

TECHNICAL INSTRUCTIONS
FOR
SPECIAL SERVICE CAMPAIGN 26TC02
REPROGRAMMING FOR PARKING ASSIST ECU
CERTAIN 2022 - 2024 TUNDRA / TUNDRA HYBRID

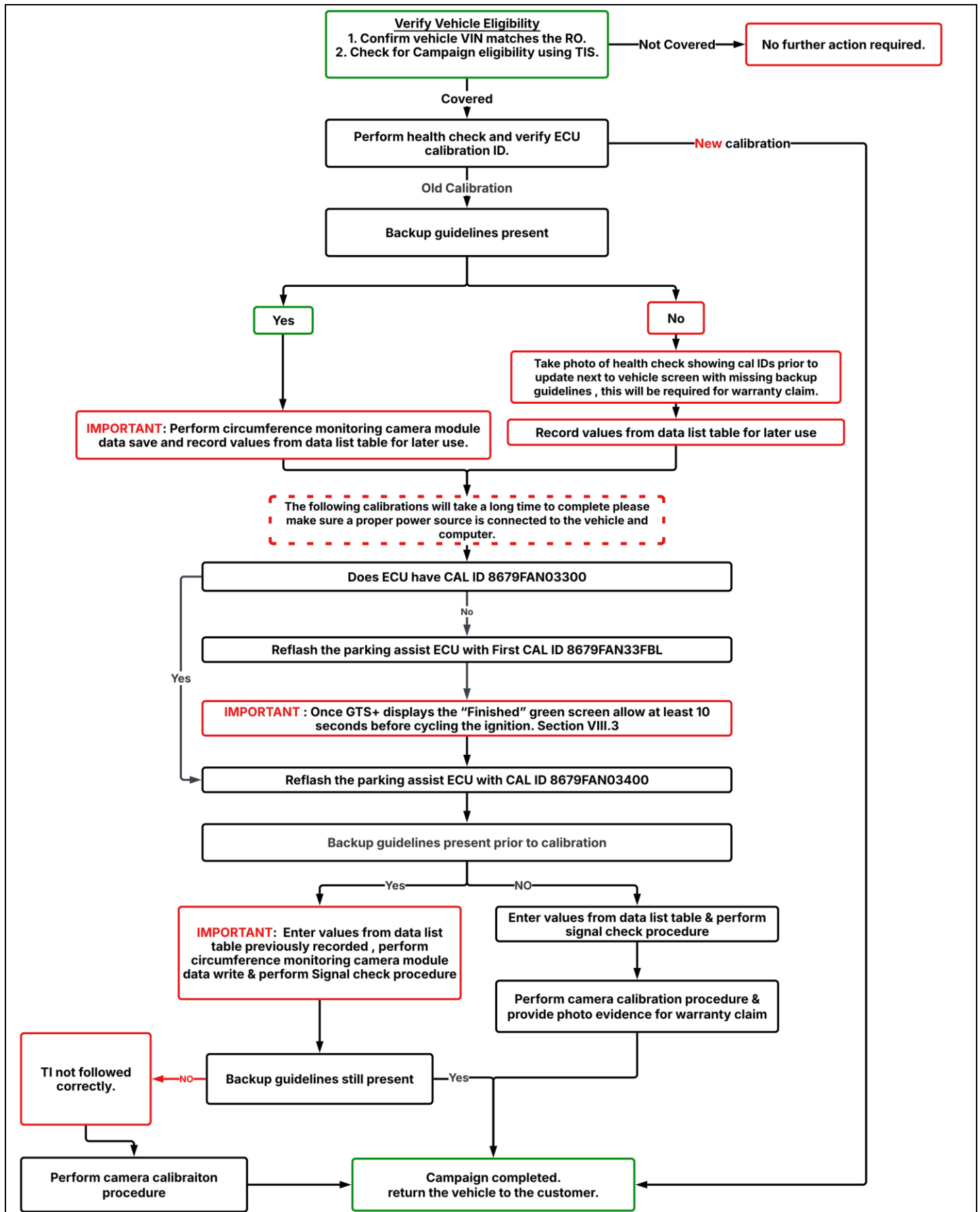
The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this recall are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles have the repair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

Repair Technician Level:

- **TIC206A – Electrical Repair 1**
- **TIC206B – Electrical Repair 2**
- **TIC201A – Engine Repair**
- **T4535 – Steering and Suspension**
- **TIC205A – Brake Repair**

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



II. IDENTIFICATION OF AFFECTED VEHICLES

1. CHECK VEHICLE FOR CAMPAIGN ELIGIBILITY

- Compare the vehicle's VIN to the VIN listed in 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.

HINT:

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-0107-20 Rev. 2
- DCA-8000 Battery Diagnostic Station
- GTS+ Adv

IV. BACKGROUND



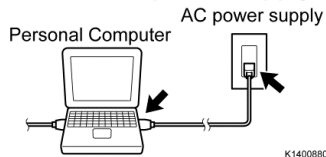
V. SAFETY PRECAUTIONS



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.



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:

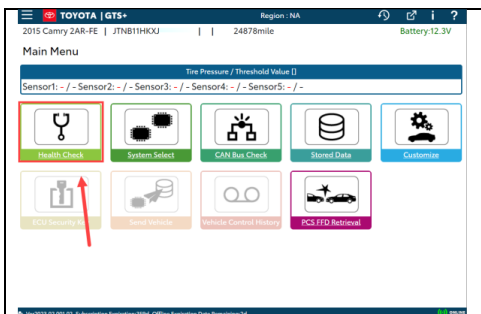
If the screen saver or power saving mode launches while reprogramming, the communication may be disconnected, resulting in damage to the ECU.

- 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. Due to the stop of the operation, the communication for reprogramming signals could be stopped, resulting in the damage of the ECU.

VI. CIRCUMFERENCE MONITORING CAMERA CONTROL MODULE 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 Circumference Monitoring Camera Control Module System, as detailed in these instructions. It does not cover the diagnosis or replacement of any other systems on the vehicle.

2. CHECK THE CIRCUMFERENCE MONITORING CAMERA CONTROL MODULE FOR CURRENT CAL ID.

TOYOTA | GTS+ | ONLINE Vehicle: NA 182335 182335 Battery:13.4V

2022 Tundra HEV V35A-FTS | Production Date 07/06/2022 | 29685mile

Health Check Result

STATUS

01/30/2025 16:05:27
Campaign Status: **OPEN**
PERMANENT: **YES**
ECU Security Key: -
SOCE: - / SOCR: -

Compensation Pressure [psi(gauge)]
Front:
Rear:

GTS+ has established a network connection to TIS.
A network connection is required to ensure all TIS functionality is available, such as campaign validation.

