TOYOTA
Technical Service Bulletin

MIL "ON" DTC P3190 - (Poor Engine Power) at High Altitude With High Temperatures

Service Category Vehicle Interior

Section Meter/Gauge/Display **Market** USA

Toyota Supports ASE Certification

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2017 - 2018	Highlander HV	VDS(s): BGRFH, DGRFH, JGRFH

Introduction

Some 2017 – 2018 model year Highlander Hybrid vehicles may exhibit a MIL "ON" condition with Diagnostic Trouble Code (DTC) P3190 (Poor Engine Power). This may occur when operating the vehicle in high altitude and high temperature conditions.

The engine control module/ECM (SAE Term: Powertrain Control Module/PCM) logic has been modified to reduce the possibility of this condition occurring. Follow the Repair Procedure in this bulletin to address these conditions.

Production Change Information

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

MODEL	PLANT	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Highlander HV	TMMI	All	5TDDGRFH#JS041769 5TDJGRFH#JS041769 5TDBGRFH#JS041769

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Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG1808	Reprogram ECM (PCM)	0.4	89661-#####	05	74

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		PART NAME	QTY
PREVIOUS	NEW		
89661-0EB10	89661-0EB11	Computer, Engine Control (ECM/PCM)	–
00451-00001-LBL		Authorized Modifications Labels	1

NOTE

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

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Required Tools & Equipment

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

* Essential SST.

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 13.10.019 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- Use Techstream or an approved J2534 interface to perform flash reprogramming updates. Visit techinfo.toyota.com for more information regarding J2534 reprogramming.

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

* Essential SST.

NOTE

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

Calibration Information

MODEL	CALIBRATION ID	
	PREVIOUS	NEW
Highlander HV	30E40000	30E40100

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Repair Procedure

1. Using Techstream, check for the following stored DTC:
   DTC P3190 (Poor Engine Power)

   Is the DTC present?

   - **YES —** Continue to step 2.
   - **NO —** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

2. Confirm the freeze frame data.
   In the freeze frame data for P3190, is the low fuel pressure below 1875mmHg(abs)? See the table below for an example.

   Table 1. Example

PARAMETER	UNITS	-3	-2	-1	0	1
Low Fuel Pressure Sensor	mmHg(abs)	247.698	284.663	251.824	257.104	244.233

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

3. Does the condition occur when operating the vehicle in high altitude and high temperature conditions?

   - **YES —** Continue to step 4.
   - **NO —** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

4. Is the fuel tank empty?

   - **YES —** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
   - **NO —** Continue to step 5.

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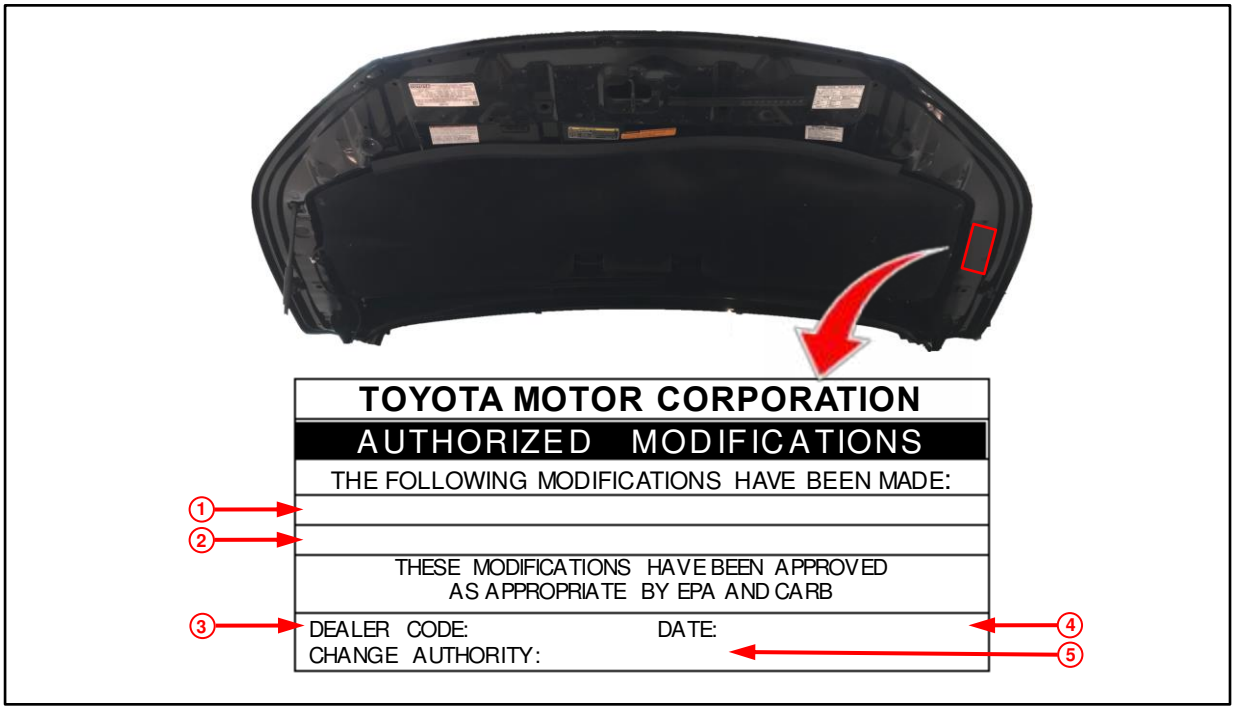
Repair Procedure (continued)

5. 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 the latest ECM (PCM) calibration?

   - **YES —** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
   - **NO —** Continue to step 6.

Figure 1. Location of Authorized Modifications Label for 2017 – 2018 Highlander HV



1	Replacement ECM (PCM) Part Number (e.g., 89661-0EB11)
2	New Calibration ID (e.g., 30E4100)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (continued)

6. Flash reprogram the ECM (PCM).

> NOTE
> - The GR8 Battery Diagnostic Station MUST be used in Power Supply Mode to maintain battery voltage at 13.5V while flash reprogramming vehicle.
> - For details on how to use the GR8 Battery Diagnostic Station, refer to the "*GR8 Instruction Manual*" located at *TIS – Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin No. T-SB-0134-16 *"Techstream ECU Flash Reprogramming Procedure,"* and flash the ECM (PCM) with the NEW calibration file update.

7. Prepare and 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 **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.

8. Perform a Health Check to confirm that the NEW calibration updated successfully.

9. Ready the vehicle ON, warm it up to normal operating temperature, and test drive to confirm proper vehicle operation.

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