



**Technical Service
Information Bulletin**

September 12, 2002

Title:
**ECM CALIBRATION UPDATE: M.I.L. "ON"
DTC P0300 - P0306 OR HARSH 2-3
SHIFT DURING ACCELERATION**
Models:
'02 GS 300, IS 300 & IS 300 SportCross

REVISÉD
EG004-02
ENGINE

TSIB REVISION NOTICE:

The information contained in this TSIB supercedes the original EG004-02, dated July 30, 2002. The previous TSIB should be discarded.

Introduction Under certain driving conditions, some 2002 model year GS 300, IS 300 and IS 300 SportCross vehicles equipped with an automatic transmission may exhibit one or both of these conditions:

1. M.I.L. "ON" with DTC P0300 – P0306 (random or any single cylinder misfire) may be recorded after certain driving conditions and a cold engine start.
2. Harsh 2-3 shift during acceleration with light throttle input.

Revised ECM calibration files have been developed for engine and transmission ECM (PCM) to improve these conditions.

Applicable Vehicles

- **2002** model year **GS 300, IS 300 & IS 300 SportCross** vehicles equipped with automatic transmission produced **BEFORE** the Production Change Effective VINs shown below.

Production Change Information

MODEL	PRODUCTION CHANGE EFFECTIVE VIN
GS 300	JT8BD69S#20172604
IS 300	JTHBD192#20062241
IS 300 SportCross	JTHED192#20062241

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG2003	Recalibrate ECM Engine & Transmission GS 300	0.8	89666-30230 89666-30231	87	99
EG2004	Recalibrate ECM Engine & Transmission IS 300		89661-53300 89661-53301		
EG2005	Recalibrate ECM Engine & Transmission IS 300 SportCross		89661-53360 89661-53361		



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.



Required Tools & Material

TOOLS & MATERIAL	PART NUMBER	QUANTITY
Lexus Diagnostic Tester Kit* 	01001270	1
12 Megabyte Diagnostic Tester Program Card with version 9.01a Software (or later)* 	01001895-005	1

* Essential SSTs.

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

ECM Calibration Number Information

MODEL	ECM (CPU)	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID
GS 300	Main	33035000 33035100	33035200
	Sub	53023000	53023100
IS 300	Main	35302000 35302100	35302200
	Sub	55301000	55301100
IS 300 SportCross	Main	35308000 35308100	35308200
	Sub	55307000	55307100

Parts Information

MODEL	PREVIOUS PART NUMBER	NEW PART NUMBER	PART NAME
N/A	N/A	00451-00001-LBL	Authorized Modification Label
GS300	89666-30230 89666-30231	89666-30232	ECM (PCM)
IS 300	89661-53300 89661-53301	89661-53302	
IS 300 SportCross	89661-53360 89661-53361	89661-53362	

NOTE: Authorized Modifications Labels may be ordered in packages of 25 from the Material Distribution Center (MDC) through Dealer Daily Dealer Support Material System, or by calling the MDC at 1-800-622-2033.