Caution

Enhanced Generic Completed: 01/30/2025 16:08:55

System	Monitor Status	Calibration	Update	Configure	RoB	DTC
Lane Control	-	8679F0C01300	No	No	0	0
Circumference Monitoring Camera Control Module	-	8679F0C01301	YES	No	0	0
Trailer Brake Controller	-	8954F0C07400	No	No	0	0
Steering Angle Sensor	-	8924G0A01100	No	No	-	0
Air Conditioner	-	8865F0C01002	No	No	-	0

Ver2024.04.004.02 Subscription Expiration:365d Vehicle ID:12467 ONLINE

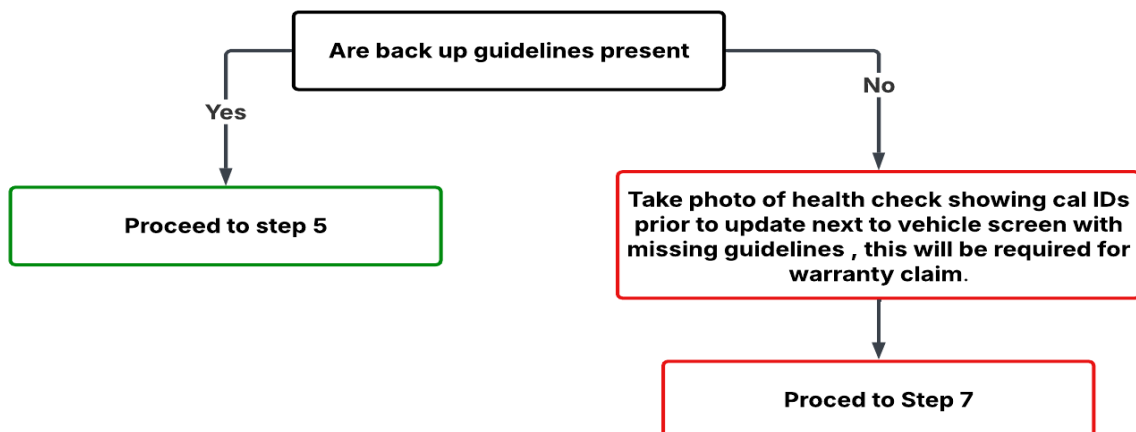
3. THE CALIBRATION IDS TO RE-FLASH IN THIS CAMPAIGN ARE AS SHOWN IN THE TABLE BELOW.

- Please note that 2 different calibrations are required to complete the repair for most CAL IDs, however the last CAL ID on the table 8679FAN03300 will only require the final CAL file, please reference tables below:

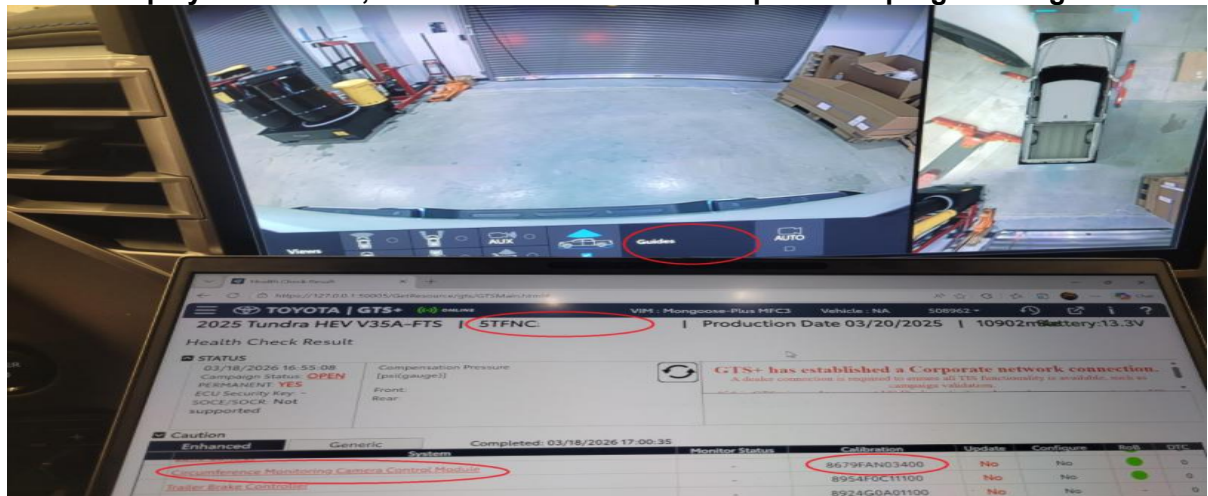
Parking Assist ECU Calibrations				
System	Vehicle Model	Current Calibration ID	1 st Calibration ID to Reprogram into ECU	Final Calibration ID to Reprogram into ECU
Circumference Monitoring Camera Control Module	Tundra / Tundra Hybrid	8679F0C01105	8679FAN33FBL* (T-0019-26.cuw - 3.12MB)	8679FAN03400* (T-0020-26.cuw - 43.1MB)
		8679F0C01201		
		8679F0C01301		
		8679F0C01401		
		8679F0C01501		
		8679FAN03001		
		8679FAN03100		
		8679FAN03200		
		8679FAN03300	NA	

*Calibration download links are found within the instructions on section VIII.

