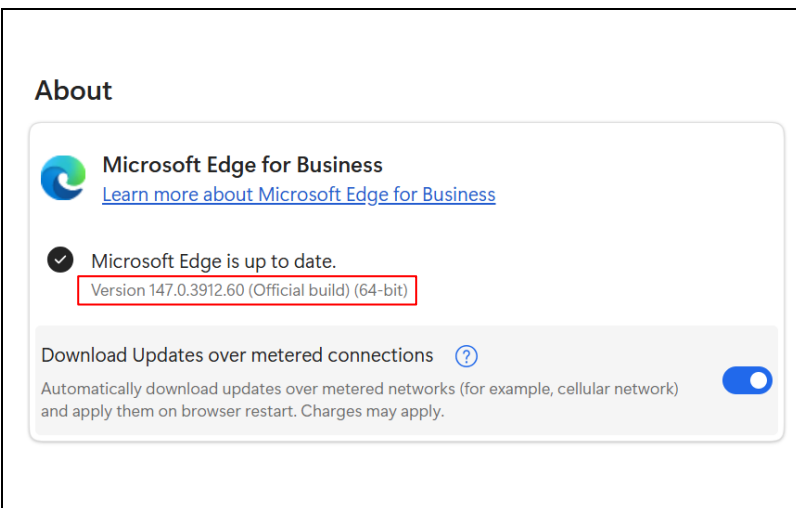
- C:\ReproData folder
- Select "Show extracted files when completed"
- Press Extract





b) DOWNLOAD THE MICROSOFT EDGE WEBDRIVER

- Open Microsoft Edge and select Help and Feedback
- Ensure file is up to date. Update file if needed



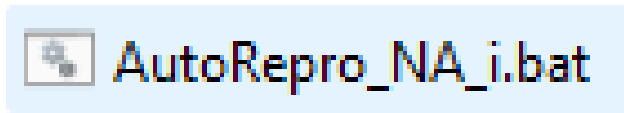
c) RECORD THE MICROSOFT EDGE VERSION



d) DOWNLOAD THE MICROSOFT WEB DRIVER

- Picture is an example, choose the appropriate version for your PC.
- <https://developer.microsoft.com/en-us/microsoft-edge/tools/webdriver/?form=MA13LH#downloads>
- "x 64" is the most common
- Extract the downloaded file and place in C:\ReproData\Automatic_tool_v1.1.3.2\toolbox

- e) **START THE PROGRAM BY DOUBLE CLICKING THE FILE NAME IN THE REPRO FOLDER.**
See picture for reference.

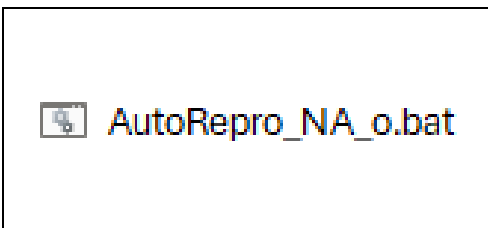


VIII. CHECK COMBINATION METER ASSEMBLY STATUS (For use with Automatic Inspection Tool)

HINT:

- Perform operations by following the instructions on the Automatic Inspection Tool's screen.
- If the Automatic Inspection Tool does not operate correctly, perform tasks use the Excel Version Judgement Tool.
- If the automatic inspection tool screen freezes, click the 'X' button at the top right of the screen to close it, and then restart it.

1. PREPARE GTS+ COMPUTER FOR AUTOMATIC INSPECTION TOOL
2. DOWNLOAD AUTOMATIC INSPECTION TOOL

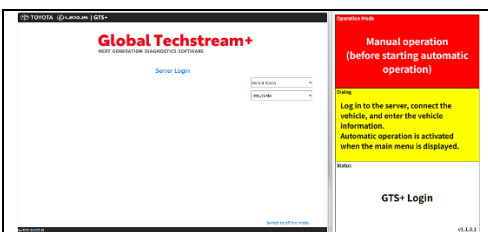


3. START AUTOMATIC INSPECTION TOOL

- a) Double-click the "AutoRepro_NA_o.bat" file to start the Automatic Inspection Tool.

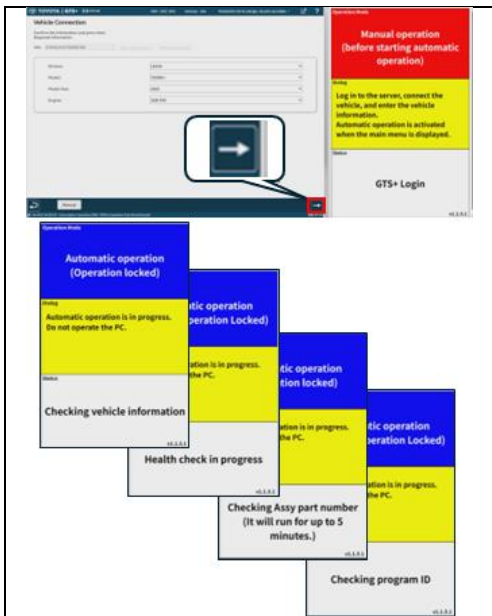
HINT:

If the Automatic Inspection Tool starts while GTS+ is running, the Automatic Inspection Tool will not operate, so always turn off GTS+. If the problem persists, restart the computer.



