

O2 Sensor Readiness Monitor Does Not Complete

Service Category Engine/Hybrid System

Section Emission Control

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2007	Highlander HV	

Introduction

Some 2007 model year Highlander HV vehicles may exhibit a condition of oxygen sensor readiness monitors incomplete during state emissions testing. The Hybrid Vehicle (HV) ECU logic has been updated to address this condition.

Production Change Information

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

MODEL	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Highlander HV	2WD	JTEDW21A#70021475
		JTEGW21A#70021470
	4WD	JTEEW21A#70044425
		JTEHW21A#70044439

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG1503	Reprogram HV ECU and ECM (PCM)	0.8	89981-#####	99	74

APPLICABLE WARRANTY

- This repair is covered under the Toyota Federal 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.

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Parts Information

MODEL YEAR	DRIVETRAIN	OIL COOLER	PART NUMBER		PART NAME	QTY
			PREVIOUS	NEW		
2007	2WD	With	89981-48260 89981-48261	89981-48262 89981-48263	Computer, Hybrid Vehicle Control	-
		Without	89981-48270 89981-48271	89981-48272 89981-48273		
	4WD	With	89981-48280 89981-48281	89981-48282 89981-48283		
		Without	89981-48290 89981-48291	89981-48292 89981-48293		
All	All	All	00451-00001-LBL		Authorized Modification Labels	1

NOTE

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

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream 2.0*	ADE	TS2UNIT	1
Techstream Lite		TSLITEPDLR01	

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 10.10.018 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 techinfo.toyota.com for more information regarding J2534 reprogramming.



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Required Tools & Equipment (Continued)

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.

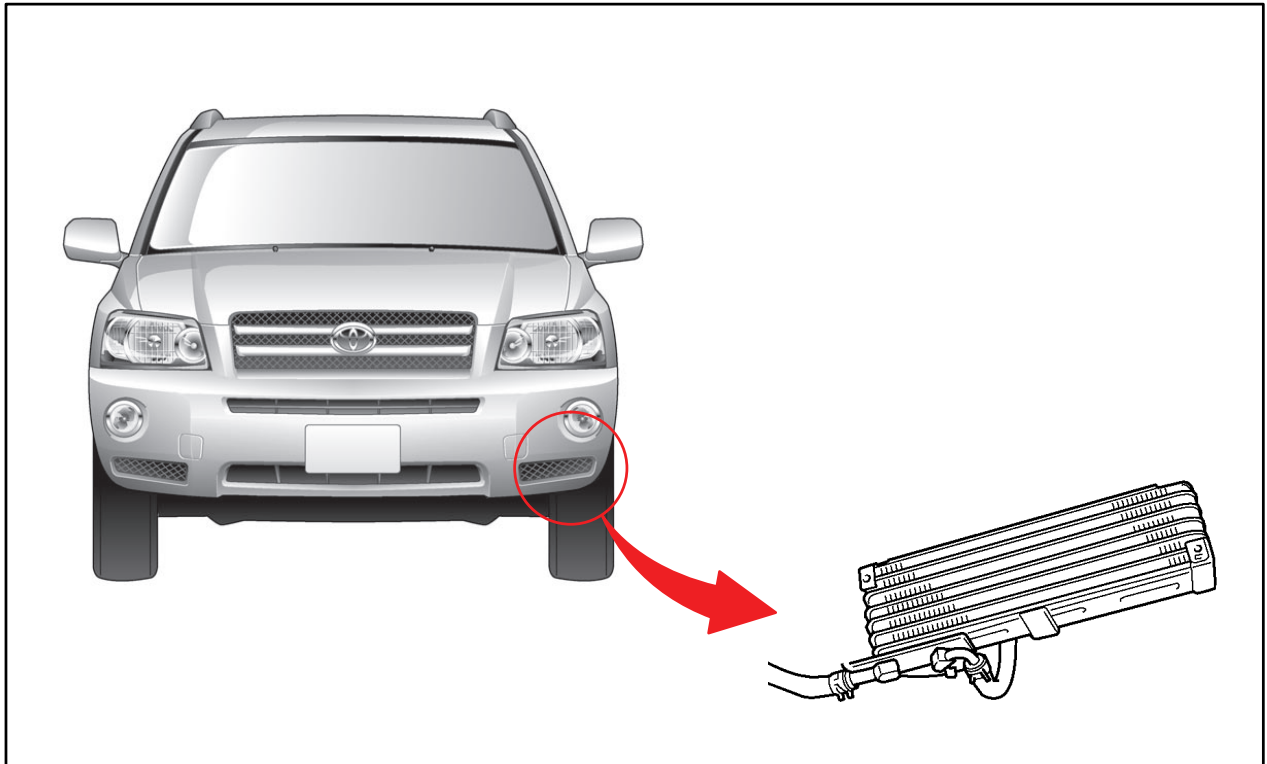
* Essential SST.

Calibration ID Information

NOTE

There are different calibration files for vehicles with and without transaxle oil coolers. In order to determine the configuration of your vehicle, shine a flashlight into the left front bumper cover vent. If the vehicle is equipped with a cooler, it will be easily visible.

Figure 1. Location of Transaxle Oil Cooler (on Equipped Vehicles)



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Calibration Information

MODEL YEAR	DRIVETRAIN	OIL COOLER	ECM/ ECU	CALIBRATION ID	
				PREVIOUS	NEW
2007	2WD	With	Main	348A0000	348A0100/899834820100
			Sub	899834820000	
		Without	Main	348A0000	348A0100/899834821100
			Sub	899834821000	
	4WD	With	Main	348A0000	348A0100/899834822100
			Sub	899834822000	
		Without	Main	348A0000	348A0100/899834823100
			Sub	899834823000	

Repair Procedure

1. Prepare the vehicle for reflash.

NOTE

This procedure will pressurize the brake actuator and prevent the ABS pump from running during the reflash procedure.

