



**Technical Service
Information Bulletin**

August 11, 2003

Title:

ECM CALIBRATION: SHIFTING ENHANCEMENT

Models:

'04 RX 330

TRANSMISSION & CLUTCH
TC005-03

Introduction To enhance ATM shifting, the Engine Control Module (SAE term: Powertrain Control Module/PCM) calibration has been updated.



NOTE:

- Version 10.1a 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).

**Applicable
Vehicles**

- 2004 model year RX 330 vehicles.

**Required
SSTs**

SPECIAL SERVICE TOOLS (SSTs)	PART NUMBER	QUANTITY
Lexus Diagnostic Tester Kit* 	01001270	1
12 Megabyte Diagnostic Tester Program Card with version 10.1a Software (or later)* 	01002593-005	1

* Essential SSTs.

NOTE:

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

**Warranty
Information**

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
TC3001	Recalibrate ECM Engine & Transmission	0.8	89661-48470	26	99
			89661-48480		
			89661-48490		
			89661-48500		
			89661-48510		
			89661-48520		

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.



Calibration Identification Chart

MODEL	ECM (CPU)	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID
2004 RX 330 FF (2WD) Sequential Shift (SS) Transmission	Main	34815000	34815100
	Sub	54803000	54803100
2004 RX 330 FF (2WD) Gate Shift (GS) Transmission	Main	34816000	34816100
	Sub	54804000	54804100
2004 RX 330 (4WD) Sequential Shift (SS) Transmission	Main	34817000	34817100
	Sub	54805000	54805100
2004 RX 330 (4WD) Gate Shift (GS) Transmission	Main	34818000	34818100
	Sub	54806000	54806100

NOTE:

Calibration files on Diagnostic Tester use the following abbreviations:

- SS = Sequential Shift Transmission
- GS = Gate Shift Transmission
- FF = 2WD, Front Wheel Drive

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 latest ECM (PCM) calibration – go to step 2.

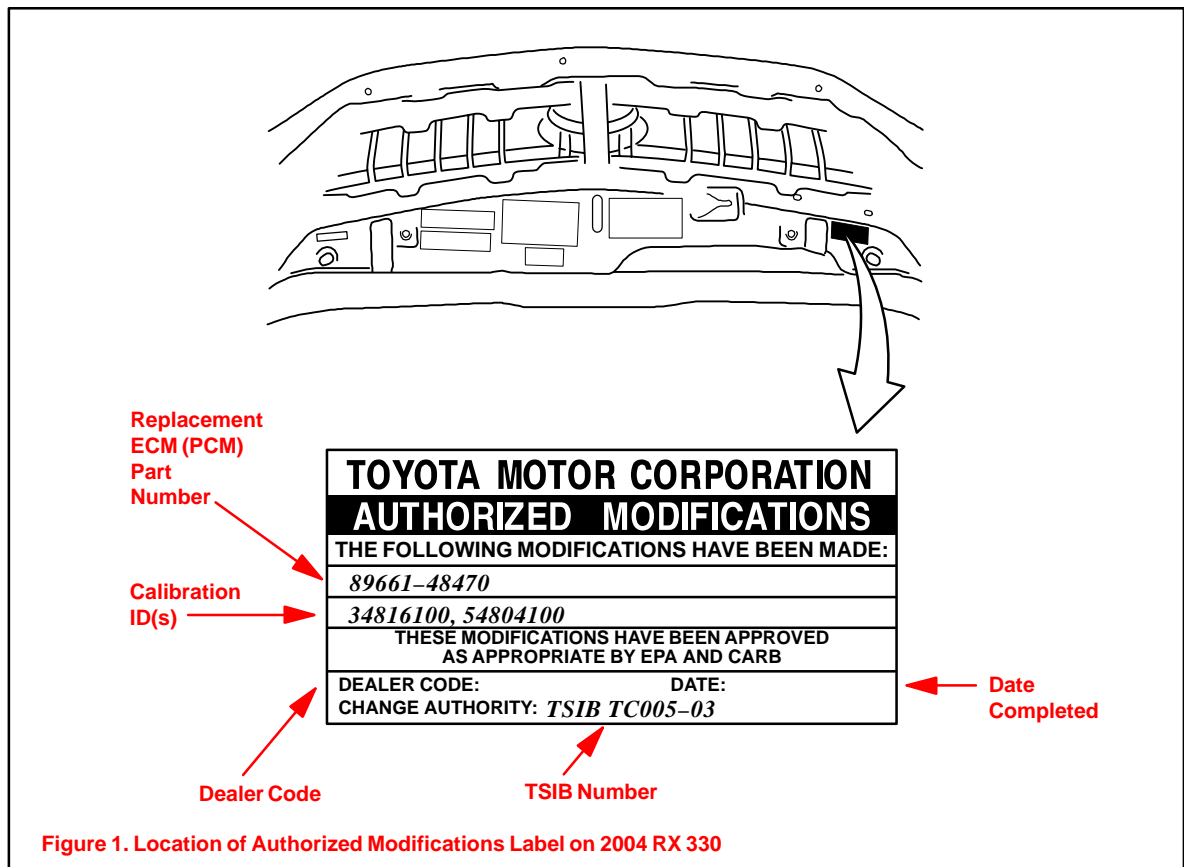
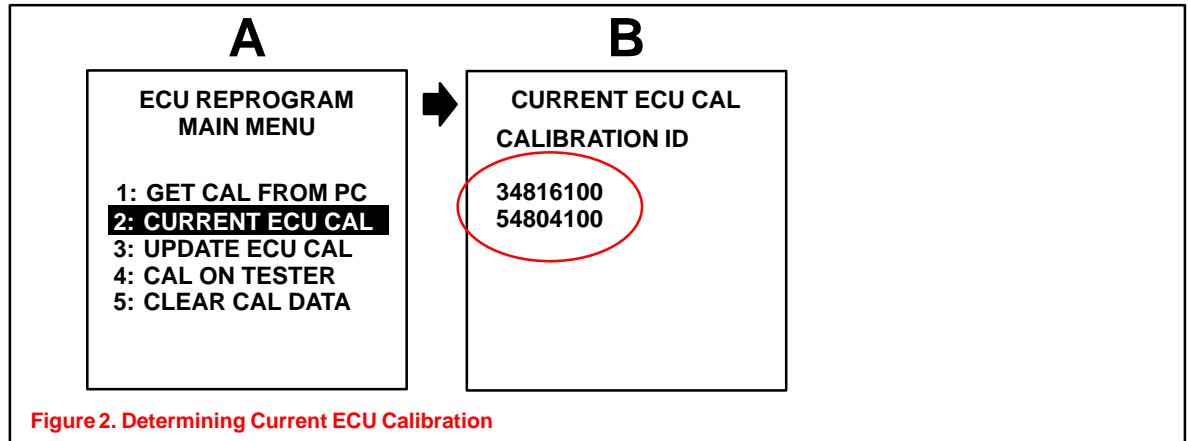