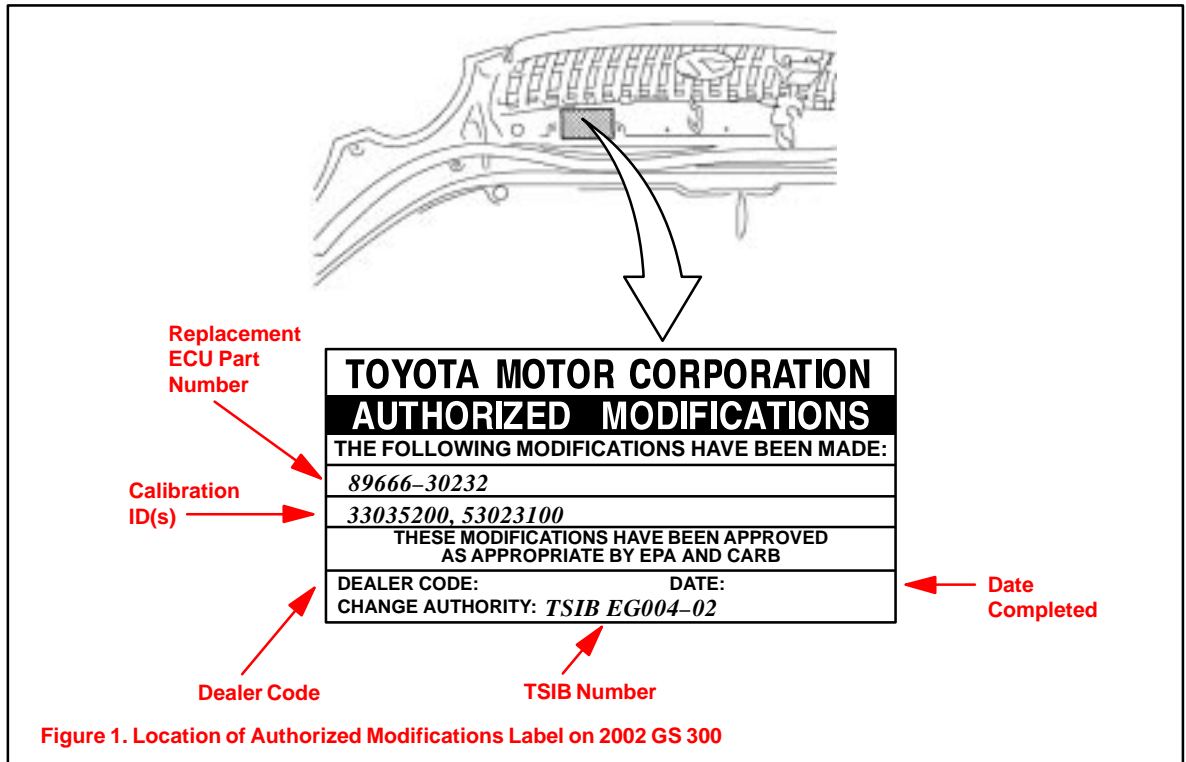
GS 300 Repair Procedure

Verify Vehicle Condition (GS 300)

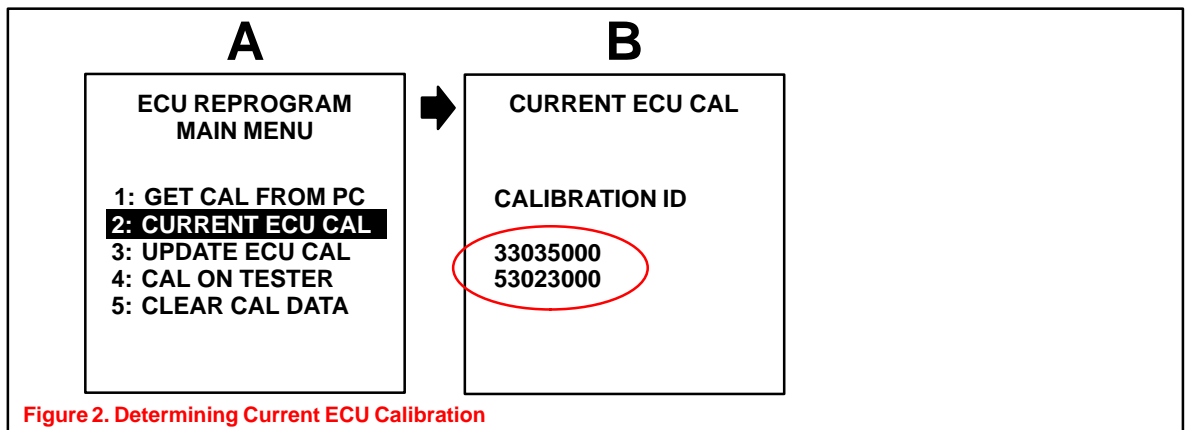
1. Is complaint "Harsh 2–3 shift under light acceleration"?
If YES – go to Step 6
If NO – go to Step 2
2. Connect the Diagnostic Tester to the DLC3 connector.
3. Retrieve Freeze Frame data for P0300 – P0306 (any misfire code).
4. Verify that Freeze Frame data was recorded shortly after engine start at low temperature by confirming "COOLANT TEMP" reads less than 120°F (49°C) and "ENG RUN TIME" shows less than 120 seconds.
If YES – go to step 6
If NO – go to step 5

**GS 300
Repair
Procedure**
(Continued)

- If Freeze Frame data recorded the engine at operating temperature (above 160°F) or with "ENGINE RUN TIME" above 120 seconds, diagnose DTC (P0300 – P0306) using the vehicle Repair Manual.
- 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 7.



