



# Technical Service BULLETIN

July 1, 2004

Title:

**M.I.L. "ON" DTC P0420**

Models:

**'02 – '04 Camry (2AZ-FE) (Non PZEV)**

# TSB

ENGINE  
REVISÉD  
EG024-04

### TSB REVISION NOTICE:

- April 3, 2007: A new step 3 and Figure 2 have been added to the ECM Reprogram Procedure (regarding removal of the 10A ECU-IG fuse). Previous Figure 2 is now Figure 3.
  - July 27, 2004: The OP Code in the Warranty Information table has been changed from Combo A to Combo B.
  - July 7, 2004: The Parts Information, Warranty Information, Applicable Vehicles and the Note in the Introduction have been changed.
- All previous versions of this TSB should be discarded.

**Introduction** Some 2002 – 2004 model year Camry vehicles equipped with the 4 cylinder (2AZ-FE) engine may exhibit a M.I.L. "ON" condition with Diagnostic Trouble Code (DTC) P0420 (Catalyst System Efficiency Below Threshold, Bank 1) in the Engine Control Module (ECM) (SAE term: Powertrain Control Module/PCM). The ECM (PCM) logic has been modified and a redesigned catalyst has been provided.

### NOTE:

The repair procedure in this TSB is similar to TSB No. EG013-04 "Excessive Sulfur Dioxide Odor." The recalibration of the ECM (PCM) should only be performed ONCE.

### Applicable Vehicles

- 2002 – 2004 model year Camry vehicles equipped with the 2AZ-FE engine (non PZEV) and automatic transmission produced BEFORE the Production Change Effective VINs shown below.

### Production Change Information

MODEL	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
Camry (2AZ-FE)	TMMK Line 1	4T1BE3#K#4U323000
	TMMK Line 2	4T1BE3#K#4U869000
	Tsutsumi	JTDBE3#K#40283686

### Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG4004	Recalibrate Engine ECM (PCM)	0.8	25051-28101 25051-0H010 25051-0H011	8A	99
Combo B	R & R Exhaust Manifold Assembly	0.9	25051-28240 25051-0H040		

### Applicable Warranty\*:

This repair is covered under the Toyota Specified Major Emission Control Component 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.





**Parts Information**

MODEL YEAR	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
2002 – 2003	25051-28101 25051-0H010 25051-0H011	25051-0H011	Converter Sub-assembly Exhaust Manifold	1
2004	25051-28240 25051-0H040	25051-0H040		

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
N/A	00451-00001-LBL	Authorized Modification Labels	1

**NOTE:**  
 Authorized Modification Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through Dealer Daily 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 10.2a 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.