4. CHECK THE COMBINATION METER ASSEMBLY

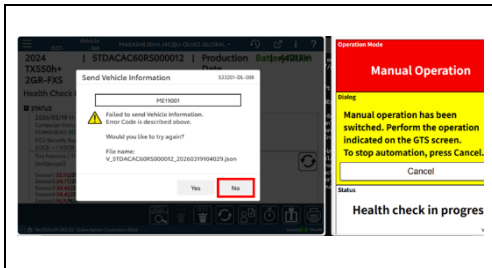
- b) Perform the following operations according to the instructions on the dialog screen of Automatic Inspection Tool.
 - i. Log in to the server
 - ii. Connect the vehicle
 - iii. Enter the vehicle information



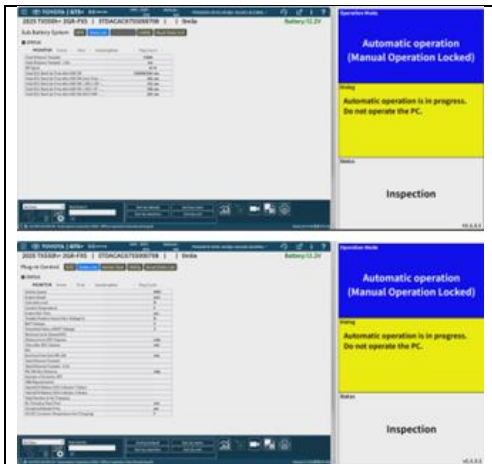
- c) Click the “Arrow” button, and the “Automatic Inspection Tool Dialog” screen will switch to “Automatic Operation”, after which the following will be executed automatically.
- Checking vehicle information
 - Health check
 - Checking Assy part number
 - Checking program ID

HINT:

When the error screen on the left is displayed, click the "NO" button on the GTS+ screen to resume the Automatic Inspection Tool. For other errors, follow the instructions on the GTS+ screen.



- d) Automatically switches to "Inspection" mode and obtain the following values.
- Total ECU Boot Up Time after IGR ON
 - AC Charging Total Time



- e) Automatically judge the next action based on the obtained value.

Judgement		Action
"Reflash Meter ECU" has been displayed		Go to step "X. METER SYSTEM CALIBRATION ID VERIFICATION".

"Meter Replacement required" has been displayed	 The screenshot shows a diagnostic tool interface. At the top, a red box contains the text 'Manual Operation (Confirm repair method by dialog)'. Below this, a yellow box contains the text 'Dialog', 'Cumulative ECU startup time after IGR: 0h:4:28:05:23:46seconds', 'Total AC charging time: 0minutes', and 'Result: Meter Replacement required'. Below the yellow box, there is an 'OK' button. At the bottom, a white box contains the text 'Status' and 'Inspection Finished'. The version number 'v1.1.3.1' is visible in the bottom right corner.	Go to step "IX. REPLACE COMBINATION METER ASSEMBLY".
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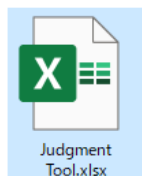
- f) Click "OK" button and turn the IG OFF.



- g) IF ANY ERRORS ARE PRESENT, OR THE TOOL DOES NOT PRODUCE EITHER OF THE ABOVE RESULTS, USE THE METHOD OUTLINED IN **STEP IX** TO DETERMINE A JUDEMENT.

IX. CHECK COMBINATION METER ASSEMBLY STATUS (For use with Excel Version Judgement Tool)

Prepare a computer used for GTS+



Download the Judgment Tool

1. PREPARE A COMPUTER FOR CONFIRMATION

- h) Prepare a computer used for GTS+.
- i) Download the judgment tool.

HINT:

File name: Judgment Tool.xlsx

3. CHECK THE COMBINATION METER ASSEMBLY

- a) Connect the GTS+ to the vehicle with the IG OFF.
- b) Turn the IG ON and start the GTS+.
- c) Click the "System Select" button on the "Main Menu".
- d) Select the "Sub Battery System" of "Body" and then "Data List".
- e) Memo the displayed "Total ECU Boot Up Time after IGR ON".

Sub Battery System DTC Data List

STATUS

MONITOR Frame: - Time: - SamplingRate: 500ms

Item	Value	Unit
Protection Circuit Diagnosis Signal (IGN Overcurrent Detection)	OFF	
Protection Circuit Diagnosis Signal (PWB Overvoltage Detection)	OFF	
Protection Circuit Diagnosis Signal (PWB Overcurrent Detection)	OFF	
Protection Circuit Diagnosis Signal (PWC Overcurrent Detection)	OFF	
Total ECU Boot Up Time after IGR ON	1539646	sec
Total ECU Boot Up Time after IGR ON (Less Than -30C/-22F)	0	sec
Total ECU Boot Up Time after IGR ON (-30C/-22F ~ -19C/-2.2F)	0	sec
Total ECU Boot Up Time after IGR ON (-19C/-2.2F ~ -9C/15.8F)	0	sec
Total ECU Boot Up Time after IGR ON (-9C/15.8F ~ -1C/30.2F)	767	sec
Total ECU Boot Up Time after IGR ON (0C/32F ~ 9C/48.2F)	80247	sec
Total ECU Boot Up Time after IGR ON (10C/50F ~ 14C/57.2F)	83077	sec
Total ECU Boot Up Time after IGR ON (15C/59F ~ 19C/66.2F)	120460	sec
Total ECU Boot Up Time after IGR ON (20C/68F ~ 24C/75.2F)	201978	sec
Total ECU Boot Up Time after IGR ON (25C/77F ~ 29C/84.2F)	275289	sec
Total ECU Boot Up Time after IGR ON (30C/86F ~ 34C/93.2F)	298904	sec
Total ECU Boot Up Time after IGR ON (35C/95F ~ 39C/102.2F)	350648	sec
Total ECU Boot Up Time after IGR ON (40C/104F ~ 44C/111.2F)	122942	sec

- f) Select the "Plug-in Control" of "Powertrain" and then "Data List".
- g) Memo the displayed "AC Charging Total Time".