4. PUT VEHICLE IN REVERSE AND CHECK FOR THE PRESENCE OF PARKING BACKUP GUIDELINES.

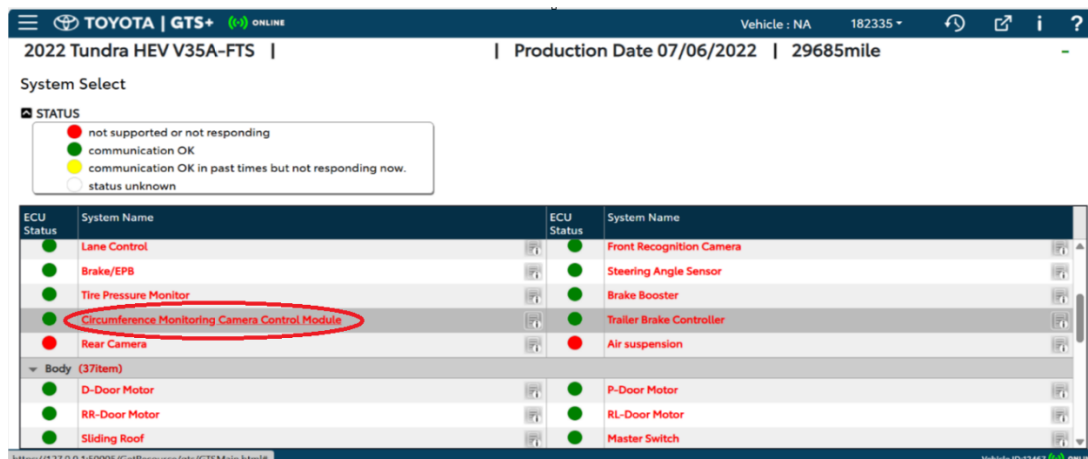
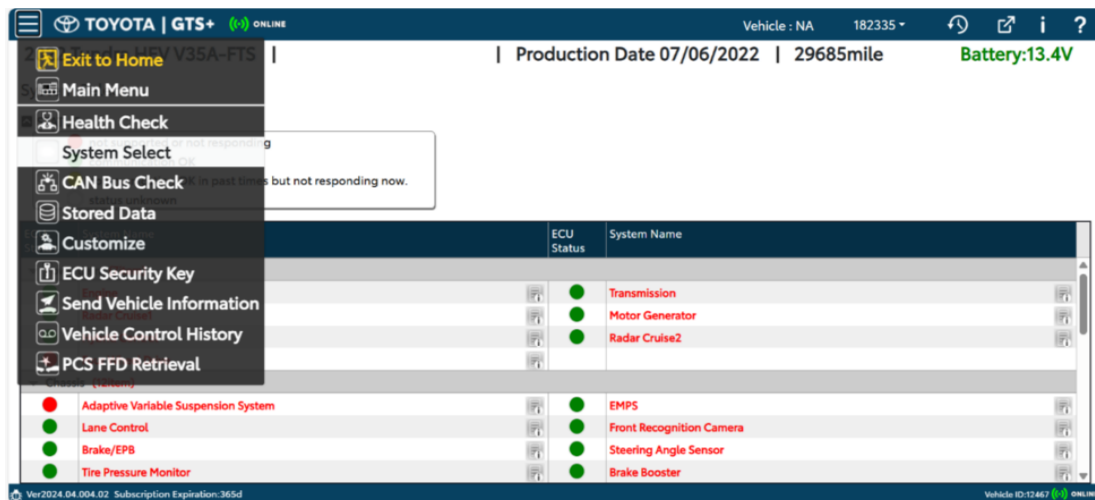


Must display Vehicle VIN, Guideline menu and CAL ID prior to reprogramming. Ex:



ATTENTION: THE FOLLOWING STEPS ARE KEY FOR THE CORRECT COMPLETION OF THE REPROGRAMMING PROCEDURE, FAILURE TO FOLLOW THE INSTRUCTIONS WILL RESULT IN MISSING PARKING BACKUP GUIDELINES FOR THOSE VEHICLES THAT HAD NO PRIOR ISSUES AND WILL REQUIRE ADDITIONAL CALIBRATION.

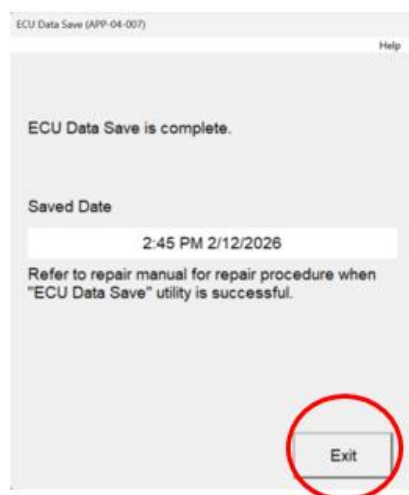
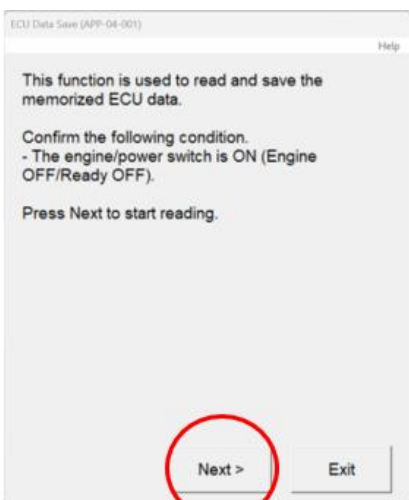
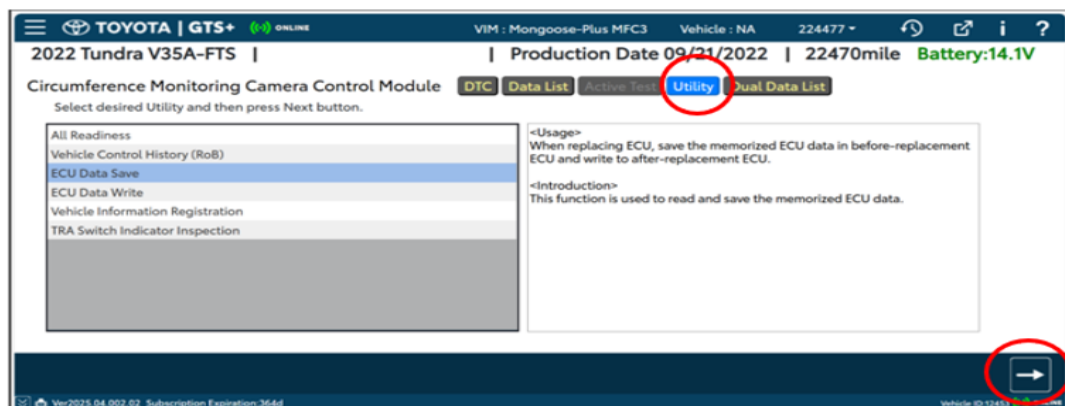
5. SELECT SYSTEM CHECK ON TOP LEFT CORNER & ACCESS CIRCUMFERENCE MONITORING CAMERA MODULE FROM THE LIST.



