



**Technical Service  
BULLETIN**

May 24, 2004

Title:

**EXCESSIVE SULFUR DIOXIDE ODOR**

Models:

'02 – '04 Solara (2AZ-FE)

ENGINE  
EG014-04

**Introduction** Some customers may complain of excessive sulfur dioxide odor on 2002–2004 model year Solara vehicles equipped with the 2AZ-FE engine 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**

- **2002 – 2004** model year **Solara** vehicles equipped with the **2AZ-FE engine** produced **BEFORE** the Production Change Effective VIN shown below.

**Production Change Information**

MODEL	PRODUCTION CHANGE EFFECTIVE VIN
Solara (2AZ-FE)	4T1*E##P#4U869002

**Warranty Information**

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG4004	Recalibrate Engine ECM (PCM)	0.8	17410-0H030	60	99
Combo A	2004 Model Year (ATM) R & R Catalytic Converter Assembly	0.6			
Combo A	2002 – 2003 Model Year (ATM) R & R Catalytic Converter Assembly	0.3			
171071	2004 Model Year (MTM) R & R Catalytic Converter Assembly	0.7			
171071	2002 – 2003 Model Year (MTM) R & R Catalytic Converter Assembly	0.4			

**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
17410-0H030	17410-0H170	Pipe Assembly, Exhaust Front	1

\* The original part (17410-0H030) is currently used in vehicle production and is still available as a service part. The repair part (17410-0H170) 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.**

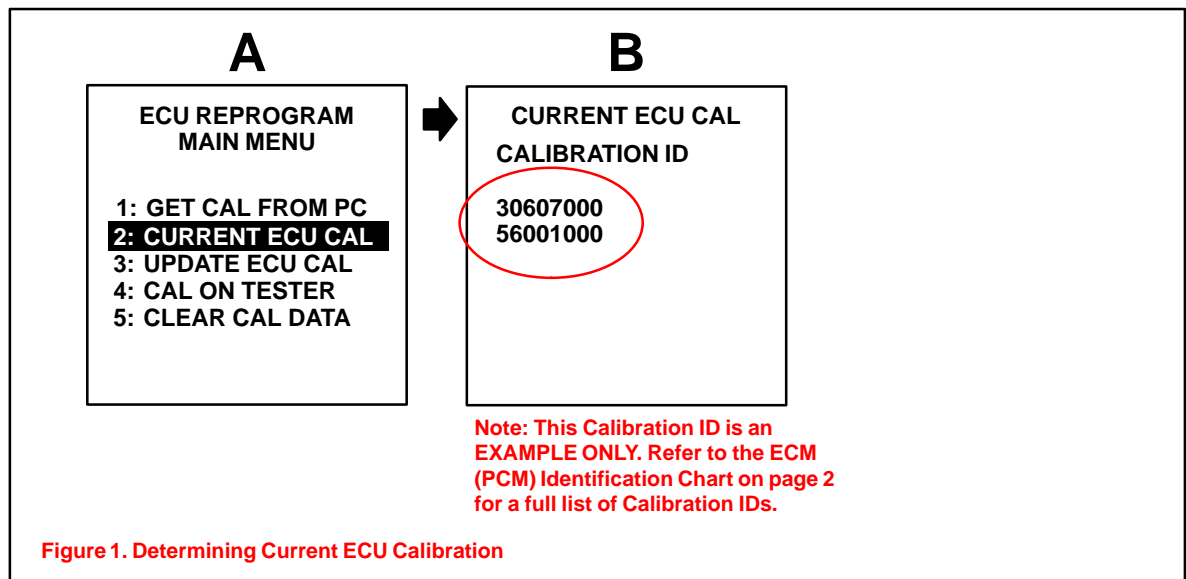
**ECM (PCM) Identification Chart**

MODEL YEAR	DRIVETRAIN	PREVIOUS CALIBRATION ID NUMBER	NEW CALIBRATION ID NUMBER
2002	ATM w/o Immobilizer	30607000	30607100
	ATM w/Immobilizer	30609000	30609100
	ATM Convertible	30608000	30608100
2003	ATM w/o Immobilizer	30602000	30602100
	w/Immobilizer ATM	30604000	30604100
	ATM Convertible	30603000	30603100
2004	All ATM Models	30625000 30625100	30625200