Plug-in Control DTC Data List Active Test Utility Dual Data List

STATUS

MONITOR Frame: - Time: - SamplingRate: 67ms Flag Count: -

Item	Value	Unit
AC Charging Total Time	6996	min
Target Charging Power	0.00	kW
Target Charging Power from Charger	0	W
Target Charging Power from Charger Circuit 2	0	W
Target Charging Power (Charger CPU)	0	W
Target Charging Power (Charger CPU) Circuit 2	0	W
Charging Required Time Calculation Status	Incomplete	
Charging Required Time	0	min
Charging Elapsed Time	0	sec
AC Input Voltage for Monitoring	0.0	V
AC Input Voltage for Monitoring Circuit 2	0.0	V
AC Input Voltage for Control	0	V
AC Input Voltage for Control Circuit 2	0	V
AC Input Voltage Instantaneous Value 1 for Wavefo...	-500	V
AC Input Voltage Instantaneous Value 1 for Wavefo...	-500	V

- h) Input "Total ECU Boot Up Time after IGR ON" and "AC Charging Total Time" into the downloaded "Judgment Tool" and determine the next action based on the judgment results.

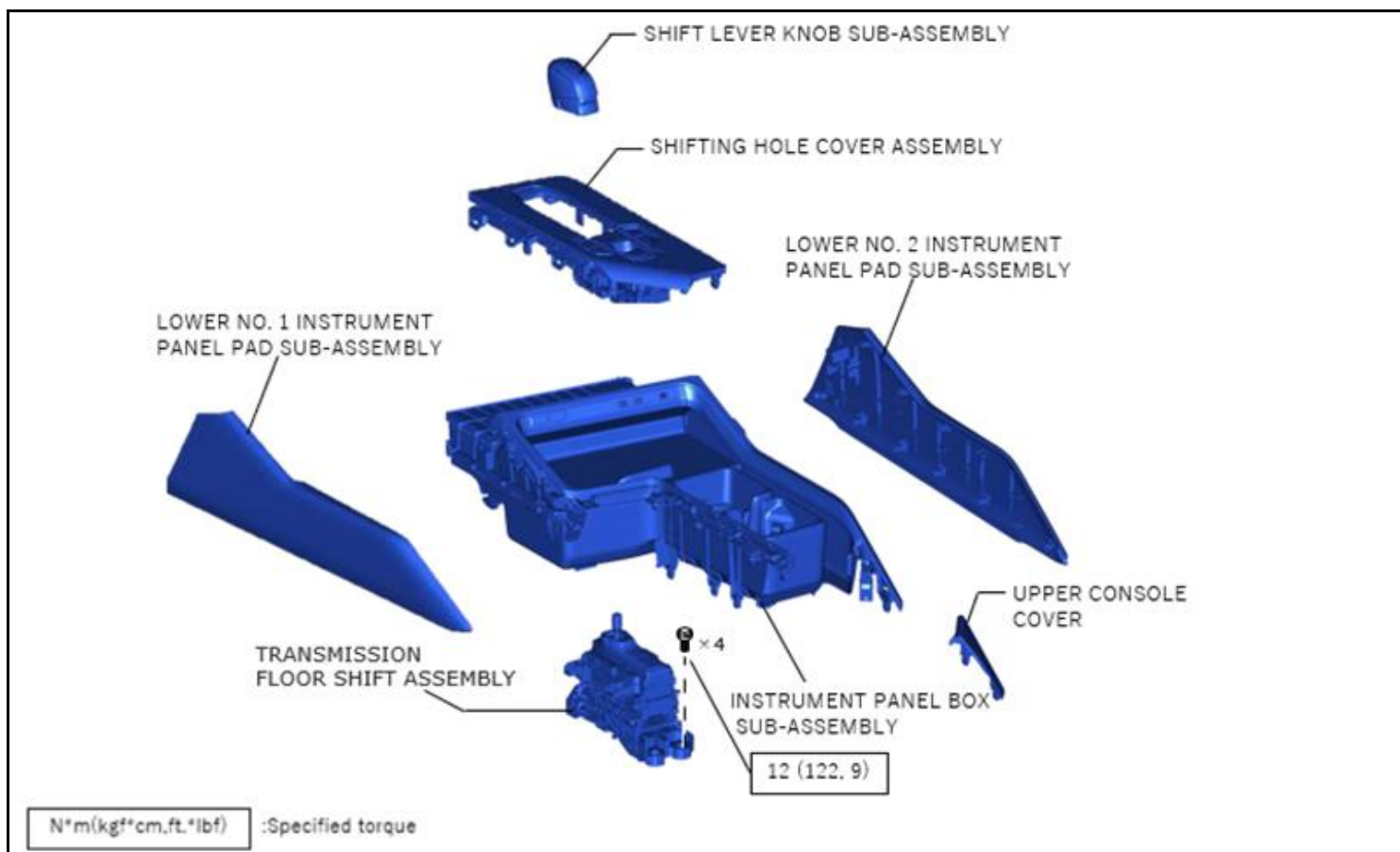
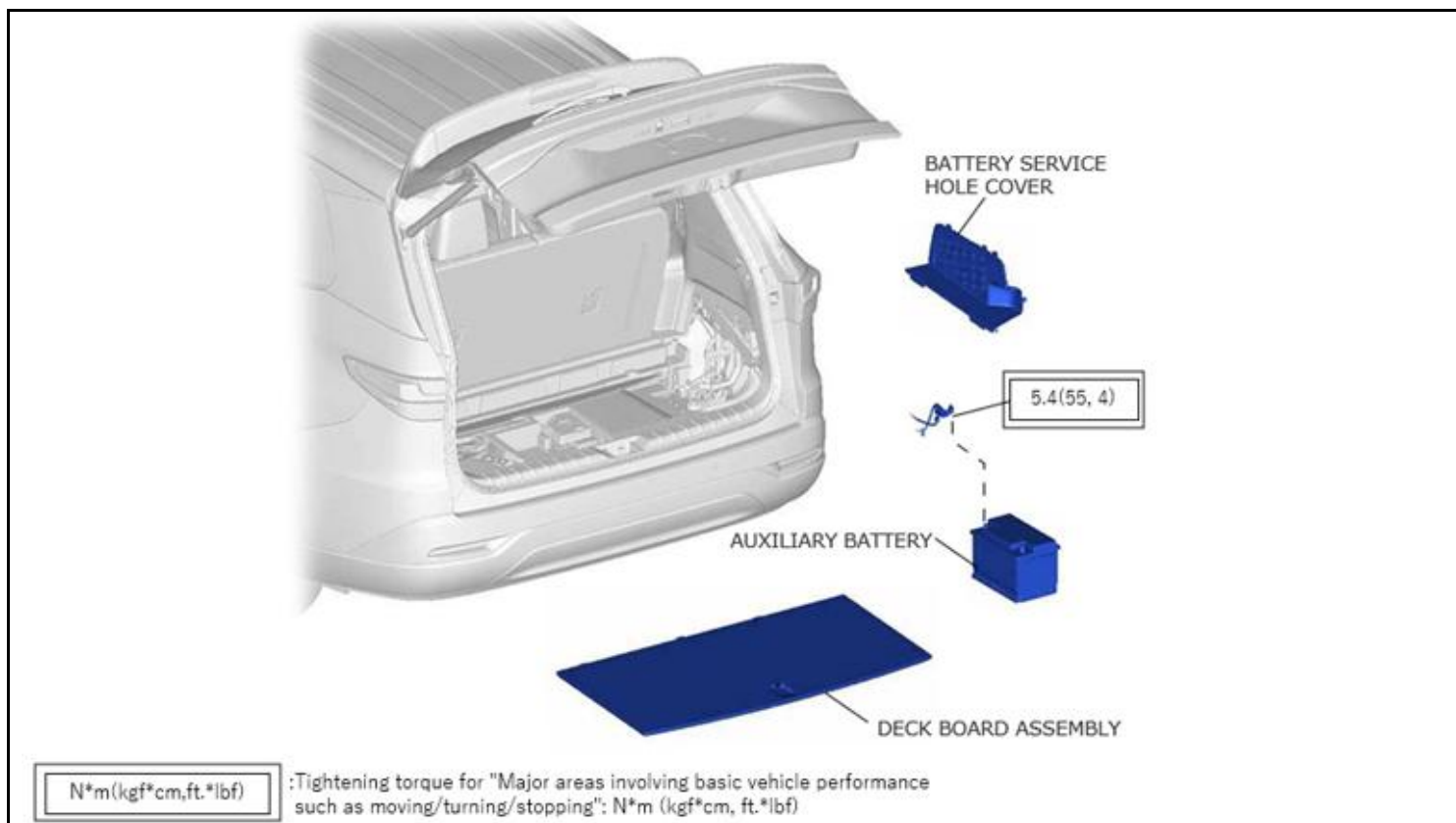
Total ECU Boot Up Time after IGR ON (sec)	AC Charging Total Time (min)	Judgement Result
1539646	6996	Reprogramming
 Input	 Input	

