

TECHNICAL INSTRUCTIONS

FOR

SPECIAL SERVICE CAMPAIGN 20LC03

ENGINE CONTROL COMPUTER REPROGRAM

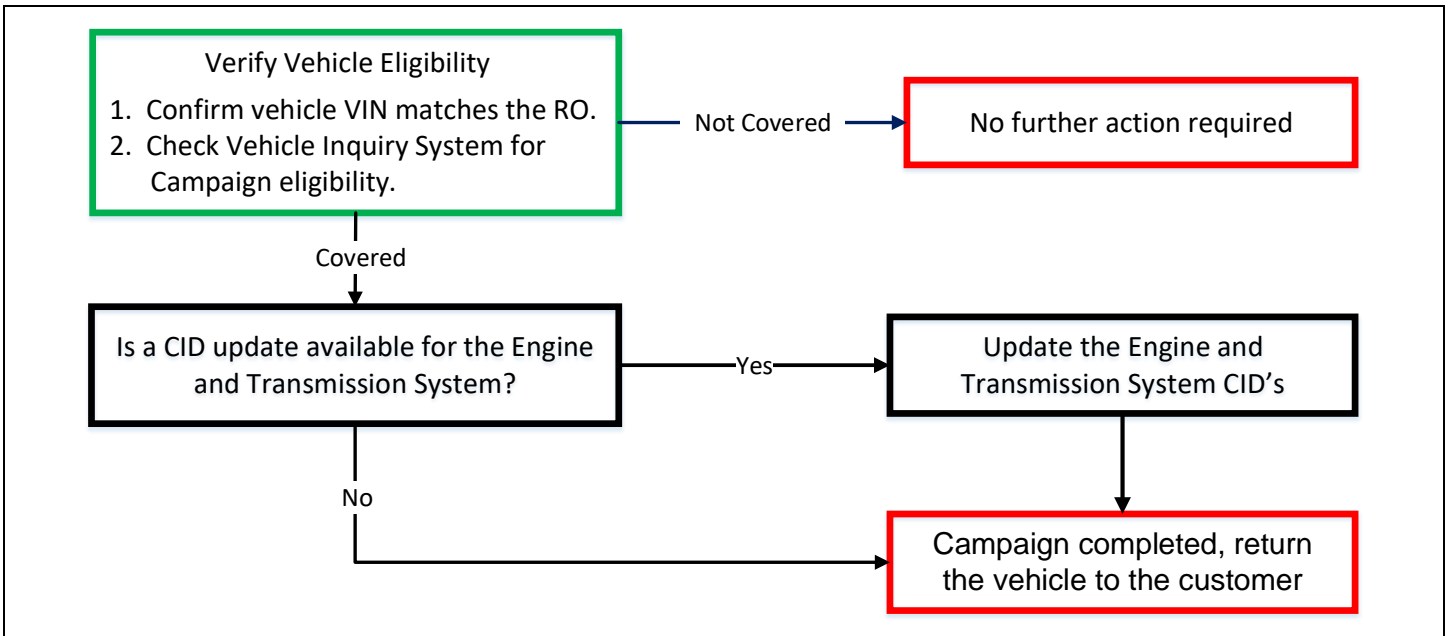
CERTAIN 2018 - 2019 RX 350, RX 350L

The repair quality of covered vehicles is extremely important to Lexus. 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 recall repair are required to currently hold at least one of the following certification levels:

- Certified
- Senior Certified
- Master Certified

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

- 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.

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. PARTS

No parts will be required.

B. TOOLS & EQUIPMENT

TOOLS, SUPPLIES & EQUIPMENT FOR REPROGRAMMING

- Standard Hand Tools
- DCA-8000 Battery Diagnostic Station
- Techstream 2.0 / ADVi / Techstream Lite

IV. BACKGROUND

The engine control module in the subject vehicles is equipped with software to manage the emissions systems. Due to improper programming in the software, the emissions monitoring system may clear the system test results which can result in a vehicle not being able to complete emission testing/smog checks.

V. INSPECTION



1. CHECK FOR DTC'S

- Using a Techstream, perform a Health Check.

