



S-SB-0032-12

Rev1

November 19, 2012

## MIL "ON" DTC P0017 or P0019

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Scion Supports ASE Certification 

### Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2013	FR-S	

#### REVISION NOTICE

January 16, 2013 Rev1:

- A Service Bulletin link has been updated in the Repair Procedure.

Any previous printed versions of this bulletin should be discarded.

### Introduction

Some 2013 model year FR-S vehicles may exhibit a MIL "ON" condition with one of the following Diagnostic Trouble Codes (DTCs): P0017 or P0019 ("Cam Sensor Correlation"). The Engine Control Module/ECM (SAE term: Powertrain Control Module/ PCM) logic has been revised to address this condition. Use the following repair procedure to determine if ECM (PCM) replacement or reprogramming is required.

### Production Change Information

This bulletin applies to vehicles produced **BEFORE** the Production Change Effective VIN shown below.

MODEL	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
FR-S	GUNMA	JF1ZNAA1#D#710670

### Calibration Information

MODEL	TRANSMISSION	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID
FR-S	AT	ZA1J900D ZA1J700D	<u>ZA1JA00D</u>
	MT	ZA1J900C ZA1J700C	<u>ZA1JA00C</u>

## MIL "ON" DTC P0017 or P0019

### Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG1218	Replace the ECM (PCM)	0.4	SU003-00433 (AT) SU003-04521 (AT) SU003-00434 (MT) SU003-04522 (MT)	8A	99
EG1219	Reprogram the ECM (PCM)				

**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.

### Parts Information

**BEFORE** ordering any of the parts listed below, refer to Repair Procedure to determine if replacement or reprogramming is needed.

TRANS	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
AT	SU003-00433 SU003-04521	SU003-04567	Computer, Engine Control	1*
MT	SU003-00434 SU003-04522	SU003-04568		1*
-	00451-00001-LBL	Same	Authorized Modification Labels	1**

\* Order ONLY for ECM replacement.  
 \*\* Order ONLY for ECM reprogramming.

**NOTE**  
 Authorized Modification Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through Dealer Daily – Dealer Support Materials Orders.


## MIL "ON" DTC P0017 or P0019

### Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS Techstream* or Techstream Lite  NOTE: Software version 7.31.003 or later is required.	ADE	TSPKG1 or TSLITEDLR01	1

**NOTE**

- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- The Diagnostic Tester is NOT recommended for flash reprogramming with this calibration file. Please use TIS Techstream or an approved J2534 interface to perform this update. Visit [techinfo.toyota.com](http://techinfo.toyota.com) for more information regarding J2534 reprogramming.



SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
GR8 Battery Diagnostic Station*	00002-MCGR8	1

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

\* Essential SST.

## MIL "ON" DTC P0017 or P0019

### Repair Procedure

1. Confirm DTC P0017 or P0019 is set.
2. Using the Techstream Utility "VVT Initial Position Learning Value Display", confirm the VVT Ex Initial Position Learning Value #1 and #2 are within the range.

Figure 1.

VVT Initial Position Learning Value Display (EFI-31-003)		
Reading is complete. Check each VVT Initial Position Learning Values as instructed in Service Bulletin.		
VVT Initial Position Learning Value #1	59.88	Deg FR
VVT Initial Position Learning Value #2	56.77	Deg FR
VVT Ex Initial Position Learning Value #1	88.88	Deg FR
VVT Ex Initial Position Learning Value #2	89.15	Deg FR

Exit

3. Is the value within range?

	RANGE (IN DEGREES)	
	MINIMUM	MAXIMUM
VVT Ex Initial Position Learning Value	85.0	95.0

- **YES** — Proceed to step 4 (Reprogram the ECM).
- **NO** — Proceed to step 5 (Replace the ECM).

