

Frequent Upshifting and Downshifting with Cruise Control "ON"

Service Category Engine/Hybrid System

Section Cruise Control

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2006 – 2008	RAV4	Drive Type(s): 4WD, 2WD Engine(s): 2AZ Transmission(s): 4AT VDS(s): BD31V, BD32V, BD33V, ZD31V, ZD32V, ZD33V WMI(s): JTM

Introduction

Some 2006 – 2008 model year RAV4 vehicles equipped with the 2AZ-FE engine may exhibit a condition while using the cruise control between 50 – 70 mph (80 – 113 km/h). During this condition the transaxle will upshift and downshift frequently. The Engine Control Module (ECM) (SAE term: Powertrain Control Module/PCM) logic has been updated to change this condition. Use the following repair procedure for customer complaint vehicles.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG8011	Recalibrate ECM (PCM) Engine	0.7	89661-#####	26	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 correction of a problem based upon a customer's specific complaint.

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Parts Information

PREVIOUS PART NUMBER	CURRENT PART NUMBER	ENGINE	TRANS	PART NAME	QTY
89661-42C20	89661-42F61	2AZ-FE 2WD	U241E	Computer, Engine Control (ECM/PCM)	-
89661-42C21					-
89661-42E50					-
89661-42E51					-
89661-42F60					-
89661-42C30	89661-42F71	2AZ-FE 4WD	U140F		-
89661-42C31					-
89661-42E60					-
89661-42E61					-
89661-42F70					-
N/A	00451-00001-LBL	-	-	Authorized Modifications Label	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 Dealer Support Materials System, or by calling the MDC at 1-800-622-2033.

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Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS techstream* NOTE: Software version 2.20.015 or later is required.	ADE	TSUNT	1

* Essential SST.

NOTE

- Additional TIS 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 with this calibration file. Please use TIS techstream or an approved J2534 interface to perform this update. Visit techinfo.toyota.com for more information regarding J2534 reprogramming.



SPECIAL SERVICE TOOLS (SSTS)	PART NUMBER	QTY
GR8 Battery Diagnostic Station*	00002-MCGR8	1

* Essential SST.

NOTE

- Additional SSTs may be ordered by calling SPX/OTC at 1-800-933-8335.
- The GR8 Battery Diagnostic Station (P/N 00002-MCGR8) supersedes the Automatic Trickle Charger (P/N 00002-YA122-01) and Fast Battery Chargers (Associated P/N ASE6003 and Christie P/N CAPPDQ). P/N 00002-YA122-01, ASE6003, and CAPPDQ are now obsolete.

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Calibration Identification Chart