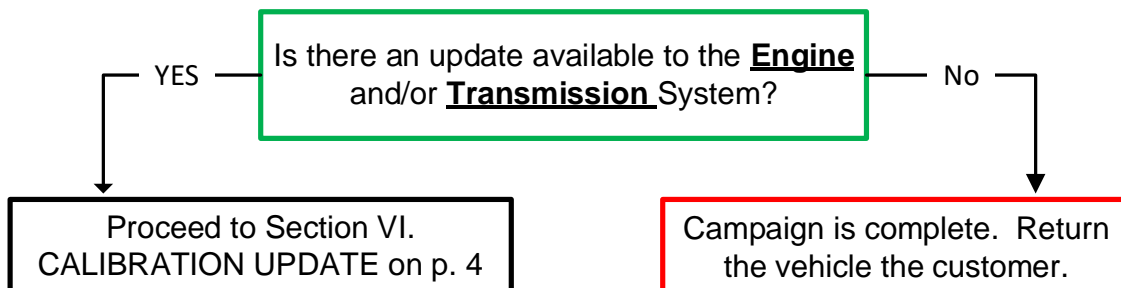
Note: This Service Campaign covers only the update to the Engine and Transmission Calibration Files. It does not cover the diagnosis or replacement of any other parts on the vehicle.

2. CHECK CURRENT CALIBRATION

- Locate the Update column for the **Engine** and **Transmission System's** in the Stored Data tab.
- Determine the status of an available Calibration Identification (CID) update; indicated by a **Yes** or **No**.

The screenshot shows the Techstream diagnostic software interface. The 'Stored Data' tab is selected. The vehicle information is 2018 RX350 2GR-FKS with 020329 miles. The 'Tire Pressure / Threshold Value [psi(g)]' section shows Sensor 1: 32.17 / 27.18, Sensor 2: 27.18 / 27.18, Sensor 3: 32.17 / 27.18, and Sensor 4: 27.18 / 27.18. The 'Health Check Results' section indicates that the health check does not display live data and that changes in vehicle condition will not update. The 'Campaign Status' is OPEN and PERMANENT: NO. The 'Enhanced' tab is selected, and a table shows the calibration status for various systems. The 'Engine' and 'Transmission' rows are circled in green, and their 'Update' status is 'Yes', which is also circled in green.

System	B	RoB	Calibration	Update
Engine	-	-	8966348W1300	Yes
Transmission	-	-	896654852300	Yes
Cruise Control	-	-	-	-
ABS/VSC/TRAC/EPB	-	-	F152648630	No
EMPS	-	-	8965B48112	No
Tire Pressure Monitor	-	-	-	-



VI. CALIBRATION UPDATE

1. VEHICLE PREPARATION

a. Confirm the following conditions:

- Vehicle in the IG position (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.
- Windshield wiper switch in the OFF position.

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 12v battery.
- b. Select the Power Supply Mode from the Main Menu of the DCA-8000 (if used).



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.

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.



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

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

4. UPDATE THE ENGINE AND TRANSMISSION CALIBRATION ID'S

- a. Identify the vehicles Current CID for the **Engine** System on the Stored Data tab.

Note: The Transmission CID will be updated at the same time the Engine CID is updated. To simplify the selection process, only the Engine CID will be referenced in the following steps.

The screenshot shows the 'Stored Data' tab for a 2018 RX350. The vehicle information includes 020329 miles. The 'Tire Pressure / Threshold Value [psi(g)]' section shows Sensor 1: 32.17 / 27.18, Sensor 2: 27.18, Sensor 3: 32.17 / 27.18, Sensor 4: 27.18, and Sensor 5: N/A / N/A. The 'Health Check Results' section indicates that live data is not displayed and that changes in vehicle condition will not update. The 'Campaign Status' is OPEN and 'PERMANENT' is NO. The 'Enhanced' tab is selected, and a table lists various systems with their current calibration IDs and update status.

System	B	RoB	Calibration	Update
Engine	-	-	8966348W1300	Yes
Transmission	-	-	896654852300	Yes
Cruise Control	-	-	-	-
ABS/VSC/TRAC/EPB	-	-	F152648630	No
EMPS	-	-	8965B48112	No
Tire Pressure Monitor	-	-	-	-

- b. Locate the Engine System's Current CID in the chart on the following two pages.
- c. Select the corresponding NEW CID link to load the update.
- d. Follow the on-screen instructions to complete the Calibration Update procedure.

