# **TECHNICAL INSTRUCTIONS**

## FOR

## SAFETY RECALL 24TA11

# SKID CONTROL ECU REPROGRAMMING

# CERTAIN 2023-2024 MODEL YEAR COROLLA CROSS 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 complete the following <u>course</u>:

• TIC206A – Electrical Repair 1

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
  - 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.

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

•	GTS+	Standard Hand Tools	٠	DCA-8000 Battery Diagnostic Station

# **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.





- 1. STABILIZE THE POWER TO THE PERSONAL COMPUTER SIDE
- a) 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.

b) 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.



c) **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. BRAKE/EPB SYSTEM CALIBRATION ID VERIFICATION



### 1. CHECK FOR DTC'S

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

### 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

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

### HINT:

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

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20	24 Corolla Cross	M20A-FX	S						Batte	ry:12.5	V
H	ealth Check Resu	lt									
	STATUS										
	09/06/2023 11:42:38 Campaign Status: OPEN PERMANENT: YES ECU Security Key: -	Compensat [psi(gauge) Front: Rear:	ion Pressure ]	0	Tech A netur	stream has est	tablished a 1 TIS. red to ensure all T	network c	onnect	tion to	Û
	Caution										
	Enhanced G	eneric	Completed: 09/	06/2023 11:44:33							
Ľ	Facility		System			Monitor Status	Configure	NOB	DIC	Update	Ê.
	Transmission					in the second se	No	3	0	No	-
	Stop and Start					-	No	3	ŏ	No	
	Radar Cruise1					-	No	-	0	-	
•	Radar Cruise2					-	No	3	0	-	
<	Brake/EPB					-	No	4	0	Yes	
	DTC information		Current C	2							
	Calibration information		Content Ci	<u> </u>							
	System			Callb	ration			Upd	late		
			E1526XXXXXXX					<u>(1</u>	<b>b</b> )		
	Tire Pressure Monitor					-	No	3	0	No	Ŧ
							2	1	80	Ō	ľ
30	Ver2023.03.001.02 Subscription	Expiration:360d									() encin

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

Skid Control ECU Calibrations										
System	System Vehicle Model Current Calibration ID		New Calibration ID							
		F15260A1 <u>9000</u>								
	Corolla Cross	F15260A1 <u>9100</u>								
Brake/EPB		F15260A1 <u>9200</u>	F15260A1 <u>9500</u>							
		F15260A1 <u>9300</u>								
		F15260A1 <u><b>9400</b></u>								

NOTICE:

If the Skid Control ECU the *New* CIDs, no update is necessary.



# **VII. 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. (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. STOP THE OPERATION OF THE ELECTRIC FAN

a) Remove the FAN NO. 1 (30 A) fuse and FAN NO. 2 (30 A) fuse to keep the electric fan inactive while reprogramming.



If the electric fans run during the Calibration update procedure, the battery voltage will be inconsistent and could cause damage to the control module(s).

- 3. CONNECT THE 12V BATTERY TO A POWER SUPPLY (DCA-8000)
- 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. Please ensure DCA-8000 is connected and set to power supply mode. Voltage MUST be set to 13.5V.

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

ECU damage will occur if the battery voltage is not properly maintained during this re-flash procedure.

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

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

# VIII. UPDATE CALIBRATION

### 1. REFLASH THE SKID CONTROL ECU

a. Click yes on the health check results screen or follow the link on the table above to begin the reflash process.

### NOTICE:

Critical

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



2. LAUNCH CALIBRATION WIZARD Select "Next"



3. CONFIRM THAT "*NEW* CAL ID" IS CORRECT, AND THEN CLICK ON "NEXT".

**Note:** If the incorrect CAL ID file is selected it is not possible to move onto the re calibration.



4. TURN THE IGNITION OFF, THEN CLICK "NEXT"

Calibration Update Wizard -	Screen S701-15		x
Prepare for reprogram	ming		-
Confirm the following core 1. Turn ipsino ON IG ON 2. Engine Hood Open 3. All effecting accessorie 4. Battery voltage above 11 OF OF OF OF OF Defending and Accessorie Sector Sector	ditions. Ready OFF for HY) are OFF BV DLC3 BAT VOLTAGE: 14 2V CAUTION When reprogramming 1. Do not disconnect the DLC3 cable from 2. Do not turn OFF the IG switch. 3. Do not apply any electrical load to the vehil 4. Do not allow battery voltage to drop below 1	vehicle. Cle. 11 BV.	
		Start Cano	el
Calibration Update Wizard - Screen S70	-84	R2004150	007
Calibration Update Witard - Screen 570 art Signature Request Start the browser and perform Signatur Press "News" to launch the browser Press "Ottine" to perform effine Signat	-64 Request for ECU reprogramming une Request.	R2004150	007

