

# Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

**Service Category** Drivetrain

**Section** Automatic Transmission/Transaxle

**Market** USA

Toyota Supports  
ASE Certification 

## Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2019	Avalon	Transmission(s): 8AT
2018	Camry	Transmission(s): 8AT
2017 - 2018	Highlander, Sienna	Transmission(s): 8AT

### REVISION NOTICE

January 22, 2021 Rev1:

- The Calibration Information section has been updated.

## Introduction

Some 2017 – 2018 model year Highlander and Sienna, 2018 model year Camry, and 2019 model year Avalon vehicles with and without the stop and start feature may exhibit a flex lock-up concern and MIL ON with Diagnostic Trouble Codes (DTCs) P07407E and/or P27567F. Vehicles that have experienced a delay in engagement from R to D will experience flex lock-up concerns from loss of solenoid pressure. 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.

### NOTE

For Highlander, Sienna, and Camry model vehicles a Mismatched transaxle assembly hardware and ECM (PCM) software combination may result in a harsh shift or shift flare. If this occurs after the original repair, additional ECM (PCM) replacement and reprogramming will be required.

## Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

### Production Change Information

This bulletin applies to vehicles equipped with both old AND new type DAT UA80\* transmissions. Reference the serial number production change information for B1 (clutch) change over below.

TRANSMISSION MODEL NO.	PLANT	SERIAL NO. PRODUCTION CHANGE (NEW B1 CLUTCH)		TRANSMISSION PRODUCTION DATE	
		SINGLE UNIT NEW B1	SERIAL NO. BREAK POINT		
UA80E/F	TMMWV	-	A3A18E00259	May 29 – 31, 2018	
			A4A18E00042		
	AW-J		17M7A22012	December 22, 2017	
	KINUURA		UA03L217C25W004	December 25, 2017	
			UA03L217C21W###*	-	December 21, 2017
			UA03L217C21Y###*		
			UA03L217C22W###*		December 22, 2017
			UA03L217C22Y###*		
			UA03L217C22W###*		
	UA03L217C22Y###*				

\*Confirm the serial number BEFORE proceeding.

### Warranty Information

MODEL	OP CODE	DESCRIPTION	TIME	OFF	T1	T2
Sienna, Avalon, Camry	895011	R & R ECM (PCM)	0.5	89661-#####*	8A	99
Highlander			0.6			
Sienna, Highlander, Camry,	800269	Reprogram ECM (PCM)	0.7			
Avalon			800269N			

\*Warranty claim MUST be submitted with the correct 10-digit OFF. Choose the correct OFF for the vehicle being repaired.

#### APPLICABLE WARRANTY

- This repair is covered under the Toyota Federal Emissions 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.

## Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

### Parts Information

**Table 1.**

JUDGEMENT	PART NUMBER	PART NAME	QTY
Before	30510-####0-84	Reman ATM	1
	30500-####0	Transaxle, Assy	1
After	30510-####1-84	Reman ATM	1
	30500-####1	Transaxle, Assy	1

**Table 2.**

MODEL	MODEL YEAR	JUDGEMENT (B1 CLUTCH)	STOP & START	DRIVELINE	ECM PART NO.	
					PREVIOUS	NEW
Highlander	2017 – 2018	Old	Y	AWD	89661-0E830-B 89661-0E831 89661-0E832 89661-0E833	89661-0E835
			N		89661-0E840-B 89661-0E841 89661-0E842 89661-0E843	89661-0E845
			Y	FWD	89661-0E850-B 89661-0E851 89661-0E852 89661-0E853	89661-0E855
			N		89661-0E860-B 89661-0E861 89661-0E862 89661-0E863	89661-0E865
		New	Y	AWD	89661-0ED60	89661-0ED61
			N		89661-0ED70	89661-0ED71
			Y	FWD	89661-0ED80	89661-0ED81
			N		89661-0ED90	89661-0ED91

## Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

Parts Information (continued)

Table 2. (continued)

MODEL	MODEL YEAR	JUDGEMENT (B1 CLUTCH)	STOP & START	DRIVELINE	ECM PART NO.	
					PREVIOUS	NEW
Sienna	2017	Old	N/A	FWD	89661-08160-B 89661-08163 89661-08164 89661-08165 89661-08166	89661-08167
				AWD	89661-08440-B 89661-08443 89661-08444 89661-08445 89661-08446	89661-08447
		FWD		89661-08530 89661-08531	89661-08532	
		AWD		89661-08540 89661-08541	89661-08542	
	2018	Old		FWD	89661-08400-A 89661-08401	89661-08402
				AWD	89661-08460-A 89661-08461	89661-08462
		New		FWD	89661-08580 89661-08581	89661-08582
				AWD	89661-08590 89661-08591	89661-08592
Camry		Old	FWD	89661-06Y20-A 89661-06Y21 89661-06Y22	89661-06Y23	
		New		89661-0X170 89661-0X171 89661-0X172	89661-0X173	
Avalon	2019			FWD	89661-07661 89661-07662 89661-07663	89661-07664

## Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

### Parts Information (continued)

**Table 3.**

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
	00451-00001-LBL	Authorized Modifications 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 15.30.027 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.

