TECHNICAL INSTRUCTIONS

FOR

LIMITED SERVICE CAMPAIGN K0P CUSTOMER SUPPORT PROGRAM 19TE12

SAFETY CONNECT SYSTEM – VEHICLE LOCATION INACCURATE

CERTAIN 2013 – 2019 MODEL YEAR 4RUNNER 2011 – 2017 MODEL YEAR LAND CRUISER 2013 – 2017 MODEL YEAR PRIUS 2012 – 2017 MODEL YEAR PRIUS V 2016 – 2017 MODEL YEAR MIRAI

Updated 08/24/2020

Update 8/24/20

- Special CUW Application has been updated. Techstreams running version 15.1 or newer software will need to update the Special CUW Application using the link on page 6

Update 10/17/19

- The title has been updated to include Customer Support Program 19TE12

Update 9/13/19

 The process has been updated to address an issue with Techstream. Technicians will no longer determine if an update is required based on the Update column Yes/No option displayed during a health check. Technicians will determine if an update is required based on calibration ID only

The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this LSC 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 LSC repair are required to currently hold at least one of the following certification levels:

- · Certified Technician (any specialty)
- Expert Technician (any specialty)
- Master Technician
- Master Diagnostic Technician

It is the dealership's responsibility to select technicians with the above certification level or greater to perform this LSC 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.



Campaign completed, return the vehicle to the customer.

II. IDENTIFICATION OF AFFECTED VEHICLES

NOTE:

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

III. PREPARATION

A. TOOLS & EQUIPMENT

- Standard Hand Tools
- CUW Maintenance Tool
- Battery Diagnostic Station
- Techstream 2.0 / TIS Techstream / Techstream Lite (Software 14.1 or Higher)



IV. BACKGROUND

The Data Communication Module (DCM) in the subject vehicles are equipped with software to identify the location of the vehicle using the Global Positioning System (GPS) to support features of the Safety Connect system. Due to incorrect programming in the DCM software, after November 2nd, 2019, the GPS coordinates for this system will be calculated incorrectly. This will cause the system to use incorrect vehicle coordinates if one of the system's features is activated.

V. PROCEDURE OVERVIEW



CRITICAL INFORMATION



- You will perform the reprogramming after installing a dedicated CUW application (Special CUW (only for DCM)) to a Techstream. By using this dedicated CUW application, the reprogramming time can be shortened.
- The reprogramming takes more than 60 minutes to complete, and the vehicle will turn the IG OFF automatically when it has passed about 60 minutes with IG ON while the shift lever is in P position.

Therefore, make sure to perform the following works before starting the reprogramming.



<<APPLY WHEEL BLOCKS AND PARKING BRAKE>>

<<MOVE THE SHIFT LEVER TO N POSITION>>

VI. SAFETY PRECAUTIONS



VII. INSTALLATION OF THE SPECIAL CUW APPLICATION

- Please make sure to use the special CUW application when performing the ECU reprogramming.
- You cannot exit the special CUW application until you complete the reprogramming.

DOWNLOAD THE SPECIAL CUW APPLICATION 1.

a) Click the link below to download the Special CUW Application

NOTE: Special CUW Application has been updated. Techstreams running version 15.1 or newer software will need to delete the current Special CUW Application software on Techstream and download the new version below.

SPECIAL CUW APPLICATION V.2

STOP



- Select "Special CUW (only for DCM)".
- Click on the "Next" button to install the special CUW application.

4. COMPLETE INSTALLATION

Click on the "Finish" button to finish. NOTE: Use the special CUW application after installing it to the personal computer which has Techstream.

VEHICLE PREPERATION VIII.

1. **VEHICLE PREPERATION**

STOP

Record settings of the audio system, air conditioner, front seats position, etc. since the cable of the negative a) battery terminal is going to be disconnected in a later step.



CONNECT THE 12V BATTERY TO A POWER SUPPLY (GR8/DCA) 2.