- 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).



NOTE:

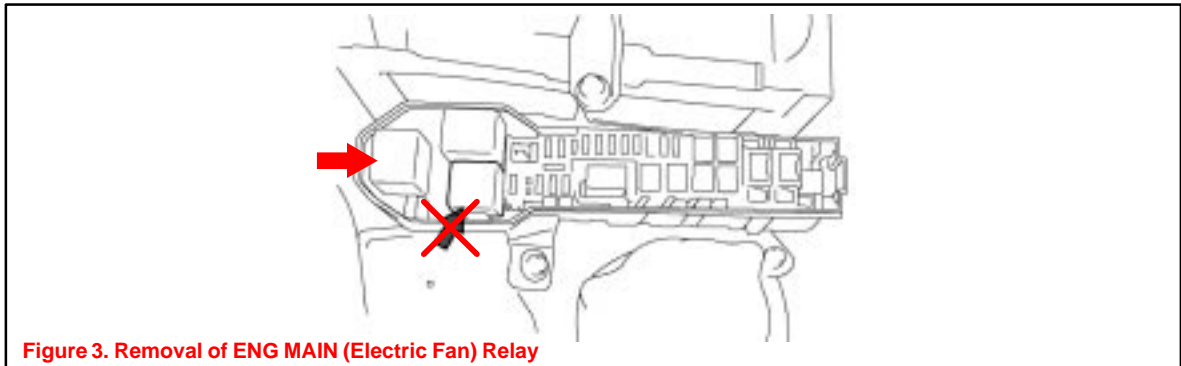
- If Calibration ID for both engine and transmission matches "Previous Calibration ID" as shown on page 2, proceed with flash reprogramming.
- If Calibration ID for both engine and transmission matches "New Calibration ID" as shown on page 2, this vehicle has already been reprogrammed. Refer to Repair Manual for diagnosis.

- If ECU calibration ID is not "New Calibration ID" proceed to Flash Reprogram ECM (GS 300).

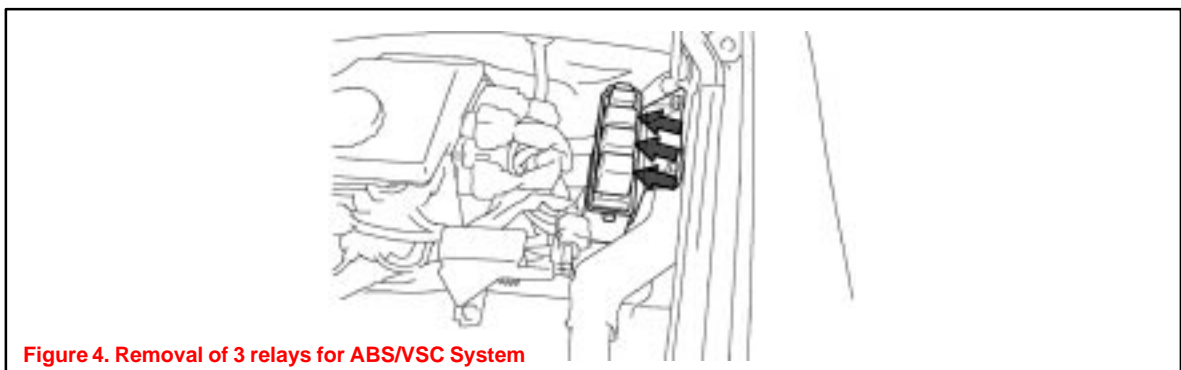
**GS 300
Repair
Procedure
(Continued)**

Flash Reprogram ECM (GS 300)

1. Remove the **ENG MAIN (electric fan)** relay (see Figure 3).



2. Remove the 3 relays for the ABS/VSC system (see Figure 4).



3. Follow the procedures outlined in TSIB SS001–01, "ECU Flash Reprogramming Process" dated March 9, 2001, and flash the ECM with new "Main" and "Sub" calibration file updates.

