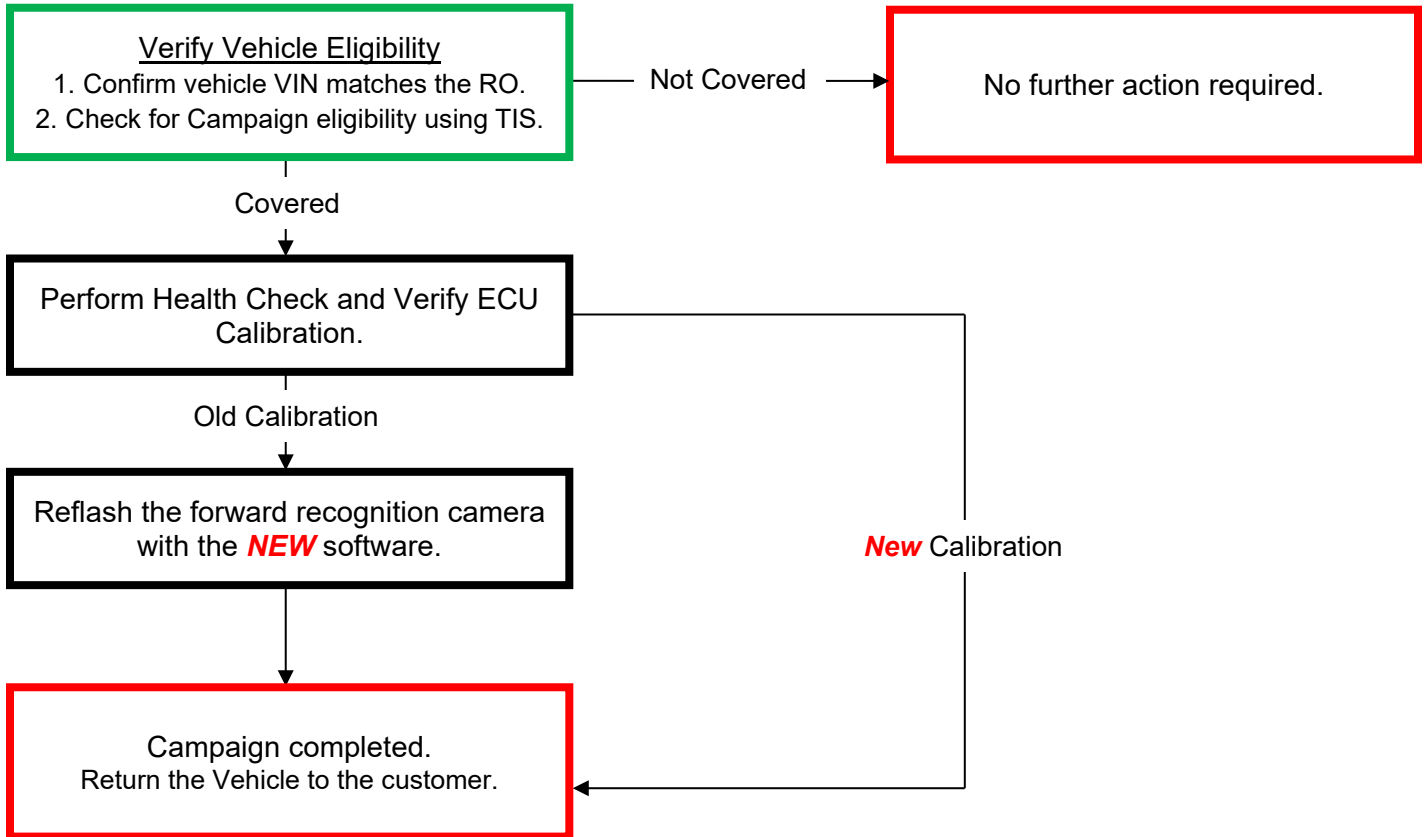


**TECHNICAL INSTRUCTIONS**  
**FOR**  
**23TC01**  
**TOYOTA SAFETY SENSE INOPERATIVE INTERMITTENTLY**  
**CERTAIN**  
**2023 MODEL YEAR bZ4X**  
**2023 MODEL COROLLA**  
**2023 MODEL COROLLA HATCHBACK**  
**2023 MODEL COROLLA HYBRID**  
**2023 MODEL COROLLA CROSS**

