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ECM Calibration: Transmission Software Enhancements

Service Category Drivetrain

Section	Automatic Transmission/Transaxle	Market USA	ASE Certification
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Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2016	Land Cruiser	

Introduction

Some 2016 model year Land Cruiser vehicles may exhibit one or both of the following conditions:

- Harsh shift on hard acceleration.
- The vehicle has run out of fuel. After refueling, the vehicle does not creep, or has a delayed/harsh transmission engagement.

The Engine Control Module (ECM, SAE term: Powertrain Control Module/PCM) has been revised. Use the following Repair Procedure to address this condition.

Production Change Information

This bulletin applies to vehicles produced **BEFORE** the Production Change Effective VIN shown below.

MODEL	PRODUCTION CHANGE EFFECTIVE VIN		
Land Cruiser	JTMCY7AJ#G4048393		

Warranty Information

OP CODE	DESCRIPTION		OFP	T1	T2
EG1643	Reprogram ECM (PCM) Engine and Initialization	0.7	89530-60511	04	99

APPLICABLE WARRANTY

- This repair is covered under the Toyota Federal Emission 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 occurrence of the specified condition described in this bulletin.

Parts Information

PART NUMBER			
PREVIOUS	NEW		
89530-60510 89530-60511	89530-60512	Computer Assy, Transmission Control	
00451-00001-LBL		Authorized Modification Labels	1

NOTE

- The ECM (PCM) should NOT be replaced as part of the Repair Procedure.
- Authorized Modification Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through *Dealer Daily Parts Dealer Support Materials Orders*.

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream 2.0*		TS2UNIT	
Techstream Lite	ADE	TSLITEPDLR01	1
Techstream Lite (Green Cable)		TSLP2DLR01	

NOTE

- ONLY ONE of the Techstream units listed above is required.
- Software version 12.00.125 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.



• The Diagnostic Tester is NOT recommended for flash reprogramming. Please use Techstream or an approved J2534 interface to perform flash reprogramming updates. Visit <u>techinfo.toyota.com</u> for more information regarding J2534 reprogramming.

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
GR8 Battery Diagnostic Station*	00002-MCGR8	1

NOTE

Additional SSTs may be ordered by calling 1-800-933-8335.

* Essential SST

Calibration Information

MODEL	ENCINE	CALIBR	ATION ID		
MODEL	ENGINE	PREVIOUS	NEW		
Land Cruiser	3UR	895366011000 895366011100	<u>895366011200</u>		

Repair Procedure

- 1. Does the vehicle exhibit harsh shift on hard acceleration, or no creep or delayed/harsh engagement AFTER the vehicle runs out of fuel?
 - YES Continue to step 2.
 - **NO** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

Repair Procedure (Continued)

2. Check for the Authorized Modifications Label affixed to the vehicle in the location shown below. Confirm if the ECM (PCM) calibration has been updated.

Is the calibration ID listed NOT the latest ECM (PCM) calibration?

- YES Continue to step 3.
- NO This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual



Figure 1. Location of Authorized Modification Label for 2016 Land Cruiser

1	Replacement ECM (PCM) Part Number (i.e., 89530-60512)	4	Date Completed
2	New Calibration ID (i.e., 895366011200)	5	This SB Number
3	Dealer Code		

Repair Procedure (Continued)

3. Flash reprogram the ECM (PCM).

NOTE

- The GR8 Battery Diagnostic Station MUST be used in Power Supply Mode to maintain battery voltage at 13.5 volts while flash reprogramming the vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the <u>GR8 Instruction Manual</u> located on the Technical Information System (TIS), *Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin No. <u>L-SB-0021-14</u> "*Techstream ECU Flash Reprogramming Procedure*" and flash the ECM (PCM) with the NEW calibration file update.

- 4. Install the Authorized Modifications Label.
 - A. Using a permanent marker, enter the following information on the label:
 - ECM part number [Refer to the **Parts Information** section for the **NEW PART NUMBER**]
 - Calibration ID(s) [Refer to the **Calibration Information** section for the **NEW CALIBRATION ID**]
 - Dealer Code
 - Repair Date
 - Change Authority [This bulletin number]
 - 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.
- 5. Perform transmission initialization.

Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:

2016 Land Cruiser:

Drivetrain – Automatic Transmission/Transaxle – "AE80F Automatic Transmission/Transaxle: Automatic Transmission System: <u>Initialization</u>"

NOTE

Initialization (Reset Memory) MUST be completed for proper vehicle operation.

6. Start the engine and warm it up to normal operating temperature, then test drive to confirm proper vehicle operation.