

MIL "ON" DTC P2820

Service Category Drivetrain

Section CVT

Market USA

Scion Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2016	iM	Transmission(s): CVT

Introduction

Some 2016 model year iM vehicles may exhibit a MIL "ON" condition with Diagnostic Trouble Code (DTC) P2820 present, indicating a Pressure Control Solenoid (shift solenoid valve SLP) Performance condition. The Engine Control Module (ECM) (SAE term: Powertrain Control Module/PCM) logic has been updated to prevent this condition. Follow the Repair Procedure below to address this condition.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
TC1701	R & R Continuously Variable Transaxle (CVT) Assembly	6.0	30400-12300	8A	19
EG1701	Reprogram ECM (PCM) Engine	0.4	89661-#####		99

APPLICABLE WARRANTY

- This repair is covered under the Toyota Powertrain Warranty. This warranty is in effect for 60 months or 60,000 miles, whichever occurs first, from the vehicle's in-service date.
- The ECM 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.

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Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
89661-0W170-A	89661-0W172	Computer, Engine Control (ECM)	–
30400-12300		CVT	1
32000-12500		Converter Assy, Torque	1
90177-22001		Nut (for Front Axle Shaft RH/LH)	2
43425-02050		Ring, Hole Snap (for Front Drive Shaft LH/RH)	2
17451-28040 17451-28032		Gasket, Exhaust Pipe	1
35012-12110		Hose Sub-assy, Transmission Breather	1
35150-48010		Plug Assy, Transmission Case	1
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 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 12.20.024 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.

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Required Tools & Equipment (Continued)

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
GR8 Battery Diagnostic Station*	00002-MCGR8	1
Crankshaft Pulley Holding Tool*	09213-54015-01	1
Companion Flange Holding Tool*	09330-00021	1
Engine Support Bar*	00002-ESUPPT-01	1

*Essential SST.

NOTE

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

REQUIRED TOOLS & MATERIAL	PART NUMBER	QTY
No. 1 Engine Hanger**	12281-37031	1
No. 2 Engine Hanger**	12282-37021	1
Bolt**	91552-81050	2

**These items are to be used with the Engine Support Bar (SST: P/N 00002-ESUPPT-01) and MUST be ordered through NAPO.

Calibration Information

MODEL	ENGINE	CALIBRATION ID	
		PREVIOUS	NEW
iM	2ZR-FAE	30W01000	30W01100

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Repair Procedure

1. Using Techstream, check for the following stored DTC:
P2820 – Pressure Control Solenoid (shift solenoid valve SLP) Performance.
Is the DTC present?
 - **YES** — Continue to step 2.
 - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
2. Remove the CVT assembly.
Refer to TIS, applicable model and model year Repair Manual:
 - 2016 iM:
Drivetrain – CVT – [“K313 CVT: Continuously Variable Transaxle Assembly: Removal”](#)

NOTE

Do NOT complete the following steps:

 - Step 16: Remove Torque Converter Assembly
 - Step 17: Remove CVT Oil Pump Type T Oil Seal
 - Step 23: Remove With Head Straight Screw Plug
 - Step 24: Remove No. 1 Breather Plug (CVT)
3. Install the replacement CVT.
Refer to TIS, applicable model and model year Repair Manual:
 - 2016 iM:
Drivetrain – CVT – [“K313 CVT: Continuously Variable Transaxle Assembly: Installation”](#)

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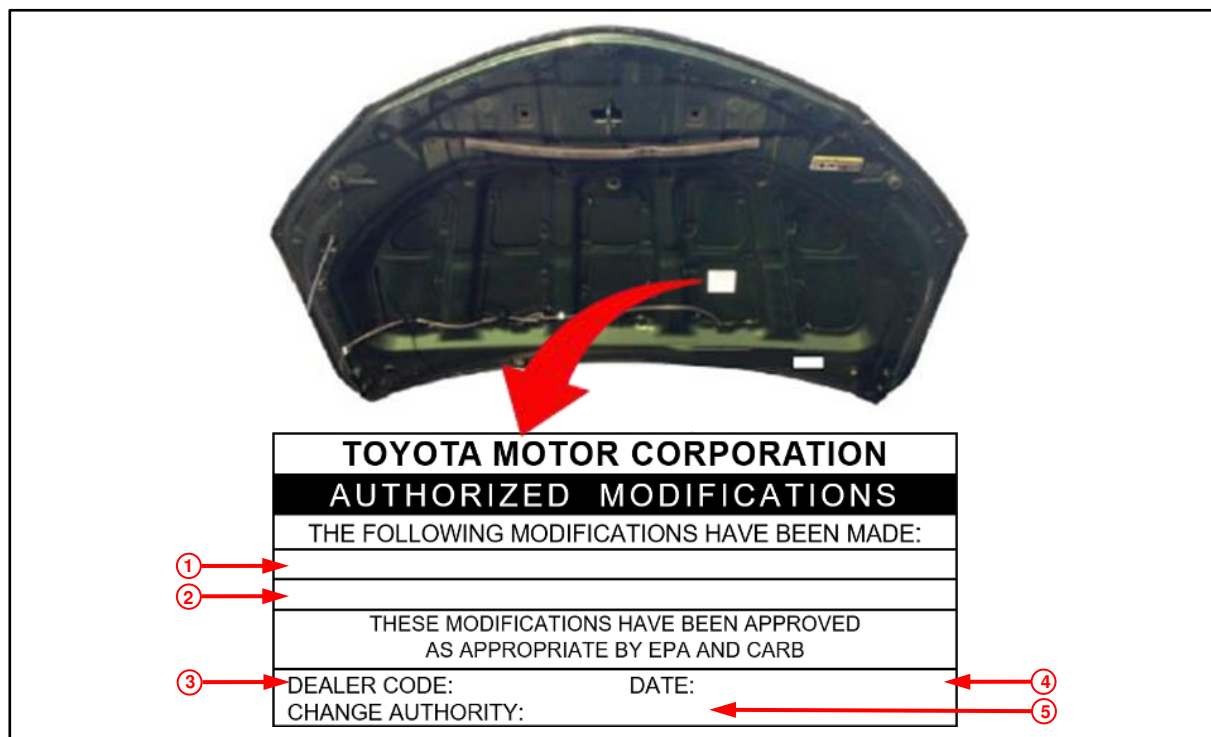
Repair Procedure (Continued)

4. 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** — The vehicle has the correct calibration. Go to step 7.
- **NO** — Continue to step 5.

Figure 1. Location of Authorized Modifications Label for 2016 iM



1	Replacement ECM (PCM) Part Number (e.g., 89661-0W172)
2	New Calibration ID (e.g., 30W01100)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (Continued)

5. 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 the vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the "[GR8 Instruction Manual](#)" located on *TIS – Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin [S-SB-0015-14](#), "*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 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 on the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
7. Perform the Techstream ECT Reset Memory Utility.
8. Test drive the vehicle to confirm the repair.