TECHNICAL INSTRUCTIONS

FOR

24TA02

Vehicle May Move While In Neutral Position

2022 - 2024 TUNDRA / TUNDRA HV 2023 AND 2024 SEQUOIA HV

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 repair are required to have completed the following course.

• TIC206A

It is the dealership's responsibility to select technicians who have completed the above course 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. Verify Vehicle Eligibility Confirm vehicle VIN matches the RO. Not Covered No further action required. 1. Check for Campaign eligibility using TIS. 2. Covered Perform Health Check and verify ECU Calibration. Old Calibration Reflash the transmission control **New** Calibration computer with the **NEW** software. Campaign completed. Return the vehicle to the customer.

II. IDENTIFICATION OF AFFECTED VEHICLES

1. CHECK VEHICLE FOR CAMPAIGN ELIGIBILITY

- a) Compare the vehicles VIN to the VIN listed on the Repair Order to ensure they match.
- b) 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
- Techstream ADVi / Techstream 2.0 / Techstream Lite

IV. BACKGROUND



V. SEAFETY 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.





- 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.

a) 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.



b) **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. TRANSMISSION SYSTEM CALIBRATION ID VERIFICATION

ensor1: - / - Sensor2	Tir 2: - / - Sensor3: - / - 5	e Pressure / Threshold Valu Sensor4: - / - Sensor5:	e [] - / -	
Y Health Check	System Select	CAN Bus Check	Stored Data	Customize
ECU Security X	Send Vehicle	Vehicle Control History	PCS FFD Retrieval	

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 Transmission 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

- a) Locate the "Update" column of the "Calibration Information" for the Transmission system on the "Health Check Result" screen.
- 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.

🔳 🚳 T	OYOTA GTS	((·)) ONLINE		Region : 1	NA.	4	S S	î î	?
2023	XXXXXXXXX	I	Produ	ction Date 12/01/2	022 73	205mile	Batter	ry:12.5	V
Health C	heck Result	5							
STATUS									
09/06/20	23 11:42:38	Compensation Pressure		Techstream has esta	blished a	network o	connect	ion to	â
OPEN Campaig	in Status:	[psi(gauge)] Front:		to a strande a service de service	TIS.				÷.
PERMAN	ENT: YES	Rear:		A DEDUCTE CONTRCTION IS DESUGER	d to secure all	LIA hinchonalin	C IN AVAILABLE	A 10070 A1	_
ECO SEC	Inty May: *								
Caution									
Enhance	id Ger	eric Completed: 09/06/2	023 11:44:33				_		
<u> </u>		System		Monitor Status	Configure	RoB	DIC	Update	ŝ.
 Engine 				in:	No	5	0	No	
Iransmis	sion				No	2	0	Yes	
DTC INC	rmation								
00C de	NAME AND ADDRESS.								
DTC de	oes not exist.								
DTC de Calibrat	ion information		Collecto	-		16	vista		
DTC de Calibrat	tes not exist. Ion information System	847105005300	Calibrati	ion		Up	date		
Calibrat	oes not exist. ion information System	842106006300 895386002000	Calibrati	ion			date <mark>(es</mark>	>	
DTC de Calibrat	ion information System	842106006300 895386002000	Calibrat	ion	No		date fes	No	
Stop and Redar C	ion information System	842106006300 855386002000	Calibrati	ion -	No		xtate fes 0	No	
 Stop.ans Radar Cr 	ion information System	8A2106006300 895386002000	Calibrat	ion -	No No		date fes	No	
Calibrat Calibrat Stop.ans Radar Cr	ion information System	8A2106006300 895336002000	Calibrat	on -	No No			N₀ -	ľ



◄ 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 TRANSMISSION CONTROL COMPUTER 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 PREPERATION

-) 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.



- a) When the vehicle has no "OFF position" in the light control switch:
 - 1) Turn the IG ON.
 - 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.

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:

ritical

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

3. 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 120 V source.
- The DLC III cable is in good condition.



NOTICE: If the GTS+ communication with the vehicle fails during the re-flash procedure, the No. 2 skid control ECU will be damaged.

VIII. UPDATE CALIBRATION

1. CONFIRM THE CALIBRATION ID

) Confirm the current calibration ID in the Transmission System.