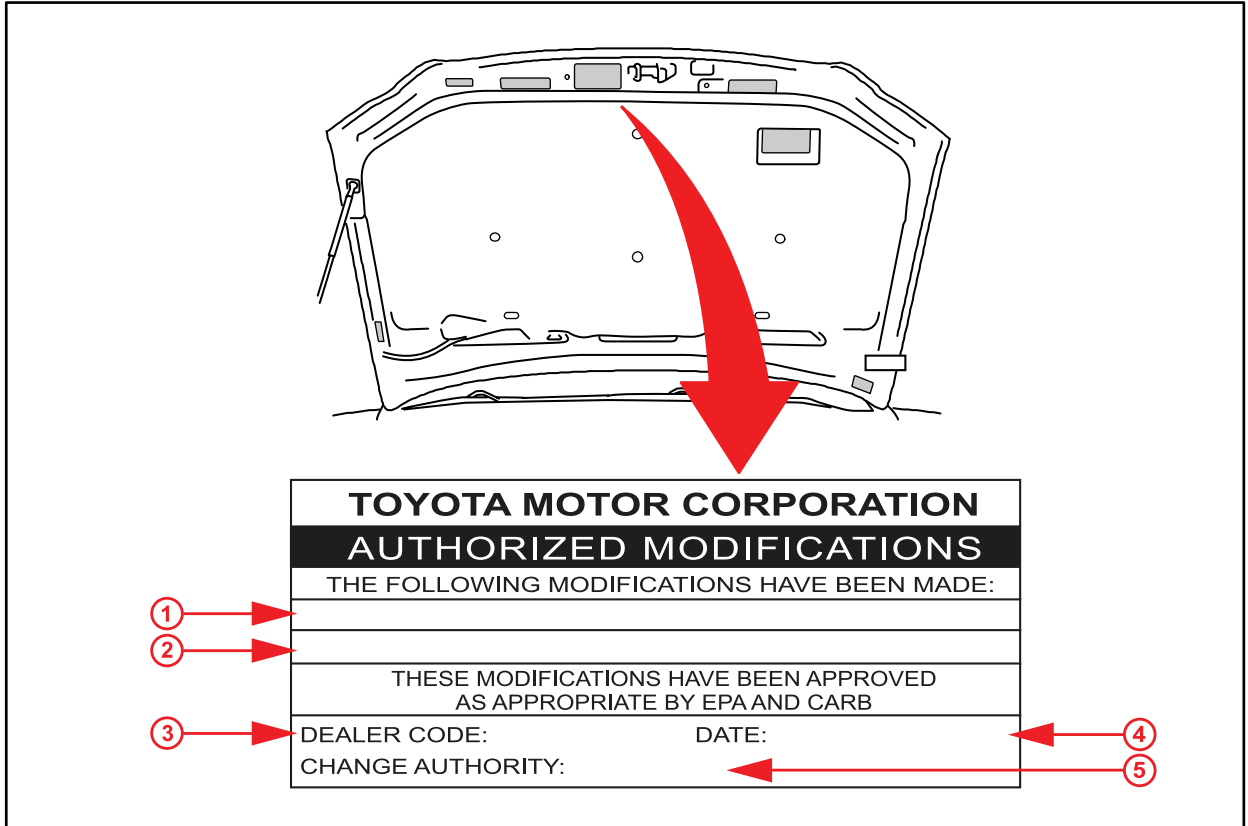
- A. Prior to vehicle shut down perform the following steps:
 - Place the vehicle in the ready on position.
 - Place the transaxle in the P range.
 - Engage parking brake .
- B. Depress the brake pedal fully 2 times within 2 seconds.
- C. Release brake pedal.
- D. Wait 10 seconds.
- E. Turn off the vehicle.

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Repair Procedure (Continued)

2. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 2. Confirm if the HV ECU and ECM (PCM) calibrations have been updated. If the calibration IDs are NOT the latest calibrations — go to step 2.

Figure 2. Location of Authorized Modifications Label on 2007 Highlander HV



1	Replacement ECM (PCM) Part Number (i.e., 89981-48262)
2	New Calibration ID(s) (i.e., 899834820100)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (Continued)

- Flash Reprogram the HV ECU and 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 [GR8 Instruction Manual](#) located on the Technical Information System (TIS), *Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin No. [T-SB-0012-13](#), “Techstream ECU Flash Reprogramming Procedure,” and flash the ECM (PCM) with the NEW calibration file update.

NOTE

- Anytime the HV ECU is reprogrammed, the engine ECM (PCM) **MUST** also be reprogrammed, even if the engine ECM (PCM) has the “New Calibration ID.”
- If **ONLY** the engine ECM (PCM) Calibration ID matches the “Current Calibration ID” shown in the Calibration Information section in this bulletin, proceed with flash reprogramming.
- If **BOTH** the engine ECM (PCM) and HV ECU Calibration IDs match the “New” calibration IDs shown in the Calibration Information section, this vehicle has already been reprogrammed. Refer to TIS for diagnostic procedures applicable to any stored DTCs.

- Start the engine and warm it up to normal operating temperature before test driving.
- Test drive the vehicle to confirm proper vehicle operation (and proper laser cruise control operation, if equipped).
- Confirm that the O2 sensor monitor reads “complete”.
- Install the Authorized Modifications Label.
 - 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***]
 - Affix the Authorized Modifications Label to the vehicle at the location shown in Figure 2. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.

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Repair Procedure (Continued)

8. Calibration update is complete.

NOTE

The effect of the NEW calibration may become more apparent after several days of driving as the ECM (PCM) “learned values” are re-established from the customer’s driving.