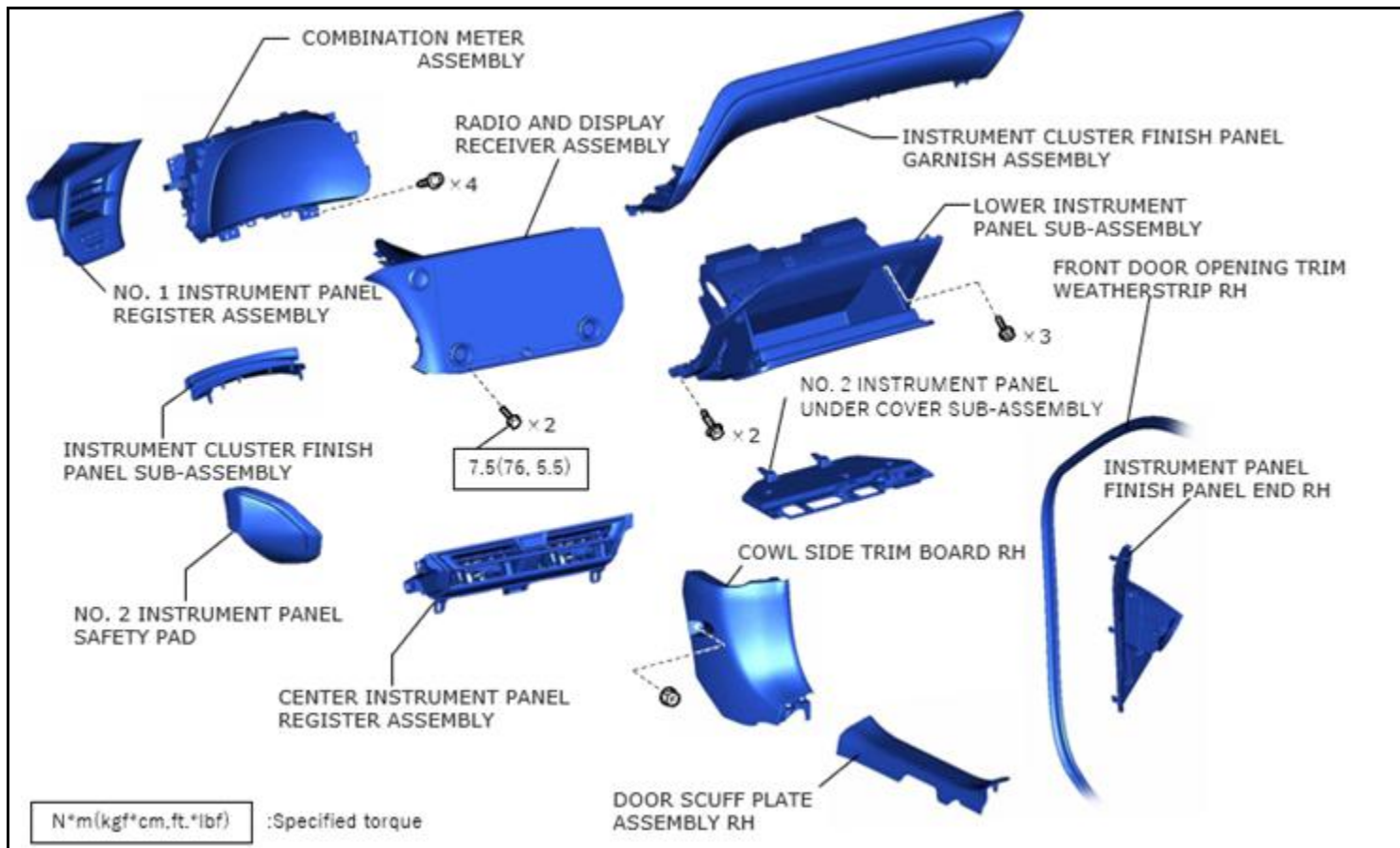
Judgement	Action
" Reprogramming " has been displayed	Go to step "X. METER SYSTEM CALIBRATION ID VERIFICATION".
" Replace Combination Meter " has been displayed	Go to step "IX. REPLACE COMBINATION METER ASSEMBLY".

- i) Turn the IG OFF.

X. REPLACE COMBINATION METER ASSEMBLY

1. COMPONENTS





2. RECORD ODOMETER VALUE

- Record the current odometer value.

NOTE: Please follow the existing procedure of odometer data record/takeover in each country.

Current odometer value:

mile / km

3. RESPONSE TO RESET ITEMS

- Some records and data will be reset by replacing the combination meter and disconnecting battery negative terminal. Explain it to the customer and record each customized settings before working on the vehicle.

4. REMOVE COMBINATION METER

[Refer to TIS for instructions on Vehicle Interior / METER/GAUGE/DISPLAY / COMBINATION METER / REMOVAL](#)

5. INSTALL COMBINATION METER

[Refer to TIS for instructions on Vehicle Interior / METER/GAUGE/DISPLAY / COMBINATION METER / INSTALLATION](#)

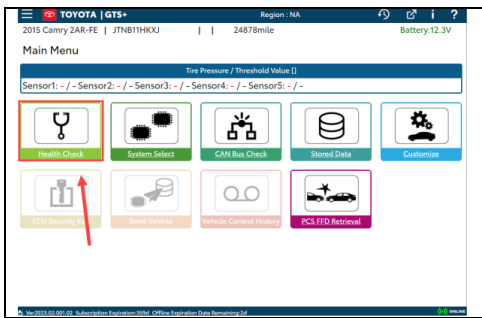
6. RESTORE VEHICLE

- Restore the audio and air conditioning settings.
- Restore the front seat position.

NOTICE:

Even if the program ID after the combination meter assembly replacement is the ID subject to reprogramming, reprogramming is not necessary.

XI. COMBINATION METER SYSTEM CALIBRATION ID VERIFICATION



1. CHECK FOR DTC'S

- Using a GTS+, click the "Health Check" button on the Main Menu.

