

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 |

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 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.

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 | NEW CALIBRATION ID |
|------------|--------------|-----------------------|--------------|-----------|---------------|--------------------|
| Highlander | 2017 – 2018 | Old | Y | AWD | Engine | 896630E43400* |
| | | | | | Transmission | 896650E09200* |
| | | | N | | Engine | 896630E44400* |
| | | | | | Transmission | 896650E10200* |
| | | | Y | FWD | Engine | 896630E45400* |
| | | | | | Transmission | 896650E11200* |
| | | N | Engine | | 896630E46400* | |
| | | | Transmission | | 896650E12200* | |
| | | New | AWD | Y | Engine | 896630E83100* |
| | | | | | Transmission | 896650E41100* |
| | | | | N | Engine | 896630E84100* |
| | | | | | Transmission | 896650E42100* |
| | | | Y | FWD | Engine | 896630E85100* |
| | | | | | Transmission | 896650E43100* |
| N | Engine | 896630E86100* | | | | |
| | Transmission | 896650E44100* | | | | |
| Sienna | 2017 | Old | N/A | FWD | Engine | 896630828700* |
| | | | | | Transmission | 896650807300* |
| | | | | AWD | Engine | 896630836700* |
| | | | | | Transmission | 896650808300* |
| | | New | | FWD | Engine | 896630846200* |
| | | | | | Transmission | 896650819100* |
| | | | | AWD | Engine | 896630847200* |
| | | | | | Transmission | 896650820100* |

*For Highlander and Sienna model vehicles refer to Service Bulletin No. [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 | NEW CALIBRATION ID |
|--------|------------|--------------------------|--------------|-----------|--------------|------------------------------|
| Sienna | 2018 | Old | N/A | FWD | Engine | 896630832200* |
| | | | | | Transmission | 896650811100* |
| | | | | AWD | Engine | 896630838200* |
| | | | | | Transmission | 896650812100* |
| | | New | | FWD | Engine | 896630851200* |
| | | | | | Transmission | 896650823200* |
| | | | | AWD | Engine | 896630852200* |
| | | | | | Transmission | 896650824200* |
| Camry | | Old | N/A | FWD | Engine | 8966306L5300** |
| | | | | | Transmission | 896650644100** |
| | | New | | | Engine | 8966306L4300** |
| | | | | | Transmission | 896650654100** |
| Avalon | 2019 | New | | | Engine | 896630725400 |
| | | | | | Transmission | 896650701100 |

*For Highlander and Sienna model vehicles refer to Service Bulletin No. [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.

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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 Service Bulletin No. [T-SB-0001-18](#) *Transaxle Assembly and ECM (PCM) Software Confirmation*.
- For 2018 Camry model year vehicles follow the procedures outlined in Service Bulletin No. [T-SB-0010-18](#) *Transaxle Assembly and ECM (PCM) Software Confirmation*.

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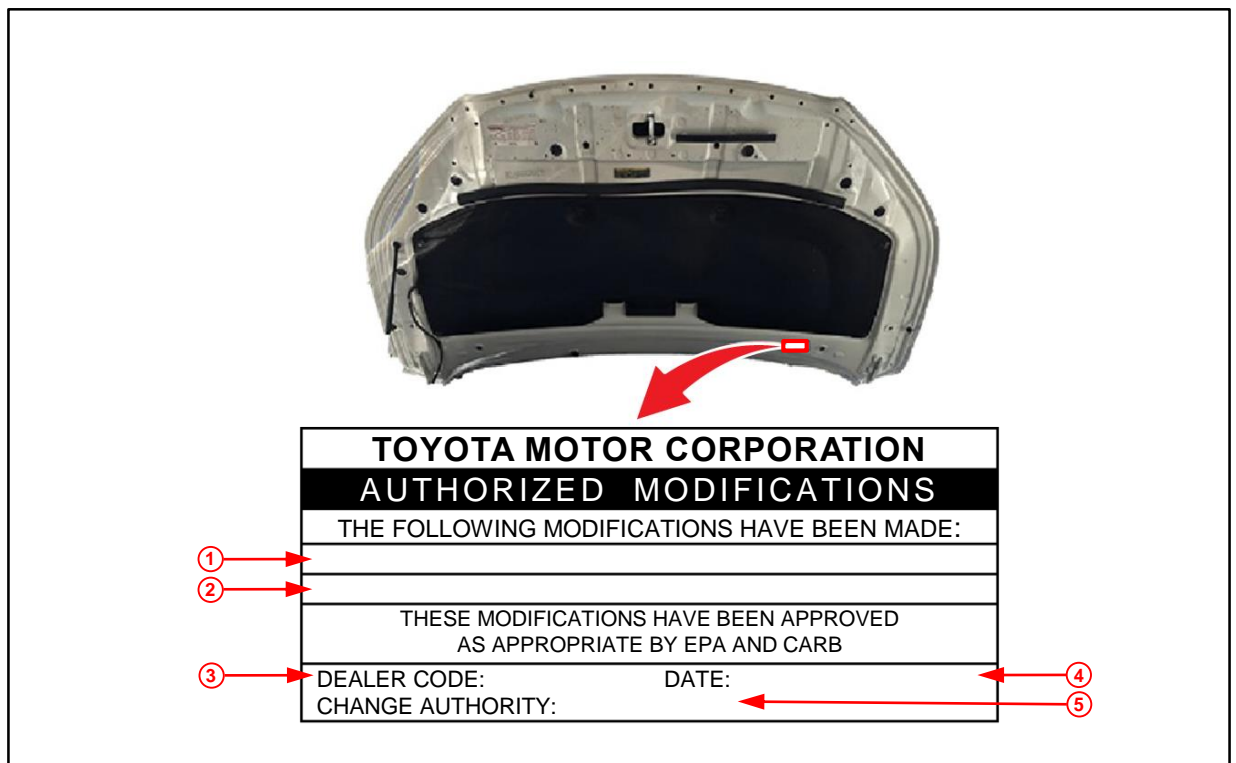
Repair Procedure (continued)

- 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 5.

Figure 1. Location of Authorized Modifications Label on 2019 Avalon



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

| | |
|----------|----------------|
| 4 | Date Completed |
| 5 | This SB Number |

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

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 Service Bulletin [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.