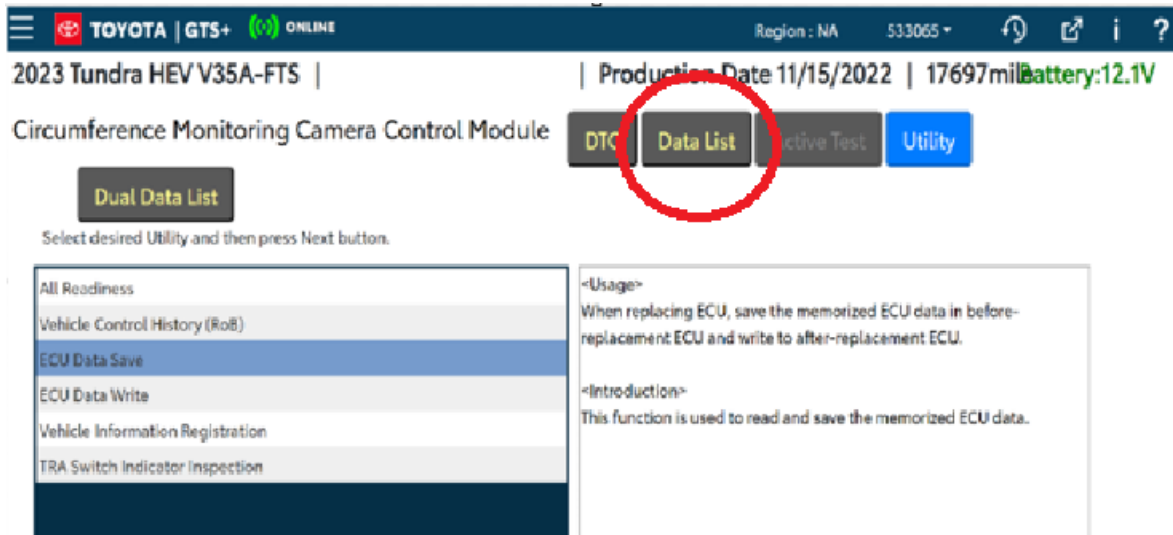


CRITICAL INFORMATION – IF DATA SAVE IS NOT COMPLETED IT WILL RESULT IN MISSING PARKING BACKUP GUIDELINES FOR THOSE VEHICLES THAT HAD NO PRIOR ISSUES AND WILL REQUIRE ADDITIONAL CALIBRATION NOT COVERED BY THIS CAMPAIGN

6. SELECT UTILITY & ECU DATA SAVE (THIS WILL GENERATE A VEHICLE SPECIFIC FILE SAVED IN THE BACKGROUND THAT WILL BE USED DURING THE DATA WRITE PROCESS)



7. SELECT DATA LIST & TAKE A SCREENSHOT OF THE VALUES FROM THE DATA LIST TABLE TO INPUT LATER IN SECTION VIII STEP 8



***Note: If Aux camera is not on this list you will have to enter "Without" in Section VIII Step 7**

MONITOR Frame: - Time: - SamplingRate: 250ms Flag Count: -		
ACC Terminal Voltage	0 V	Support Information (With Bed Camera) Support
IG Terminal Voltage	13 V	Support Information (Without Bed Camera) Not Support
Camera Switch Signal Terminal Voltage	13 V	VIN (4th Digit)
Shift Position R Signal Terminal Voltage	0 V	VIN (7th Digit)
Multi Media Display Size	FullHD	VIN (8th Digit)
Vehicle Shape 1 (Cab Information)	2	
Vehicle Shape 2 (Bed Information)	3	
Support Information (Camera System Variation - PV...	Not Support	
Support Information (Camera System Variation - M...	Support	
Support Information (With TRA)	Support	
Support Information (Without TRA)	Not Support	
Support Information (Outer Mirror - Normal)	Support	
Support Information (Outer Mirror - Extended)	Not Support	
Support Information (Grille Type - Type1)	Not Support	
Support Information (Grille Type - Type2)	Support	

◀ CRITICAL MESSAGE ▶

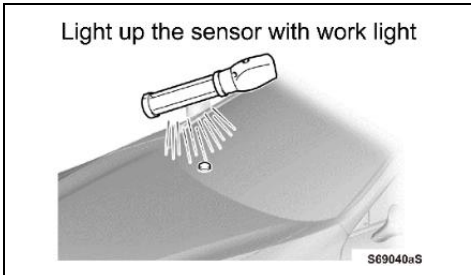
It is critical that T-SB-0107-20 Rev. 2 in addition to the Technical Instructions for this Special Service Campaign are followed. This TSB outlines all steps necessary to prevent reprogramming failure.

VII. VEHICLE PREPARATION

1. VEHICLE PREPARATION

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. (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. FOR HYBRID VEHICLES DISABLE THE ELECTRIC RADIATOR FAN BY UNPLUGGING THE CONNECTOR.

3. CONNECT THE 12V BATTERY TO A POWER SUPPLY

- a) Connect the DCA-8000 or other type of power supply (not a battery charger) to the 12V battery.
- b) Tap the Reflash icon from the Main Menu screen 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 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 DLC III cable is in good condition.

Critical

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 GTS+ communication with the vehicle fails during the re-flash procedure, the Parking Assist ECU will be damaged.

VIII. UPDATE CALIBRATION

1. CONFIRM THE CALIBRATION ID

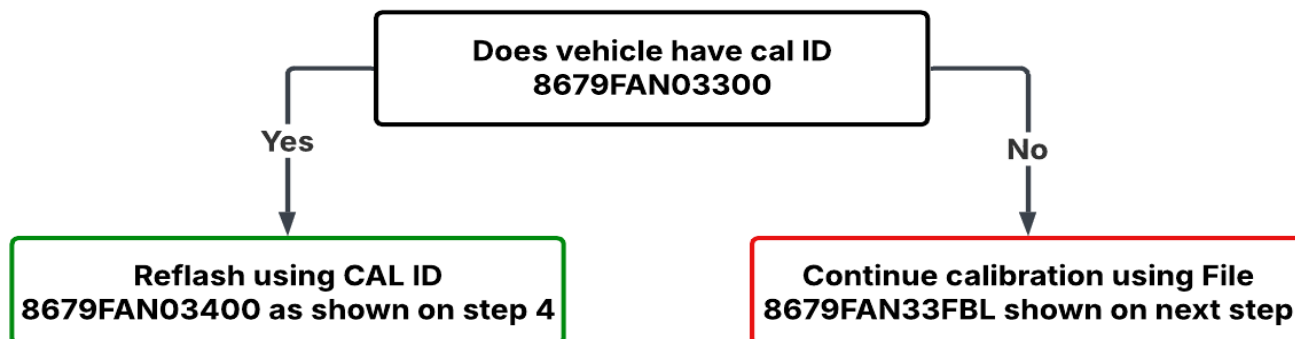
- a) Confirm the current calibration ID in the Circumference Monitoring Camera Control Module System.

