



**Technical Service  
BULLETIN**

February 18, 2005

Title:

**M.I.L. "ON" DTC P0031, P0051, P2238,  
AND/OR P2241**

Models:

**'04 – '05 Camry (V6)**

**ENGINE  
EG009-05**

**Introduction** Under certain driving conditions, some 2004 and 2005 model year Camry vehicles may exhibit a M.I.L. "ON" with at least one of the following DTCs:

- P0031 (Oxygen Sensor Heater Control Circuit Low [Bank 1, Sensor 1])
- P0051 (Oxygen Sensor Heater Control Circuit Low [Bank 2, Sensor 1])
- P2238 (Oxygen Sensor Pumping Current Circuit Low (for A/F Sensor) [Bank 1, Sensor 1])
- P2241 (Oxygen Sensor Pumping Current Circuit Low (for A/F Sensor) [Bank 2, Sensor 1])

The A/F sensor manufacturing process and the Engine Control Module (ECM) (SAE term: Powertrain Control Module/PCM) logic have been modified to improve these conditions.

**NOTE:**

- Version 12.01a or later Diagnostic Tester software is required to perform this procedure.
- Before proceeding, verify the ECM (PCM) calibration has NOT been updated by checking for the Authorized Modifications Label (shown in step 2 of the Repair Procedure).

**Applicable Vehicles**

- **2004** model year **Camry** vehicles equipped with **1MZ-FE** or **3MZ-FE** engine.
- **2005** model year **Camry** vehicles equipped with **1MZ-FE** or **3MZ-FE** engine produced **BEFORE** the Production Change Effective VINs shown on the next page.

**Warranty Information**

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG4025	Recalibrate ECM (PCM) Engine, R & R Both A/F Sensors	1.6	89661-06A1# 89661-06A4# 89661-06B0# 89661-06B1# 89661-33A1# 89661-33A80 89661-33A90 89666-3342#	8A	99

**Applicable Warranty\*:**

**This repair is covered under the Toyota Federal Emissions 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.



**Production Change Information**



MODEL	PLANT	ENGINE	PRODUCTION CHANGE EFFECTIVE VIN
2005 Camry	Tsutsumi	1MZ	JTDBF3#K*50160267
		3MZ	JTDBA3#K*50024493
	TMMK	1MZ	4T1BF3#K*5U096459
		3MZ	4T1BA3#K*5U055317

**Parts Information**

PREVIOUS PART NUMBER	CURRENT PART NUMBER	ENGINE	PART NAME	QTY
89467-06020	Same	1MZ	Sensor, Air Fuel Ratio, Rear (Bank 1)	1
89467-33120	Same		Sensor, Air Fuel Ratio, Front (Bank 2)	1
89467-06010	Same	3MZ	Sensor, Air Fuel Ratio, Rear (Bank 1)	1
89467-33110	Same		Sensor, Air Fuel Ratio, Front (Bank 2)	1
N/A	00451-00001-LBL		Authorized Modifications Label	1

**NOTE:**  
 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.

**Required SSTs**

SPECIAL SERVICE TOOLS (SSTs)	PART NUMBER	QUANTITY
Toyota Diagnostic Tester Kit* 	01001271	1
12 Megabyte Diagnostic Tester Program Card with version 12.01a Software (or later)* 	01002593-005	1

\* Essential SSTs.

**NOTE:**  
 Additional Diagnostic Tester Kits, Program Cards, or other SSTs may be ordered by calling SPX/OTC at 1-800-933-8335.

**Calibration Identification Chart**

MODEL YEAR	ENGINE	ECM (CPU)	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID
2004 & 2005	1MZ-FE	Main	33346000	33356100
			33346100	
	33356000			
	Sub	53329000	53339000	
53329100				
	3MZ-FE	Main	33347000	33355100
			33347100	
	33355000			
	Sub	53331000	53338000	

**NOTE:**

- Although the calibration description in the Calibration Update Wizard and on the Diagnostic Tester reads "04 Camry," these calibrations apply to 2004 and 2005 model year Camry vehicles produced before the Production Change Effective VINs shown in this TSB.
- 2004 model year Camry vehicles, which have been flash reprogrammed using the procedures in this TSB, will contain upgraded 2005 model year OBD II logic. Refer to the 2005 model year Camry Repair Manual information on the Technical Information System (TIS) when checking Powertrain Diagnostic Trouble Codes (DTCs) on 2004 model year vehicles that have been reprogrammed.

