



**Technical Service
Information Bulletin**

December 6, 2004

Title:

**ECM CALIBRATION:
SHIFTING ENHANCEMENT**

Models:

'04 - '05 LS 430

TC006-04

TRANSMISSION & CLUTCH

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

Applicable Vehicles

- **2004** model year **LS 430** vehicles.
- **2005** model year **LS 430** vehicles produced **BEFORE** the Production Change Effective VIN shown below.

Production Change Information

MODEL	PRODUCTION CHANGE EFFECTIVE VIN
2005 LS 430	JTHBN36F*5005700

Calibration Identification Information

MODEL YEAR	MAIN/SUB ECM (PCM)	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID
2004	Main	35013000	35013300
		35013100	
		35013200	
2005	Sub	55013000	55021100
		55013100	
2005	Sub	55021000	55021100

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
TC4006	Recalibrate ECM Engine	1.3	89661-50690 89661-50691 89661-50692 89661-50780	87	99

Applicable Warranty*:

This repair is covered under the Lexus 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

MODEL YEAR	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
2004	89661-50690	N/A	Computer, Engine Control	1
	89661-50691			
	89661-50692			
2005	89661-50780	89661-50781		1

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
Lexus Diagnostic Tester Kit* 	01001270	1
CAN Interface Module Kit* 	01002744	1
12 Megabyte Diagnostic Tester Program Card with version 12.01a Software (or later)* 	01002593-005	1

* Essential SSTs.

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.

Repair Procedure

1. Check for the Authorized Modification Label affixed to the vehicle in the location shown in Figure 1. Confirm that the ECM (PCM) calibration has been updated. If not the latest ECM (PCM) calibration - go to step 2.

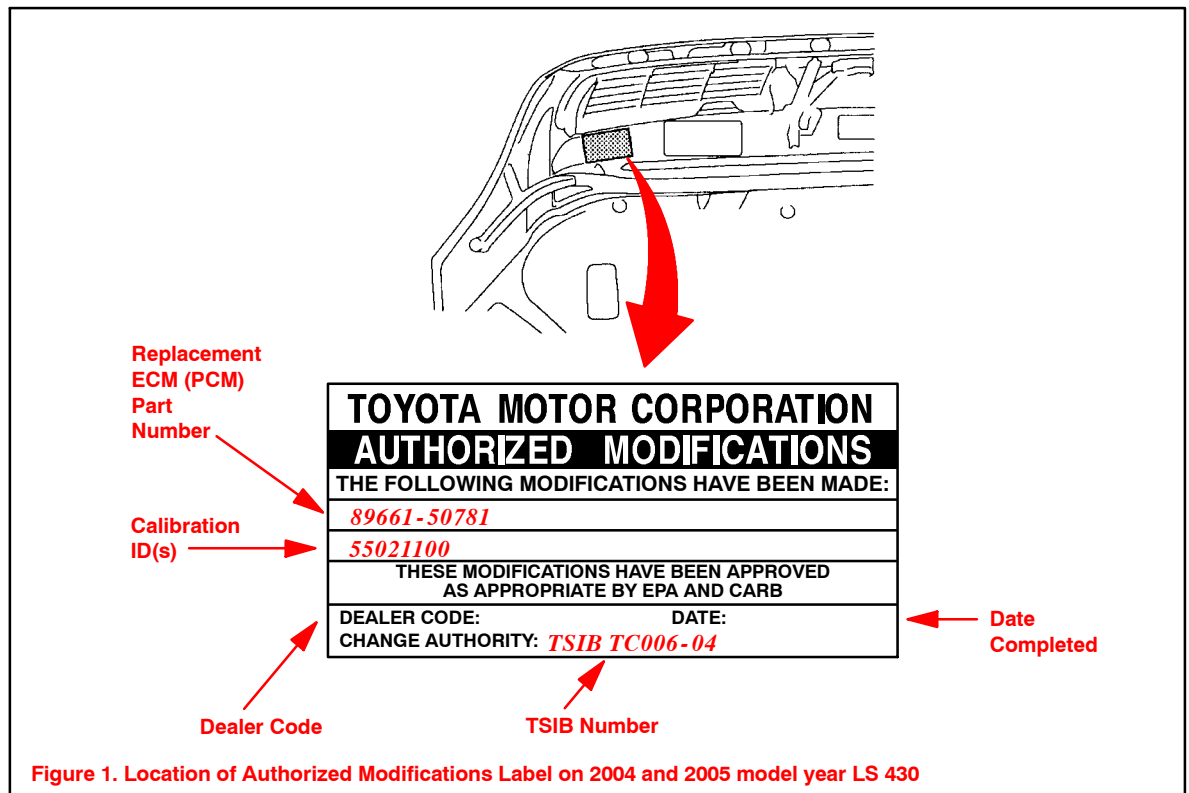


Figure 1. Location of Authorized Modifications Label on 2004 and 2005 model year LS 430

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.

