

# Abnormal Cruise Control Feeling "Rocking Back and Forth" Between 55 and 75 mph

**Service Category** Engine/Hybrid System

**Section** Cruise Control

**Market** USA

Toyota Supports  
 ASE Certification 

## Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2016 - 2018	RAV4	

### REVISION NOTICE

September 5, 2018 Rev2:

- The Production Change Information section has been added.

May 08, 2017 Rev1:

- Applicability has been updated to include 2017 – 2018 model year vehicles.
- The entire bulletin has been updated.

Any previous printed versions of this bulletin should be discarded.

## Introduction

Some 2016 – 2018 model year RAV4 vehicles equipped with a 2AR-FE engine may exhibit a rocking (back and forth) motion when utilizing the vehicle's cruise control between 55 and 75 mph while driving on a flat and straight freeway/highway. The Engine Control Module/ECM (SAE Term: Powertrain Control Module/PCM) logic has been modified to reduce the possibility of this condition occurring. Follow the Repair Procedure in this bulletin to address this condition.

## Production Change Information

This bulletin applies to vehicles produced **BEFORE** the Production Change Effective VINs shown below.

MODEL	PLANT	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
RAV4	TMMC	FWD	2T3#FREV#JW458642
		AWD	2T3#FREV#JW772548
	Takaoka	FWD	JTM#FREV#JJ186533
		AWD	JTM#FREV#JJ228705

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### Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG1641	Reprogram ECM (PCM)	0.4	89661-42V90 89661-42W00 89661-0R510 89661-0R520 89661-42V91 89661-42V92 89661-42W01 89661-0R511 89661-0R512 89661-0R521	87	99

#### 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.

### Parts Information

DRIVETRAIN	PART NUMBER		PART NAME	QTY
	PREVIOUS	NEW		
FWD	89661-42V90 89661-42V91 89661-42V92 89661-0R510 89661-0R511 89661-0R512	89661-42V93 89661-0R513	Computer, Engine Control (ECM/PCM)	-
AWD	89661-42W00 89661-42W01 89661-0R520 89661-0R521	89661-42W02 89661-0R522		
All	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 Material Order*.

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## Required Tools & Equipment

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

\* Essential SST.

### NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 13.10.019 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](http://techinfo.toyota.com) for more information regarding J2534 reprogramming.

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
GR8 Battery Diagnostic Station*	<a href="#">00002-MCGR8</a>	1

\* Essential SST.

### NOTE

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

## Calibration Information

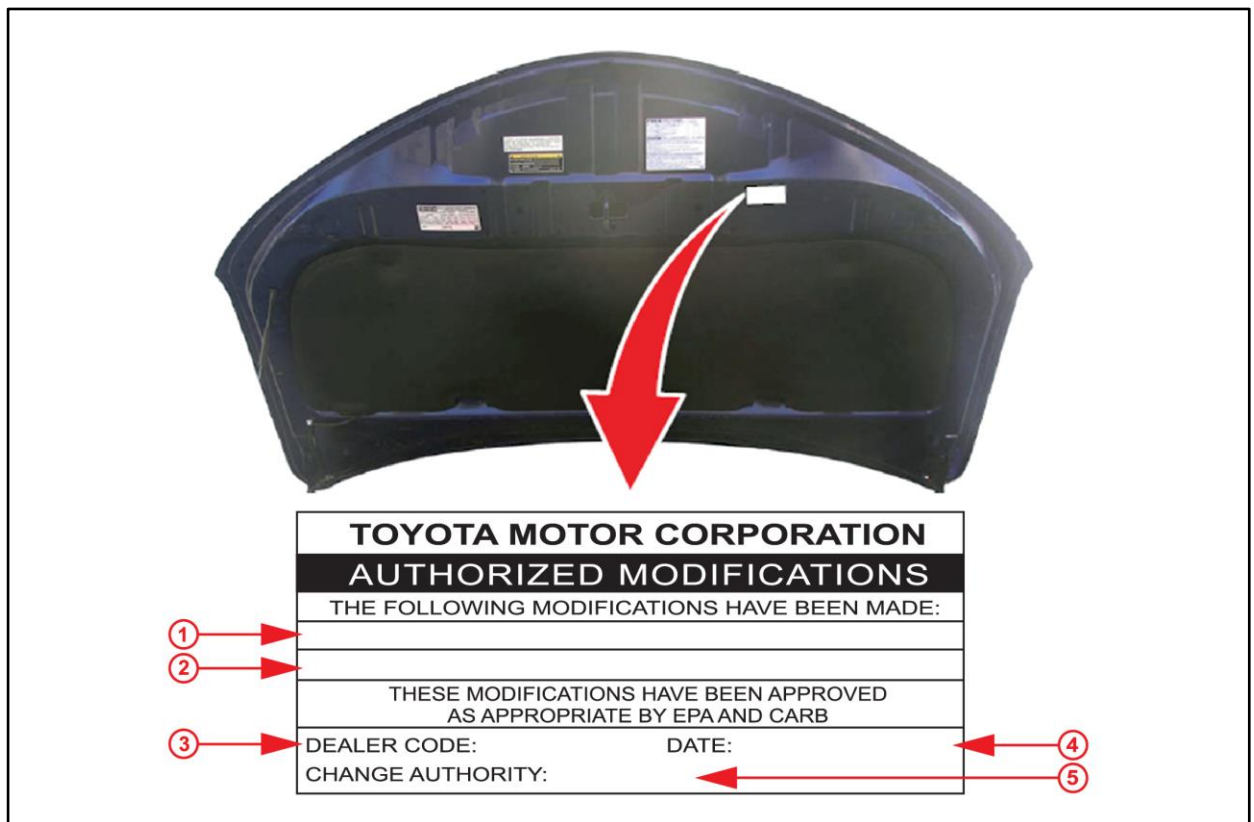
MODEL	VDS	DRIVETRAIN	CALIBRATION ID	
			PREVIOUS	NEW
RAV4	ZFREX WFREX YFREX NFREX	FWD	342Q1000 342Q1100 342Q1200	<a href="#">342Q1300</a>
	BFREX RFREX DFREX JFREX	AWD	342Q2000 342Q2100	<a href="#">342Q2200</a>

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## Repair Procedure

1. Confirm the condition exists.  
 Is a rocking (back and forth) motion present when utilizing the vehicle's cruise control between 55 and 75 mph while driving on a flat and straight freeway/highway?
  - **YES** – Continue to step 2.
  - **NO** – This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
  
2. Check for the Authorized Modifications Label affixed to the vehicle in the location shown below. Confirm if the ECM (PCM) calibration has been updated.  
 Is the calibration ID listed 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 for 2016 – 2018 RAV4**



<b>1</b>	<b>Replacement ECM (PCM) Part Number (e.g., 89661-42V91)</b>
<b>2</b>	<b>New Calibration ID (e.g., 342Q1100)</b>
<b>3</b>	<b>Dealer Code</b>

<b>4</b>	<b>Date Completed</b>
<b>5</b>	<b>This SB Number</b>

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### Repair Procedure (continued)

3. Flash reprogram the ECM (PCM).

#### NOTE

- The GR8 Battery Diagnostic Station MUST be used in Power Supply Mode to maintain battery voltage at 13.5V while flash reprogramming vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the [GR8 Instruction Manual](#) located on *TIS – Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin No. [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 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 to the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
5. Confirm the rocking condition is no longer present.