



Technical Service BULLETIN

June 14, 2004

Title:

EXCESSIVE SULFUR DIOXIDE ODOR

Models:

'03 – '04 4Runner (2UZ-FE)

ENGINE
EG020-04

Introduction Some customers may complain of excessive sulfur dioxide odor on 2003–2004 model year 4Runner (2UZ-FE) vehicles under the following conditions:

- Stop and go driving.
- Heavy acceleration.

In order to reduce the sulfur dioxide odor, the Electronic Control Module (ECM) (SAE term: Powertrain Control Module/PCM) fuel cut control logic has been modified and a new catalyst is provided. Follow the repair procedure to reflash the ECM and replace the catalytic converter assembly.

NOTE:

For more complete understanding of the root cause, refer to TSB No. EG003-03 "Sulfur Odor From Exhaust," dated February 24, 2003.

Applicable Vehicles

- **2003 – 2004** model year **4Runner** vehicles equipped with the **2UZ-FE engine** produced **BEFORE** the Production Change Effective VINs shown below.

Production Change Information

MODEL	PLANT	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
4Runner	Tahara	V8 2WD	JTEZT##R#40016279
		V8 4WD	JTEBT##R#40037525
	Hino	V8 2WD	JTEZT##R#48004215
		V8 4WD	JTEBT##R#48015016

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG4004	Recalibrate ECM (PCM) Engine	0.8	17410-50360	60	99
Combo A	R & R Catalytic Converter Assembly	0.2			

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

ORIGINAL PART NUMBER*	REPAIR PART NUMBER*	PART NAME	QTY
17410-50360	17410-50460	Pipe Assembly, Exhaust Front	1

* The original part (17410-50360) is currently used in vehicle production and is still available as a service part. The repair part (17410-50460) should be used when the customer complains of sulfur dioxide odor.

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

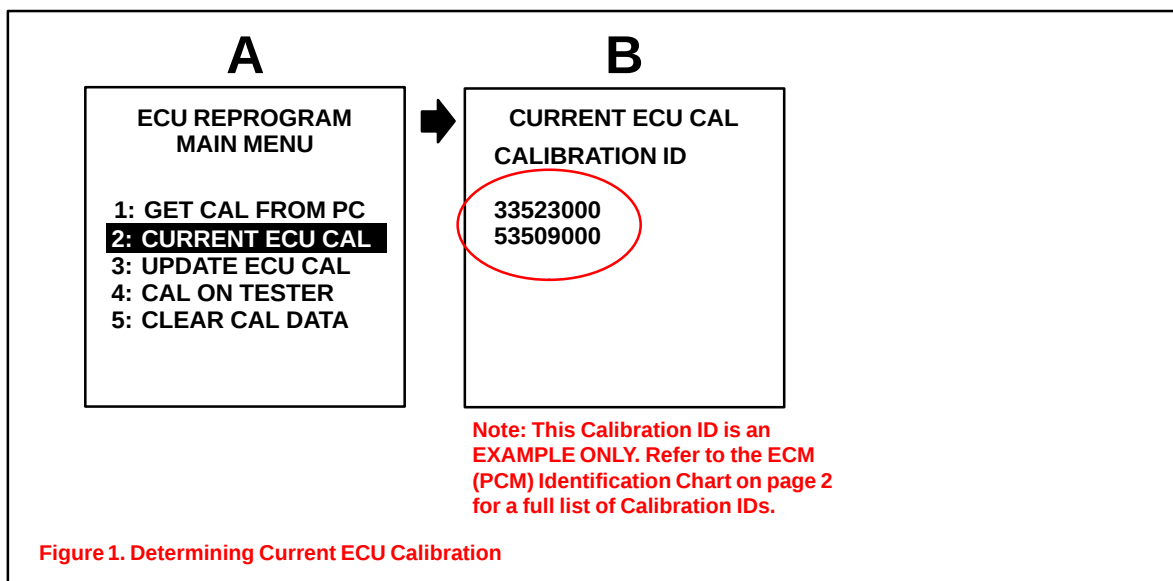
MODEL YEAR	DRIVETRAIN	PREVIOUS CALIBRATION ID NUMBERS		NEW CALIBRATION ID NUMBER
2003 – 2004	2WD	Main	33523000 33514000 33514100 33514200	33523100
		Sub	53509000 53501000 53501100 53501200	53509100
2003	4WD	Main	33515000 33515100 33515200	33527100
		Sub	53502000 53502100 53502200	53511000
2004	4WD	Main	33527000	33527100

NOTE:

2003 model year 4Runner vehicles, which have been flash reprogrammed using the procedures in this TSB, will contain upgraded 2004 model year OBD II logic. Refer to the 2004 model year 4Runner Repair Manual information on the Technical Information System (TIS) when checking Powertrain Diagnostic Trouble Codes (DTCs) on 2003 model year vehicles that have been reprogrammed.

