

Intermittent RPM Drop Condition

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Scion Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2013 – 2014	FR-S	

Introduction

Some Scion FR-S vehicles may exhibit an engine RPM drop while idling with the A/C off. The Engine Control Module/ECM (SAE term: Powertrain Control Module/PCM) logic has been revised to address this condition. Use the following repair procedure for ECM (PCM) reprogramming.

Production Change Information

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

MODEL	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
FR-S	A/T	JF1ZNAA1#E8703673
	M/T	JF1ZNAA1#E9703671

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG1316	Reprogram ECM (PCM)	0.4	SU003-00433 SU003-00434 SU003-04521 SU003-04522 SU003-04567 SU003-04568 SU003-04673 SU003-04674	02	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

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
SU003-00433 SU003-04521 SU003-04567 SU003-04673	SU003-05185	Computer, Engine Control (ECM/PCM)	–
SU003-00434 SU003-04522 SU003-04568 SU003-04674	SU003-05186		–
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 – Dealer Support Materials Orders*.

Calibration Information

MODEL	DRIVETRAIN	CALIBRATION ID		VDS
		PREVIOUS	NEW	
FR-S	A/T	ZA1J500D ZA1J700D ZA1J900D ZA1JA00D ZA1JA01D ZA1JB00D	ZA1JB01D	ZNAA1
	M/T	ZA1J500C ZA1J700C ZA1J900C ZA1JA00C ZA1JA01C ZA1JB00C	ZA1JB01C	ZNAA1

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Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream 2.0*	ADE	TS2UNIT	1
TIS Techstream		TSPKG1	
Techstream Lite		TSLITEDLR01	

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 8.30.023 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 for more information regarding J2534 reprogramming.



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

NOTE

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

* Essential SST.

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Repair Procedure

1. Confirm the condition described in the Introduction.
2. 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 3.

Figure 1. Location of Authorized Modifications Label on 2013 – 2014 FR-S



1	Replacement ECM (PCM) Part Number (i.e., SU003-05185)
2	New Calibration ID(s) (i.e., ZA1JB01D)
3	Dealer Code

4	Date Completed
5	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 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 – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin No. [S-SB-0003-10](#), “Techstream ECU Flash Reprogramming Procedure,” and flash the ECM (PCM) with the NEW calibration file update.

- 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***]
 - 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.
- Start the engine and warm it up to normal operating temperature and test drive to confirm proper vehicle operation.