- Connect the GR8/DCA or other type of a power supply (not a battery charger) to the 12V battery. a)
- Select the Power Supply Mode from the Charge Menu of the GR8/DCA. b)

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.

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

IX. CHECK FOR DTC'S

1. CONNECT THE TECHSTREAM TO THE VEHICLE

- Turn the IG OFF. a)
- Using a Cable No.1 (provided tool), connect the Techstream to the vehicle. b)

NOTE: DO NOT use this tool except for this campaign.

Follow the instructions below. Otherwise, the battery voltage will decrease or communication will become disabled, and this may require the replacement of the DCM. Turn off the screen saver and power saving mode of the PC. STOP

- Use the external power supply for the PC. (DO NOT use the PC's internal battery or vehicle's battery.)
- Ensure that the communication cable connectors are securely connected, the cable is in good condition, and the connection is stable.



VERIFY TECHSTREAM SETUP 2.

- a) Verify that the Techstream meets the following conditions:
 - The software version 14.1 or higher is loaded.
 - The Techstream battery is fully charged. If not, connect the Techstream to a 120V source.
 - The DLCIII cable is in good condition.

The Techstream's battery voltage must also be maintained during the re-flash procedure. If STOP necessary, plug the Techstream into a 120v outlet during this procedure.

NOTE: If the Techstream communication with the vehicle fails during the re-flash procedure, the DCM will be damaged.



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

NOTE: This Campaign covers only the software update to the Telematics System, as detailed in these instructions. It does not cover the diagnosis or replacement of any other systems on the vehicle.



There are 3 different ways to reprogram the Telematics System Make sure to follow the instructions of these technical instructions.

1. CHECK CURRENT CALIBRATION

STOP

a) Determine the status of an available update; indicated by the calibration ID.

Note: <u>Do not use the update column and an indicator if an update is required as it will always say No</u>. Only use calibration ID



b) Reprogram the Telematics System to the *NEW* CID following the table below. NOTE: Take note of both current and new CID to be able to select correctly.

	DCM(Telematics System) Calibrations					
DCM Model	Current CID	Action				
12DCM	00002. <mark>40</mark> .06.04.01.91	Go to section XI				
	00003. <mark>00</mark> .05.01.03.16					
	00003. <mark>00</mark> .05.01.03.21					
13/14	00003. <mark>00</mark> .05.01.13.02	Co to costion VII				
VI-DCM	00003. <mark>00</mark> .05.01.13.03					
	00003. <mark>00</mark> .05.01.13.04					
	00003. <mark>00</mark> .05.01.13.06					
CID	other than above	Go to section XVI				

XI. 12DCM UPDATE CALIBRATION

1. VEHICLE PREPARATION BEFORE UPDATING THE TELEMATICS SYSTEM

a) Turn the IG to the OFF position.

STOP



b) DISCONNECT THE FRONT PASSENGER SEAT CONNECTORS (Only 4RUNNER, PRIUS, PRIUS V)

NOTE:

- The reprogramming may fail if you perform it without disconnecting the connectors. Please make sure to disconnect the connectors before performing the reprogramming.
- Disconnect the cable from the negative battery terminal to disable the SRS system. Refer to the repair manual in detail.
- Be sure to disconnect each connector after disconnect the negative battery terminal.
- (1) Separate the front passenger seat, and then disconnect each connector of the front passenger seat.