The screenshot shows the Toyota GTS+ software interface. At the top, it displays 'TOYOTA | GTS+ ONLINE' and vehicle details: '2022 Tundra HEV V35A-FTS', 'Production Date 07/06/2022', '29685mile', and 'Battery:13.4V'. Below this is a 'Health Check Result' section with a 'STATUS' box showing '01/30/2025 16:05:27', 'Campaign Status: OPEN', 'PERMANENT: YES', 'ECU Security Key: -', and 'SOCE: - / SOCR: -'. To the right of this is a message: 'GTS+ has established a network connection to TIS. A network connection is required to ensure all TIS functionality is available, such as campaign validation.' Below the status box is a 'Caution' section with 'Enhanced' and 'Generic' tabs, and a 'Completed: 01/30/2025 16:08:55' timestamp. The main part of the interface is a table with columns: System, Monitor Status, Calibration, Update, Configure, RoB, and DTC. The table lists several systems: Lane Control, Circumference Monitoring Camera Control Module, Trailer Brake Controller, Steering Angle Sensor, and Air Conditioner. The 'Calibration' column for 'Circumference Monitoring Camera Control Module' shows '8679F0C01301', which is circled in red. The 'Update' column for this row shows 'YES', also circled in red. The 'Configure' column for this row shows 'No'. The 'RoB' column for this row shows a green dot. The 'DTC' column for this row shows '0'.

System	Monitor Status	Calibration	Update	Configure	RoB	DTC
Lane Control	-	-	No	No	●	0
Circumference Monitoring Camera Control Module	-	8679F0C01301	YES	No	●	0
Trailer Brake Controller	-	8954F0C07400	No	No	●	0
Steering Angle Sensor	-	8924G0A01100	No	No	-	0
Air Conditioner	-	8865F0C01002	No	No	-	0

NOTICE:

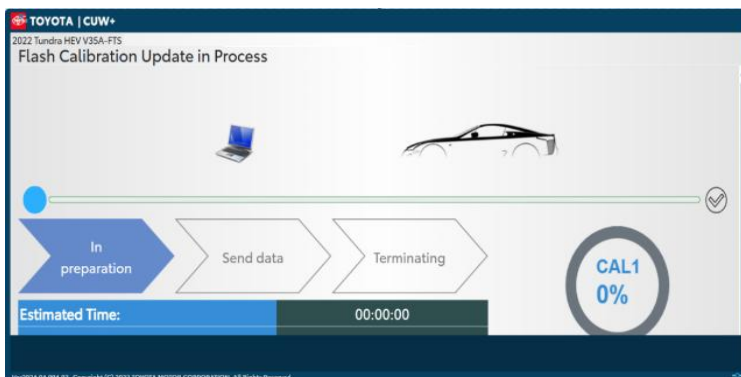
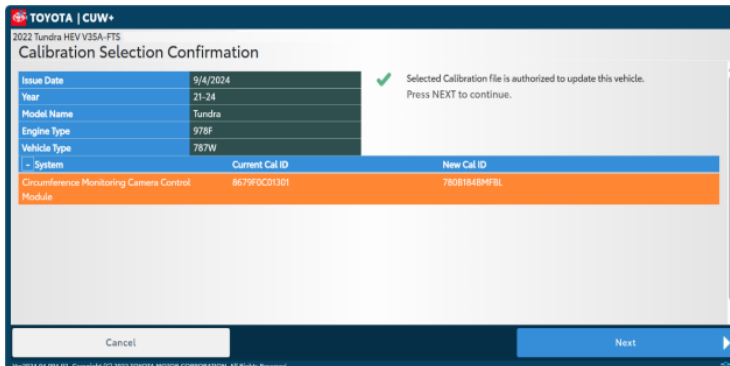
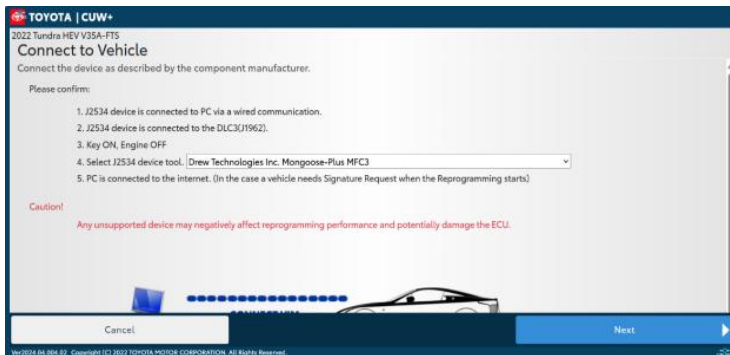
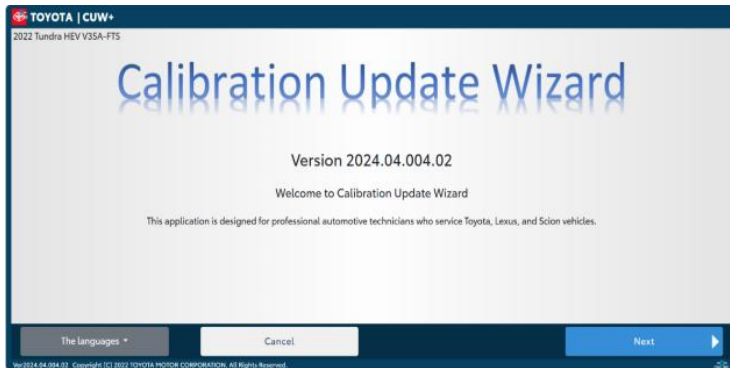
If the Parking Assist ECU has the New CIDs, no update is necessary.



2. REFLASH THE PARKING ASSIST ECU USING FILE [8679FAN33FBL](#) (T-0019-26.cuw - 3.12MB)

b) Once the wizard loads, please follow instructions on screen.

