

# MIL "ON" DTC P0456

**Service Category** Engine/Hybrid System

**Section** Engine Control

**Market** USA

Toyota Supports  
 ASE Certification 

## Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2007 – 2008	Corolla, Matrix	Drive Type(s): 2WD Engine(s): 1ZZ Transmission(s): 5MT, 4AT VDS(s): BR30E, BR32E, KR30E, KR32E
2005 – 2006	Corolla, Matrix	Drive Type(s): 2WD Engine(s): 1ZZ Transmission(s): 5MT, 4AT VDS(s): BR30E, BR32E, KR30E, KR32E

### NOTE

This TSB applies to 2005 – 2006 MY Corolla and Matrix vehicles that are currently equipped with a 2007 MY ECM.

### TSB REVISION NOTICE

- **September 24, 2009 Rev1:**
  - **Step 3 has been added to the Repair Procedure.**

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

## Introduction

Some 2007 – 2008 model year Corolla and Matrix vehicles may exhibit a MIL "ON" condition with Diagnostic Trouble Code (DTC) P0456 – Evaporative Emission Control System Leak Detected (Very Small Leak). The Engine Control Module/ECM (SAE term: Powertrain Control Module/PCM) logic has been modified to reduce the possibility of this condition occurring. This bulletin also applies to 2005 – 2006 model year Corolla and Matrix vehicles which were previously repaired using a 2007 model year ECM. Use the following repair procedure to address this condition.

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### Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG9025	Recalibrate ECM (PCM) Engine	0.6	89661-#####	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.

### Calibration Information

MODEL	MODEL YEAR	ENGINE	TRANS	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID	VDS	
Corolla	2007	1ZZ-FE	A/T w/VSC	30271000	<a href="#">30271200</a>	BR3#E	
				30271100			
	A/T w/o VSC		30272000	<a href="#">30272200</a>			
			30272100				
2008	A/T w/VSC		302D2000	<a href="#">302D2100</a>			
	A/T w/o VSC		302D3000	<a href="#">302D3100</a>			
Matrix	2007		A/T w/VSC	30273000	<a href="#">30273200</a>		KR3#E
				30273100			
	A/T w/o VSC	30274000	<a href="#">30274200</a>				
		30274100					
2008	A/T w/VSC	302D7000	<a href="#">302D7100</a>				
	A/T w/o VSC	302D8000	<a href="#">302D8100</a>				
Corolla, Matrix	2007	M/T	30275000	<a href="#">30275200</a>	BR3#E KR3#E		
			30275100				
	2008		302D4000	<a href="#">302D4100</a>			

#### NOTE

The table above applies to 2005 – 2006 model year vehicles with a 2007 ECM service part previously installed. 2005 – 2006 model year calibration IDs are not listed or applicable to this TSB.

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### Parts Information

MODEL	MODEL YEAR	TRANS	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
Corolla	2007	A/T w/VSC	89661-02K10	89661-02K12	Engine Control Module (ECM/PCM)	-
			89661-02K11			-
		A/T w/o VSC	89661-02K20	89661-02K22		-
			89661-02K21			-
	2008	A/T w/VSC	89661-02Q90	89661-02Q91		-
		A/T w/o VSC	89661-02R00	89661-02R01		-
Matrix	2007	A/T w/VSC	89661-02K30	89661-02K32	-	
			89661-02K31		-	
		A/T w/o VSC	89661-02K40	89661-02K42	-	
			89661-02K41		-	
	2008	A/T w/VSC	89661-02R40	89661-02R41	-	
		A/T w/o VSC	89661-02R50	89661-02R51	-	
Corolla, Matrix	2007	M/T	89661-02K50	89661-02K52	-	
			89661-02K51		-	
	2008		89661-02R10	89661-02R11	-	
-	-	-	00451-00001-LBL	Same	Authorized Modification Labels	1

**NOTE**

- The table above applies to 2005 – 2006 model year vehicles with a 2007 ECM service part previously installed. 2005 – 2006 model year ECM part numbers are not listed or applicable to this TSB.
- 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* NOTE: Software version 4.20.018 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](http://techinfo.toyota.com) for more information regarding J2534 reprogramming.



SPECIAL SERVICE TOOLS (SST'S)	PART NUMBER	QTY
GR8 Battery Diagnostic Station*	<a href="#">00002-MCGR8</a>	1

\* Essential SST.

