



**Technical Service  
Information Bulletin**

August 4, 2003

Title:

# ECM CALIBRATION: SHIFT FEELING ENHANCEMENT

Models:

'02 – '03 ES 300 & '04 – '05 ES 330

REVISED

TC004-03

TRANSMISSION & CLUTCH

**REVISION NOTICE:**

- April 1, 2005: 2004 – 2005 model year ES 330 vehicles have been added to Applicable Vehicles. Introduction and Note have been updated on page 1. Calibration Identification Chart has been updated to include ES 330 calibration IDs.
- August 6, 2003: There has been a change in Warranty Time. Previous versions of this TSIB should be discarded.

**Introduction**

To improve the transmission shift feeling during specific operating modes, the Engine Control Module (SAE term: Powertrain Control Module/PCM) calibration has been revised. These improvements include:

- Reduced downshift lag when accelerating at speeds from 10 to 20 mph.
- Less gear hunting when driving on/off accelerator pedal at 20 to 30 mph (for example: during heavy rush-hour traffic).
- Improved response rate during heavy acceleration from a stop.

**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 1 of the Repair Procedure).
- Harsh ATM shifting may result if any Repair Procedure steps are omitted (specifically steps 2 and 4 of "Flash Reprogram ECM" on page 6).

**Applicable Vehicles**

- 2002 – 2003 model year ES 300 vehicles.
- 2004 – 2005 model year ES 330 vehicles.

**Warranty Information**

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG5017	Recalibrate ECM Engine & Transmission	0.9	89666-3325# 89666-3344# 89661-33B3# 89661-33A4#	26	99

**Applicable Warranty\*:**

This repair is covered under the Lexus 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.






**Parts Information**

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
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	QTY	DRW**
<b>CAN Interface Module Kit*</b> 	01002744	1	8
<b>Lexus Diagnostic Tester Kit*</b> 	01001270	1	8
12 Megabyte Diagnostic Tester Program Card with version 12.01a Software (or later)* 	01002593-005 (Component of 01001270)	1	

\* Essential SSTs.

\*\* Refers to drawer number in SST Storage System.

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

**Calibration  
Identification  
Chart**

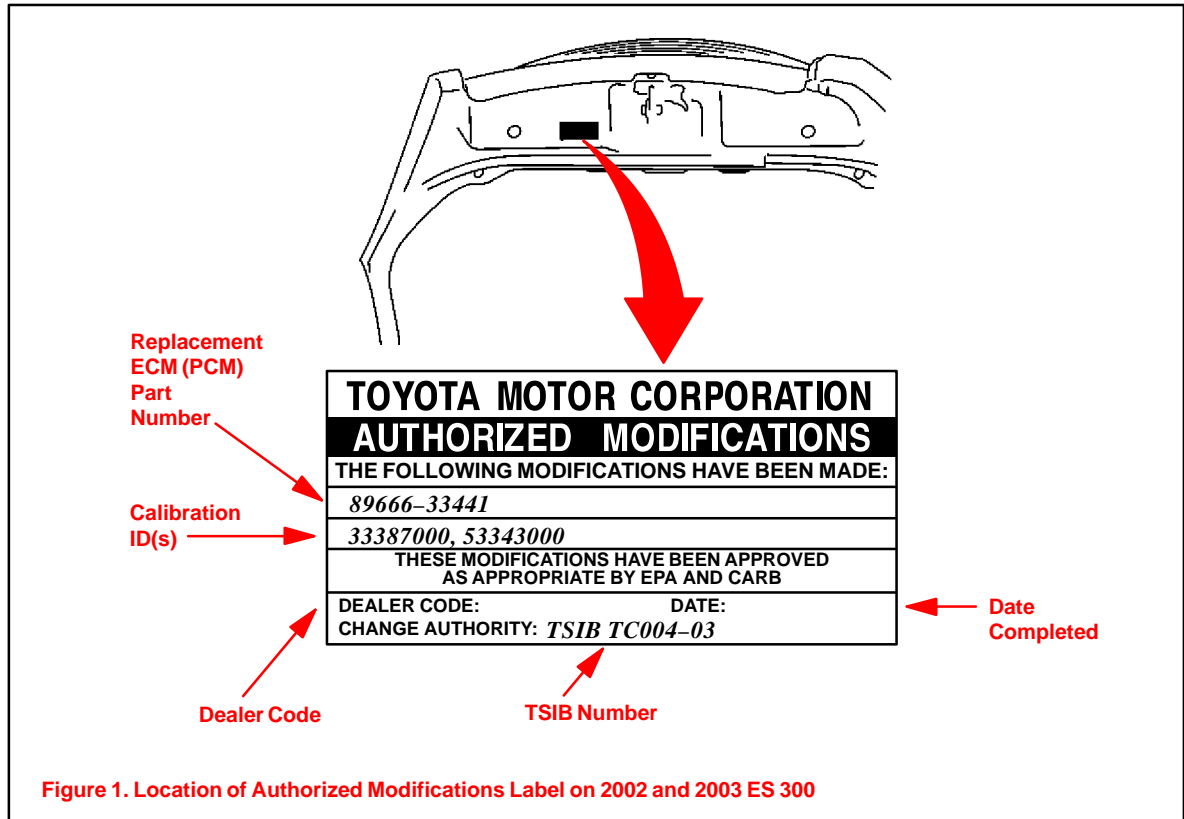
MODEL	ECM (CPU)	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID
2002 – 2003 ES 300	Main	33323000	33387000
		33323100	
		33323200	
		33341000	
		33341100	
		33341200	
		33341300	
	33341400		
	Sub	53314000	53343000
		53314100	
		53314200	
		53328000	
		53328100	
		53328200	
53328300			
53328400			
2004 – 2005 ES 330	Main	33350000	33360200
		33350100	
		33360000	
		33360100	
	Sub	53334000	53340100
		53340000	

