

2ZR-FE Engine Oil Consumption

Service Category Engine/Hybrid System

Section Lubrication

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2009	Corolla	Engine(s): 2ZR Transmission(s): 5MT, 4AT VDS(s): BL40E, BU40E
2009	Matrix	Drive Type(s): 2WD Transmission(s): 4AT, 5MT VDS(s): KU40E

TSB REVISION NOTICE

December 16, 2008 Rev1:

- Parts Information has been updated.
- Production Change Information has been added.
- Techstream software version has been updated in the Required Tools & Equipment section.

Any previous printed versions of this service bulletin should be discarded.

Introduction

Under certain driving conditions, some 2009 model year Corolla and Matrix vehicles may exhibit engine oil consumption. The Engine Control Module/ECM (SAE term: Powertrain Control Module/PCM) logic has been modified to improve this condition. Use the following repair procedure to address customer concerns.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG8034	Recalibrate ECM (PCM) Engine	0.6	89661-#####	11	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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Production Change Information

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

MODEL	ENGINE	DRIVETRAIN	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
Corolla	2ZR-FE	4AT	Kanto	JTDBL40E*99088377
			Takaoka	JTDBL40E*9J051371
			NUMMI	1NXBU40E*9Z118118
			TMMC	2T1BU40E*9C126002
		5MT	NUMMI	1NXBU40E*9Z117629
			TMMC	2T1BU40E*9C126355
Matrix	2ZR-FE	4AT	TMMC	2T1KU40E*9C125933
		5MT	TMMC	2T1KU40E*9C126355

Parts Information

MODEL	TRANSMISSION	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
Corolla	4AT	89661-02M90	89661-02M92	Computer, Engine Control (ECM/PCM)	1
		89661-02M91			
Matrix		89661-02L70	89661-02L72		1
		89661-02L71			
Corolla & Matrix	5MT	89661-02L80	89661-02L82		1
		89661-02L81			
-	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 System, or by calling the MDC at 1-800-622-2033.

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Calibration Information

MODEL	ENGINE	TRANS	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID	VDS
Corolla	2ZR-FE	4AT	302A4000	302A4200	BL40E BU40E
			302A4100		
Matrix			30284000	30284200	KU40E
			30284100		
Corolla & Matrix		5MT	30285000	30285200	BU40E KU40E
			30285100		

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Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS Techstream* NOTE: Software version 4.00.017 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 (SST'S)	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.

REQUIRED TOOLS & MATERIAL	QTY
ILSAC GF-4 Multi-grade (SAE 5W-20 or 0W-20)	As Needed

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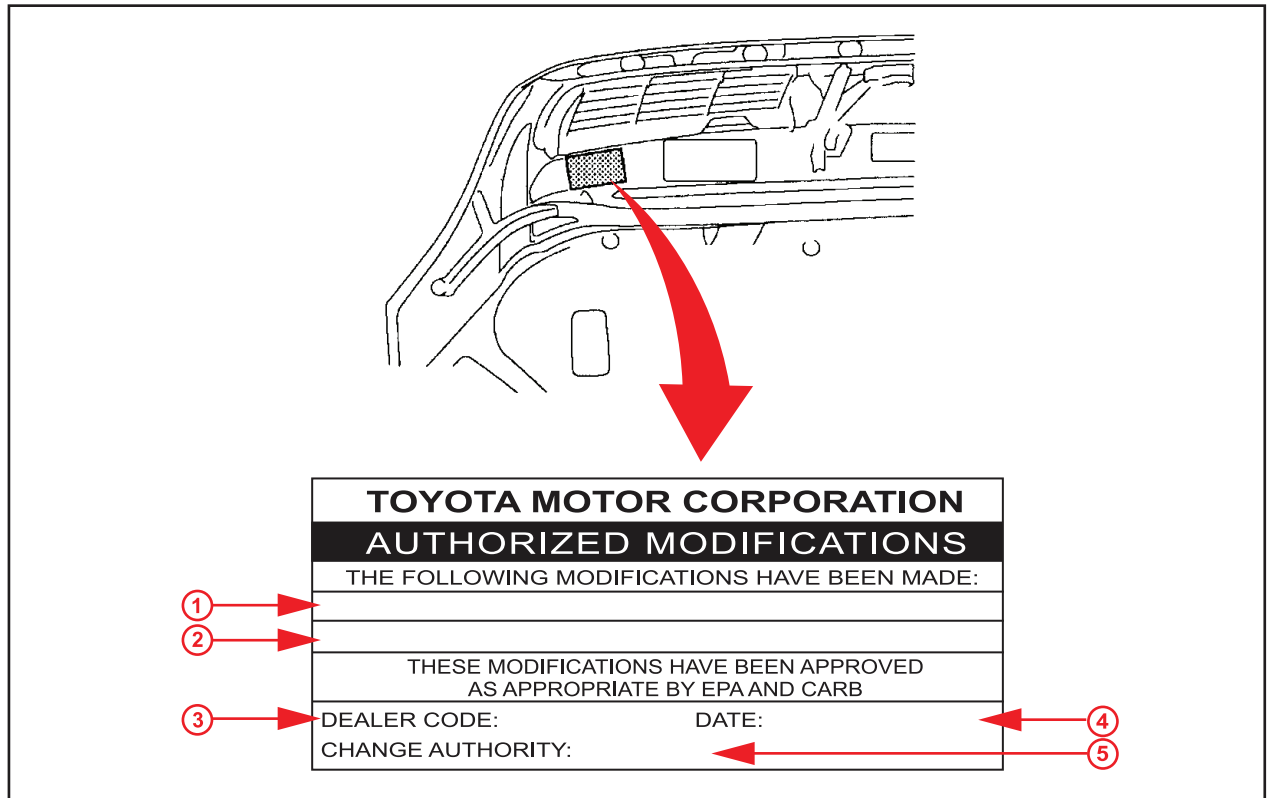
Inspection Procedure

1. Inspect and note the engine oil level.
2. If oil level is low, inspect for leak source and repair. If NO leaks are present, proceed to step 3.
3. Add engine oil as necessary and then proceed to the ECM reprogramming procedure.

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 2009 Corolla and Matrix



1	Replacement ECM (PCM) Part Number (i.e., 89661-02M91)
2	New Calibration ID(s) (i.e., 302A4200)
3	Dealer Code

4	Date Completed
5	This TSB 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 – 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.

- Start the engine and warm it up to normal operating temperature before test driving.
- 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 **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**]
 - 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 before test driving.
- Test drive the vehicle to confirm proper vehicle operation.
- The repair is complete.