**Repair Procedure**

1. Replace both Bank 1, Sensor 1 and Bank 2, Sensor 1 air fuel ratio sensors.
2. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 1. Confirm if ECM (PCM) calibration has been updated. If not the latest ECM (PCM) calibration — go to step 3.

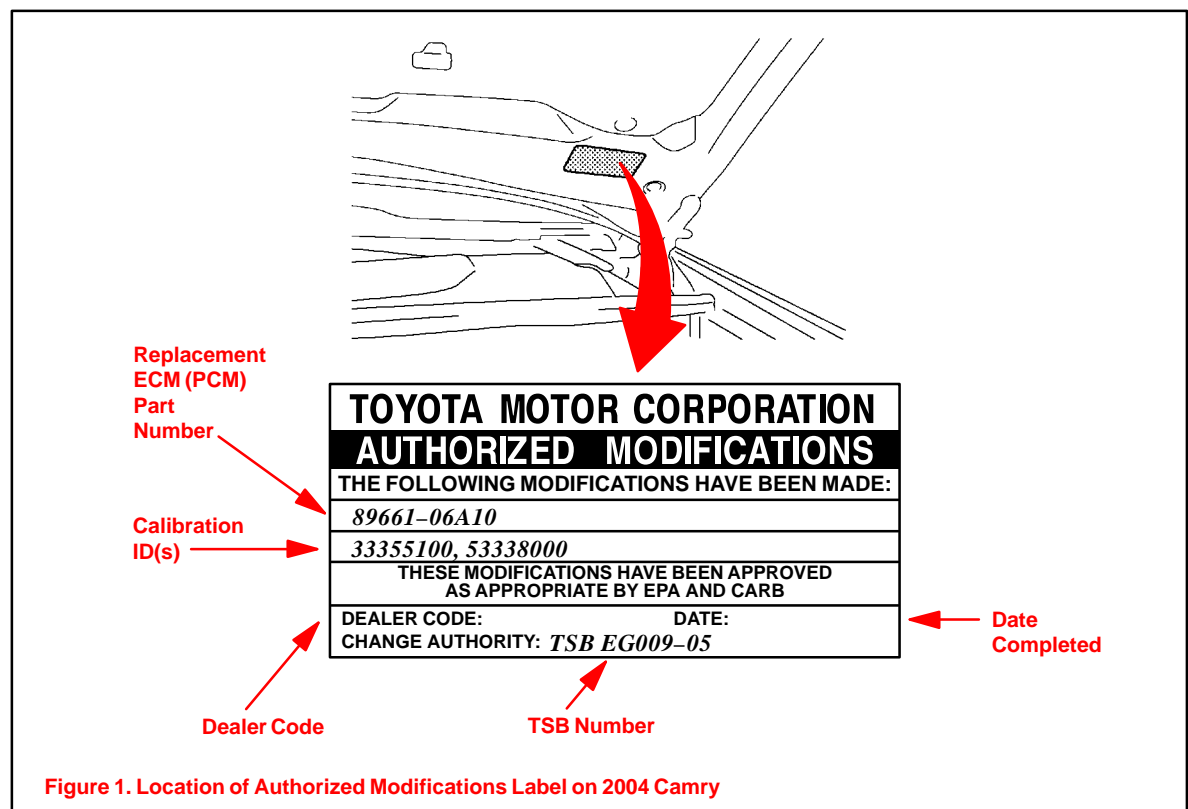
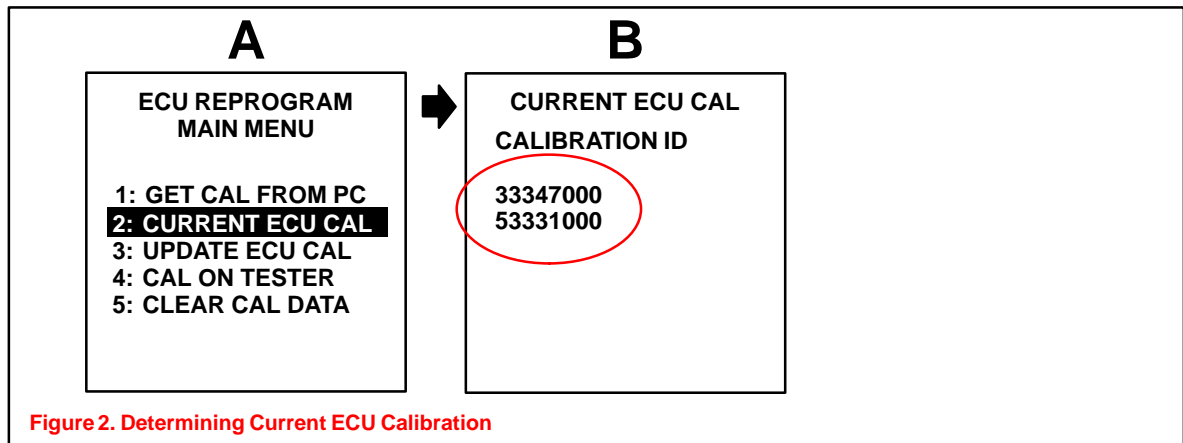