**NOTE:**

- 2004 model year ES 330 vehicles, which have been flash reprogrammed using the procedures in this TSIB, will contain upgraded 2005 model year OBD II logic and will require VIN input. Refer to the 2005 model year ES 330 Repair Manual information on the Technical Information System (TIS) when checking Powertrain Diagnostic Trouble Codes (DTCs) on 2004 model year ES 330 vehicles that have been reprogrammed.
- 2002 model year ES 300 vehicles, which have been flash reprogrammed using the procedures in this TSIB, will contain upgraded 2003 model year OBD II logic. Refer to the 2003 model year ES 300 Repair Manual information on the Technical Information System (TIS) when checking Powertrain Diagnostic Trouble Codes (DTCs) on 2002 model year ES 300 vehicles that have been reprogrammed.

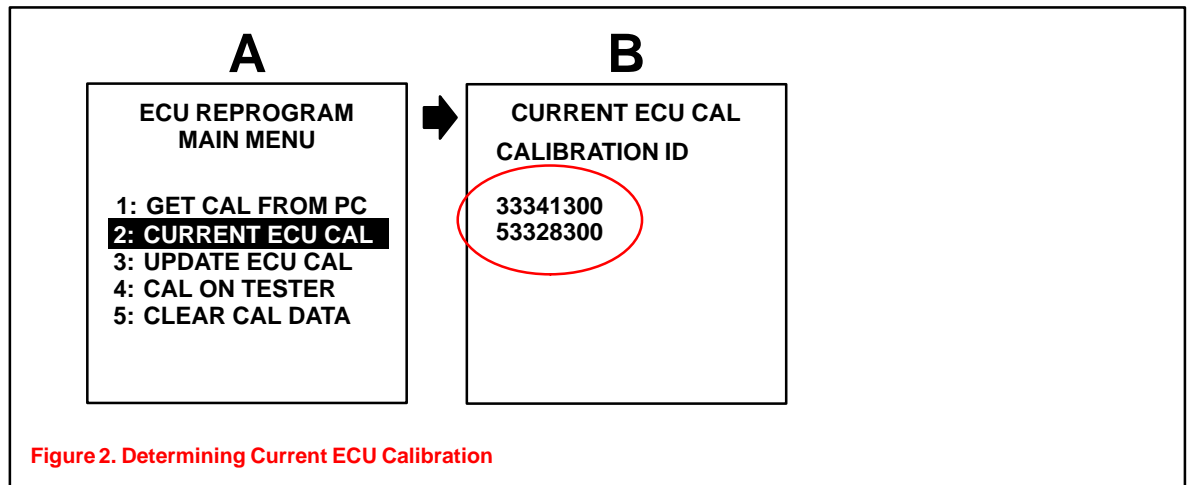
**Repair Procedure**

1. 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 2.



**Repair Procedure**  
(Continued)

2. 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.

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

**4. Flash Reprogram ECM (PCM)**

Follow the procedures outlined in Lexus TSIB No. SS001–01, “*ECU Flash Reprogramming Process*,” and flash the ECM (PCM) with the new calibration file update.