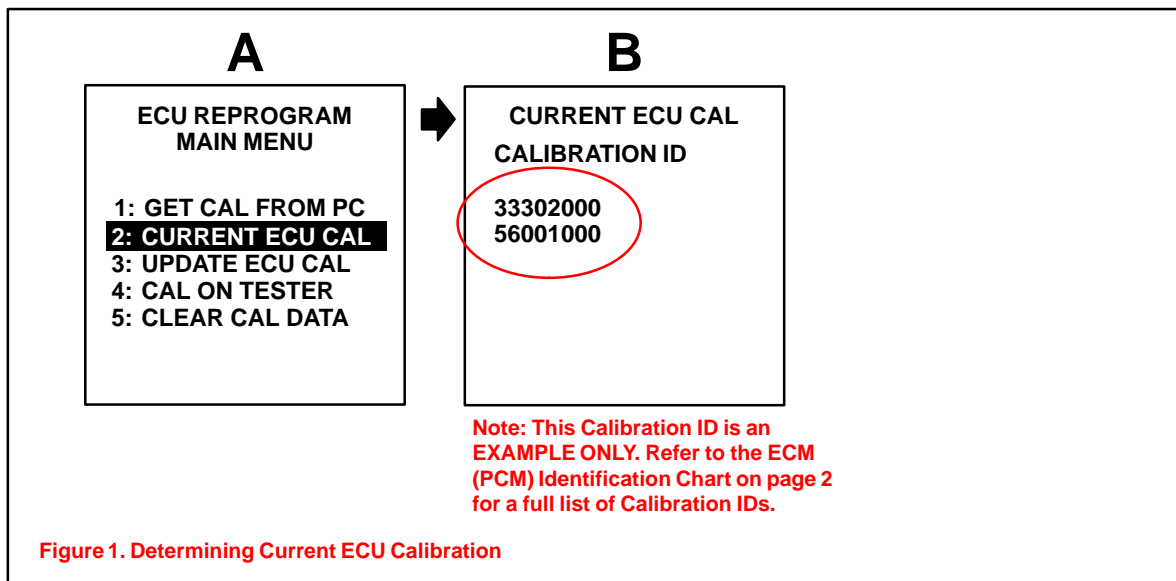
**ECM (PCM) Identification Chart**

MODEL YEAR	DRIVETRAIN	PREVIOUS CALIBRATION ID NUMBER	NEW CALIBRATION ID NUMBER
2002	ATM w/o Immobilizer	33302000	33302100
	ATM w/Immobilizer	33304000	33304100
2003	ATM w/o Immobilizer	33337000	33337100
	ATM w/Immobilizer	33339000	33339100
2004	All 2AZ ATM Models	33344000 33344100	33344200

**NOTE:**  
 All 2002 – 2004 model year vehicles equipped with manual transmissions require replacement of the catalytic converter assembly only. Please refer to the Catalytic Converter Replacement Procedure on page 4.

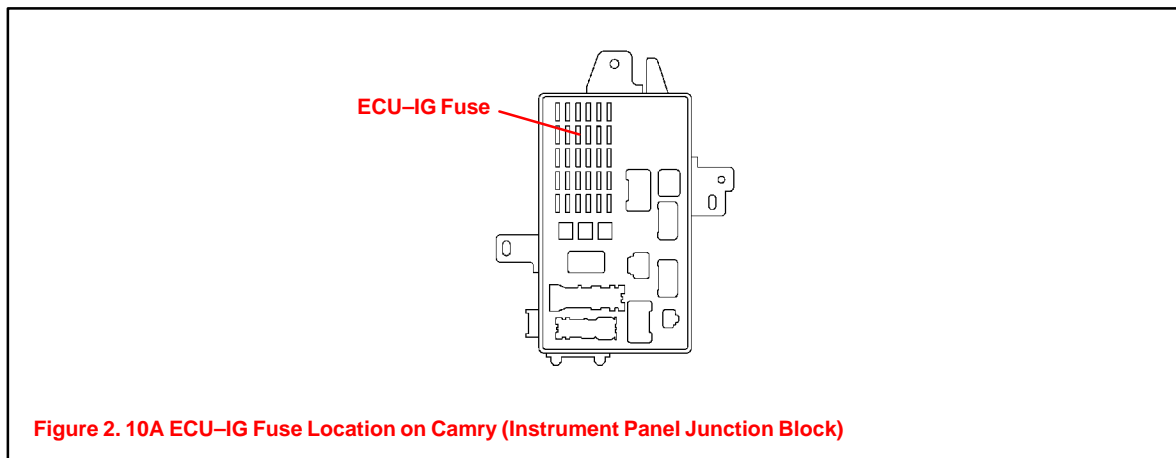
**ECM  
Reprogram  
Procedure**

1. Check for the Authorized Modification Label affixed to the vehicle in the location shown in Figure 3. If there is no label present, proceed to step 2.
2. Connect the Diagnostic Tester to the vehicle and select "CURRENT ECU CAL" from the "ECU REPROGRAM MAIN MENU." To determine the vehicle's current ECM (PCM) calibration, see Figure 1 below.



3. Remove the 10A ECU-IG fuse from the instrument panel Junction Block (refer to Figure 2 for location). This action prevents possible activation of the ABS relay, resulting in ECM Reprogramming failure.

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



**NOTE:**  
A battery charger MUST be connected to the battery and set at a medium charge setting during the Flash Reprogram procedure in order to maintain proper battery voltage and prevent damage to the ECM (PCM).

**ECM  
Reprogram  
Procedure**  
(Continued)

4. Proceed to Flash Reprogram the ECM (PCM) by following the procedures in TSB No. SS002–01 titled "*ECU Flash Reprogramming Process*," for 2001 and later applicable models.