**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

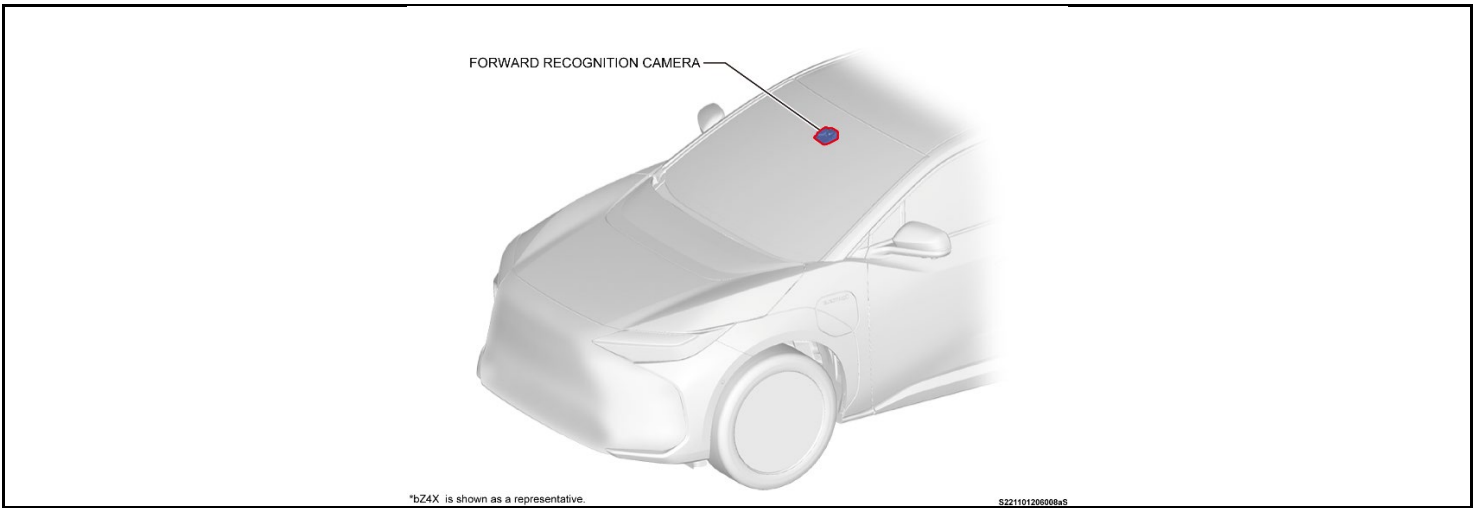
### A. TOOLS & EQUIPMENT

- T-SB-0134-16
- DCA-8000 Battery Diagnostic Station
- Techstream ADVi / Techstream 2.0 / Techstream Lite
- T-SB-0107-20

### B. MATERIALS

- Tape (For COROLLA HYBRID and COROLLA CROSS HYBRID)

## IV. BACKGROUND



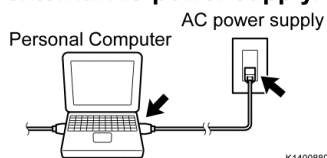
## V. SAFETY PRECAUTIONS

**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.**



K1400880016e

### 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.

**Turn off the screen saver and power saving mode.**



K1400880008e

- 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.

**DO NOT block the ventilation opening.**



S220700139019aS

- 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. FRONT RECOGNITION CAMERA SYSTEM CALIBRATION ID VERIFICATION



## 1. CHECK FOR DTC'S

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

### NOTICE:

This Campaign covers only the software update to the Front Recognition Camera 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 for the Front Recognition Camera System in the Stored Data tab for this vehicle.
- 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.

System	RoB	Calibration	Update	Configure
Circumference Monitoring Camera Control Module	●	8679F7820011 8679F7816021	No No	No
<b>Front Recognition Camera</b>	●	*****	<b>Yes</b>	No
Cleanance Camera	●	8934F7817020	No	No
Smart Access	●	021210040002	No	No
SRS Airbag	●	8917F7822000	No	No
Main Body	●	8AA117814000	No	No
Power Source Control	●	8922F7806003 02221C030002	No No	No