HINT:

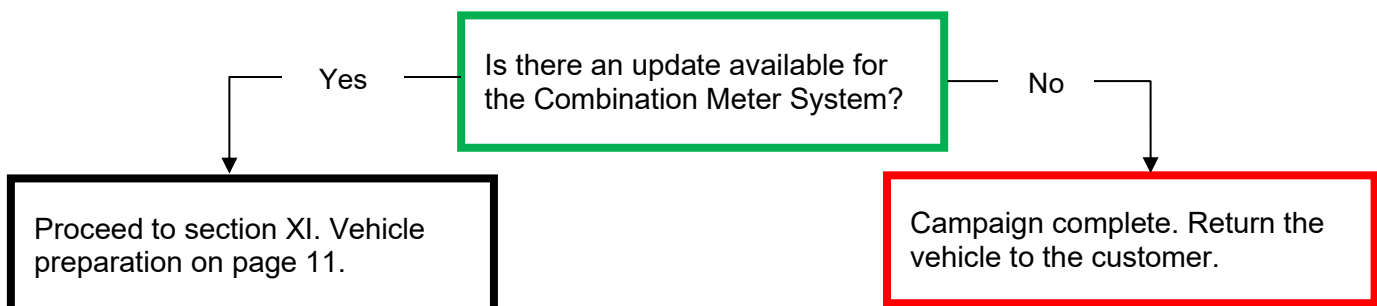
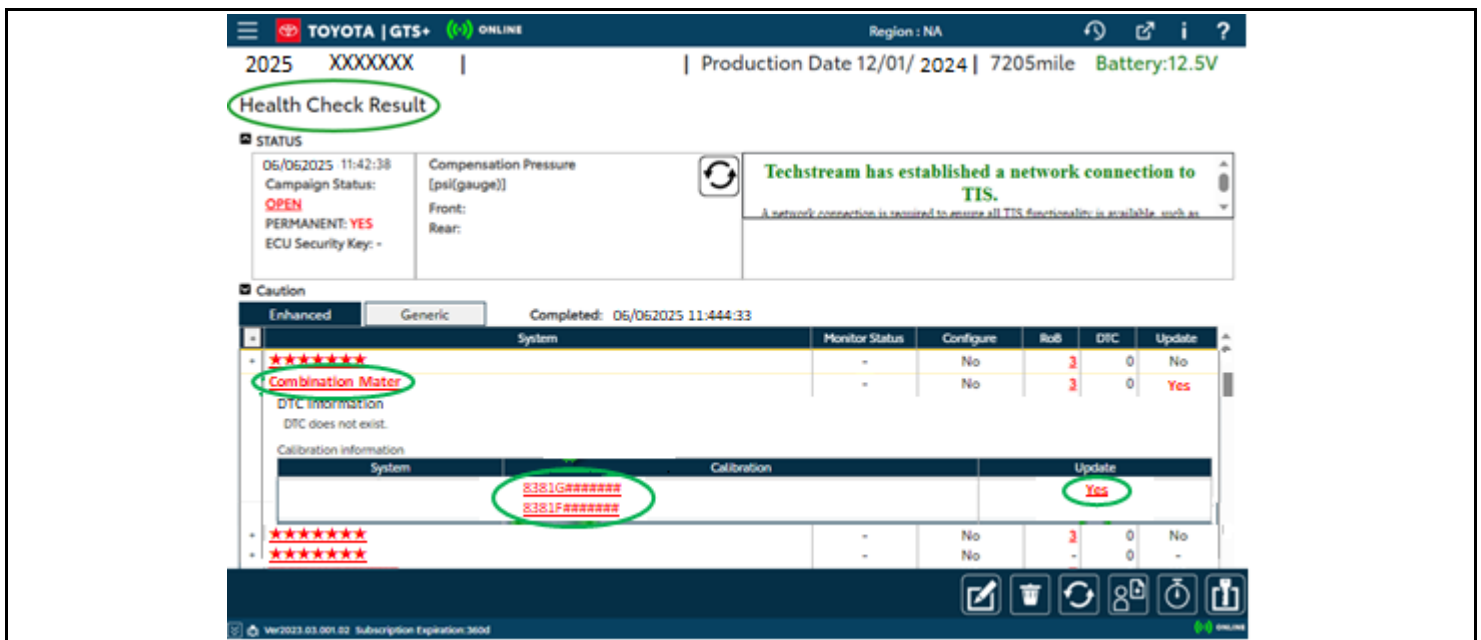
This Campaign covers only the software update to the Engine System, as detailed in these instructions. It does not cover the diagnosis or replacement of any other systems on the vehicle.

2. CHECK CURRENT CALIBRATION

- Locate the "Update" column of the "Calibration Information" for the Combination Meter system on the "Health Check Result" screen.
- Determine the status of an available update; indicated by a YES or NO.

HINT:

If the CIDs indicate 'Yes', proceed with the update procedure.



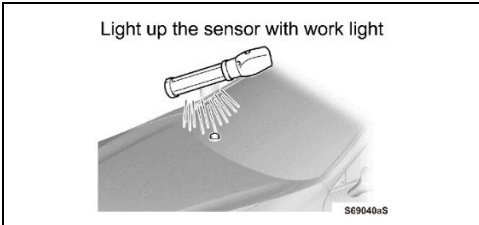
◀ CRITICAL MESSAGE ▶

It is critical that T-SB-0107-20 Rev. 2 in addition to the Technical Instructions for this Recall [or LSC/CSC] 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 ASSEMBLY 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.

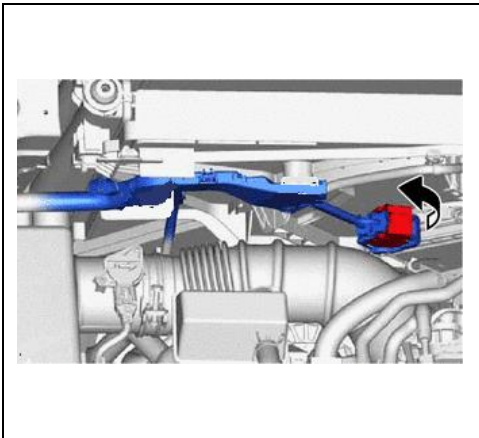
XII. VEHICLE PREPERATION

1. VEHICLE PREPERATION

- a) Confirm the following conditions:
 - 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.
 - Windshield wiper switch in the OFF position.