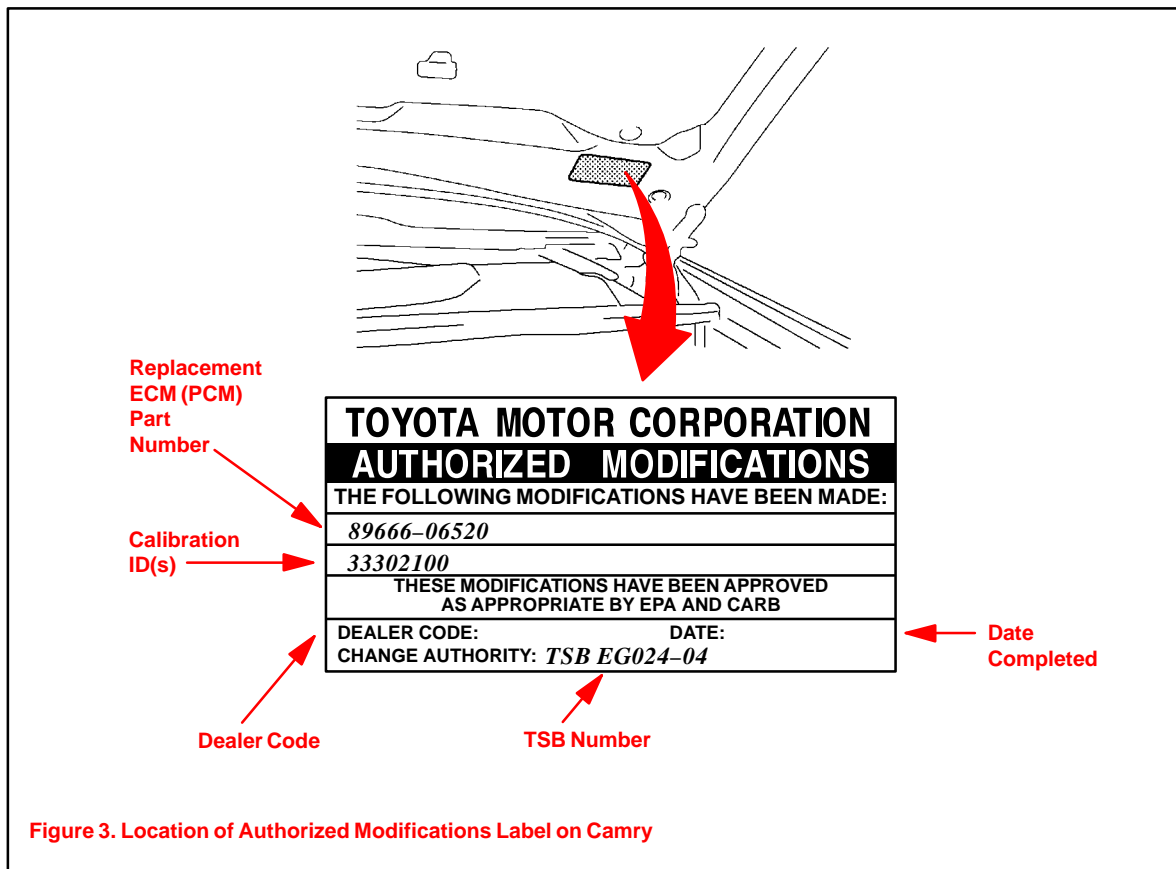
**NOTE:**

Errors during the flash reprogramming process can **PERMANENTLY DAMAGE** the vehicle's ECM (PCM). In order to minimize this risk follow the steps below:

- Make sure that the current battery voltage is no less than 11.4 volts.
- Install a battery charger and set on a low setting to assure that the battery voltage **DOES NOT FALL BELOW 11.4 VOLTS** during the reprogramming.
- If battery's state of charge is in question, test with SST No. 00002–MP815–L, "Midtronics Battery Tester."
- Confirm that the engine hood is up, parking brake is set and all accessories are **OFF** (i.e., audio system, A/C, interior lights, headlights, etc.).
- **DO NOT** perform the reprogramming process until the engine room temperature is 158°F (70°C) or less.
- Confirm cable connections between the vehicle and the Diagnostic Tester are secured.
- In case of Error Message "Cannot Go To Reprogram Mode," refer to TSB No. SS004–01 "*ECU Flash Reprogramming Error Message*."
- Do not interrupt the vehicle during the reprogramming process, keep all doors closed.

5. Select the proper ECM (PCM) calibration file for the model year vehicle and reprogram the ECM (PCM).
6. Start the engine and warm up the vehicle to normal operating temperatures before test driving.
7. Test drive vehicle to confirm proper operation and to readjust the ECM (PCM) "Learned Values."
  - Drive the vehicle using light to moderate acceleration in mostly stop and go type driving.
  - Allow the vehicle to shift fully through all gears and at various shifter positions.
8. Enter the following information on the Authorized Modification Label shown below in Figure 3 using a permanent marker.
  - ECM (PCM) part number.
  - New ECM (PCM) calibration number.
  - Your dealer code.
  - Reprogramming date.
  - This TSB number.

**ECM  
Reprogram  
Procedure  
(Continued)**



**Figure 3. Location of Authorized Modifications Label on Camry**

**Catalytic  
Converter  
Replacement  
Procedure**

Refer to the Technical Information System (TIS) 2002 or 2004 model year Camry Repair Manual: *Exhaust Pipe Assy.*