**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 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 (PCM) calibration, see Figure 1 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:**

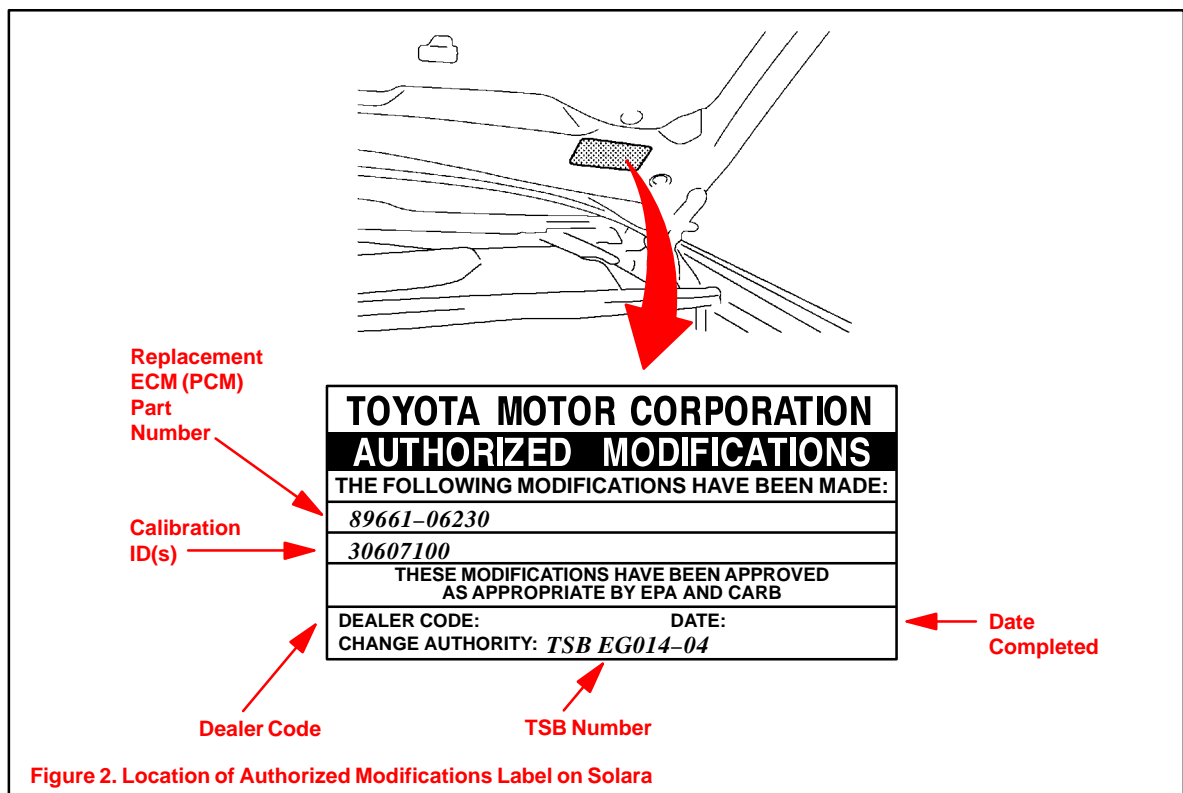
Errors during the flash reprogramming process can **PERMANENTLY DAMAGE** the vehicle’s ECM (PCM). In order to minimize this risk follow the steps below:

- 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–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.

4. Select the proper ECM (PCM) calibration file for the model year vehicle and reprogram the ECM (PCM).
5. Start the engine and warm up the vehicle to normal operating temperatures before test driving.

**ECM  
Reprogram  
Procedure**  
(Continued)

6. 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.
7. 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 the Technical Information System (TIS) 2002 or 2004 model year Solara Repair Manual: *Emission Control (2AZ-FE): Three-way Catalytic Converter (TWC) System.*