📃 🚾 ΤΟΥΟΤΑ GT	S+ ((·)) ONLINE		Region : 1	NA	9	്	i ?
2023 XXXXXXXX		Produ	uction Date 12/01/2	022 72	205mile B	attery:1	2.5V
Health Check Resu	lt						
STATUS							
09/06/2023 11:42:38	Compensation Pressure	$\mathbf{\mathbf{f}}$	Techstream has esta	blished a	network co	nnection	to 🍙
Campaign Status: OPEN	[psi(gauge)]			TIS.			
PERMANENT: YES	Rear:		A network connection is require	d to ensure all T	US functionality in	available out	h at
ECU Security Key: -							
T Caurilee							
Enhanced G	coeric Completed: 09/06/2	023 11-44-33					
•	System		Monitor Status	Configure	Ro8 D	TC Upd	ate 🔶
+ Engine			les l	No	5	0 N	<u> </u>
Transmission			-	No	3	0 Ye	5
DTC information							
Calibratian Information							
System		Calibra	tion		Upda	te	
	8A2106006300					\sim	
	895386002000						
Stop and Start Radar Code1				No	3	0 N	° '
TARGE STUDET							
						80 0	
🗟 👌 ver2023.03.001.02 Subscription	Expiration 360d						(+1) encore

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

	Transm	ission Control Computer Calibrations	3
System	Vehicle Model	Current Calibration ID	New Calibration ID
		8A2100C0 <u>1200</u>	
		895386002000	
		8A2100C0 <u>1300</u>	8A2100C0 <u>1500</u>
	Tundra	895386002000	895386002000
	(2WD)	8A2100C0 <u>1400</u>	
		895386002000	
		8A2100C0 <u>9000</u>	8A2100C0 <u>9100</u>
		895386002000	895386002000
		8A2100C0 <u>3200</u>	
Transmission		895386002000	
1141151111551011		8A2100C0 <u>3300</u>	8A2100C0 <u>3500</u>
	Tundra	895386002000	895386002000
	(4WD)	8A2100C0 <u>3400</u>	
		895386002000	
		8A2100C <u>10000</u>	8A2100C <u>10100</u>
		895386002000	895386002000
	Tundra Hybrid	8A2100C0 <u>2200</u>	8A2100C0 <u>2300</u>
	(2WD)	895383401000	895383401000
	Tundra Hybrid	8A2100C0 <u>6200</u>	8A2100C0 <u>6300</u>
	(4WD)	895383401000	895383401000
System	Vehicle Model	Current Calibration ID	New Calibration ID
Transmission	Soquoia Hybrid	8A2100C0 <u>6200</u>	8A2100C0 <mark>6300</mark>
1141151111551011		895383401000	895383401000

NOTICE:

If the TRANSMISSION CONTROL COMPUTER has the New CID's, no update is necessary.

2. REFLASH THE TRANSMISSION CONTROL ECU

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.

IX. COMPLETE REPAIR

1. DISCONNECT THE DCA-8000



2. PERFORM VERIFICATION HEALTH CHECK

- a) Using a GTS+, click the "Health Check" button on the Main Menu.
- b) Clear DTC's that may have set during the re-flash procedure.c) 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.

3. CONFIRM CID UPDATE

- a) On the Stored Data tab, confirm the following for the Transmission System:
- The Calibration number has the "New CID" number.
- The Update column says "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 page 5.



Customer

Health Check

Report Button

4. PRINT CUSTORMER HEALTH CHECK REPORT

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

()	Diagnostic Report
Vehicle	e Information
Mileage:	7787
Repair Order:	77888
Our systems show the follow any of these campaigns been unsure.)	ing campaigns are outstanding. Have a completed? (Check for SSC door label if
XXX	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.

5. Emissions Repair Procedures for California Dealers

As this Safety Recall includes emission related parts, California dealers are requested to fill out the Vehicle Emissions Recall – Proof of Correction form and affix an Authorized Modification Label to the vehicle after repairs have been completed.

The vehicle owner may require the Proof of Correction form for vehicle registration renewal. *It is important to note that the forms are an official state document and blank forms must be secured to prevent misuse.*

Please complete the form and provide it to the owner. The first noncompleted VINs will be submitted to the California state DMV by late October 2024. If the vehicle owner's warranty claim will not be processed and paid prior to this date, please be sure to complete a form and provide it to a California owner.

License Number	Make	Year Model	Body Type	Vehicle Identification Number
Manufa The cont Dealer's N	cturer above desirol devices lame	cribed vehicle h to meet applici Add	as been repair able California ress, City, St	Recail Number ed. modified and/or equipped with new emission Emission Control Laws. ate and ZIp
Data		Dealershir	ve Authorizar	(Signature

Install the Authorized Modifications Label after the repairs have been completed. Using a permanent marker, fill out the label and affix it to the location under the hood as indicted.

Form booklets and Authorization Labels can be ordered from the MDC (Booklet material number 00410-92007, Label material number 00451-00001-LBL).



◄ 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.

X. APPENDIX

A. CAMPAIGN DESIGNATION DECODER