**NOTE:**

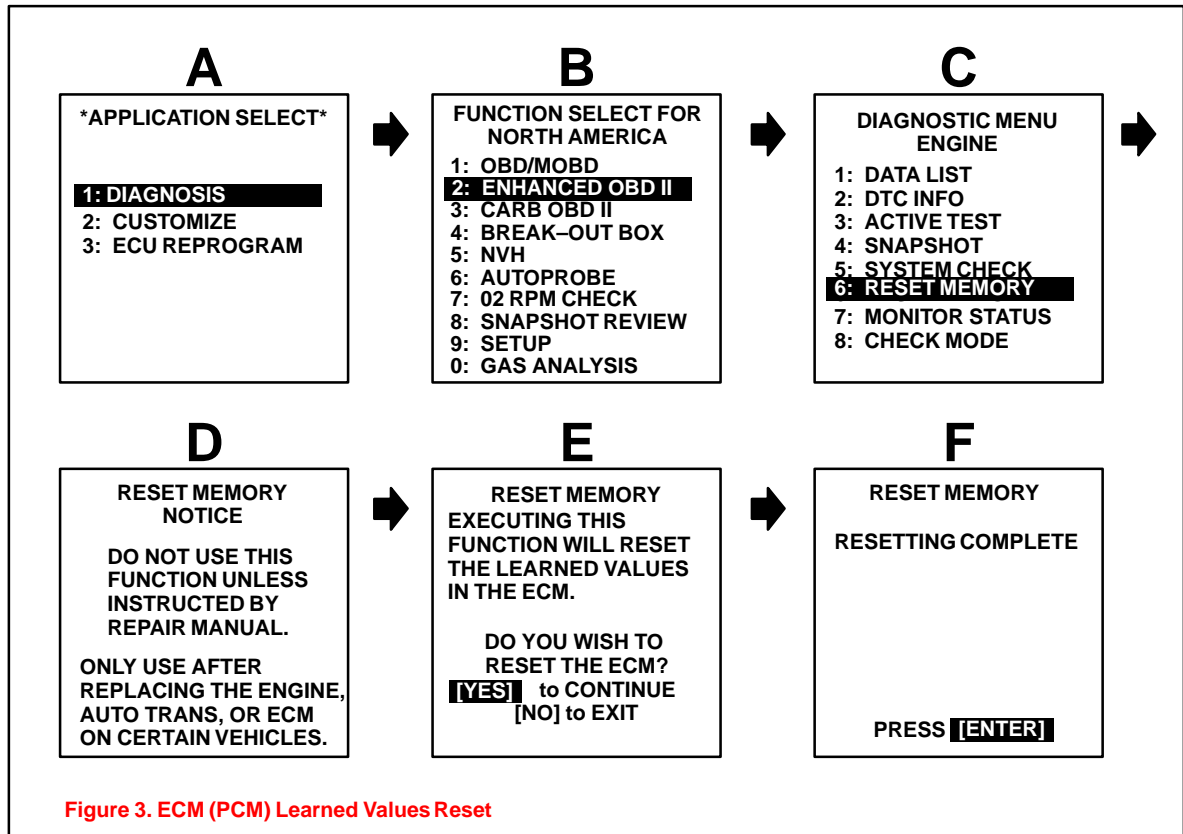
If the “Check Engine” light is ON when the ignition is turned back on to begin the reprogramming process, a scan tool cable problem exists. Refer to TSIB No. SS001–01, “*ECU Flash Reprogramming Process*.”

**Repair Procedure**  
(Continued)

5. **Reset the ECM (PCM) learned values** using the diagnostic tester. Refer to the procedures below.
- The sample screen prints seen below are the 12.01a software version and may differ from subsequent software versions.

**NOTE:**

Failure to reset the ECM (PCM) memory will result in continued ATM shifting complaints.



6. Follow the procedures outlined in TSIB No. EG012–04, “*Entering VIN During ECM (PCM) Replacement and/or DTC P0630,*” and write the VIN to the ECM (PCM).
7. Start the engine and warm it up to normal operating temperature before test–driving.
8. Test drive vehicle to confirm proper vehicle operation.
9. Enter the required information on the Authorized Modifications Label and affix it to the vehicle at the location shown in Figure 1 (page 4). The Authorized Modifications Label is available through the MDC, P/N 00451–00001–LBL.
10. Calibration update is complete.

**NOTE:**

- Select premium unleaded gasoline with an Octane Rating of 91 (Research Octane Number 96) or higher for optimum engine performance.
- The effect of the new calibration may become more apparent after several days of driving as the ECM (PCM) “learned values” are re–established from the customer’s driving.