- b) When the vehicle has no "OFF position" in the light control switch:
 - i. Turn the IG ON.
 - ii. Set the light control switch to the AUTO position and make sure that the exterior lights are turned on.
 - iii. Light up the automatic light control sensor with work light to keep the exterior lights turned off.



2. STOP THE OPERATION OF THE COOLING FAN

- a) Disconnect the connector from the cooling fan.
 - i. Rotate the lever while pushing the lock, and disconnect the cooling fan motor connector.

NOTICE:

After disconnecting the cooling fan motor connector, make sure that the dirt, water or other foreign matter does not contact the connecting parts of the cooling fan motor connector.



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 12V battery.
- b) Select the Power Supply Mode from the Main Menu of the DCA-8000.



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).

4. VERIFY GTS+ SETUP

- a) Verify that the GTS+ meets the following conditions:
 - The latest version of software is loaded.
 - The GTS+ battery is fully charged. If not, connect the GTS+ to a 120V source.
 - The DLCIII cable is in good condition.



The GTS+'s battery voltage must also be maintained during the re-flash procedure. If necessary, plug the GTS+ into a 120v outlet during this procedure.

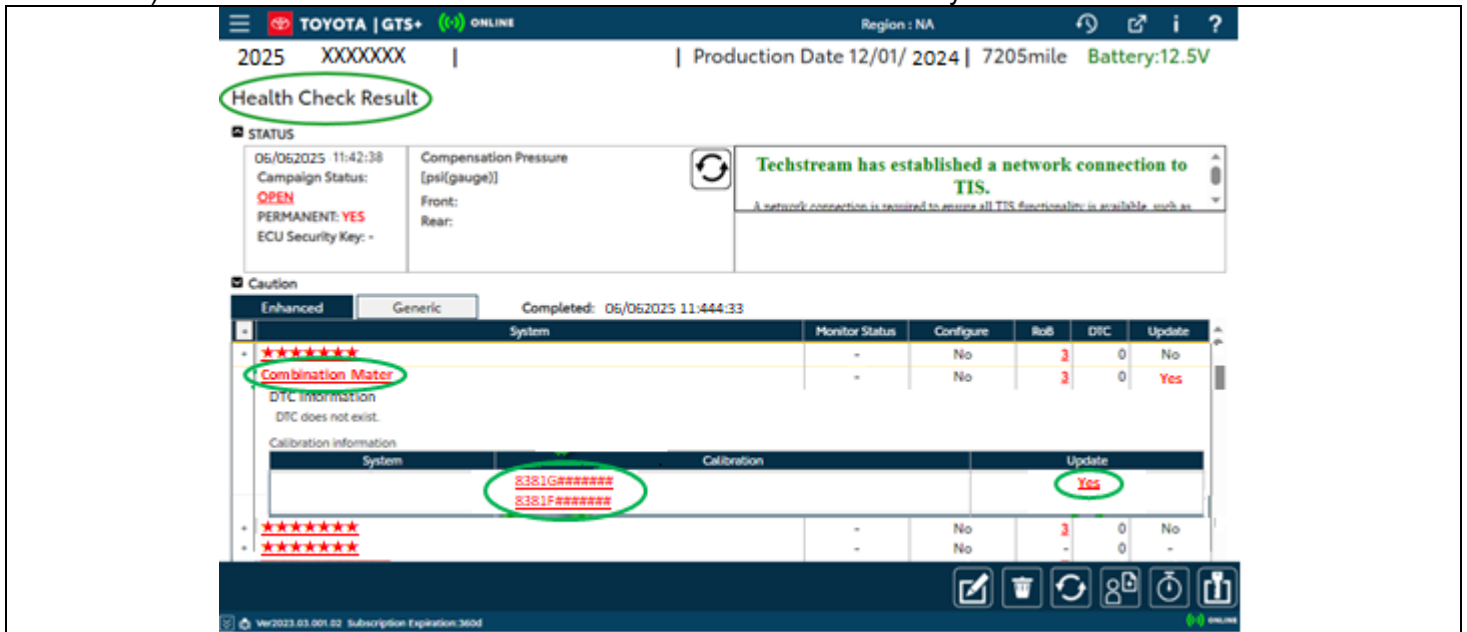
NOTICE:

If the GTS+ communication with the vehicle fails during the re-flash procedure, the Combination Meter Assembly will be damaged.

XIII. UPDATE CALIBRATION

1. CONFIRM THE CALIBRATION ID FOR THE COMBINATION METER SYSTEM

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



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

Combination Meter System Calibrations		
Model	Current Calibration ID	New Calibration ID
TX550h+	CID-1: #####	CID-1: #####
	CID-2: 8381F0E10100	CID-2: 8381F0E14000

NOTICE:

If the Combination Meter has the **New** CIDs, no update is necessary.

2. REFLASH THE COMBINATION METER

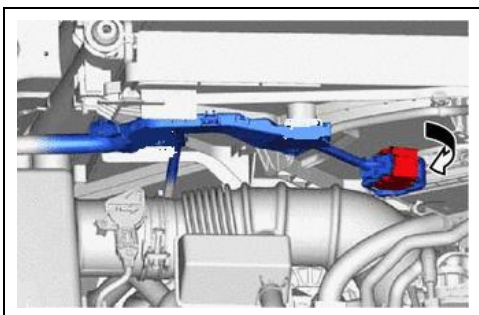
- Click "yes" on the "Health Check Results" screen, or follow the links on the table above the begin the reflash process.