Ex:



NOTICE:

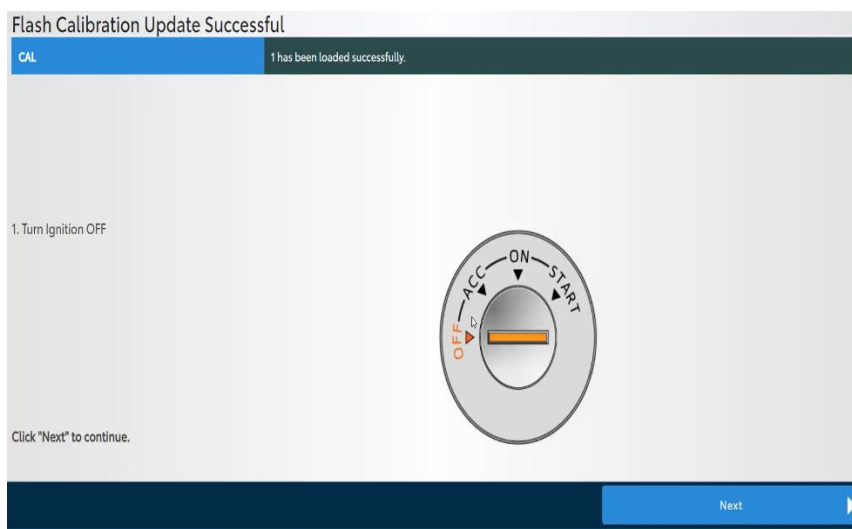
Reflash failure should be extremely rare and can be avoided by following all instructions and reprogramming best practices.

3. Key Cycle

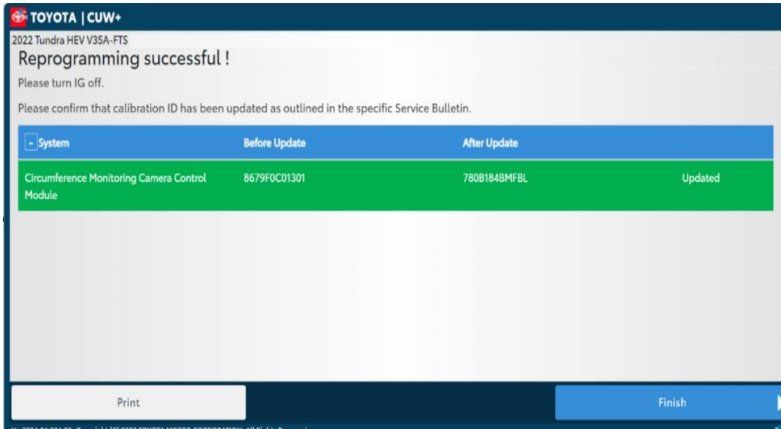
- a) Once GTS+ displays the “Finished” green screen, allow at least 10 seconds before cycling the ignition, failure to follow this step **will result in damage to the ECU** which is not covered by this campaign.



Must wait at least 10 seconds.



4. SELECT “FINISH” ONCE COMPLETED



5. PERFORM CALIBRATION USING FILE [8679FAN03400](#) (T-0020-26.cuw - 43.1MB)

- a) Once the wizard loads, please follow instructions on screen.

6. Key Cycle

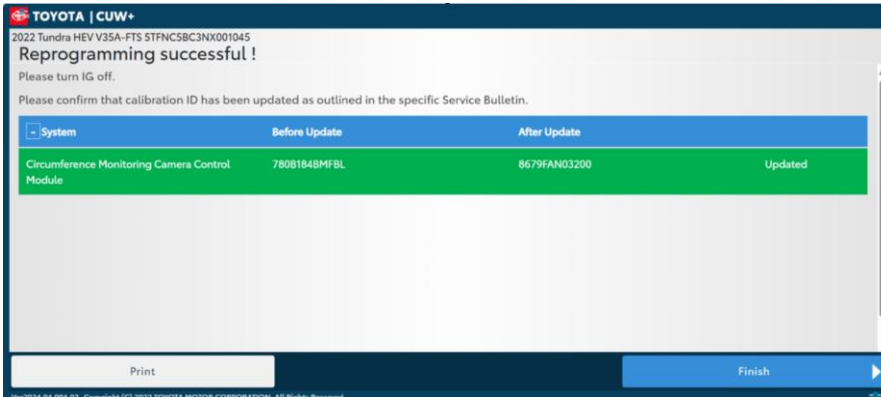
- a) Once GTS+ displays the “Finished” green screen, allow at least 10 seconds before cycling the ignition, failure to follow this step **will result in damage to the ECU** which is not covered by this campaign.



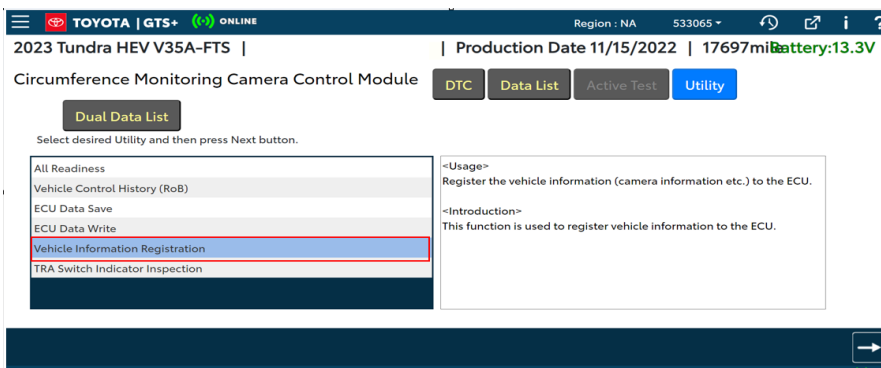
Must wait at least 10 seconds 



7. SELECT “FINISH” ONCE COMPLETED

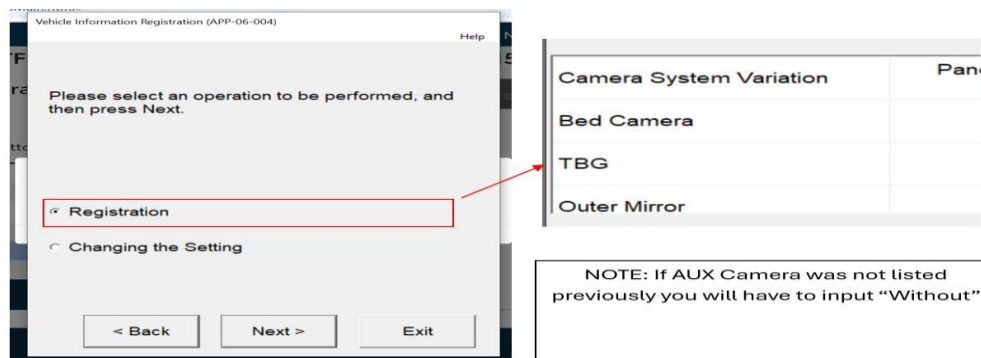


8. SELECT “VEHICLE INFORMATION REGISTRATION”



9. SELECT REGISTRATION AND INPUT THE VALUES SAVED FROM SECTION VI STEP 7

Please note that some of the values we will enter might be in a different order or have a different name than that of the list previously recorded.



