### **TECHNICAL INSTRUCTIONS**

#### FOR

# SAFETY (NONCOMPLIANCE) RECALL 22TA07

# Panoramic View Monitor System – Potential Failure to Display Rearview Image

### Certain 2022 Model Year Tundra + Tundra HV

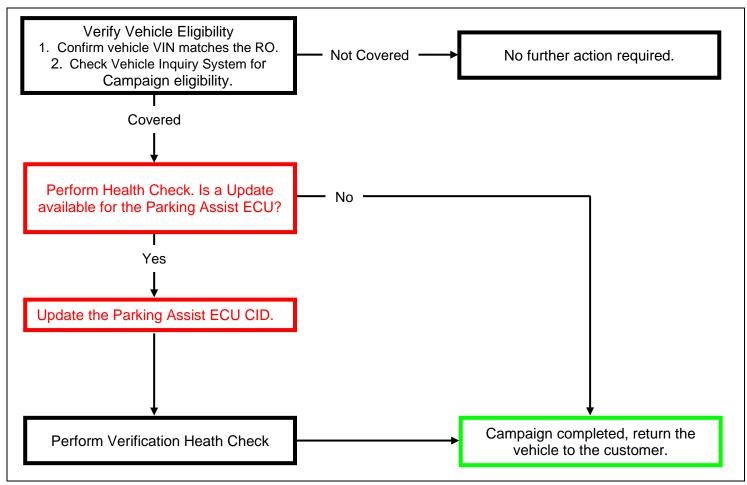
Update 8/16/2022: Updated wording on page 6 regarding the disconnection of the wire harness for the cooling fan for clarity.

The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this special service campaign 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 repair are required to currently have completed <u>all of the following courses:</u>

#### -T623 Electrical Circuit Diagnosis

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**

- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Campaign, and that it has not already been completed prior to dealer shipment or by another dealer.
- TMS warranty will not reimburse dealers for repairs completed on vehicles that are not affected or were completed by another dealer.

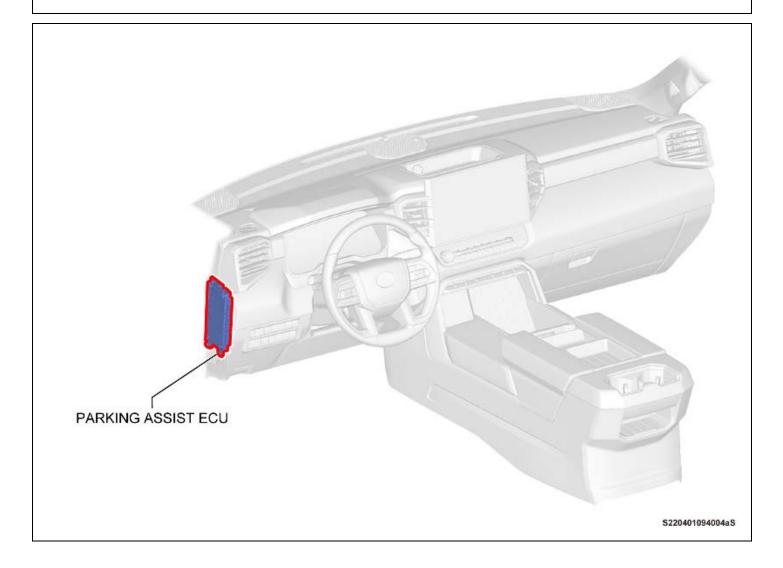
#### **III. PREPARATION**

#### A. TOOLS, SUPPLIES & EQUIPMENT

- Techstream ADVi / Techstream 2.0 / Techstream Lite
- DCA-8000P Battery Diagnostic Tool

# **IV. BACKGROUND**

b. In the affected vehicles, a software programming issue can cause the front camera image of the Panoramic View Monitoring (PVM) system to display instead of the rear camera image when the vehicle is placed into reverse position. If the rear camera image does not display after the vehicle is placed into reverse position, the vehicle will not comply with certain U.S. safety requirements and may increase the risk of a crash during a backing event.