NOTE:

- Separate the front passenger seat following the instructions on the repair manual. However, there is no need to take it out.
- Depending on seat type, you may need to perform certain initializations (such as Zero Point Calibration) refer to the repair manual for details

Go on TIS and refer to the repair manual for how to separate the seat

Path: SEAT / FRONT SEAT ASSEMBLY / REMOVAL

Note: you can copy and paste the path above into the TIS search bar to access the instructions quickly

- (2) Connect the negative battery terminal and GR8/DCA.
- c) DISCONNECT "D/C CUT " OR "SHORT PIN" NOTE:
 - The reprogramming may fail if you perform it without disconnecting the "D/C CUT" or "SHORT PIN". Please make sure to disconnect the "D/C CUT" or "SHORT PIN" before performing the reprogramming.
 - Refer to Section XIV for the location of "D/C CUT" and "SHORT PIN" of each vehicle model.
- d) Turn the IG to the ON position (engine off).
 NOTE:
 DO NOT start the engine.
 HINT:

Depending on the model, method of IG ON may be different.



STOP

2. UPDATE THE TELEMATICS SYSTEM Click the NEW CID link below to update the DCM						
	DCM(1	Felematics Syst	em) Calibrations			
DCM Model	Current	t CID	NEW CID			
12DCM	00002. <mark>40</mark> .06	6.04.01.91	<u>00002.<mark>80</mark>.06.04.01.91</u>			
STOP		Check the CUV	/ application	STOP		
Contraction of the proof of the contraction of the proof of the contraction of the contra	Blue Color Water Courter of the second of t	a) Check if the S NOTE: If Special CU the instruction	Special CUW (only for DCM)" is downloaded. W (only for DCM) has not been downloaded, ons of section VII.	follow		
Collection to plate water - Sover 21 Calified This generator is easily a solid REE from an unity a solid meeting (regiment of 2008 2008 TraceConcernent)	Versie ECU versie 24 Mizer of worker 24 Mize	b) When Calibra	tion Update Wizard is launched, click on "Next".			
Cuteroson topolars Waved - Screen SDP Connect to Vehicle Connect to Vehicle Descrete the decise as described by the PLAN decise is connected to PC variable 2.253 decises to connected to PC variable 2.354 decises to connected to PC variable 2.354 decises Total - Connected to PC variable decises to the PLAN decises to the PLAN decises to the PLAN decises to the PLAN decises to the PLAN decises to the PLAN decises to the Decise to the PLAN decises to the PLAN decises to the Decise to the PLAN decises to the PLAN decises to the PLAN decises to the Decise to the PLAN decises to the PL	Contraction	c) Select a devic	e tool, and then click on "Next".			
Consider toma manifer - soven over Calibration Solicidon Confirmat DCM Nermarko) Part d'Alemarko) Constitución Constit	er Colorador Service Colorador Color	d) Confirm that " click on "Next NOTE: The cali Please make su the IDs.	Current Cal ID" and "New Cal ID" are correct, an bration IDs will be displayed as shown on the are you <i>DO NOT</i> mistake where to check to c	nd then e left. onfirm		
Cick 'free' to continue.	CTF: Constitution registers to be detailed before Flush Representation The Standard States Flush Representation State of the States Representation State of the States Representation State Cancel buffors to exit divide for Process	e) Follow the on- on "Next". NOTE: After "N displayed. <i>DO</i>	screen instructions and turn the IG off, and ther ext" is clicked, a bar showing the progress is NOT turn the IG on while the bar is shown.	ı click s		



Vehicle condition before reprogramming DO NOT start the engine.





f) Turn the IG to the ON position (engine off).
 NOTE:
 DO NOT depress the brake pedal.
 HINT:

Depending on the model, method of IG ON may be different.

- g) Move the shift lever to Neutral position. **NOTE:**
 - The reprogramming takes more than 60 minutes to complete, and the vehicle will turn the IG OFF automatically when it has passed about 60 minutes with IG ON while the shift lever is in P position. Therefore, make sure to move the shift lever to N position before starting the reprogramming.
 - The alarm sound will be heard if the door is fully closed with IG ON while the shift lever is in Neutral position, on either of the following conditions:
 - The key is outside the vehicle
 - The key battery is low

h)	Click	on	"Start".
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Confirm the following conditions.	
1. Turn Ignition ON (IG ON Ready 2. Engine Hood Open 3. All electrical accessories are	OFF for HV) OFF
* battery votage above 11.4V	DLC3 BAT VOLTAGE 14.3V
Click "Start" to begin reprogram	CALIFORM When opercipationing 1. Do not disconnect the DLCD calib from vehicle. 2. Do not allow the DL and the DLCD calib from vehicle. 3. Do not allow faultery voltage to drog ballow 11.4/. 4. Do not allow faultery voltage to drog ballow 11.4/. Insting.
	Start Cancel