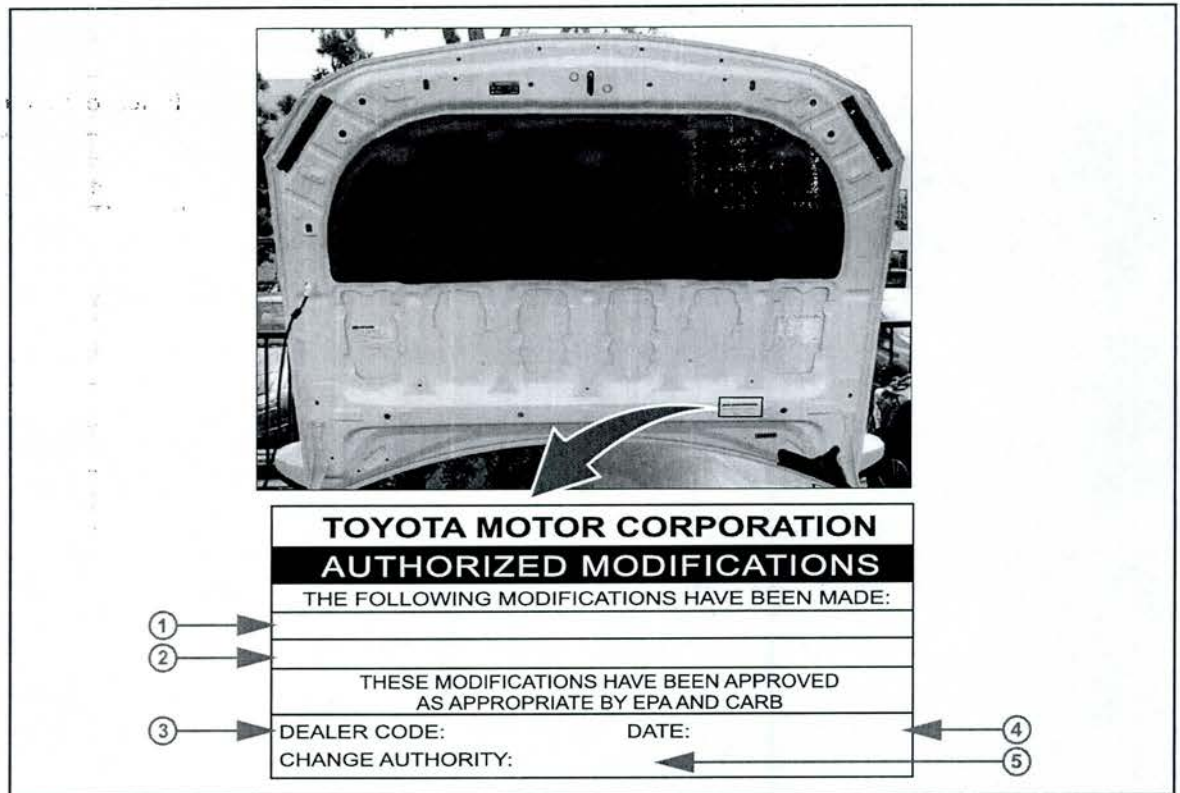
**MIL "ON" DTC P0017 or P0019**

**Repair Procedure (Continued)**

4. Reprogram the ECM.

- A. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 2. Confirm if the ECM (PCM) calibration has been updated. If the calibration ID listed is NOT the latest ECM (PCM) calibration — go to step 4.B.

Figure 2. Location of Authorized Modifications Label on 2013 FR-S



1	Replacement ECM (PCM) Part Number (i.e., SU003-04567)
2	New Calibration ID(s) (i.e., ZA1JA00D)
3	Dealer Code

4	Date Completed
5	This SB Number

## MIL "ON" DTC P0017 or P0019

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### Repair Procedure (Continued)

#### B. Flash reprogram the ECM (PCM).

##### NOTE

- The GR8 Battery Diagnostic Station **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5 volts while flash reprogramming the vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the [GR8 Instruction Manual](#) located on the Technical Information System (TIS), *Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin No. [S-SB-0003-10](#), "Techstream ECU Flash Reprogramming Procedure", and flash the ECM (PCM) with the **NEW** calibration file update.

#### C. Install the Authorized Modifications Label.

##### (1) Using a permanent marker, enter the following information on the label:

- ECM part number [Refer to the **Parts Information** section for the **CURRENT PART NUMBER**]
- Calibration ID(s) [Refer to the **Calibration Identification Chart** for the **NEW CALIBRATION ID**]
- Dealer Code
- Repair Date
- Change Authority [**This bulletin number**]

##### (2) Affix the Authorized Modifications Label to the vehicle at the location shown in Figure 2. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.

#### D. Start the engine and warm it up to normal operating temperature and test drive to confirm proper vehicle operation.

#### 5. Replace the ECM (PCM).

Refer to the Technical Information System (TIS), 2013 model year FR-S Repair Manual:

- *Engine/Hybrid System – Engine Control – "FA20 Engine Control: ECM: Removal / Installation"*