

MIL "ON" DTC P2111 and P0A0F After Cold Soak

Service Category Engine/Hybrid System

Section Engine Mechanical

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2012 – 2015	Prius PHV	
2012 – 2016	Prius V	
2010 – 2015	Prius	

REVISION NOTICE

September 8, 2016 Rev2:

- **Applicability has been updated to include 2015 Prius PHV, 2015 – 2016 Prius V, and 2015 Prius vehicles.**
- **The Introduction, Parts Information, Required Tools & Equipment, and Repair Procedure sections have been updated.**
- **ECU Part Information and Calibration Information Sections have been added.**

March 12, 2014 Rev1:

- **Applicability has been updated to include 2013 – 2014 model year Prius, Prius PHV, and Prius V vehicles.**
- **The entire bulletin has been updated.**

Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2010 – 2015 model year Prius, 2012 – 2015 Prius PHV, and 2012 – 2016 Prius V vehicles equipped with a 2ZR-FXE engine may exhibit a MIL "ON" condition with Diagnostic Trouble Codes (DTCs) P2111 (Throttle Actuator Control System) and P0A0F (Engine Failed to Start) present when ambient temperatures are below 23°F (–5°C). The intake manifold assembly has been improved as well as the Engine Control Module/ECM (SAE Term: Powertrain Control Module/PCM) logic has been modified to reduce the possibility of this condition occurring. Follow the repair procedure in this bulletin to address this condition.

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Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
17120-37050 17120-37051 17120-37052 17120-37053 17120-37054	17120-37091	Manifold Assy, Intake	1
00451-00001-LBL		Authorized Modifications Label	1

NOTE

- If the current part number is 17120-37090, do NOT replace intake manifold. Part number 17120-37090 contains the update for the subject condition.
- The ECM (PCM) should NOT be replaced as part of the Repair Procedure.
- Authorized Modification Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through *Dealer Daily – Dealer Support Materials Orders*.

HINT

Part Number of manifold can be found on the top of intake runner #4.

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ECU Part Information

MODEL	MODEL YEAR	PART NUMBER		PART NAME	QTY
		PREVIOUS	NEW		
Prius	2010	89660-47300 89660-47301 89660-47302 89660-47303 89660-47304	89660-47305	Computer, Engine Control	-
	2011	89660-47430 89660-47431 89660-47432 89660-47433	89660-47434		
	2012 – 2013	89660-47510 89660-47511 89660-47512	89660-47513		
	2014 – 2015	89660-47750 89660-47751	89660-47752		
Prius V	2012 – 2013	89660-47400 89660-47401 89660-47402 89660-47403	89660-47404		
	2014	89660-47680 89660-47681	89660-47682		
	2015 – 2016	89660-47620	89660-47621		
Prius PHV	2012 – 2013	89660-47590 89660-47591	89660-47592		
	2014 – 2015	89660-47740	89660-47741		

NOTE

The ECM (PCM) should NOT be replaced as part of the repair procedure.

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Warranty Information

OP CODE	DESCRIPTION	MODEL	TIME	OFP	T1	T2
EG1625	R & R Intake Manifold Assembly and Reprogram ECM (PCM)	Prius	1.9	17120-37050	8A	88
		Prius PHV		17120-37051		
EG1626		Prius V	1.8	17120-37052 17120-37053 17120-37054		
EG1627	Reprogram ECM (PCM)	-	0.4	89660-47304	8A	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.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

Prius/Prius PHV:

- For California specification Prius/Prius PHV vehicles sold, registered, and operated in Arizona ('12 MY), California, Connecticut, New Mexico ('10 MY – '11 MY), Maine, Maryland ('11 MY – '15 MY), Massachusetts, New Jersey, New York, Oregon, Rhode Island, and Vermont, this repair is covered under the California Emission Warranty. This warranty is in effect for 180 months or 150,000 miles, whichever occurs first, from the vehicle's in-service date.
- For California specification Prius/Prius PHV vehicle sold, registered, and operated in Pennsylvania and Washington, Delaware ('14 – '15 MY), this repair is covered under the California Emission Control Warranty which is in effect for 84 months or 70,000 miles, whichever occurs first, from the vehicle's in-service date.

Prius V:

- For California specification Prius V vehicles sold, registered, and operated in Arizona ('12 MY), California, Connecticut, Delaware ('14 – '16 MY), Maine, Maryland, Massachusetts, New Jersey, New York ('16 MY), Oregon, Pennsylvania, Rhode Island, Vermont, and Washington, this repair is covered under the California Emission Control Warranty which is in effect for 84 months or 70,000 miles, whichever occurs first, from the vehicle's in-service date.