NOTICE:

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

XIV. COMPLETE REPAIR

1. DISCONNECT THE DCA-8000



2. RECONNECT COOLING FAN WIRE CONNECTOR

- Connect the cooling fan motor connector and lock it with lever.

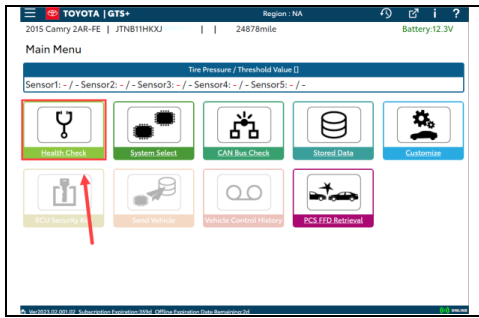
NOTICE:

- When connecting the connectors, make sure that dirt, water or other foreign mater does not become stuck between the connectors and other parts.
- Make sure that the lever is securely locked.

3. CHECK THE OPERATION OF THE ELECTRIC FAN

- Turn the READY ON.

- b) Turn the air conditioner ON to check if the electric fan operation.



4. PERFORM VERIFICATION HEALTH CHECK

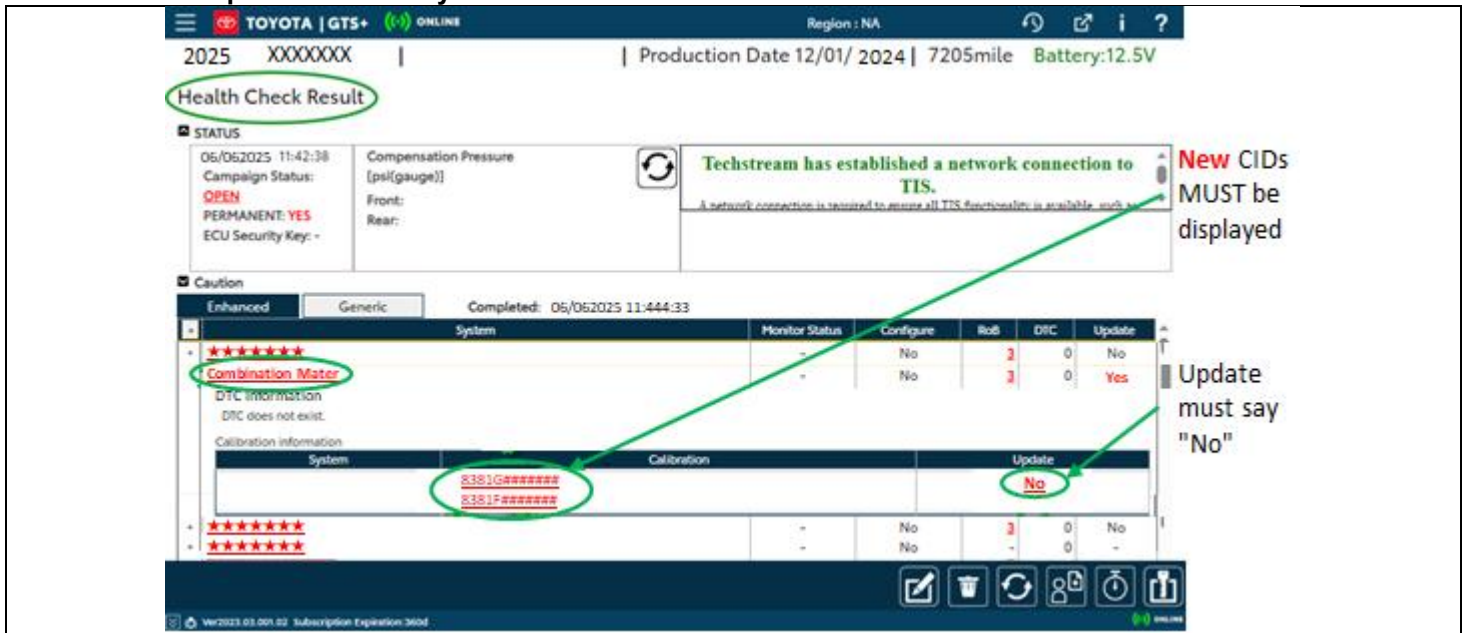
- Using a GTS+, perform a Health Check.
- Clear DTC's that may have set during the re-flash procedure.
- Re-run the Health Check to confirm that no DTC's reappear.

Critical

THIS VERIFICATION HEALTH CHECK IS NECESSARY to update the results and CIDs to the National database.

5. 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 says "**No**".



Critical

Confirm the CIDs has been updated successfully to the NEW CIDs by someone other than the individual who performed the repair. Refer to page 10.



Customer Health Check Report Button

6. PRINT CUSTOMER HEALTH CHECK REPORT

- From the Stored Data tab, select the Customer Health Check Report button (TIS will launch when button is pressed).
- Log in to TIS.
- Input Vehicle Mileage and Repair Order number.
- Check the "Performed" campaign button for the applicable campaigns.
- Select 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](#)

- 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.
- Confirm there are no DTCs after the Calibration update.
- If you have any questions regarding this update, please contact your area representative.

XV.APPENDIX

A. CAMPAIGN DESIGNATION DECODER

