



**Technical Service
Information Bulletin**

June 28, 2007

Title:
ENGINE IDLE KNOCK NOISE

Models:
'07 LS 460/460L

**ENGINE
EG014-07**

Introduction Some 2007 model year LS 460 vehicles may exhibit a knocking noise originating from the engine compartment that is most noticeable under the following conditions:

- Engine idling at operating temperature
- A/C OFF
- A/T in "D" range

The Engine Control Module (ECM) (SAE term: Powertrain Control Module/PCM) logic, valve lash adjusters, and the No. 3 timing chain tensioner have been modified to improve this condition. Please use the repair procedure below to address customer concerns.

Applicable Vehicles • **2007** model year **LS 460/460L** vehicles produced **BEFORE** the Production Change Effective VINs shown below.

**Production
Change
Information**

MODEL	PRODUCTION CHANGE EFFECTIVE VIN
LS 460	JTHBL46F#75012539
LS 460L	JTHGL46F#75004406

**Warranty
Information**

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG7025	Recalibrate ECM (PCM)	0.6	89661-50A10	06	43
Combo A	R & R No. 1 Cylinder Intake Valve Lash Adjusters (Bank 1 Only) and No. 3 Timing Chain Tensioner	7.6			

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
89661-50A10	89661-50A11*	Computer, Engine Control (ECM/PCM)	–
13750-75020	13750-31010	Adjuster Assembly, Valve Lash	2
13560-38020	13560-0S011	Tensioner Assembly, Chain, No. 3 (Bank 1 Only)	1

* The ECM should NOT be replaced as part of the Repair Procedure.



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.

Calibration
Identification
Chart

MODEL	MODEL YEAR	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID
LS 460	2007	35036000	35036100
LS 460L			

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS Techstream* NOTE: Software version 2.10.016 or later is required. 	ADE	TSUNT	1
GR8 Battery Diagnostic Station* 	SPX/OTC	00002-MCGR8	1

SPECIAL SERVICE TOOLS (SSTs)		PART NUMBER	QTY	DRW**
Crankshaft Pulley Holding Tool* 		09213-54015-02	1	23
COMPONENT(S) OF KIT/SET	One (1) component from this kit/set is required: <ul style="list-style-type: none"> • Bolt (P/N 90119-08216-01)  			
	Companion Flange Holding Tool* 	09330-00021	1	3
Universal Puller Set "C"* NOTE: All components from this kit/set are required. 		09950-50013-02	1	24

* Essential SSTs.

** Drawer number in SST Storage System.

NOTE:

- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- The Lexus Diagnostic Tester and CAN Interface Module may also be used to perform the service procedures listed in this bulletin.
- The GR8 Battery Diagnostic Station (P/N 00002-MCGR8) supersedes the Automatic Trickle Charger (P/N 00002-YA122-01) and Fast Battery Chargers (Associated P/N ASE6003 and Christie P/N CAPPDQ). P/N 00002-YA122-01, ASE6003, and CAPPDQ are now obsolete.

Repair Procedure

Determine the ECM (PCM) calibration ID for the vehicle.

- If calibration ID 35036000 (previous calibration ID) is present — go to Repair Procedure A.
- If calibration ID 35036100 (NEW calibration ID) is present — go to Repair Procedure B.

**Repair
Procedure A**
(Continued)

3. Install the Authorized Modifications Label.
 - A. Using a permanent marker, enter the following information on the label:
 - ECM (PCM) part number: *[Refer to the **Parts Information** section for the **CURRENT PART NUMBER**]*
 - Calibration ID(s): *[Refer to the **Calibration Identification Chart** for the **NEW CALIBRATION ID**]*
 - Dealer Code
 - Repair Date
 - Change Authority (this TSIB number): *EG014–07*
 - B. Affix the Authorized Modifications Label to the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451–00001–LBL.
4. Confirm that the ECM recalibration addressed the customer concern. If the knocking noise is gone, the repair is complete. If the noise is still present, go to Repair Procedure B.

**Repair
Procedure B**

1. Replace the No. 3 timing chain tensioner and both No. 1 cylinder intake valve lash adjusters.

Refer to TIS, 2007 model year LS 460 Repair Manual,

 - *Engine/Hybrid System – Engine Mechanical – “1UR–FSE Engine Mechanical: Camshaft (for Bank 1): Removal”*
 - *Engine/Hybrid System – Engine Mechanical – “1UR–FSE Engine Mechanical: Camshaft (for Bank 1): Installation”*
2. Reconnect the negative (–) battery terminal.
3. Re-initialize any affected power systems.

Refer to TSIB No. PD007-07, “Power System Initialization During PDS”.
4. Test drive the vehicle to confirm that the knocking noise is NO longer present.