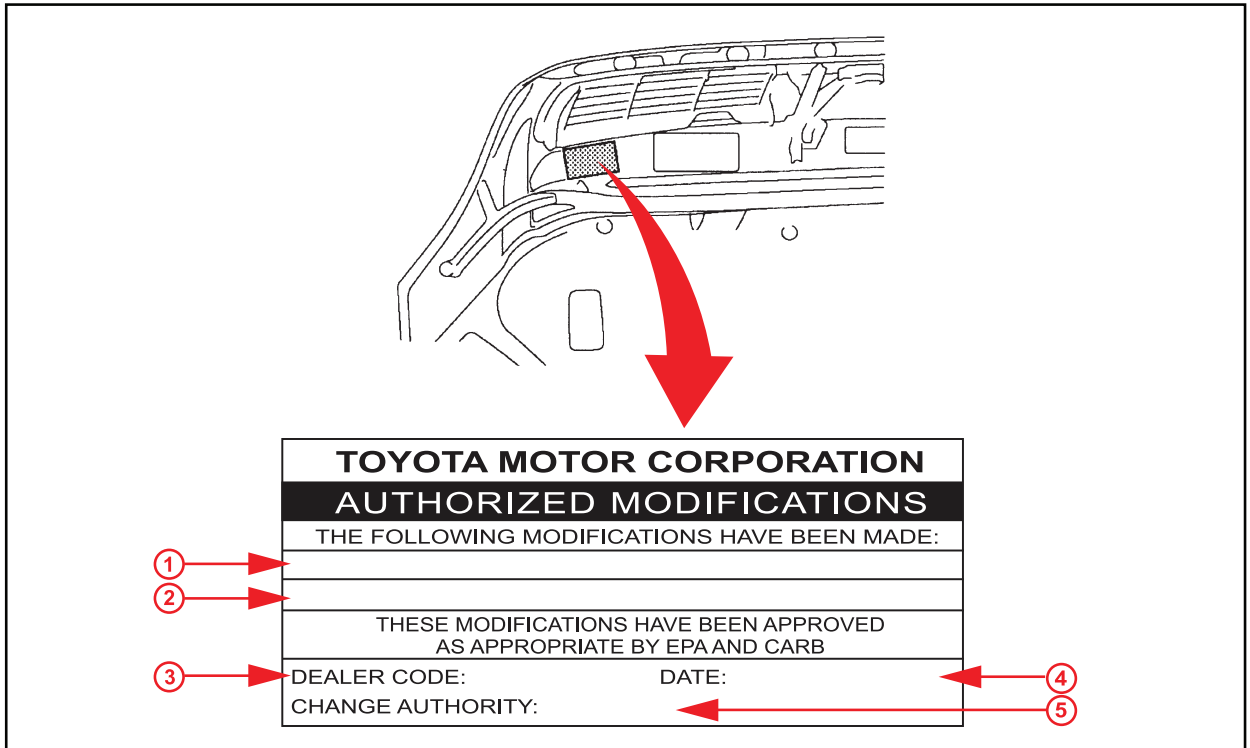
**NOTE**  
Additional SSTs may be ordered by calling 1-800-933-8335.

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### Repair Procedure

1. Using TIS Techstream, check for stored DTCs. If only DTC P0456 is present, proceed to step 2.
2. Clear DTCs.
3. Confirm if the fuel cap is loose. If it is loose, tighten the cap and finish the repair. If it is not loose, go to step 4.
4. 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 5.

**Figure 1. Location of Authorized Modifications Label on 2005 Corolla and Matrix**



<b>1</b>	Replacement ECM (PCM) Part Number (i.e., 89661-02K12)
<b>2</b>	New Calibration ID(s) (i.e., 30271200)
<b>3</b>	Dealer Code

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

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### Repair Procedure (Continued)

5. 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.

6. 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.

7. Using Techstream, run the Automatic EVAP System check.

**System Select > Engine and ECT > Utility > EVAP System**

- **PASS** — Repair is complete.
- **FAIL** — Refer to the Repair Manual for EVAP system diagnosis.

Refer to the Technical Information System (TIS), applicable model year Corolla or Matrix Repair Manual:

- [2005](#) Corolla, *Engine/Hybrid System – Engine Control – "SFI System (1ZZ-FE): EVAP Inspection Procedure"*
- [2006](#) / [2007](#) / [2008](#) Corolla, *Engine/Hybrid System – Engine Control – "1ZZ-FE Engine Control System: SFI System: EVAP System"*
- [2005](#) Matrix, *Engine/Hybrid System – Engine Control – "SFI System (1ZZ-FE(FF)): EVAP Inspection Procedure"*

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### Repair Procedure (Continued)

- [2006](#) Matrix, *Engine/Hybrid System – Engine Control – “1ZZ-FE Engine Control System: SFI System (for 2WD): EVAP System”*
  - [2007 / 2008](#) Matrix, *Engine/Hybrid System – Engine Control – “1ZZ-FE Engine Control System: SFI System: EVAP System”*
8. Test drive the vehicle to confirm proper vehicle operation.