The CID Update Procedure is detailed in [L-SB-0001-18](#) Please reference this Bulletin for more detailed procedures and information.

Note: The Engine and Transmission CID's will both update at the same time. It is not necessary to run the installation twice.

Note: It's only necessary to identify the Current ENGINE CID in the chart below. The transmission CID will be updated at the same time the Engine CID is updated when the proper link is selected.

CID'S for TMMC PRODUCED VEHICLES						
Plant (WMI)	Trim	Drive	ECU Type	Current CID's	New Engine/Transmission CID's	
TMMC (2T2)	Non-F Sport	2WD	Engine	896630E 580 00	896630EA3300 / 896650E48300	
				896630E A30 00		
				896630E A31 00		
				896630E A32 00		
			Transmission	896650E24000		
				896650E48000		
		AWD	Engine	896630E 600 00		896630EA4300 / 896650E48300
				896630E A40 00		
				896630E A41 00		
				896630E A42 00		
			Transmission	896650E24000		
				896650E48000		
	F Sport	2WD	Engine	896630E 590 00	896630EA5300 / 896650E48300	
				896630E A50 00		
				896630E A51 00		
				896630E A52 00		
			Transmission	896650E24000		
				896650E48000		
		AWD	Engine	896630E 610 00		896630EA6300 / 896650E48300
				896630E A60 00		
				896630E A61 00		
				896630E A62 00		
			Transmission	896650E24000		
				896650E48000		
				896650E48100		
				896650E48200		

(cont. on next page)

Note: It only necessary to identify the Current ENGINE CID in the chart below. The transmission CID will be updated at the same time the Engine CID is updated when the proper link is selected.

CID'S for TMK PRODUCED VEHICLES						
Plant	Trim	Drive	ECU Type	Current CID's	New Engine/Transmission CID's	
TMK (JTJ)	Non- F sport	AWD	Engine	896630E 600 00	896630EA4300 / 896650E48300	
				896630E A40 00		
				896630E A41 00		
				896630E A42 00		
			Transmission	896650E24000		
				896650E48000		
				896650E48100		
				896650E48200		
		2WD	Engine	8966348 S60 00		8966348W1300 / 896654852300
				8966348 W10 00		
				8966348 W11 00		
				8966348 W12 00		
			Transmission	896654843000		
				896654852000		
				896654852100		
				896654852200		
		AWD	Engine	8966348 S70 00		8966348W2300 / 896654852300
				8966348 W20 00		
				8966348 W21 00		
				8966348 W22 00		
			Transmission	896654843000		
				896654852000		
				896654852100		
				896654852200		



5. PERFORM VERIFICATION HEALTH CHECK

- a. Using a Techstream, perform a Health Check.
- b. Clear DTCs that may have set during the CID update procedure.
- c. **Re-run the Health Check to confirm that no DTCs reappear.**



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

6. CONFIRM CID UPDATE

- a. On the Stored Data tab, confirm the following for the Engine and Transmission System:
- The Update column lists “No” for the Engine and the Transmission Systems.



If the CID's have not been updated successfully, refer back to the above instructions to correct the issue.

System Select **Stored Data**

2018 RX350
2GR-FKS
020329 mile

Tire Pressure / Threshold Value [psi/g]

Sensor 1: 32.17 / 27.18 Sensor 2:
Sensor 3: 32.17 / 27.18 Sensor 4:
Sensor 5: N/A / N/A

Health Check Results

- Health Check does not display live data.
- Changes in vehicle condition will not update.
- To update Health Check, click the Refresh button.

Enhanced | Generic

System	B	RoB	Calibration	Update
Engine	-	-	8966348W1300	No
Transmission	-	-	896654852300	No
Cruise Control	-	-	-	-
ABS/VSC/TRAC/EPB	-	-	F152648630	No
EMPS	-	-	8965B48112	No
Tire Pressure Monitor	-	-	-	-

Campaign Status: NO
PERMANENT: NO

CID's for the Engine and Transmission System's

MUST say "NO"

◀ VERIFY REPAIR QUALITY ▶

- Confirm that the CID's have been updated correctly, if required
- Confirm no DTC's present

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

**The Campaign is now Complete.
Return the vehicle to the customer.**

10. APPENDIX

A. CAMPAIGN DESIGNATION DECORDER