The following example is just a reference of how to enter values; remember to record the values each time you work on a different vehicle.

*We will be using the values from this data list table that were recorded at Section VI Step 7

MONITOR Frame: - Time: - SamplingRate: 250ms Flag Count: -			
ACC Terminal Voltage	0 V	Support Information (With Bed Camera)	Support
IG Terminal Voltage	13 V	Support Information (Without Bed Camera)	Not Support
Camera Switch Signal Terminal Voltage	13 V	VIN (4th Digit)	
Shift Position R Signal Terminal Voltage	0 V	VIN (7th Digit)	
Multi Media Display Size	FullHD	VIN (8th Digit)	
Vehicle Shape 1 (Cab Information)	2		
Vehicle Shape 2 (Bed Information)	3		
Support Information (Camera System Variation - PV...)	Not Support		
Support Information (Camera System Variation - M...)	Support		
Support Information (With TRA)	Support		
Support Information (Without TRA)	Not Support		
Support Information (Outer Mirror - Normal)	Support		
Support Information (Outer Mirror - Extended)	Not Support		
Support Information (Grille Type - Type1)	Not Support		
Support Information (Grille Type - Type2)	Support		

Vehicle Information Registration (APP-06-010)

Help

Changing the setting items is complete.
Present configure status is as below.
Select an item to set, then press Next to set other items, press Exit to exit.

Camera System Variation	Multi-Terrain Monitor
Bed Camera	With
TBG	With
Outer Mirror	Normal

Next > Exit

- Camera System Variations are Multi-Terrain Monitor system or Panoramic View monitor system. Since our list shows “Support” next to MTM we will select “Multi-Terrain Monitor”.

- Bed Camera will show only “With” or “Without”. Since our list shows “SUPPORT” for Bed camera we will be using “With”.

- TBG will be referred to on our list as TRA. Will use “With” since our list shows “Support.”

- Outer Mirror will show Normal, Towing Mirrors (Extended). We will select “Normal” since our list shows “Support.”

Vehicle Information Registration (APP-06-010)

Help

Changing the setting items is complete.
Present configure status is as below.
Select an item to set, then press Next to set other items, press Exit to exit.

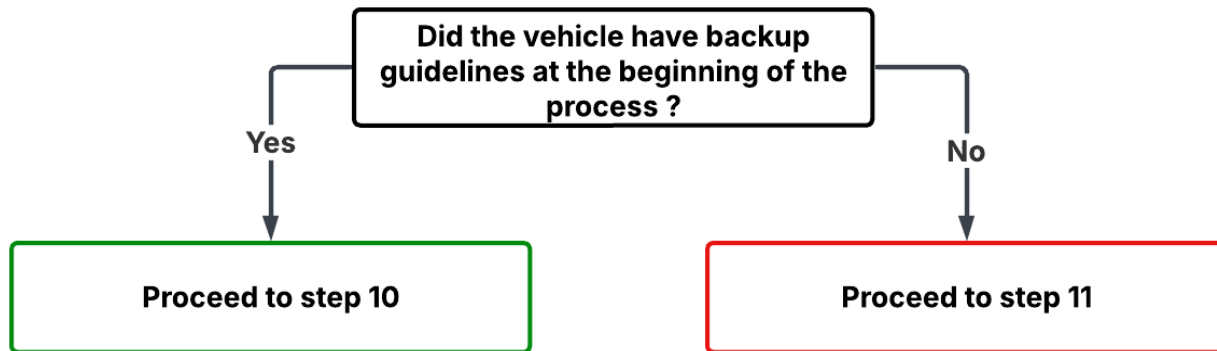
Outer Mirror	Normal
Front Grille	Type 2
AUX Camera	Without

Next > Exit

- Front Grille will show Type 1 or Type 2. We will use “Type 2” in this example because our list shows “Support” for Type 2

- AUX Camera was not on our list so we will select “Without” In this example.

- **Once all values have been entered select “Exit” to save values.**



CRITICAL STEP – IF DATA WRITE IS NOT COMPLETED IT WILL RESULT IN MISSING PARKING BACKUP GUIDELINES.

10. ECU DATA WRITE (This function will write the data saved from the ECU prior to reprograming)

TOYOTA | GTS+ | ONLINE

Region : NA 533065

2023 Tundra HEV V35A-FTS | Production Date 11/15/2022 | 17697mi Battery:13.3V

Circumference Monitoring Camera Control Module

DTC Data List Active Test Utility

Dual Data List

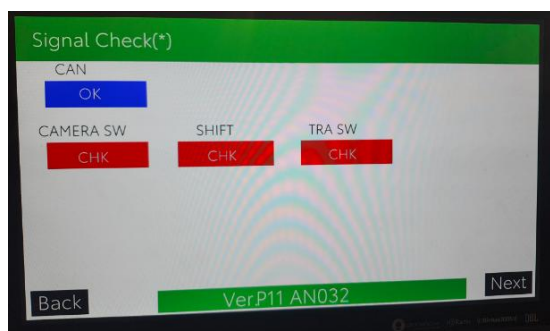
Select desired Utility and then press Next button.

- All Readiness
- Vehicle Control History (RoB)
- ECU Data Save
- ECU Data Write**
- Vehicle Information Registration
- TRA Switch Indicator Inspection

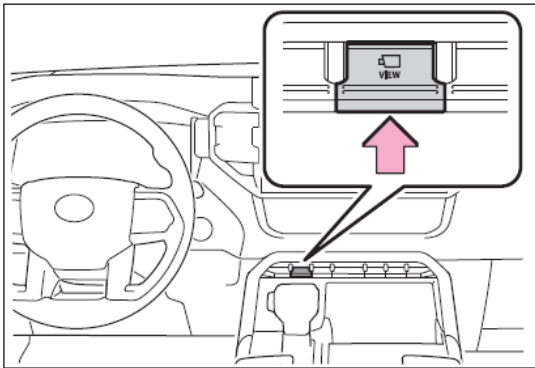
<Usage>
When replacing ECU, save the memorized ECU data in before-replacement ECU and write to after-replacement ECU.