5. FOLLOW THE ON-SCREEN INSTRUCTIONS AND CONFIRM THE FOLLOWING, THEN CLICK "NEXT"

PC is connected to VIM. Ignition is ON and engine is OFF Hood is open. All accessories are OFF Battery voltage is above 11.8V

# 6. PERFORM SECURITY SIGNATURE TO THE SERVER THEN HIT "NEXT"

a. Follow the instructions on screen

**Hint:** The reprogramming will not begin without the security signature.



# 7. LOGIN TO TIS

a. Input TIS login credentials and select "Login"

Note: This step requires internet.



## 8. RECALIBRATION WILL NOW BEGIN

Do Not disturb the vehicle during flash reprogramming.



lash Calibration Update Successful

## 14. RECALIBRATION FINISHED

a. The following Screen will appear at the end of the reflash.

- 15. TURN THE IGNITION OFF FOR A MINIMUM OF 10 SECONDS, THEN CLICK "NEXT"
- Click "Next" to continue.
- 16. TURN THE IGNITION TO THE ON POSITION, THEN CLICK "NEXT"

**Notice for Hybrid Models:** DO NOT turn the IG ON with the brake pedal depressed.



17. CONFIRM CALIBRATIONS WERE SUCCESSFULLY UPDATED.

## VIII. COMPLETE REPAIR

### 5. DISCONNECT THE DCA-8000



### 6. REINSTALL FUSE

a) Install the FAN NO. 1 (30 A) fuse and FAN NO. 2 (30 A) fuse to the original position.

## 7. CHECK THE OPERATION OF THE ELECTRIC FAN

- a) Turn the READY ON.
- b) Turn the air conditioner ON to check if the electric fan operates.

📃 🤓 τογοτά	GTS+	Region	: NA	ጥ ሮ i ?
2015 Camry 2AR-FE	JTNB11HKXJ	24878mile		Battery:12.3V
Main Menu				
	Tir	e Pressure / Threshold Valu	e0	
Sensor1: - / - Sensor	2: - / - Sensor3: - / - S	Sensor4: - / - Sensor5:	-/-	
Health Check	System Select	CAN Bus Check	Stored Data	Customize
ECU Security X	Send Vehicle	Vehicle Control History	PCS FFD. Retrieval	
1				

### 8. 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.



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

### 9. CONFIRM CID UPDATE

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

2023 Tundra V35A Health Check Resu	-FTS	Produc	tion Date $12/01/2$				
Health Check Resu			don Date 12/01/2	022   720	5mile E	Battery:12	2.5V
	lt						
STATUS							
09/06/2023 11:42:38 Campaign Status: OPEN PERMANENT: YES ECU Security Key: -	Compensation Pressure [psi(gauge)] Front: Rear:		Techstream has est:	ablished a n TIS. ed to ensure all TIS	etwork co	nnection	to Das
Caution							
Enhanced	Generic Completed: 09/06/20	023 11:44:33					
+	System		Monitor Status	Configure	RoB E	TC Upd	ate 🚖
+ Engine			Inc	No	<u>5</u>	0 N	o 🔤
+ Transmission			-	No	3	0 N	
+ Stop and Start			-	No	3	0 N	
+ Radar Cruise2			_	No	3	0 -	
- Brake/EPB	New CID's		-	No	4	0 N	
DTC information DTC does not exist. Calibration information	MUST be displayed					Updat say	e must "No"
System	F15260C35200	Calibration	n		Upda No	te	
+ Tire Pressure Monitor			-	No	<u>3</u>	0 N	~
S waranaa na nna na suberrinnin	n Expiration 3604					20 (	

Confirm the CIDs has been updated successfully to the *NEW* CIDs by someone other than the individual who performed the repair. Refer to page 6.



Critical

Customer Health Check Report Button

### **10. 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).
- 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.

	Dia	agnostic Report
	Vehicle Information	
	Mileage: 7787	
	Repair Order: 77888	
Our sys any of t unsure	tems show the following campaigns are outstar hese campaigns been completed? (Check for S )	nding. Have SC door label if
	XXX: C Performed C Not Performed	ormed

- g) Print Customer Health Check Report from TIS.
- h) Sign and provide to the customer.

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.

## **VIII. APPENDIX**



## A. CAMPAIGN DESIGNATION DECORDER