# V. DETERMINE STATUS OF CURRENT CALIBRATION



#### 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 Calibration ID update to the Circumference Monitoring Camera Control Module, as detailed in these instructions. It does not cover the diagnosis or replacement of any other issues on the vehicle.

Error Send V	ehicle Information		
<b>A</b>	Failed to send data Would you like to t		
	Yes	No	

#### Notice:

Before completing Health Check, "Send Vehicle Information" window may be displayed. If displayed, then click "Yes" to send the vehicle information.

• If "Failed to send data to the server" is displayed, click "No" to close the window and proceed to the next step.

#### 2. CHECK CURRENT CALIBRATION

- a. Locate the <u>Update</u> column for the <u>Circumference Monitoring Camera Control Module</u> in the <u>Stored Data</u> tab for this vehicle.
- b. Determine the status of an available update for the Circumference Monitoring Camera Control Module; indicated by a YES or NO.

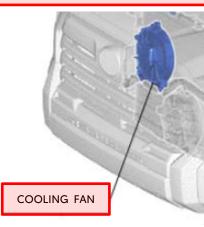
022 Tundra 35A-FTS	Tire Pressure / Threshold Value [psi(ga	uge)] 😒									
01565 mile	Sensor 1:         38.91         /         27.68         Sensor 2:           Sensor 3:         32.42         /         27.68         Sensor 4:           Sensor 5:         N/A         N/A	38.91 /         27.68           38.16 /         27.68							Ca	mpaign S	tatus <mark>Ye</mark> s
	Health Check Results									1. Starten and	NENT: NO
2022_Tundra_V: File Notes Health Checl Data 1-4/1 Data 2-4/1	Health Check does not display live data.     Changes in vehicle condition will not update     To update Health Check, click the Refresh bu     Enhanced Generic		of the Health Che	ck screer			ECU	J Sec	urity Key: -		
			DTC Re	elated Inf	ormation	1					
	System	Monitor Status	DTC	Curr Conf	Pend	Hist	Test Failed	RoB	Calibration	U@ste	Configure
	Tire Pressure Monitor			-				۲	897AF0101300	0 000	No
	Circumference Monitoring Camera Control Module	~							8679F0C01105	Yes	No
	Road Sign Assist								22	0-0-0	No
	Pre-Collision System	•							-		No
	Front Recognition Camera (Front Lighting Control)	-									No
	Clearance Warning	-						•	8934F0C04030	No	No
	Smart Key	-		-					011210060003	No	No
Sort	SRS Airbag			-					8917F0C15100 8917H0C02100	No No	No
Expand>>	Main Body			-					8922F0C01003	No	No
	Power Source Control							ŏ	01212C160002	No	No
TIS Search									FDC52.43.68	No	
Print Back							ECU		DTC	<b>1</b>	
		ere an upda mference M Control				]-	- N	o -			
Proceed	to section VI. Vehicle				Г	1	No u	pda	te is neces	ssary.	
pre	paration on p. 6								gn is comp		

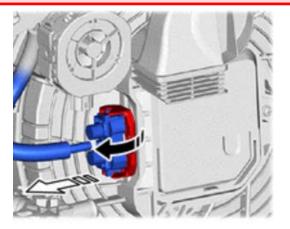
# **VI. VEHICLE PREPERATION**

The CID Update Procedure is detailed in <u>T-SB-0107-20 ECU Flash Reprogramming With</u> <u>Security Signature</u> Please reference this Bulletin for more detailed procedures and information.

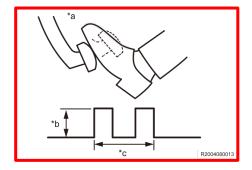
#### 1. VEHICLE PREPARATION

- a. Confirm the following conditions:
  - Vehicle in the IG position (engine off).
  - Transmission 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.
  - \*\* Climate Control system must be fully OFF to prevent electric AC condenser blower motor fan from starting
  - \*\* Disconnect the wire harness connection from the cooling fan located on the front, passenger side of the radiator, (A59). (hybrid model only)





• Pressurize the Hydro-booster (for hybrid model)



Depress the brake pedal to full stroke, two times within two seconds before reprogramming. This will prevent the brake booster pump from starting during reprograming which could result in a voltage drop. <u>Do</u> <u>not</u> depress the brake pedal again until reprograming is completed to prevent voltage drop.

