

MIL "ON" DTC P0116

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2011	Sienna	

Introduction

Some 2011 model year Sienna vehicles equipped with 2GR-FE engines may exhibit a MIL "ON" condition with Diagnostic Trouble Code (DTC) P0116 – Engine Coolant Temperature Range/Performance Problem. The Engine Control Module/ECM (SAE term: Powertrain Control Module/PCM) logic has been modified to address this condition.

Production Change Information

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

MODEL	PLANT	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Sienna	TMMI	2WD	5TD#K3DC#BS156599
		4WD	5TD#K3DC#BS026412

Warranty Information

OP CODE	DESCRIPTION	TIME	OPF	T1	T2
EG9058	Recalibrate ECM (PCM) Engine	0.4	89661-083##	8A	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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Calibration Information

MODEL	ENGINE	DRIVETRAIN	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID	VDS
Sienna	2GR-FE	2WD	30821000 30821100	30821200	ZK3DC KK3DC XK3DC YK3DC MK3DC
		4WD	30822000 30822100	30822200	BK3DC JK3DC DK3DC

Parts Information

MODEL	DRIVETRAIN	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
2011 Sienna	2WD	89661-08300	89661-08301	Computer, Engine Control (ECM/PCM)	-
	AWD	89661-08310	89661-08311		-
-	N/A	00451-00001-LBL	Same	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.


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Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS Techstream* or Techstream Lite NOTE: Software version 6.10.041 or later is required.	ADE	TSPKG1 or TSLITEDLR01	1

NOTE

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

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

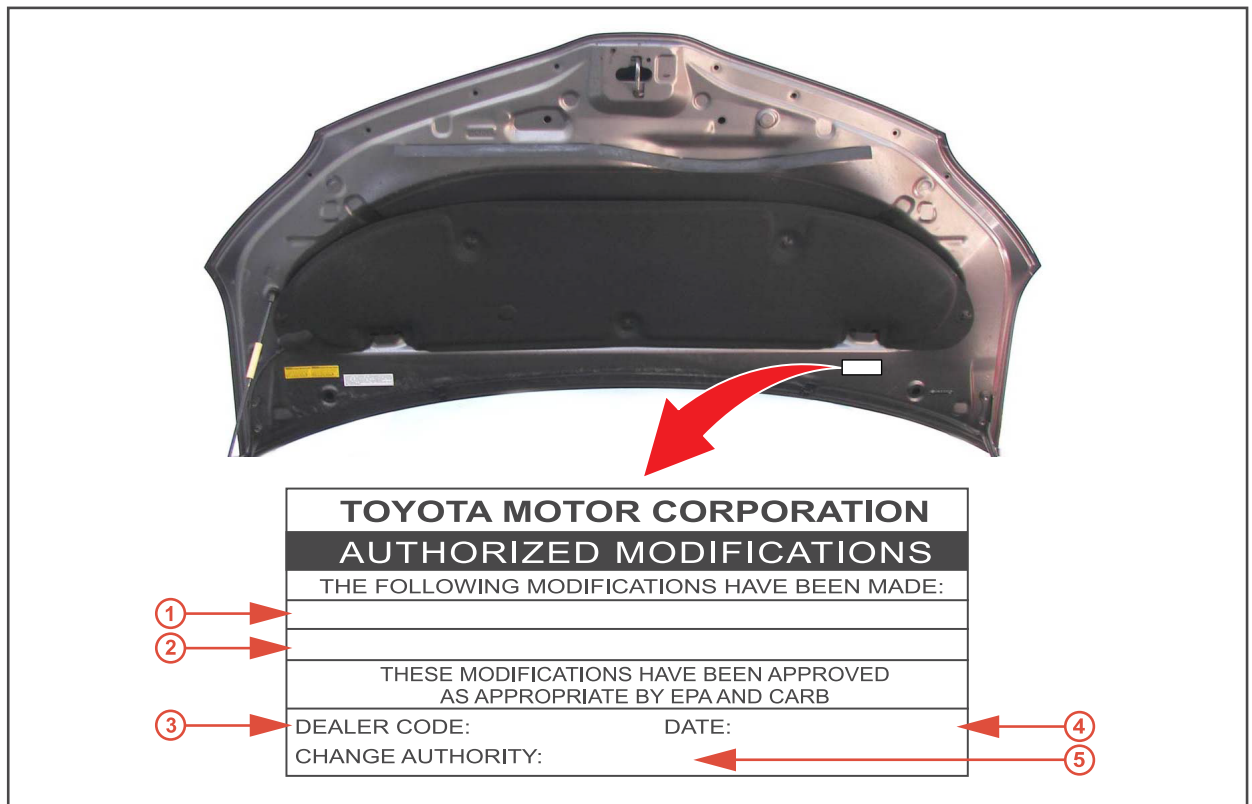
* Essential SST.

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Repair Procedure

1. Using TIS Techstream, check for stored DTCs. If only DTC P0116 is present, proceed to step 2. If other DTCs are present this TSB does NOT apply. Continue diagnosis per Repair Manual procedures.
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 2011 Sienna



1	Replacement ECM (PCM) Part Number (i.e., 89661-08301)
2	New Calibration ID(s) (i.e., 30821200)
3	Dealer Code

4	Date Completed
5	This TSB Number

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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 13.5 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 TSB No. [T-SB-0064-10](#), "Techstream ECU Flash Reprogramming Procedure", and flash the ECM (PCM) with the NEW calibration file update.

4. 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***]
 - 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.
5. Start the engine and warm it up to normal operating temperature and test drive to confirm proper vehicle operation.