

# Abnormal Cruise Control Feel "Rocking Back & Forth" Between 55 – 75 MPH

**Service Category** Engine/Hybrid System

**Section** Cruise Control

**Market** USA

Toyota Supports  
 ASE Certification 

## Applicability

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

## Introduction

Some 2016 model year RAV4 vehicles equipped with 2AR-FE engines may exhibit a rocking (back and forward) motion while utilizing the vehicle's cruise control between 55 – 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.

## Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG1641	Reprogram ECM (PCM)	0.4	89661-42V90 89661-42W00 89661-0R510 89661-0R520	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.

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### Parts Information

DRIVETRAIN	PART NUMBER		PART NAME	QTY
	PREVIOUS	NEW		
2WD	89661-42V90	89661-42V91	Computer, Engine Control (ECM/PCM)	-
	89661-0R510	89661-0R511		
AWD	89661-42W00	89661-42W01		
	89661-0R520	89661-0R521		
All	00451-00001-LBL		Authorized Modification Labels	1

**NOTE**

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

### Required Tools & Equipment

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

**NOTE**

- Only ONE of the Techstream units listed above is required.
- Software version 11.30.137 or later is required
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- The Diagnostic Tester is NOT recommended for flash reprogramming. Please 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

**NOTE**

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

\* Essential SST.

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### Calibration Information

MODEL	DRIVETRAIN	CALIBRATION ID		VDS
		PREVIOUS	NEW	
RAV4	2WD	342Q1000	<a href="#">342Q1100</a>	ZFREV WFREV YFREV NFREV
	4WD	342Q2000	<a href="#">342Q2100</a>	BFREV RFREV DFREV JFREV

### Repair Procedure

1. Confirm a rocking (forward and back) motion while utilizing the vehicle's cruise control between 55 – 75 MPH, while driving on a flat and straight freeway/highway.

Is the above condition felt using the cruise control?

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

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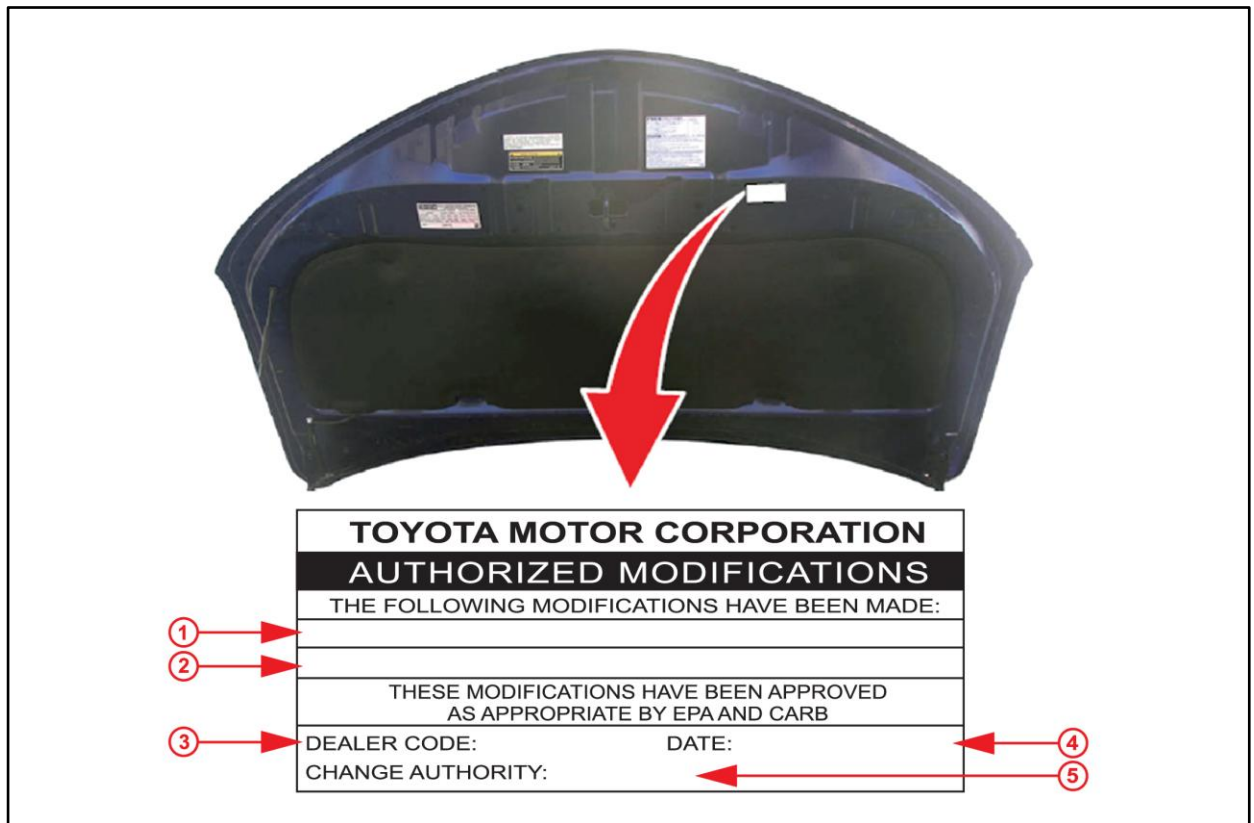
### Repair Procedure (Continued)

- 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 NOT the latest ECM (PCM) calibration?

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

**Figure 1. Location of Authorized Modifications Label for 2016 RAV4**



<b>1</b>	Replacement ECM (PCM) Part Number (i.e., 89661-42V91 or 89661-0R511)
<b>2</b>	New Calibration ID (i.e., 342Q1100 or 342Q2100)
<b>3</b>	Dealer Code

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

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### Repair Procedure (Continued)

- Flash reprogram the ECM (PCM).

#### NOTE

- The GR8 Battery Diagnostic Station **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5 volts while flash reprogramming vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the [GR8 Instruction Manual](#) located on the Technical Information System (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.

- Prepare and install the Authorized Modifications Label.
  - 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**]
  - 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.
- Verify the rocking condition is no longer present.