

Hesitation On Acceleration From a Slow Roll or Rolling Stop

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2019	RAV4	

REVISION NOTICE

December 17, 2019 Rev1:

- The Parts and Calibration tables have been updated.
- Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2019 model year RAV4 vehicles may exhibit a hesitation on acceleration from a slow roll or rolling stop under all of the following conditions.

- 6 mph or below
- Immediately following a 3 – 1 downshift
- Less than 40% accelerator pedal application

The Engine Control Module/ECM (SAE Term: Powertrain Control Module/PCM) logic has been modified to reduce the potential for hesitation. Follow the Repair Procedure in this bulletin to update the ECM calibration.

NOTE

This Service Bulletin requires a drive pattern to be performed after the calibration update is completed. The proper execution of these drive patterns is necessary for the drivability updates to take effect. Refer to the Repair Procedure for drive pattern details.

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Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG1910	Engine ECU Reprogramming	1.4	89661-4A680	04	74
			89661-42Z90		
			89661-4A530		
			89661-42Z70		
			89661-4A630		
			89661-0R820		
			89661-0R730		
			89661-0R410		
			89661-0R700		
			89661-0R430		

APPLICABLE WARRANTY

- This repair is covered under the Toyota Federal Emission Warranty. This warranty is in effect for 96 months or 80,000 miles, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

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Parts Information

WMI	DRIVETRAIN	GRADE	PART NUMBER		PART NAME	QTY
			PREVIOUS	NEW		
JTM	4WD	LE	89661-4A680	89661-42Z00	Computer, Engine Control (ECM)	-
		XLE	89661-42Z90	89661-42Z20		
		Limited/Adventure	89661-4A530	89661-42Z10		
	2WD	LE/XLE	89661-42Z70	89661-42Y90		
		Limited	89661-4A630	89661-42Y80		
2T3	4WD	LE (USA Only)	89661-0R820	89661-0R600		
		XLE (USA, Canada) LE (Canada Only)	89661-0R730	89661-0R620		
		Limited/Adventure	89661-0R410	89661-0R630		
	2WD	LE/XLE	89661-0R700	89661-0R610		
		Limited	89661-0R430	89661-0R580		
-	-	-	00451-00001-LBL		Authorized Modifications Labels	1

NOTE

- The ECM (PCM) should NOT be replaced as part of the Repair Procedure.
- Authorized Modifications Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through *Dealer Daily – Parts – Dealer Support Materials Orders*.

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Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream ADVi*	ADE	TSADVUNIT	1
Techstream 2.0		TS2UNIT	
Techstream Lite		TSLITEPDLR01	
Techstream Lite (Green Cable)		TSLP2DLR01	

*Essential SST.

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 14.20.019 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- Use Techstream or an approved J2534 interface to perform flash reprogramming updates. Visit techinfo.toyota.com for more information regarding J2534 reprogramming.

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Battery Diagnostic Tool*	DCA-8000P T	1

*Essential SST.

NOTE

Additional SSTs may be ordered by calling 1-800-933-8335.

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Calibration Information

DRIVETRAIN	GRADE	CALIBRATION ID	
		PREVIOUS	NEW
4WD	LE (USA Only)	896634A05000	8966342S9000 / 896654281000
		896654274000	
	XLE (USA, Canada) LE (Canada Only)	8966342T6000	8966342T1000 / 896654282000
		896654264000	
	Limited/Adventure	8966342Y8000	8966342T0000 / 896654282000
		896654264000	
2WD	LE/XLE	8966342E2000	8966342M8000 / 896654280000
		896654270000	
	Limited	8966342Z8000	8966342M7000 / 896654280000
		896654270000	

Repair Procedure

1. Confirm the condition exists.

Does a hesitation on acceleration from a slow roll or rolling stop occur under ALL of the following conditions?

- 6 mph or below
- Immediately following a 3 – 1 downshift
- Less than 40% accelerator pedal application

- **YES** — Continue to step 2.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