- i) While reprogramming, the screen shown on the below is displayed. **NOTE:**
- As reprogramming completes within approximately 75 minutes, stay near the vehicle and *DO NOT* allow any third parties to operate the vehicle or Techstream in order to prevent troubles from being occurred. The following phenomena may be observed while reprogramming due to interrupted communication. However, there is no problem.
- Vehicle proximity alarming sound.

STOP

- Blackout navigation screen (black).
- Indication of a warning lamp or error message in the meter.
- "Now processing" is displayed for about 10 minutes. *DO NOT* finish reprogramming until the screen changes.



If the following window is displayed and the reprogramming has failed, click on "Retry" and then "Cancel" to finish the reprogramming process. Remove the DCM (telematics transceiver) from the vehicle and perform the reprogramming procedure again only to the DCM (telematics transceiver). Refer to Section XIII





j) After "Flash Calibration Update Successful" is displayed, move the shift lever to Parking position and turn the IG off and click the "Next" button.

NOTE: After "Next" is clicked, a bar showing the progress is displayed. *DO NOT* turn the IG on while the bar is shown.

 k) Follow the on-screen instructions and turn the IG on, and then click the "Next" button.
 NOTE: DO NOT turn the IG on with the brake pedal depressed

NOTE: *DO NOT* turn the IG on with the brake pedal depressed. Otherwise the engine starts.

- I) After reprogramming, make sure that the "After update "Current Cal ID" is correct.
- m) Click the "Finish" button.



Click the "Finish" button with the IG on, even though the instruction on the screen says to turn the IG off.

After the reprogramming has been completed, refer to Section XV and restore the vehicle.

XII. 13/14VI-DCM UPDATE CALIBRATION





STOP

e) Follow the on-screen instructions and turn the IG off, and then click on "Next".

NOTE: After "Next" is clicked, a bar showing the progress is displayed. *DO NOT* turn the IG on while the bar is shown.

Vehicle condition before reprogramming DO NOT start the engine.

STOP



f) Turn the IG to the ON position (engine off).
 NOTE:
 DO NOT depress the brake pedal.

Move the shift lever to Neutral position.

NOTE:

g)

- The reprogramming takes more than 60 minutes to complete, and the vehicle will turn the IG OFF automatically when it has passed about 60 minutes with IG ON while the shift lever is in P position. Therefore, make sure to move the shift lever to N position before starting the reprogramming.
- The alarm sound will be heard if the door is fully closed with IG ON while the shift lever is in Neutral position, on either of the following conditions:
- The key is outside the vehicle
- The key battery is low

h)	Click	on	"Start".
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Turnigretion Ohigit ON Ready Engine Hood Open All electrical accessories are	OFF for HV) OFF
4 Battery voltage adove 11.4V	IN C2 PATION TAGE 14 TV
Or Control of the second secon	CAUTION! Then regroupsmenting the consequences are DC.C.C.coste how vehicle. 2. Do not on opty any electrical land to the vehicle. 3. Do not apply any electrical land to the vehicle. 4. Do not alwe balance tarting hold on plackow 11.4/. mining.