# 2. 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 12v 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.

c. Note for Hybrid vehicles, the battery is located inside the cab, under the rear seat, on the driver's side.

### 3. 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 120v source.
  - The DLCIII cable is in good condition.

This update takes 35 minutes to complete once it is started in CUW.

Critical The Techstream's battery voltage MUST be maintained during the update procedure. If necessary, plug the Techstream into a 120v outlet during this procedure.

\*\*\*If the Techstream's communication with the vehicle fails during the update procedure, the ECU will be damaged.

### **VII. UPDATE CALIBRATION**

- 1. UPDATE THE CID FOR THE CIRCUMFERENCE MONITORING CAMERA CONTROL MODULE
  - a. Identify the vehicles Original CID for the <u>Circumference Monitoring Camera Control</u> <u>Module</u> on the Stored Data tab.

2022 Tundra V35A-FTS	Tire Pressure / Threshold Value [psi(gaug	ie)]									
01565 mile		3.91 /         27.68           3.16 /         27.68							Са	mpaign S	tatus <mark>Ye</mark> s
2022_Tundra_V: File Notes ⊡ Health Checl Data 1-4/1 Data 2-4/1	Health Check Results - Health Check does not display live data Changes in vehicle condition will not update at - To update Health Check, click the Refresh butto Enhanced Generic		of the Health Ch	eck screer	L.		Orig	ina			IENT: NO
			DTC	Related Inf	ormation	i .					
	System	Monitor Status	DTC	Curr Conf	Pend	Hist	Test Failed	RoB		Update	Configure
	Tire Pressure Monitor	-						۲	897AF010 300	No	No
	Circumference Monitoring Camera Control Module	•						•	8679F0C01105	Yes	No
	Road Sign Assist							٠			No
	Pre-Collision System			_							No
	Front Recognition Camera (Front Lighting Control)							•			No
	Clearance Warning	-		_					8934F0C04030	No	No
	Smart Key	-							011210060003	No	No
Sort	SRS Airbag							•	8917F0C15100 8917H0C02100	No No	No
Expand>>	Main Body	-							8922F0C01003	No	No
	Power Source Control	-						•	01212C160002	No	No
TIS Search									FDC52.43.68	No	
Print Back						1	ECU		DTC	• 🐼	

- b. Locate the vehicles **Original CID** in the chart below.
- c. Select the corresponding **NEW CID link** to load the update.

The CID Update Procedure is detailed in <u>T-SB-0107-20 ECU Flash Reprogramming With</u> <u>Security Signature.</u>

Model	Current Calibration ID	<b>NEW</b> Calibration ID
Tundra	8679F0C01201 8679F0C01105 8679F0C01104	8679F0C01301

#### VIII. COMPLETE REPAIR

#### 1. CONFIRM CID UPDATE



#### **CONFIRM CID UPDATE**

- a. Re-connect the cooling blower fan wire harness connection
- b. Using a Techstream, perform a Health Check to check for updated CID.
- a. On the Stored Data tab, confirm the following for the <u>Circumference Monitoring Camera</u> <u>Control Module</u>:
  - The Calibration number has the "New CID" number.
  - The "Update" column says "No".