Figure 1. Location of Authorized Modifications Label on 2004 RX 330

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 10.1a 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 2, 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 Repair Manual for diagnosis.

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

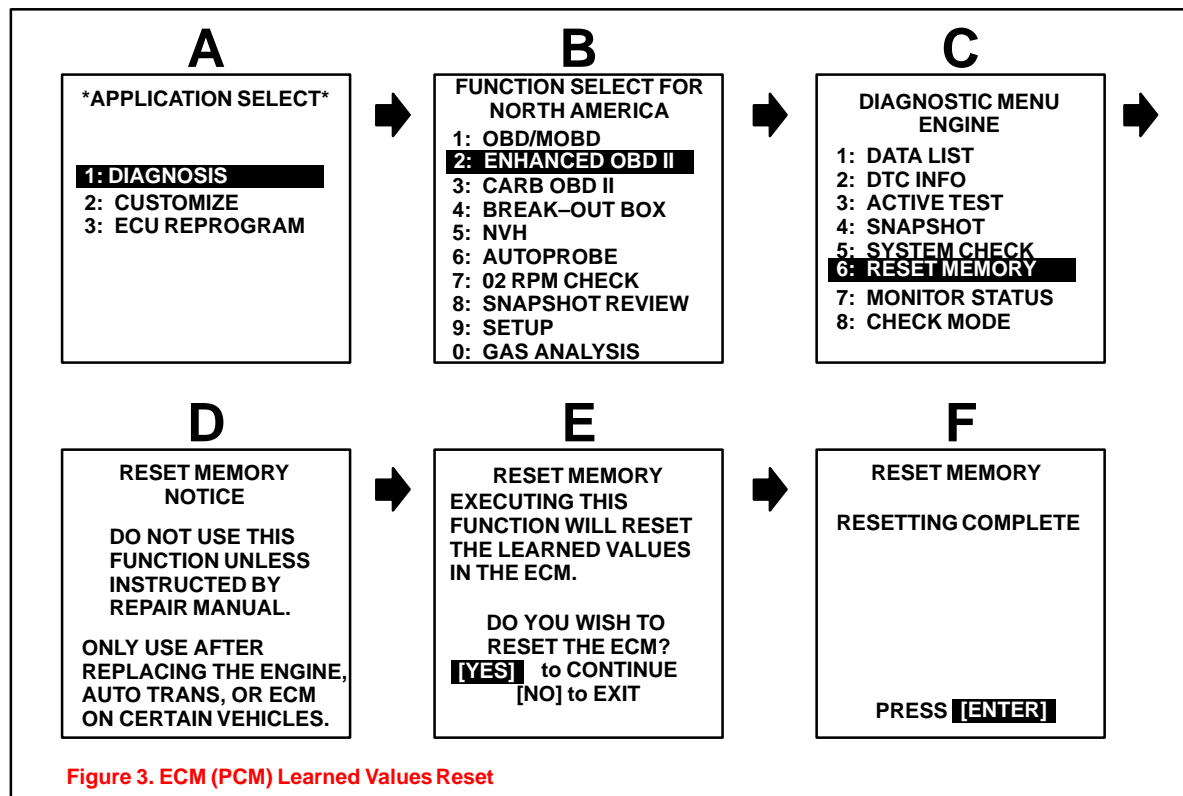
Repair Procedure
(Continued)

Flash Reprogram ECM

1. Follow the procedures outlined in Lexus TSIB SS001–01 “ECU Flash Reprogramming Process” dated March 9, 2001 and flash the ECM (PCM) with new calibration file update.
2. **Reset the ECM (PCM) learned values** using the diagnostic tester. Refer to the procedures below.
 - The sample screen prints seen below are the 10.1a software version, and may differ from subsequent software versions.

NOTE:

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



3. Start the engine and warm it up to normal operating temperature before test-driving.
4. Test drive vehicle to confirm proper vehicle operation.
5. Enter the required information on the Authorized Modifications Label and affix it to the vehicle at the location shown in Figure 1 (page 2). The Authorized Modifications Label is available through the MDC, P/N 00451–00001–LBL.
6. 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 reestablished from the customer’s driving.