

# Highlander Shift Flare

**Service Category** Engine/Hybrid System

**Section** Engine Control

**Market** USA

Toyota Supports  
 ASE Certification 

## Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2020	Highlander	

## Introduction

Some 2020 model year Highlander vehicles may exhibit a shift flare condition during wide open throttle (WOT) acceleration from 40 – 60 mph and during the upshift from 2nd to 3rd.

The Engine Control Module (ECM) (SAE term: Powertrain Control Module/PCM) logic has been modified to reduce the possibility of this condition. Follow the Repair Procedure in this bulletin to address this condition.

## Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
TC1911	Reprogram ECM (PCM)	0.4	89661-0EB61 89661-0EB70 89661-0EB81	26	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.

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### Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
89661-0EB61	89661-0EB62	Computer, Engine Control ECM (PCM)	-
89661-0EB70	89661-0EB71		
89661-0EB81	89661-0EB82		
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*.

### 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 15.20.016 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](http://techinfo.toyota.com) for more information regarding J2534 reprogramming.

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### Required Tools & Equipment (continued)

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Battery Diagnostic Tool*	<a href="#">DCA-8000P T</a>	1

\*Essential SST.

**NOTE**

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

### Calibration Information

MODEL	CALIBRATION ID	
	PREVIOUS	NEW
Highlander	896630E62000 896630E62100	<a href="#">896630E62200</a>
	896630E63000	<a href="#">896630E63100</a>
	896630E64000 896630E64100	<a href="#">896630E64200</a>

### Repair Procedure

1. Confirm the condition exists.

Does the vehicle exhibit a shift flare condition (rpm increase during upshift) during WOT acceleration from 40 – 60 mph and during the upshift from 2nd to 3rd?

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

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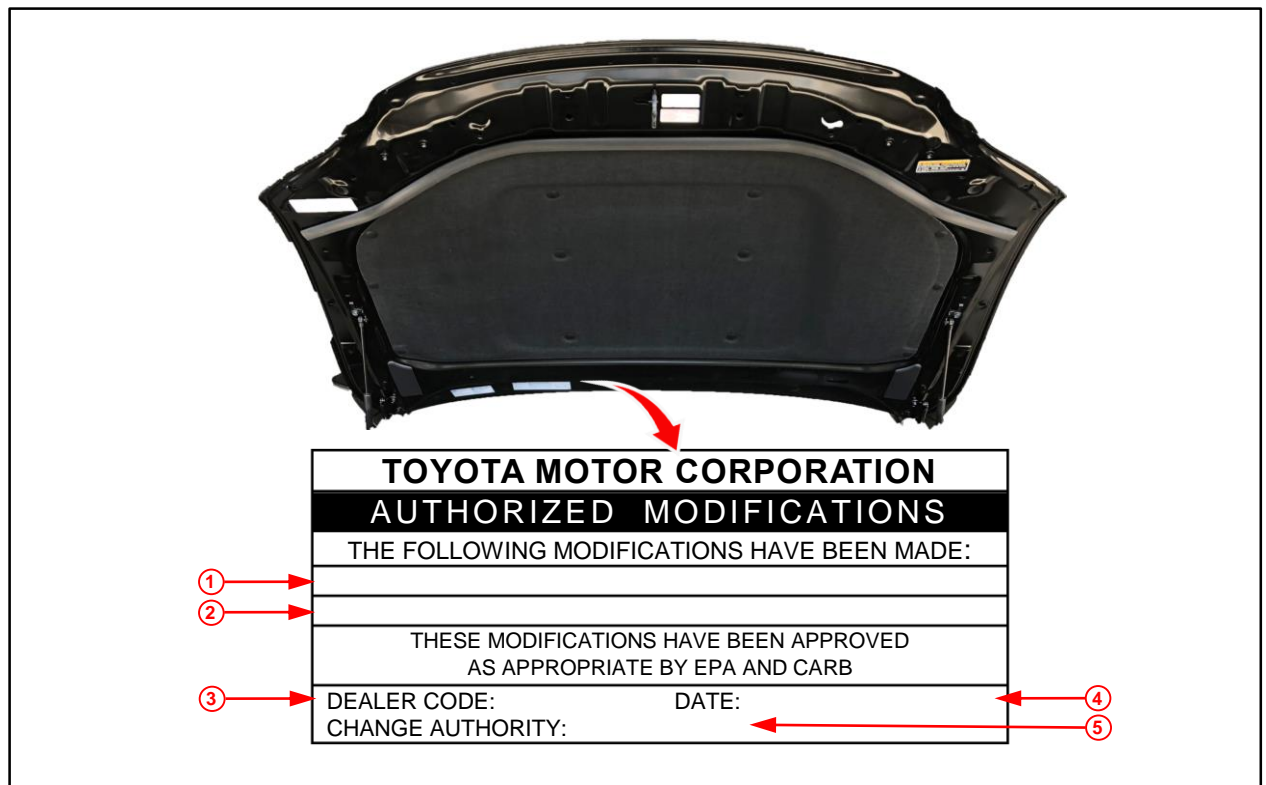
### Repair Procedure (continued)

- Use Techstream to confirm if the ECM (PCM) calibration has been updated and check for the Authorized Modifications Label affixed to the vehicle in the location shown below.

Is the calibration ID listed in Techstream and on the label the latest ECM (PCM) calibration?

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

**Figure 1. Location of Authorized Modifications Label for 2020 Highlander**



<b>1</b>	<b>Replacement ECM (PCM) Part Number (e.g., 89661-0EB62)</b>
<b>2</b>	<b>New Calibration ID (e.g., 896630E62200)</b>
<b>3</b>	<b>Dealer Code</b>

<b>4</b>	<b>Completed Date</b>
<b>5</b>	<b>This SB Number</b>

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### Repair Procedure (continued)

- 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 at *TIS – Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin [T-SB-0134-16](#), *Techstream ECU Flash Reprogramming Procedure*, and flash the ECM (PCM) with the NEW calibration file update.

- Prepare and install the Authorized Modifications Label.
  - 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***]
  - Install the Authorized Modifications Label on the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
- Start the engine and warm it up to normal operating temperature.
- Test-drive the vehicle to confirm proper operation.