22 Tundra 5A-FTS 1565 mile 2022_Tundra_V: File Notes Health Checl Data 1-4/1 Data 2-4/1		3.66 / 27.68 7.91 / 27.68	f the Health Ch	eck screer	le)		ECU	l Sec		1000	tatus: NO IENT: <mark>YES</mark>	
Data 3-4/1	Emanced Generic		DTC F	Related Inf	ormation	1						
	System	Monitor Status	DTC	Curr	Pend	Hist	Test Failed	RoB	Calibration	Update	Configure ^	
		Sidius		Com			Tuned		8A3213401100	No		
	Lane Control	5.43 L						•	•		No	NEW CID MI
	Brake/EPB	(a)						۲	F15260C25100	No	No	L. C. D. C. L. C. C.
	Tire Pressure Monitor	· • ·							897AF0101300	No	No	be displayed
								-	8679F0C01301		Conception of the second	
	Circumference Monitoring Camera Control Module	2:00						-	0079F0C01301	No 🧹	No	Undate MU
	Circumference Monitoring Camera Control Module Road Sign Assist					_	-		-	No	No No	a service of the serv
	Circumference Monitoring Camera Control Module	1000						•		NO		Update MU say "No"
Sort	Circumference Monitoring Camera Control Module Road Sign Assist Front Recognition Camera (Front Lighting	•						•		No	No	and the second sec
Sort	Circumference Monitoring Camera Control Module Road Sign Assist Eront Recognition Camera (Front Lighting Control)							•	- 8934F0C04030 011210060003		No No	a second and the second se
Sort Expand>>	Circumference Monitoring Camera Control Module Road Sign Assist Front Recognition Camera (Front Lighting <u>Control</u> ) Clearance Warning							•	- - 8934F0C04030	No	No No No	Update MU say "No"

#### 2. CLEAR DTC's

a. On the Stored Data tab, use the clear DTC feature to remove DTC's set during recalibration.

22 Tundra 5A-FTS	Tire Pressure / Threshold Value [psi(gaug	ie)]										
1565 mile		3.66 / 27.68 7.91 / 27.68							Ca	mpaign S	itatus: NO	
2022_Tundra_V: File Notes Health Checl Data 1-4/1 Data 2-4/1 Data 3-4/1	Health Check Results - Health Check does not display live data Changes in vehicle condition will not update at - To update Health Check, click the Refresh butto Enhanced Generic	itomatically. n on the bottom	of the Health Ch	eck screen			ECU	J Seci	urity Key: -	PERMAI	NENT: <mark>YE</mark> S	
Uata 3-4/1			DTC R	lelated Info	ormation	1					1	
	System	Monitor Status	DTC	Curr	Pend	Hist	Test Failed	RoB	Calibration	Update	Configure ^	
	System			Curr Conf	Pend	Hist	Test Failed	RoB	Calibration 8A3213401100	Update No	Configure ^	
	Lane Control			Curr Conf	Pend	Hist	Test Failed	RoB	8A3213401100	No	No	
	Lane Control Brake/EPB	Status		Curr Conf	Pend	Hist	Test Failed	RoB	8A3213401100 F15260C25100	No	No No	
	Lane Control Brake/EPB Tire Pressure Monitor	Status		<u>Curr</u> <u>Conf</u>	Pend	Hist	Test Failed	RoB	8A3213401100	No	No	
	Lane Control Brake/EPB Tire Pressure Monitor Circumference Monitoring Camera Control Module	Status		Curr Conf	Pend	Hist	Test Failed	RoB	8A3213401100 F15260C25100	No	No No No	
	Lane Control Brake/EPB Jire Pressure Monitor Circumference Monitoring Camera Control Module Road Sign Assist	Status		Curr Conf	Pend	Hist	Test Failed	RoB	8A3213401100 F15260C25100 897AF0101300	No No No	No No No	Clear
	Lane Control Brake/EPB Tire Pressure Monitor Circumference Monitoring Camera Control Module Road Sign Assist Eront Recognition Camera (Front Lighting Control)	Status		Curr Conf	Pend	Hist	Test Failed	RoB	8A3213401100 F15260C25100 897AF0101300 8679F0C01301	No No No	No           No           No           No           No           No           No	Clear I
Sort	Lane Control Brake/EPB <u>Tire Pressure Monitor</u> Circumference Monitoring Camera Control Module Road Sign Assist Front Recognition Camera (Front Lighting	Status		Curr Conf	Pend	Hist	<u>Lest</u> <u>Failed</u>	RoB	8A3213401100 F15260C25100 897AF0101300 8679F0C01301	No No No No	No No No No No No	Clear I
Sort	Lane Control Brake/EPB Tire Pressure Monitor Circumference Monitoring Camera Control Module Road Sign Assist Eront Recognition Camera (Front Lighting Control)	Status		Curr Conf	Pend	Hist	Test Failed	RoB	8A3213401100 F15260C25100 897AF0101300 8679F0C01301 	No No No No No	No           No           No           No           No           No           No	Clear I
Sort Expand>>	Lane Control Brake/EPB Jire Pressure Monitor Circumference Monitoring Camera Control Module Road Sign Assist Front Recognition Camera (Front Lighting Control) Clearance Warning	Status		Curr Conf	Pend	Hist	Test Failed	RoB 0 0 0 0 0 0 0 0 0 0 0 0 0	8A3213401100 F15260C25100 897AF0101300 8679F0C01301	No No No No	No No No No No No	Clear I