System Select: **Stored Data**

001396 mile

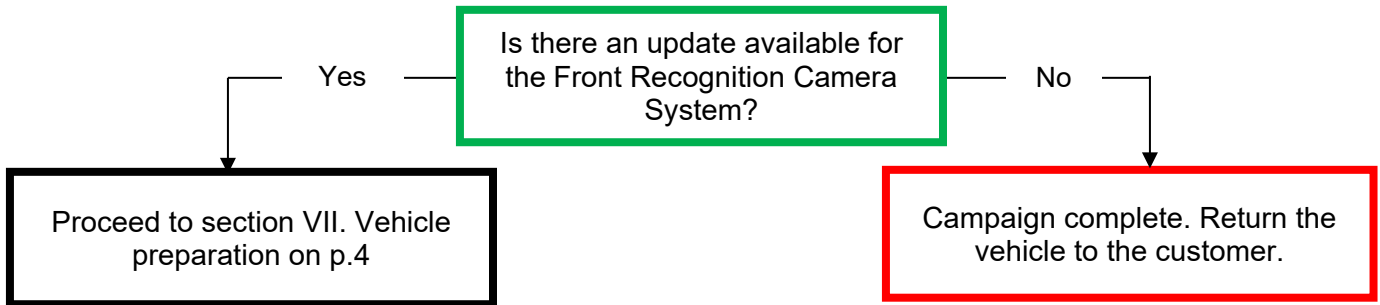
Health Check Results

- 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 right.

Campaign Status: PERMANENT: NO

ECU Security Key: -

S221101206004aS



### ◀ CRITICAL MESSAGE ▶

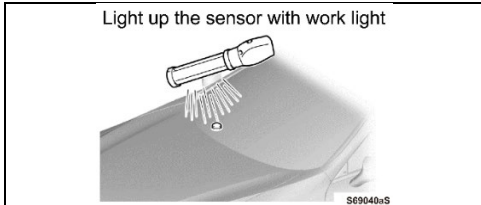
It is critical that T-SB-0134-16 and T-SB-0107-20 in addition to the Technical Instructions for this Recall [or LSC/CSC] are followed. This TSB outlines all steps necessary to prevent reprogramming failure. Toyota will not provide reimbursement coverage for reprogramming failures if this TSB is not followed. If you have a reprogramming failure that requires forward recognition camera 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 PREPARATION

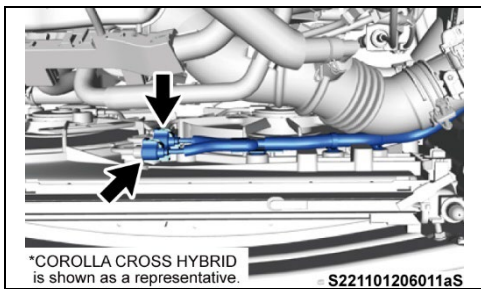
### 1. VEHICLE PREPARATION

a) Confirm the following conditions:

- Vehicle in the IG position (for HEV and BEV Model: READY OFF, for Gasoline Model: 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. (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 COOLING FAN (For COROLLA HYBRID and COROLLA CROSS HYBRID)

- a) Disconnect the 2 connectors from the cooling fan on the radiator fan shroud.
- b) Cover the disconnected 2 connectors with tape, etc. to prevent foreign material or water, etc. from adhering.



**If the cooling fan runs 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

- 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.

**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).

### 4. 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 120 V 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 120 v outlet during this procedure.**

#### NOTICE:

If the Techstream communication with the vehicle fails during the re-flash procedure, the forward recognition camera will be damaged.

## VIII. UPDATE CALIBRATION

### 1. CONFIRM THE ECU CALIBRATION ID

a) Confirm the current calibration ID in the Front Recognition Camera System.

The screenshot shows the 'Stored Data' section of a diagnostic tool. The 'Front Recognition Camera' system is highlighted in red. A callout box points to the 'Current CID' field in the table, which contains a redacted value '\*\*\*\*\*'. The table also shows other calibration IDs and their update status.

System	RoB	Calibration	Update	Configure
Circumference Monitoring Camera Control Module	●	8679F320011	No	No
Front Recognition Camera	●	*****	Yes	No
Clearance Learning	●	8934F017020	No	No
Smart Access	●	02121004002	No	No
SRS Airbag	●	8917F782200	No	No
Main Body	●	8AA11781400	No	No
Power Source Control	●	8922F780603	No	No
	●	02221C03002	No	No