<Introduction>
This function is used to write saved data from the "ECU Data Save" utility to the new ECU.

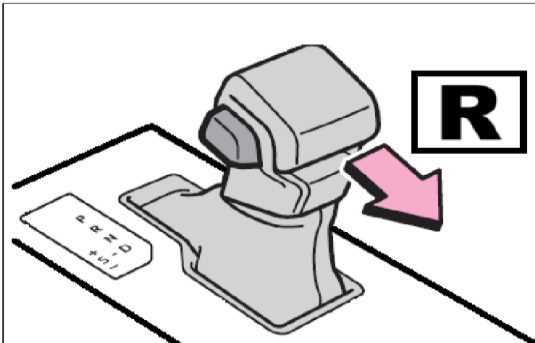
11. SIGNAL CHECK



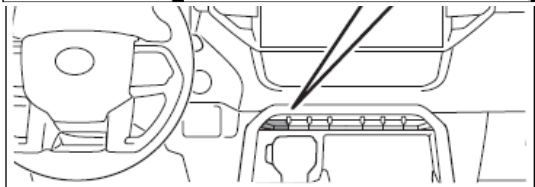
Once Data Write is complete the screen on the vehicle will show a signal check screen.



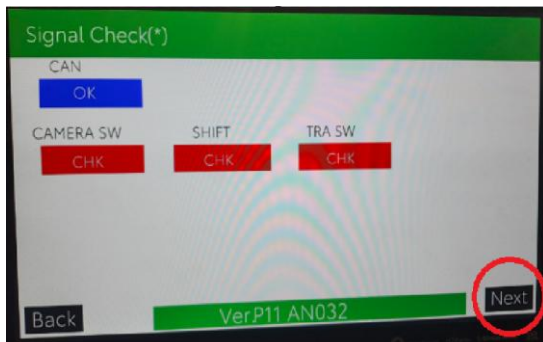
a) Press Physical camera button on the vehicle for the “CHK” to turn into “OK”.



b) Put the gear selector in Reverse and back on Park for “CHK” to turn into “OK”.



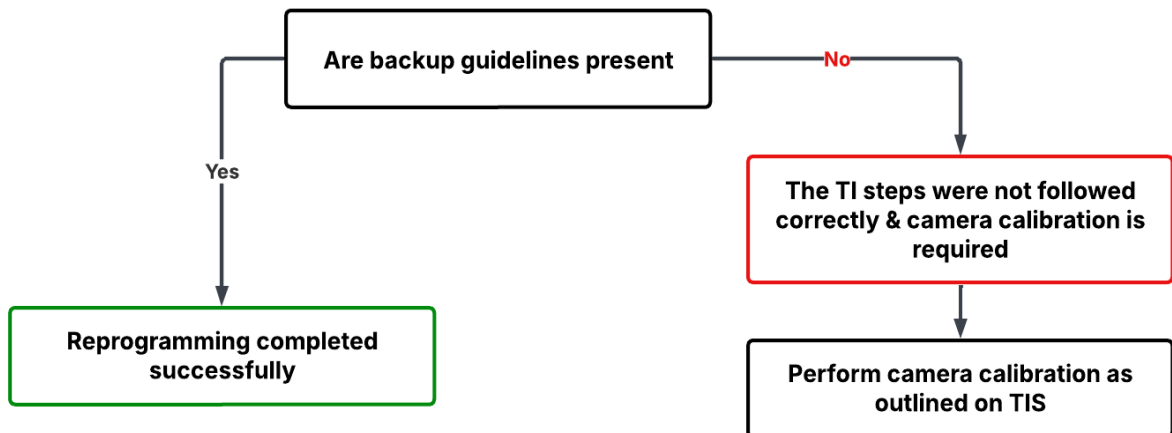
c) Activate the “TRA” button for the “CHK” to turn into “OK”.



d) Once all checks are complete on the signal check screen select “Next” to end procedure on the Vehicle screen.

12. CHECK FOR BACKUP GUIDELINES

- a. If backup guidelines were present on initial check, proceed to put vehicle in reverse and check for the presence of backup guidelines.



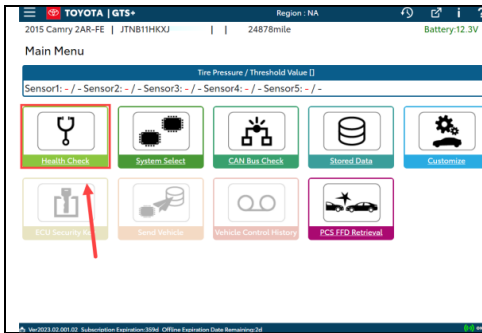
- b. If backup guidelines were missing prior to the calibration make sure to have photo evidence as described on step VI.4. Proceed to perform [camera calibration](#) as outlined on TIS.

IX. COMPLETE REPAIR

1. DISCONNECT THE DCA-8000
2. RECONNECT THE ELECTRIC RADIATOR FAN (HYBRID VEHICLES)



3. PERFORM VERIFICATION HEALTH CHECK



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

4. CONFIRM CID UPDATE

- On the Stored Data tab, confirm the following for the Circumference Monitoring Camera Control Module System:
 - The Calibration number has the “**New** CID” number.
 - The Update column says “No”. Ex,

TOYOTA | GTS+ ONLINE Vehicle : NA 182335 29685mile Battery:13.4V

2022 Tundra HEV V35A-FTS | Production Date 07/06/2022 | 29685mile

Health Check Result

STATUS

01/30/2025 16:05:27
 Campaign Status: **OPEN**
 PERMANENT: **YES**
 ECU Security Key: -
 SOCE: - / SOCR: -

Compensation Pressure [psi(gauge)]
 Front:
 Rear:

GTS+ has established a network connection to TIS.
 A network connection is required to ensure all TIS functionality is available, such as campaign validation.

Caution

Enhanced Generic Completed: 01/30/2025 16:08:55

System	Monitor Status	Calibration	Update	Configure	RoB	DTC
Lane Control	-	-	-	No	●	0
Circumference Monitoring Camera Control Module	-	8679FAN03200	No	No	●	0
Trailer Brake Controller	-	8954F0C07400	No	No	●	0
Steering Angle Sensor	-	8924G0A01100	No	No	-	0
Air Conditioner	-	8865F0C01002	No	No	-	0

Ver2024.04.004.02 Subscription Expiration:365d Vehicle ID:12467 ONLINE

5. 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.



**Customer
Health Check
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

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