#### 3. 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).

System Select Stor	ed Data									$\boldsymbol{c}$
2018 C.HR 32R FAE	Tire Pressure / Threshold W	alue (kPa(abs	1 0	1						
142-10-2000011			L 10 / NO							Custmer Health Check Button
2018_C.HR_32R - File Notes	Enhanced									Check Button
E Health Ch	System	Monitor Status	DTC	Carr	Pend	Hist	Test	Calibration	Update *	
a Engine	Engine	Status	-	Com	-	-	C MINES		_	
II Transmiss	Radar Cruise2		_			_				
🗵 Redar Cru	Transmission							**********	2	
Radar Cru	Redar Cruise1							**********		
= ABS/VSC/ = Foor Whe	ABS/VSC/TRAC/EPB							F1628F4003	Yes	
= EMPS	Steering Angle Sensor					-		**********	7	
a Air Condit	Four Wheel Drive						-	**********	1 12	
II SRS Aldur	EMPS	4						*********	1 1	
# Pse Collin	LKA/LDA							*********	1/	
a Combinat	Front Rocognition Camera							**********		
		-						**********	//	
E FmetReo E LKALDA *	Air Conditioner							*********		
	Combination Meter	*								
Sot	Main Body		-							
Expanden	D Door Motor							//		
	Entry&Start	+ .								
TIS Search	P.Door Hotor							/ .		
	distance of the second						/	255 22		
	2017/10/02 11:18:21						10.001	10 10	2 🙄	

- 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.
- f. Confirm Customer Health Check Report information is correct.
- g. Print Customer Health Check Report from TIS.
- h. Sign and provide to the customer.

### IX. REASSEMBLY

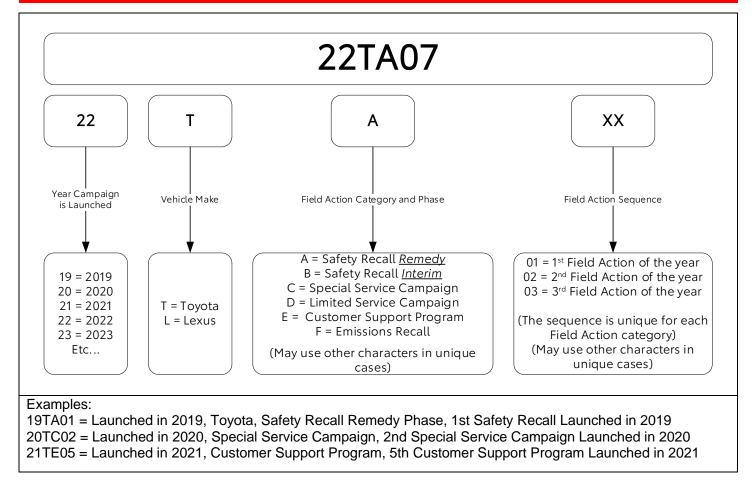
- 1. Remove the power supply from the battery
- 2. Disconnect the Techstream.

# ◄ VERIFY REPAIR QUALITY ►

- Confirm the system Calibration has been updated successfully.
- Confirm there are no new DTC's after the Calibration update.

#### A. PARTS DISPOSAL

In accordance with Federal law, please make sure all recalled parts (original parts) removed from the vehicle are disposed of in a manner in which they will not be reused, **unless** requested for parts recovery return.



# **Campaign Designation / Phase Decoder**