**ECM
Reprogram
Procedure**

1. Check for the Authorized Modification Label affixed to the vehicle in the location shown in Figure 2 on page 4. 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 calibration, see Figure 1 shown below.



3. 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:

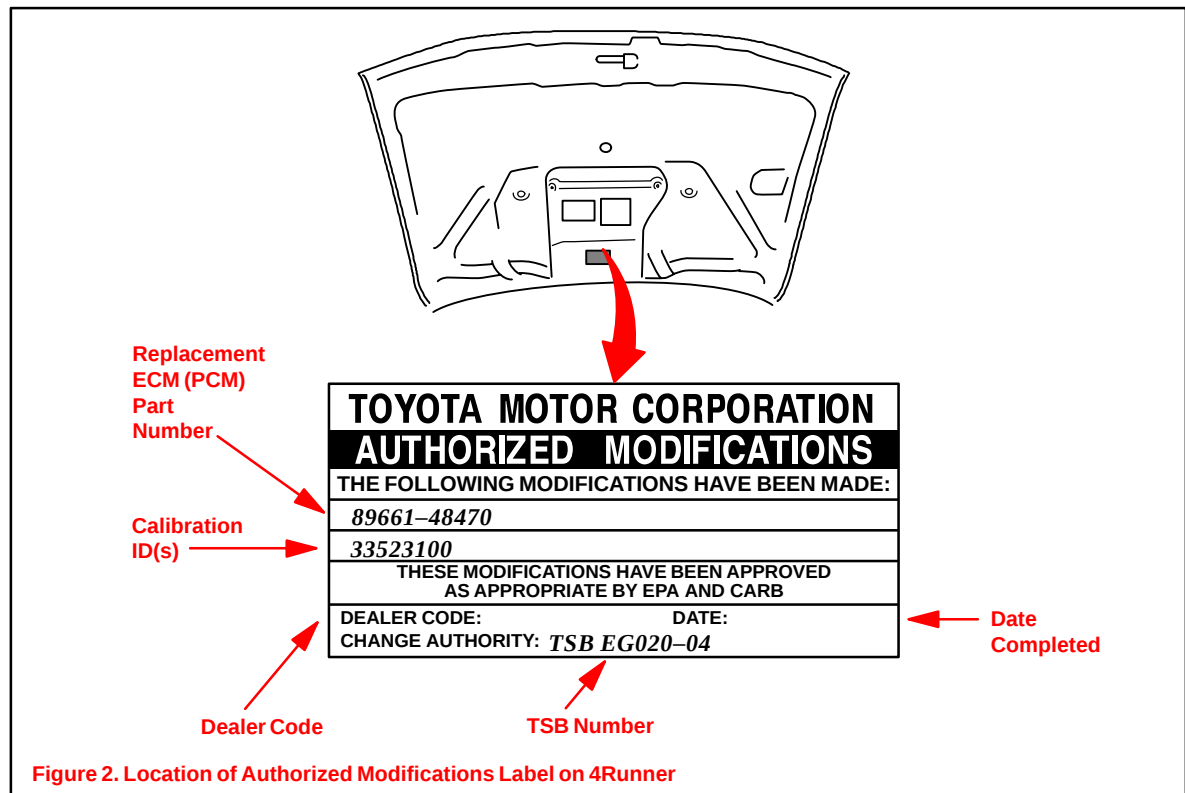
Errors during the flash reprogramming process can **PERMANENTLY DAMAGE** the vehicle’s ECM (PCM). In order to minimize this risk follow the steps below:

- 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–T, “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.

4. Select the proper ECM (PCM) calibration file for the model year vehicle and reprogram the ECM (PCM).
5. After completing the ECM (PCM) reprogram, the zero point calibration must be performed. Refer to TSB No. BR001–04 “Zero Point Calibration.”

**ECM
Reprogram
Procedure**
(Continued)

6. Start the engine and warm up the vehicle to normal operating temperatures before test-driving.
7. Test drive the 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 (D, 4, 3, 2, 1).
8. Enter the following information on the Authorized Modification Label shown below in Figure 2 using a permanent marker.
 - ECM (PCM) part number.
 - New ECM (PCM) calibration number.
 - Your dealer code.
 - Reprogramming date.
 - This TSB number.



**Catalytic
Converter
Replacement
Procedure**

Refer to TIS, 2003 or 2004 model year 4Runner Repair Manual:
Exhaust Pipe Assy (2UZ-FE).