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Calibration Information

MODEL	MODEL YEAR	CALIBRATION ID	
		PREVIOUS	NEW
Prius	2010	34715000 34715100 34715200 34715300 34715400 34715500 34715600	34715700
	2011	34728000 34728100 34728200 34728300 34725400	34728500
	2012-2013	34734000 34734100 34734200 34734300	34734400
	2014-2015	34754000 34754100	834754200
Prius V	2012-2013	34725000 34725100 34725200 34725300 34725400	34725500
	2014	34751000 34751100	34751200
	2015-2016	34758000	34758100
Prius PHV	2012-2013	34740000 34740100	34740200
	2014-2015	34755000	34755100

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream 2.0*	ADE	TS2UNIT	1
TIS Techstream		TSPKG1	
Techstream Lite (Green Cable)		TSLITEDLR01	

* Essential SST.

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Required Tools & Equipment (Continued)

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 11.20.019 or later is required.
- 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. Please use Techstream or an approved J2534 interface to perform flash reprogramming updates. Visit techinfo.toyota.com for more information regarding J2534 reprogramming.



Repair Procedure

1. Use Techstream to check for DTCs and confirm the condition per the Introduction.
2. Remove and replace the intake manifold with the updated part. Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:
 - 2010 Prius:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2011 Prius:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2012 Prius:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2013 Prius:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2014 Prius:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2015 Prius:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2012 Prius PHV:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”

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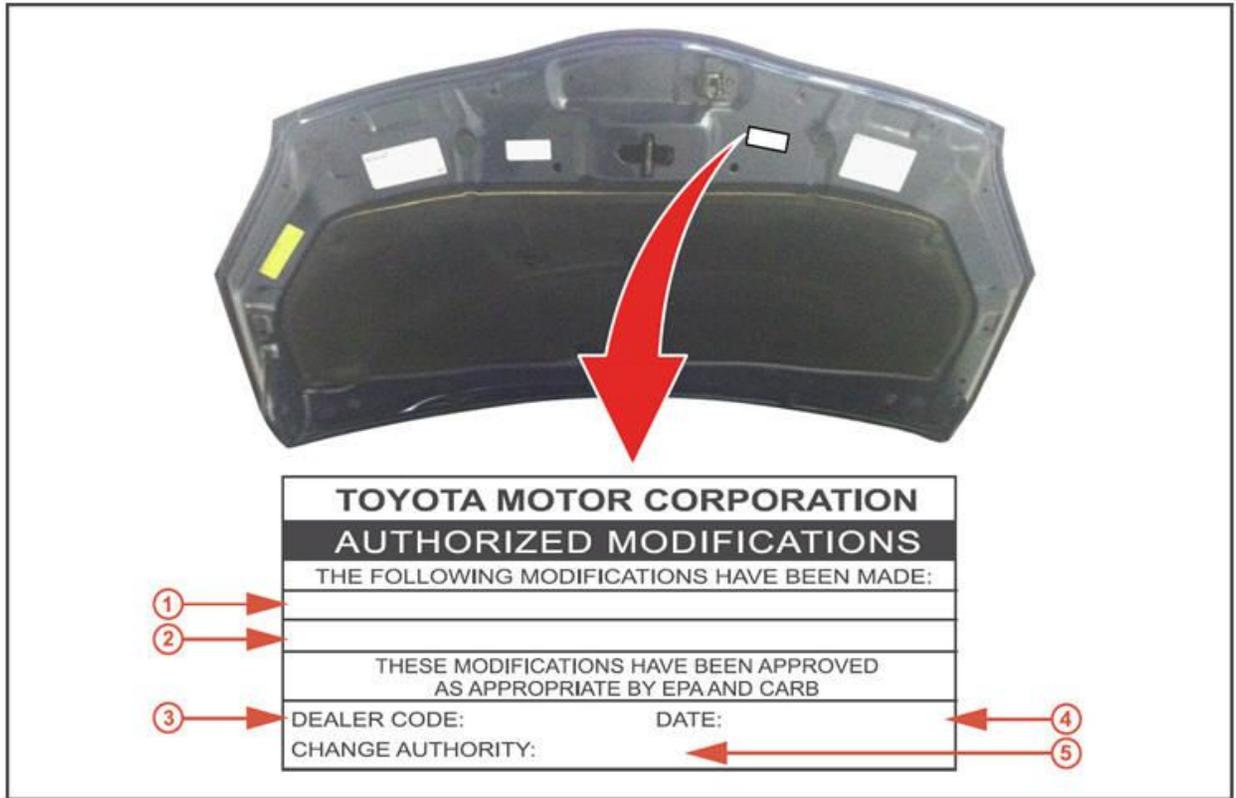
Repair Procedure (Continued)

- 2013 Prius PHV:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2014 Prius PHV:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2015 Prius PHV:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2012 Prius V:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2013 Prius V:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2014 Prius V:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2015 Prius V:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
 - 2016 Prius V:
Engine/Hybrid System – Intake/Exhaust – “2ZR-FXE Intake/Exhaust: Intake Manifold: [Removal](#) / [Installation](#)”
3. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 1 below. Confirm if the ECM (PCM) calibration has been updated. If the calibration ID listed is NOT the latest ECM (PCM) calibration found in the table above— go to step 4.