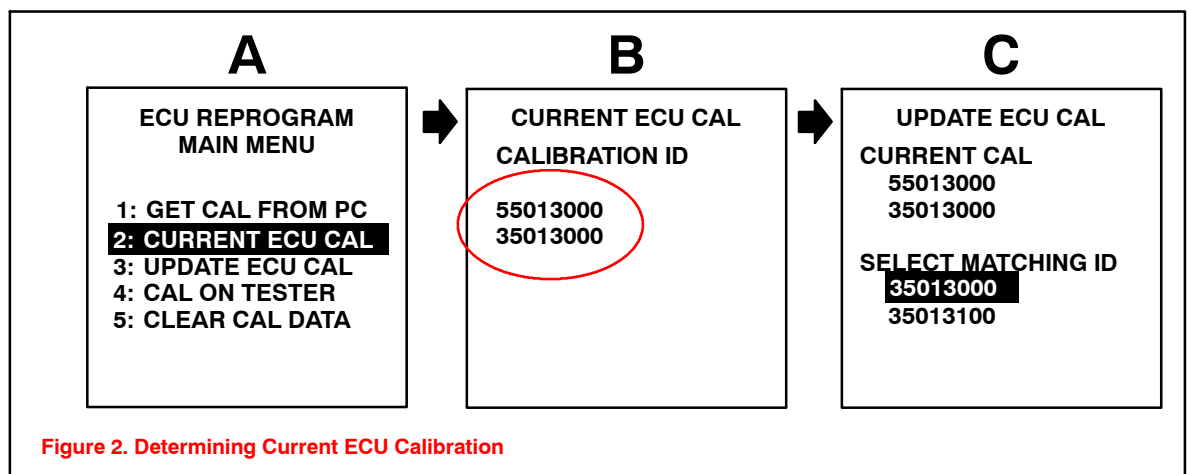


Figure 2. Determining Current ECU Calibration

**Repair
Procedure**
(Continued)**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 reprogrammed.

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

**Flash
Reprogram
ECM****CAUTION:**

When reprogramming the LS 430, 12.01a production version or later **MUST** be used. Using any previous versions of software for reprogramming may result in **IRREPARABLE DAMAGE** to the ECU!

NOTE:

- If the “Check Engine” light is ON when ignition is turned back on to begin the reprogramming process, a scan tool cable problem exists. Refer to TSIB No. SS003-01, “*ECU Flash Reprogramming Error Message.*”
- When reprogramming the LS 430 for this issue, calibration files for 2004 and 2005 model year cannot exist on the same Diagnostic Tester Program Card. If necessary, delete previous calibrations from the Diagnostic Tester Program Card before downloading the new calibration file.
- With this calibration update, 2004 model year vehicles are updated to 2005 model year logic. When diagnosing powertrain-related M.I.L. “ON” or performance issues, refer to the 2005 LS 430 Repair Manual for both 2004 and 2005 model year vehicles.
- 2004 model year vehicles require VIN registration following reprogramming to prevent M.I.L. “ON” (P0630).

1. Disconnect the radiator fan connectors, and connect a battery charger to the vehicle’s battery. This will avoid voltage variations that can **permanently damage** the ECM (PCM) during the reprogramming process.
2. Follow the procedures outlined in TSIB No. SS001-01, “*ECU Flash Reprogramming Process,*” and flash the ECM (PCM) with new calibration file update.
3. **Reconnect the radiator fan connectors**, and disconnect the battery charger.
4. Enter the required information on the Authorized Modifications label and affix it to the vehicle at the location shown in Figure 1 (page 3). The Authorized Modifications label is available through the MDC, P/N 00451-00001-LBL.
5. Enter VIN of vehicle in ECM memory. Refer to procedures outlined in TSIB No. EG012-04, “*Entering VIN During ECM (PCM) Replacement and/or DTC P0630.*”
6. Start the engine and warm it up to normal operating temperatures before test-driving.
7. Perform a thorough test drive with several accelerations from a stop with “light throttle” application until proper transmission shifting is verified.