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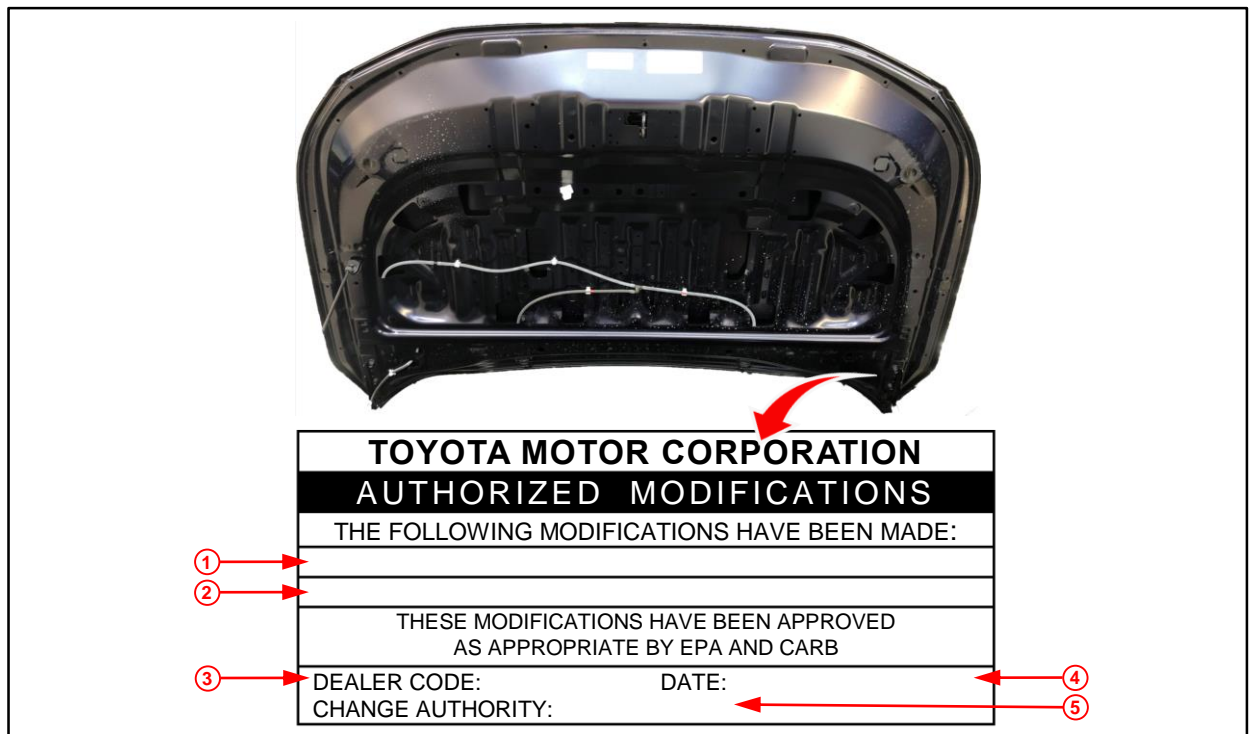
Repair Procedure (continued)

- Use Techstream to confirm if the ECM (PCM) calibration has been updated and check for the Authorized Modifications Label affixed to the vehicle in the location shown below.

Is the calibration ID listed in Techstream and on the label the latest ECM (PCM) calibration?

- YES** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
- NO** — Continue to step 3.

Figure 1. Location of Authorized Modifications Label on 2019 RAV4



1	Replacement ECM (PCM) Part Number (e.g., 89661-0R580)
2	New Calibration ID (e.g., 8966342M7000)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (continued)

3. Flash reprogram the ECM (PCM).

NOTE

- The battery diagnostic tool **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5V while flash reprogramming the vehicle.
- For details on how to use the battery diagnostic tool, refer to the [DCA-8000 Instruction Manual](#) located at TIS – *Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin [T-SB-0134-16](#), *Techstream ECU Flash Reprogramming Procedure*, and flash the ECM (PCM) with the NEW calibration file update.

4. Prepare and install the Authorized Modifications Label.
 - A. Using a permanent marker, enter the following information on the label:
 - ECM (PCM) part number [*Refer to the **Parts Information** section for the **NEW PART NUMBER***]
 - Calibration ID(s) [*Refer to the **Calibration Information** section for the **NEW CALIBRATION ID***]
 - Dealer Code
 - Repair Date
 - Change Authority [***This bulletin number***]
 - B. Install the Authorized Modifications Label onto the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.

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Repair Procedure (continued)

NOTE

- This Service Bulletin requires a drive pattern to be performed AFTER the calibration update is completed. The proper execution of these drive patterns is necessary for the modification to take effect as soon as possible. Step 5 describes the drive pattern details.
- When performing step 5, you MUST take the vehicle to a safe, open area or low traffic location to perform the drive pattern.
- Use care when viewing Techstream and performing the drive patterns. Consider using another technician for Techstream confirmation of Shift Status.

5. Drive the vehicle to a safe and appropriate location where the following drive patterns can be performed. Then, perform the following drive patterns.
 - A. From a speed of 18 – 22 mph, apply consistent braking to decelerate to 0 mph in 3 seconds. Complete this pattern 15 times.
 - (1) Using Techstream, monitor the transmission shift status and ensure that the vehicle shifts from 3rd – 1st gear (skip 2nd gear) during each deceleration attempt.
 - B. From a speed of 18 – 22 mph, apply consistent braking to decelerate to 0 mph in 15 seconds. Complete this pattern 15 times.
 - (1) Using Techstream, monitor the transmission shift status and ensure that the vehicle shifts from 3rd to 2nd to 1st gear during each deceleration attempt.
6. Return the vehicle to the customer and explain that the transmission shift schedule has been modified and should adapt to the customer's driving habits as the vehicle is driven.