Figure 1. Location of Authorized Modifications Label on 2004 Camry

**Repair Procedure**  
(Continued)

3. Connect the Diagnostic Tester to the vehicle and select CURRENT ECU CAL from the ECU REPROGRAM MAIN MENU. Determine the vehicle's current ECU calibration (see Figure 2).
  - The sample screen prints seen below are the 12.01a software version and may differ from subsequent software versions.



**NOTE:**

- If Calibration ID matches "Previous Calibration ID" as shown in Calibration Identification Chart on page 3, proceed with flash reprogramming.
- If Calibration ID matches "New Calibration ID" as shown in Calibration Identification Chart, this vehicle has already been programmed. Refer to TIS for diagnostic procedures applicable to any stored DTCs.

4. If ECU calibration ID is not the same as the "New Calibration ID" listed previously, proceed to Flash Reprogram ECM (PCM).

**Flash Reprogram Procedure**

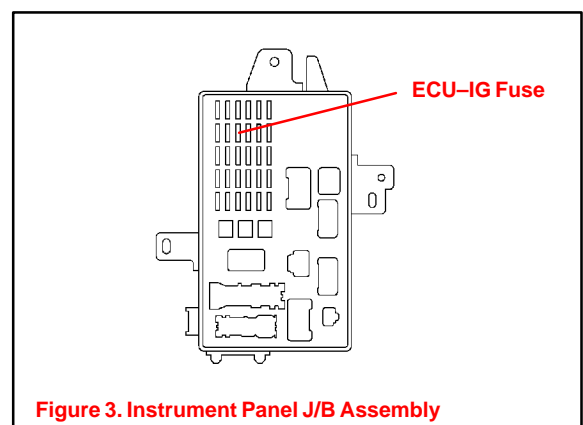
**Flash Reprogram ECM (PCM)**

1. Remove the 10A ECU-IG fuse from the Instrument Panel Junction Block assembly. This action prevents possible activation of the ABS relay, resulting in ECM Reprogramming failure.

**NOTE:**

**ECU damage may occur if 10A fuse is NOT removed.**

2. Follow the procedures outlined in TSB No. SS002-01, "ECU Flash Reprogramming Process," and flash the ECM (PCM) with new calibration file update.



**Flash  
Reprogram  
Procedure**  
(Continued)

3. Reinstall the 10A ECU-IG fuse in the Instrument Panel Junction Block assembly.
4. Follow the procedures outlined in TSB No. EG045-04, "*Entering VIN During ECM (PCM) Replacement and/or DTC P0630,*" and write the VIN to the ECM (PCM).
5. Enter the required information on the Authorized Modifications Label and affix it to the vehicle at the location shown in Figure 1 (page 3). The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
6. The repair is complete. Test drive vehicle to confirm normal operation.