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.

## Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

**Calibration Information**

MODEL	MODEL YEAR	JUDGEMENT (B1 Clutch)	STOP & START	DRIVELINE	ECU TYPE	CALIBRATION ID			
						PREVIOUS	NEW		
Highlander	2017 – 2018	Old	Y	AWD	Engine	896630E43300	896630E43400*		
						896630E43200			
						896630E43100			
						896630E43000			
			N	AWD	Transmission	896650E09100	896650E09200*		
						896650E09000			
						Engine		896630E44300	896630E44400*
								896630E44200	
		N	AWD	Transmission	896630E44100	896630E44400*			
					896630E44000				
		Y	FWD	Engine	896650E10100	896650E10200*			
					896650E10000				
					Engine		896630E45300	896630E45400*	
							896630E45200		
		N	FWD	Transmission	896630E45100	896630E45400*			
					896630E45000				
N	FWD	Engine	896650E11100	896650E11200*					
			896650E11000						
			Engine		896630E46300	896630E46400*			
					896630E46200				
N	FWD	Transmission	896630E46100	896630E46400*					
			896630E46000						
New		Y	AWD	Engine	896650E12100	896650E12200*			
					896650E12000				
					Transmission		896630E83000	896630E83100*	
							896650E41000		
		N	AWD	Engine	896630E84000	896630E84100*			
					896650E42000				
					Transmission		896630E85000	896630E85100*	
							896650E43000		
Y	FWD	Engine	896630E86000	896630E86100*					
			896650E44000						
			Transmission		896630E85000	896630E85100*			
					896650E43000				
N	FWD	Engine	896630E86000	896630E86100*					
			896650E44000						
			Transmission		896630E86000	896630E86100*			
					896650E44000				

\*For Highlander and Sienna model vehicles refer to [T-SB-0001-18](#) *Transaxle Assembly and ECM (PCM) Software Confirmation* for calibration information.

## Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

### Calibration Information (continued)

MODEL	MODEL YEAR	JUDGEMENT (B1 Clutch)	STOP & START	DRIVELINE	ECU TYPE	CALIBRATION ID	
						PREVIOUS	NEW
Sienna	2017	Old	N/A	FWD	Engine	896630828600	896630828700*
						896630828500	
						896630828400	
						896630828300	
						896630828000	
		Transmission		896650807200	896650807300*		
				896650807100			
		896650807000		AWD	Engine	896630836600	896630836700*
						896630836500	
		896630836400					
896630836300							
896630836000							
Transmission	896650808200	896650808300*					
	896650808100						
896650808000	FWD	Engine	896630846100	896630846200*			
896630846000							
Transmission	896650819000	896650819100*					
	896650819000						
896650819000	AWD	Engine	896630847100	896630847200*			
			896630847000				
896650820000	Transmission	896650820100*					
896650820000							

\*For Highlander and Sienna model vehicles refer to [T-SB-0001-18](#) *Transaxle Assembly and ECM (PCM) Software Confirmation* for calibration information.

## Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

### Calibration Information (continued)

MODEL	MODEL YEAR	JUDGEMENT (B1 Clutch)	STOP & START	DRIVELINE	ECU TYPE	CALIBRATION ID	
						PREVIOUS	NEW
Sienna	2018	Old	N/A	FWD	Engine	896630832100 896630832000	896630832200*
					Transmission	896650811000	896650811100*
				AWD	Engine	896630838100 896630838000	896630838200*
					Transmission	896650812000	896650812100*
		FWD		Engine	896630851100 896630851000	896630851200*	
				Transmission	896650823100 896650823000	896650823200*	
		AWD		Engine	896630852100 896630852000	896630852200*	
				Transmission	896650824100 896650824000	896650824200*	
Camry		Old	N/A	FWD	Engine	8966306L5200 8966306L5100 8966306L5000	8966306L5300**
					Transmission	896650644000	896650644100**
		New			Engine	8966306L4200 8966306L4100 8966306L4000	8966306L4300**
					Transmission	896650654000	896650654100**
Avalon	2019	New	N/A	FWD	Engine	896630725100 896630725200 896630725300	<a href="#">896630725400/</a> <a href="#">896650701100</a>
					Transmission	896650701000	

\*For Highlander and Sienna model vehicles refer to [T-SB-0001-18](#) *Transaxle Assembly and ECM (PCM) Software Confirmation* for calibration information.

\*\*For Camry model vehicles refer to [T-SB-0010-18](#) *Transaxle Assembly and ECM (PCM) Software Confirmation* for calibration information.



## Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

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### Repair Procedure

1. Confirm the condition exists.

Does the vehicle exhibit flex lock-up concerns and MIL ON with DTCs P07407E and/or P27567F present?

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

2. Is the vehicle a Highlander, Sienna, or Camry model?

- **YES** — Continue to step 3.
- **NO** — For Avalon model vehicles go to step 4.

3. Follow the procedures outlined in the following bulletins to confirm that the correct ECM (PCM) hardware and software are used based on the transaxle assembly part number and serial number:

- For 2017 – 2018 Highlander and Sienna model year vehicles follow the procedures outlined in [T-SB-0001-18](#) *Transaxle Assembly and ECM (PCM) Software Confirmation*.
- For 2018 Camry model year vehicles follow the procedures outlined in [T-SB-0010-18](#) *Transaxle Assembly and ECM (PCM) Software Confirmation*.

## Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

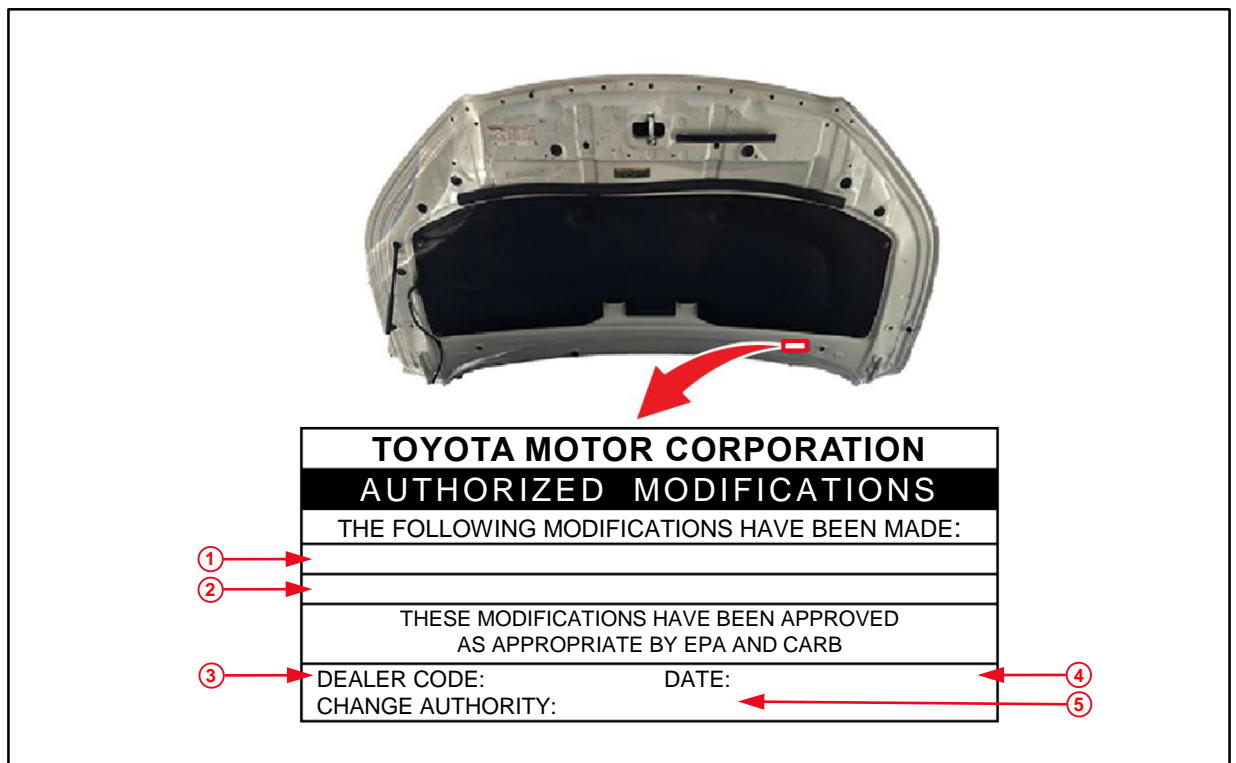
### Repair Procedure (continued)

- 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 5.

**Figure 1. Location of Authorized Modifications Label on 2019 Avalon**



<b>1</b>	Replacement ECM (PCM) Part Number (e.g., 89662-07664)
<b>2</b>	New Calibration ID (e.g., 896650701100)
<b>3</b>	Dealer Code

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

## Flex Lock-up Concerns and MIL ON With DTC(s) P07407E and/or P27567F

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### Repair Procedure (continued)

5. 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 station, refer to the [DCA-8000 Instruction Manual](#) located at *TIS – Diagnostics – Tools & Equipment – Battery Diagnostics*.

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

6. 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. Install the Authorized Modifications Label onto the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
7. Test-drive the vehicle to confirm proper operation.