NOTE:

- "Main" calibration file update (Calibration ID 33035200) should be installed first.
- "Sub" calibration file update (Calibration ID 53023100) should be installed after "Main" calibration file update is installed.

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. Reinstall the **ENG MAIN (electric fan)** relay (see Figure 3).
6. Reinstall the 3 relays for ABS/VSC system (see Figure 4).
7. Use the Diagnostic Tester to delete any ABS/VSC DTCs that may have been set during this repair procedure.
8. Calibration update is complete.

**IS 300 &
IS 300
SportCross
Repair
Procedure**

Verify Vehicle Condition (IS 300 & IS 300 SportCross)

1. Is complaint "Harsh 2–3 shift under light acceleration"?
If YES – go to Step 6
If NO – go to Step 2
2. Connect the Diagnostic Tester to the DLC3 connector.
3. Retrieve Freeze Frame data for P0300 – P0306 (any misfire code).
4. Verify that Freeze Frame data was recorded shortly after engine start at low temperature by confirming "COOLANT TEMP" reads less than 120°F (49°C) and "ENG RUN TIME" shows less than 120 seconds.
If YES– go to step 6
If NO – go to step 5
5. If Freeze Frame data recorded the engine at operating temperature (above 160°F) or with "ENGINE RUN TIME" above 120 seconds, diagnose DTC P0300 – P0306 using the vehicle Repair Manual.
6. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 5. Confirm if ECM calibration has been updated. If not latest ECM calibration – go to step 7.