- i) While reprogramming, the screen shown on the below is displayed. **NOTE:**
- As reprogramming completes within approximately 85 minutes, stay near the vehicle and *DO NOT* allow any third parties to operate the vehicle or Techstream in order to prevent issues from occurring. The following phenomena may be observed while reprogramming due to interrupted communication. However, there is no problem.
- Vehicle proximity alarming sound.
- Blackout navigation screen (black).
- Indication of a warning lamp or error message in the meter.
- "Now processing" is displayed for about 10 minutes. *DO NOT* finish reprogramming until the screen changes.





j) After "Flash Calibration Update Successful" is displayed, move the shift lever to Parking position and turn the IG off and click the "Next" button.

NOTE: After "Next" is clicked, a bar showing the progress is displayed. *DO NOT* turn the IG on while the bar is shown.

 k) Follow the on-screen instructions and turn the IG on, and then click the "Next" button.

NOTE: *DO NOT* turn the IG on with the brake pedal depressed. Otherwise the engine starts.

I) After reprogramming, make sure that the "After update "Current Cal ID" is correct.

m) Click the "Finish" button.



Click the "Finish" button with the IG on, even though the instruction on the screen says to turn the IG off.

After the reprogramming has been completed, refer to Section XV and restore the vehicle.

XIII. IF UPDATE CALIBRATION FAILS



If the calibration fails contact your FTS for warranty claim filling instructions

1. REMOVE THE DCM (TELEMATICS TRANSCEIVER)

Go on TIS and refer to the repair manual for how to separate the seat

Path: CELLULAR COMMUNICATION / DCM(TELEMATICS TRANSCEIVER) / REMOVAL

Note: you can copy and paste the path above into the TIS search bar to access the instructions quickly

2. CONNECT THE TECHSTREAM TO THE DCM

a) Using a Cable No.1 & No.2 (provided tool), connect the Techstream to the DCM. **NOTE:** *DO NOT* use these tools except for this campaign.



3. UPDATE THE TELEMATICS SYSTEM

a) Perform a Health Check.

NOTE:

• Only "Telematics" will be shown on the System column.

• Some DTCs may be shown but it does not affect the reprogramming.

Click the NEW CID link below to update the DCM

DCM(Telematics System) Calibrations						
DCM Model	Current CID	NEW CID				
12DCM	00002. <mark>40</mark> .06.04.01.91	<u>00002.80.06.04.01.91</u>				
13/14 VI-DCM	00003. <mark>00</mark> .05.01.03.16	<u>00003.20.05.01.03.16</u>				
	00003. <mark>00</mark> .05.01.03.21	<u>00003.20.05.01.03.21</u>				
	00003. <mark>00</mark> .05.01.13.02	<u>00003.20.05.01.13.02</u>				
	00003. <mark>00</mark> .05.01.13.03	<u>00003.20.05.01.13.03</u>				
	00003. <mark>00</mark> .05.01.13.04	<u>00003.20.05.01.13.04</u>				
	00003. <mark>00</mark> .05.01.13.06	<u>00003.20.05.01.13.06</u>				



b) When Calibration Update Wizard is launched, click on "Next".

- c) Select a device tool, and then click on "Next".
- d) Confirm that "Current Cal ID" and "New Cal ID" are correct, and then click on "Next".

NOTE: The calibration IDs will be displayed as shown on the left. Please make sure you *DO NOT* mistake where to check to confirm the IDs.

e) Click on "Next".

NOTE: It is *NOT* necessary to follow the instructions on the screen of Techstream.



f) Click on "Start".
 NOTE: It is NOT necessary to follow the instructions on the screen of Techstream.

g) While reprogramming, the screen shown on the below is displayed. **NOTE:**

As reprogramming completes within approximately 75 minutes (12DCM) or 85 minutes (13/14VI-DCM), stay near the vehicle and *DO NOT* allow any third parties to operate the vehicle or Techstream in order to prevent issues from occurring.

The following phenomena may be observed while reprogramming due to interrupted communication. • "Now processing" is displayed for about 10 minutes. *DO NOT* finish reprogramming until the screen

changes.