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

**NOTE: These are large files, Please see file size below:**

Front Recognition Camera Calibrations				
System	Model	Front Recognition Camera Calibration ID		
		Current Calibration ID	<b>New</b> Calibration ID	File Size
Front Recognition Camera	bZ4X	8646F4206200	<b>8646F4206400</b>	<b>251MB</b>
		8646F4206300	<b>8646F4206400</b>	<b>250MB</b>
	COROLLA COROLLA HATCHBACK COROLLA HYBRID	8646F1204300	<b>8646F1204500</b>	<b>250MB</b>
		8646F1204400	<b>8646F1204500</b>	<b>250MB</b>
	COROLLA CROSS	8646F1606200	<b>8646F1606300</b>	<b>250MB</b>

### 2. REFLASH THE FORWARD RECOGNITION CAMERA

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

#### NOTICE:

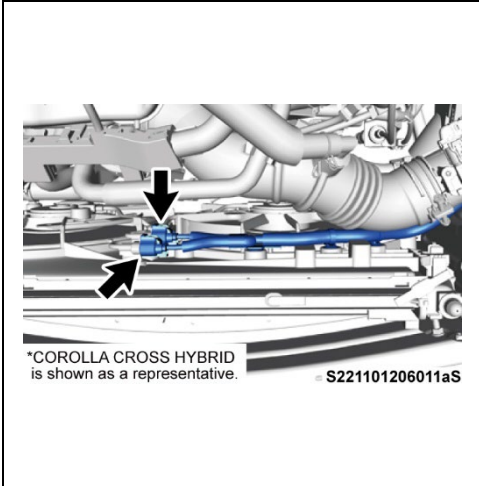
Reflash failure should be extremely rare and can be avoided by following all instructions and reprogramming best practices.

## IX. COMPLETE REPAIR

### 1. DISCONNECT THE DCA-8000

### 2. RECONNECT COOLING FAN (For COROLLA HYBRID and COROLLA CROSS HYBRID)

- Peel off the covering tape, etc.
- Reconnect the 2 connectors to the cooling fan on the radiator fan shroud.



**If you fail to reconnect fans a DTC may not set, ensure this is performed prior to the vehicle leaving.**

### 3. CHECK THE OPERATION OF THE COOLING FAN (For COROLLA HYBRID and COROLLA CROSS HYBRID)

- Turn the READY ON.
- Turn the air conditioner ON to check if the cooling fan operates.

### 4. 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.**



### 5. CONFIRM CID UPDATE

- On the Stored Data tab, confirm the following for the Front Recognition Camera System:
  - The Calibration number has the "New CID" number.
  - The Update column lists "No"

System Select: **Stored Data**

001396 mile

Health Check Results

Enhanced | Generic

System	B	Calibration	Update	Configure
Circumference Monitoring Camera Control Module	●	8679F78200	No	No
Front Recognition Camera	●	*****	No	No
Clearance Sensing	●	89241781020	No	No
Smart Access	●	021210040002	No	No
SRS Airbag	●	8917F7822000	No	No
Main Body	●	8AA117814000	No	No
Power Source Control	●	8922F7806003	No	No
	●	02221C030002	No	No

Campaign Status  
PERMANENT: NO

Security Key: -

**New CID's MUST be displayed**

**Update must say "No"**

S221101206006aS

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 p.5.

## 6. 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. A callout box points to a button labeled 'Customer Health Check Button'.

System	Monitor Status	DTC	Calif Conf	Pend	Hist	Test Failed	Calibration	Update
Engine	Yes							
Engine Control	-						*****	2
Transmission	-						*****	2
Radar Cnt	-						*****	2
Radar Cnt	-						*****	2
ABS/ESC	-						*****	2
Four Wheel	-						F1520F4033	Yes
EMPS	-						*****	2
Steering Angle Sensor	-						*****	2
Four Wheel Drive	-						*****	2
EMPS	-						*****	2
LAN/LDA	-						*****	2
Front Recognition Camera	-						*****	2
Air Conditioner	-						*****	2
Combination Meter	-						*****	2
Main Body	-						*****	2
D-Door Motor	-						*****	2
Entry&Start	-						*****	2
P-Door Motor	-						*****	2

017346901019

- b) Log in to TIS.  
c) Input Vehicle Mileage and Repair Order number.  
d) Check the "Performed" campaign button for campaign 23TC01.  
e) Select the Report button.

The screenshot shows the Diagnostic Report form with the following information:

**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 Front Recognition Camera Calibration has been updated to the NEW CID.
- Confirm the cooling fans has been reconnected (If applicable)
- Confirm there are no DTC's after the Calibration update.
- If you have any questions regarding this update, please contact your area representative.

**X. APPENDIX**

**A. CAMPAIGN DESIGNATION DECODER**