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Repair Procedure (Continued)

Figure 1. Location of Authorized Modification Label for 2010 - 2015 Prius and Prius PHV



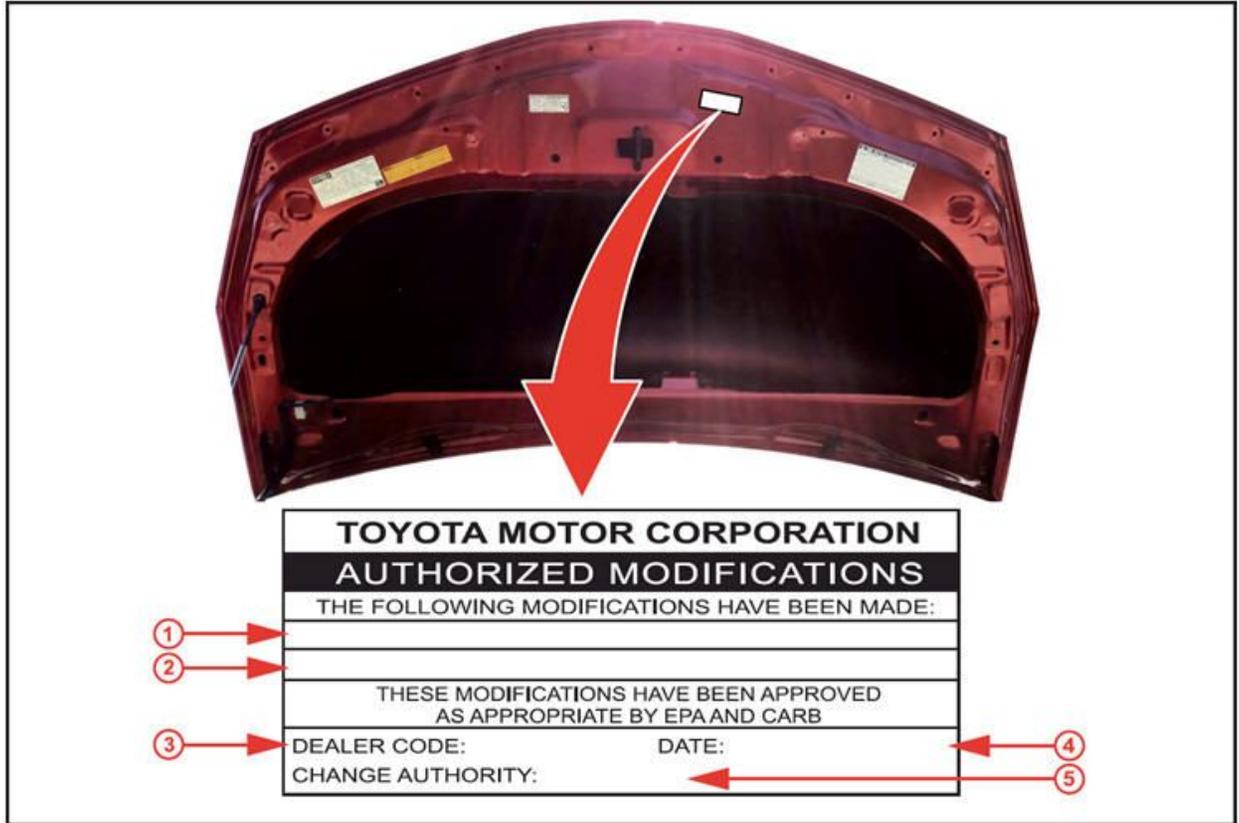
1	Replacement ECM (PCM) Part Number (i.e., 89681-76011)
2	New Calibration ID (i.e., 37601300)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (Continued)

Figure 2. Location of Authorized Modification Label for 2012-2016 Prius V.



1	Replacement ECM (PCM) Part Number (i.e., 89681-76011)
2	New Calibration ID (i.e., 37601300)
3	Dealer Code
4	Date Completed
5	This SB Number

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.

4. Follow the procedures outlined in Service Bulletin [T-SB-0012-13](#) “Techstream ECU Flash Reprogramming Procedure” and flash the ECM (PCM) with the NEW calibration file update.

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Repair Procedure (Continued)

5. Install the Authorized Modifications Label.

Affix the Authorized Modification Label to the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.

6. 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)
7. Test drive the vehicle to confirm proper vehicle operation.