

MIL ON with Misfire DTC(s) P0301, P0302, P0303, P0304, P0305, and/or P0306

Service Category Vehicle Interior

Section Meter/Gauge/Display

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2017 - 2019	Highlander HV	

Introduction

Some 2017 – 2019 model year Highlander HV vehicles may exhibit a MIL ON condition with one or more of the following Diagnostic Trouble Codes (DTCs):

- P0301 – Cylinder 1 Misfire Detected
- P0302 – Cylinder 2 Misfire Detected
- P0303 – Cylinder 3 Misfire Detected
- P0304 – Cylinder 4 Misfire Detected
- P0305 – Cylinder 5 Misfire Detected
- P0306 – Cylinder 6 Misfire Detected

Follow the Repair Procedure in this bulletin to address this condition.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG1914	Engine ECM Reprogramming and R & R Ignition Coil	3.1	89661-#####	8A	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.

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Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
90919-02280		Coil Assy, Ignition	1
89661-#####		Computer, Engine Control	–
00451-00001-LBL		Authorized Modification Labels	1

Required Tools & Equipment

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

*Essential SST.

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 14.20.019 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
Battery Diagnostic Tool*	DCA-8000P T	1

*Essential SST.

NOTE

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

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Calibration Information

YEAR	MODEL	ENGINE	CALIBRATION ID	
			PREVIOUS	NEW
2017 – 2018	Highlander HV	2GR-FXS	30E40000 30E40100	30E40200
2019			30EA2000	30EA2100

Repair Procedure

- Does the vehicle exhibit a MIL ON condition with ANY of the DTCs in the introduction present?
 - YES** — Continue to step 2.
 - NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual

- Diagnose the misfire DTC(s).

Refer to TIS, applicable model and model year Repair Manual:

- 2017 – 2018 Highlander HV:
Engine/Hybrid System – 2GR-FXS – SFI System:
[“2GR-FXS \(Engine Control\) SFI System: P0300-P0306; Random / Multiple Cylinder Misfire Detected”](#)
- 2019 Highlander HV:
Engine/Hybrid System – 2GR-FXS – SFI System:
[“2GR-FXS \(Engine Control\) SFI System: P0300-P0306; Random / Multiple Cylinder Misfire Detected”](#)

Does the diagnosis indicate a malfunctioning ignition coil?

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

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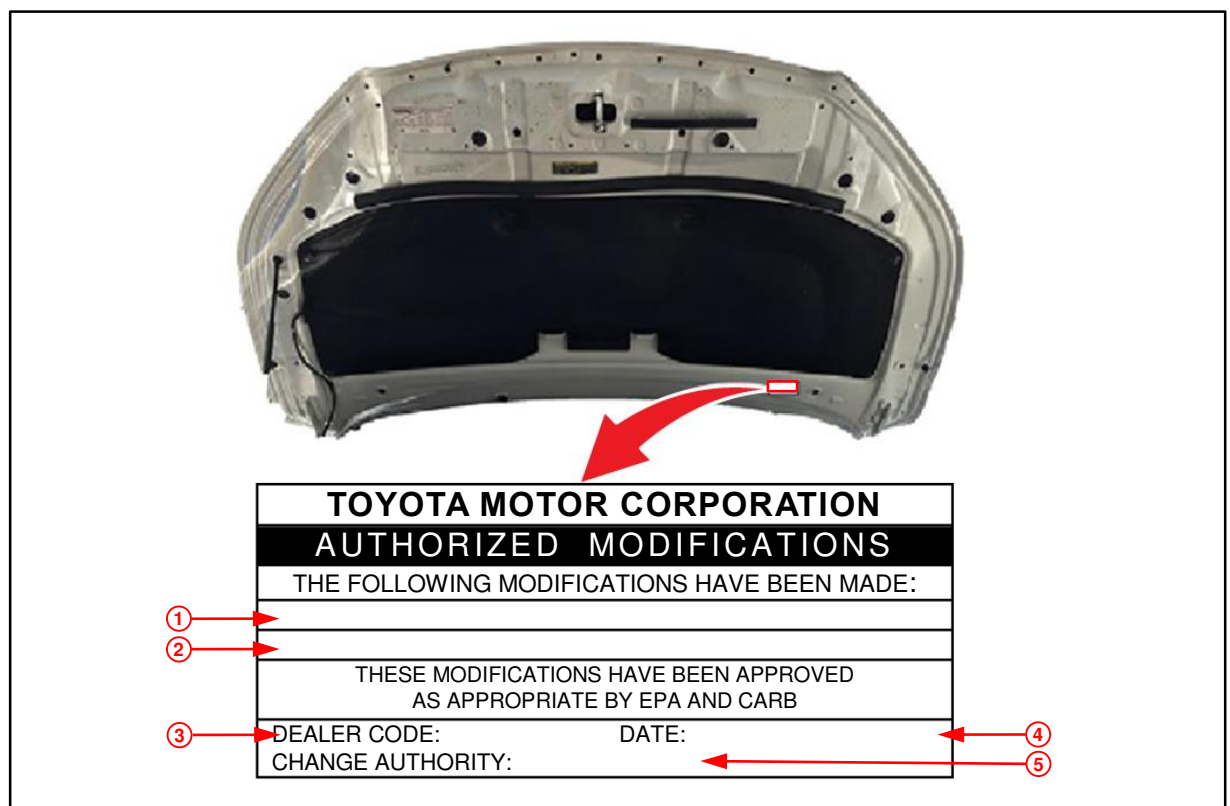
Repair Procedure (continued)

3. Perform a Techstream Health Check, and check for the Authorized Modifications Label affixed to the vehicle in the applicable locations shown below.

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 4.

Figure 1. Location of Authorized Modifications Label for 2017 – 2019 Highlander HV



1	Replacement ECM (PCM) Part Number (e.g., 89661-####)
2	NEW Calibration ID(s) (e.g., 30E40200)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (continued)

4. Flash reprogram the ECM (PCM).

NOTE

- The battery diagnostic tool MUST be used in Power Supply Mode to maintain battery voltage at 13.5V while flash reprogramming the vehicle.
- For details on how to use the battery diagnostic tool, refer to the [DCA-8000 Instruction Manual](#) located on the Technical Information System
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.

5. Prepare and 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.
6. Replace the ignition coil.
 - A. Remove the subject ignition coil.
Refer to TIS, applicable model and model year Repair Manual:
 - 2017 – 2019 Highlander HV:
Engine/Hybrid System – Ignition Coil and Spark Plug –
[“2GR-FXS \(Engine Control\): Ignition Coil and Spark Plug: Removal”](#)
 - B. Install the NEW ignition coil.
Refer to TIS, applicable model and model year Repair Manual:
 - 2017 – 2019 Highlander HV:
Engine/Hybrid System – Ignition Coil and Spark Plug –
[“2GR-FXS \(Engine Control\): Ignition Coil and Spark Plug: Installation”](#)
7. Start the engine and test-drive the vehicle to confirm proper operation.