4. INSTALL THE DCM (TELEMATICS TRANSCEIVER)

Go on TIS and refer to the repair manual for how to separate the seat

Path: CELLULAR COMMUNICATION / DCM(TELEMATICS TRANSCEIVER) / INSTALLATION

Note: you can copy and paste the path above into the TIS search bar to access the instructions quickly

XIV. D/C CUT AND SHORT PIN LOCATION





XV.COMPLETE REPAIR

- 1. DISCONNECT THE GR8/DCA
- 2. RESTORE THE VEHICLE (IF YOU REPROGRAM 12DCM)
 - a) Reinstall the "D/C CUT FUSE" or "SHORT PIN".
 - b) (Only 4RUNNER, PRIUS, PRIUS V).
 - (1) Disconnect cable from negative battery terminal.

(2) Connect each connector of the front passenger seat. Refer to repair manual for installation. Depending on seat type, you may need to perform certain initializations (such as Zero Point Calibration) refer to the repair manual for details

- (3) Connect cable to negative battery terminal.
- (4) Some systems need to be initialized after the cable is reconnected. Refer to repair manual for initialization.



3. PERFORM VERIFICATION HEALTH CHECK

- a) Using a Techstream, perform a Health Check.
- 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.



4. CONFIRM CID UPDATE

a) On the Stored Data tab, confirm the following for the DCM: **The calibration ID is the latest version**

5. 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).

2018 C.HR 32R.FAE	Tire Pressure / Threshold Value (kPajabs))									
HECHRORE	Semar 2 Journ / WA Semar 4: 200.10 / WA Semar 5: MA / WA Health Check Results									Custmer Health Check Button
Health Ch Date 1	System	Monitor Status	DTC	Carr	Bend	His	Test Failed	Calibration	Update	
Engine Transmiss	Radar Cruise2	Inc								
Redar Cra	Innumbaion		-	-				*********	2	\sim —
ABS/VSC/	Reder Cruise1							*********		
Four Whe	ABS/VSC/TRAC/EPB	+		-				F1528F4033	768	
EMPS	Steering Ange Sensor	-		-				***********		
An Condit	FHPS	-							1 1	
Pre Collin	LKANDA			-		-			1	
Combinat	- CERTARE			-				**********	1	
Starting C	Eront Recognition Comeca							**********	//	
Front Rec	Air Conditioner	-						*********	//	
LAALDA -	Combination Meter								/	
Sot	Main Body	-								
Females	D Door Motor	-						//		
co-parts -	Entry&Start									
TIS Search	P.Door Motor)•	1
Part	2017/10/10 11:18:21 Campaign Status:2					1	h	10	2 0	1
14								Date of the	952.3	01734690

- c) Input Vehicle Mileage and Repair Order number.d) Check the "Performed" campaign button for campaign K0P
- e) Select the Report button.

\odot	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.)
f) Confirm Custon g) Print Customer h) Sign and provid	her Health Check Report information is correct. Health Check Report from TIS. e to the customer.

NOTE:

If Service Mode screen is shown on the navigation screen, press OK to cancel service mode.

XVI. REINSTALL THE REGULAR CUW



◄ VERIFY REPAIR QUALITY ►

- Confirm the calibration has been updated
- If the seat was removed, confirm it has been reinstalled correctly
- If the DCM was removed, confirm it has been reinstalled correctly

If you have any questions regarding this update, please contact your regional representative.

XVII. APPENDIX

A. CAMPAIGN DESIGNATION DECODER



Examples:

19TA01 = Launched in 2019, Toyota, Safety Recall Remedy Phase, 1st Safety Recall Launched in 2019 20TC02 = Launched in 2020, Special Service Campaign, 2nd Special Service Campaign Launched in 2020 21TE05 = Launched in 2021, Customer Support Program, 5th Customer Support Program Launched in 2021

B. CAMPAIGN PARTS DISPOSAL

As required by Federal Regulations, please make sure all campaign 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.**