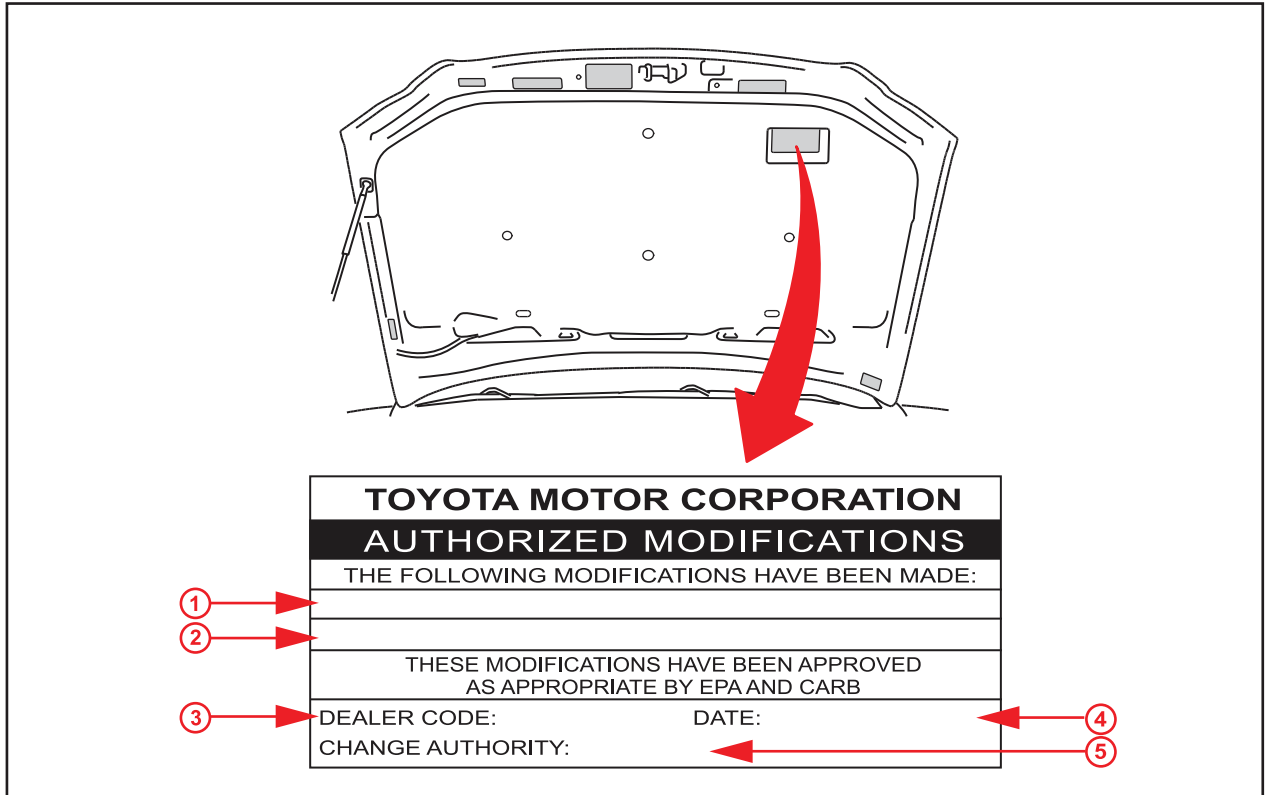
MODEL	MODEL YEAR	ENGINE	DRIVETRAIN	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID	VDS
RAV4	2006 – 2008	2AZ-FE	2WD	34248000	34282100	ZD3*V
				34248100		
				34271000		
				34271100		
				34282000		
			4WD	34249000	34283100	BD3*V
				34249100		
				34272000		
				34272100		
				34283000		

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Repair Procedure

1. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 1. Confirm if the ECM (PCM) calibration has been updated. If the calibration ID listed is NOT the latest ECM (PCM) calibration — go to step 2.

Figure 1. Location of Authorized Modifications Label on 2006 RAV4



1	Replacement ECM (PCM) Part Number (i.e., 89661-42C20)
2	New Calibration ID(s) (i.e., 34282100)
3	Dealer Code

4	Date Completed
5	This TSB Number

2. 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 the 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 – Battery*.

Follow the procedures outlined in TSB No. [SS002-07, "Techstream ECU Flash Reprogramming Procedure"](#), and flash the ECM (PCM) with the NEW calibration file update.

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Repair Procedure (Continued)

3. Start the engine and warm it up to normal operating temperature before test driving.
4. Test drive the vehicle to confirm proper vehicle operation and ECM (PCM) initial learning.

Refer to the Technical Information System (TIS), applicable model year RAV4 Repair Manual, *Drivetrain – Automatic Transmission/Transaxle –*

- 2006: “ [U140F](#) / [U241E](#) / [U151F](#) / [U151E](#) Automatic Transaxle: Automatic Transaxle System: Road Test”
 - 2007: “ [U241E](#) / [U140F](#) / [U151E](#) / [U151F](#) Automatic Transaxle: Automatic Transaxle System: Road Test”
 - 2008: “ [U241E](#) / [U140F](#) / [U151F](#) / [U151E](#) Automatic Transaxle: Automatic Transaxle System: Road Test”
5. 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 **CURRENT PART NUMBER**]*
 - Calibration ID(s) [*Refer to the **Calibration Identification Chart** for the **NEW CALIBRATION ID(s)**]*
 - Dealer Code
 - Repair Date
 - Change Authority [***this TSB number***]
 - B. Affix 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.