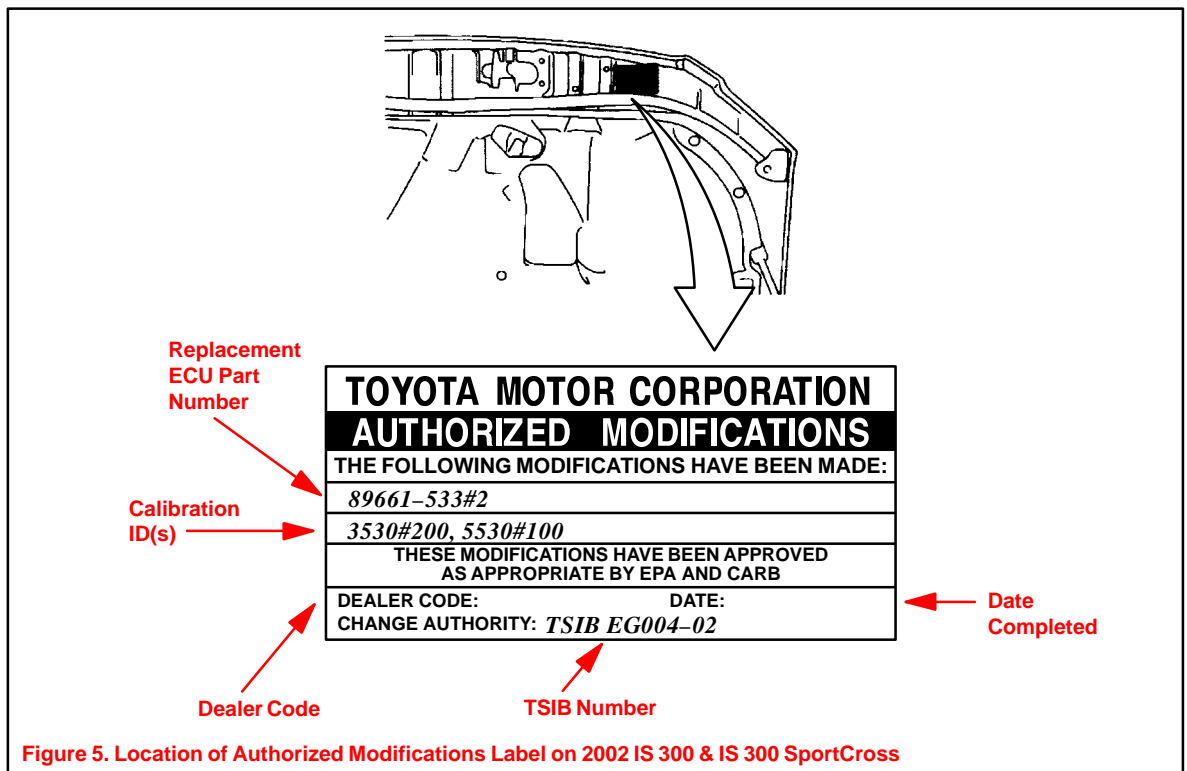


Figure 5. Location of Authorized Modifications Label on 2002 IS 300 & IS 300 SportCross

**IS 300 &
IS 300
SportCross
Repair
Procedure
(Continued)**

7. 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 on page 3.)

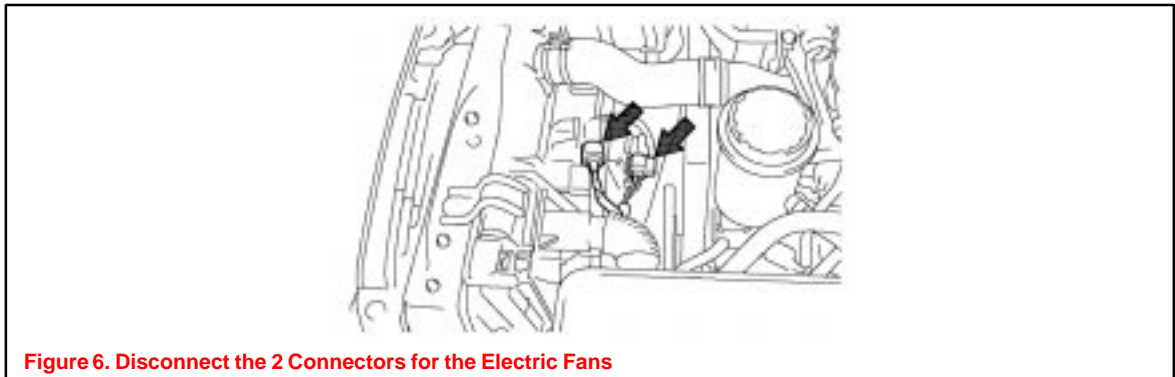
NOTE:

- If Calibration ID for both engine and transmission matched "Previous Calibration ID" as shown on page 2, proceed with flash reprogramming.
- If Calibration ID for both engine and transmission matched "New Calibration ID" as shown on page 2, this vehicle has already been reprogrammed. Refer to Repair Manual for diagnosis.

8. If ECU calibration ID is not "New Calibration ID" proceed to Flash Reprogram ECM (IS 300 & IS 300 SportCross).

Flash Reprogram ECM (IS 300 & IS 300 SportCross)

1. Disconnect the 2 connectors for the electric fans (see Figure 6).



2. Follow the procedures outlined in TSIB SS001–01, "ECU Flash Reprogramming Process" dated March 9, 2001, and flash the ECM with new "Main" and "Sub" calibration file updates.

NOTE:

- "Main" calibration file update (Calibration ID 35302200 or 35308200 [SportCross]) should be installed first.
- "Sub" calibration file update (Calibration ID 55301100 or 55307100 [SportCross]) should be installed after "Main" calibration file update is installed.

3. Enter the required information on the Authorized Modifications Label and affix it to the vehicle at the location shown in Figure 5 (page 5). The Authorized Modifications Label is available through the MDC, P/N 00451–00001–LBL.
4. Reconnect the 2 electric fan connectors disconnected in step 1 (Figure 6).
5. Calibration update is complete.