

Secondary Air Injection System - MIL "ON" DTC P2440 and/or P2442

Service Category Engine/Hybrid System

Section Emission Control

Market USA

Toyota Supports ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2014 – 2015	Sequoia	
2014 – 2015	Tundra	

Introduction

Some 2014 – 2015 model year Sequoia and Tundra vehicles equipped with 3UR engines may exhibit a MIL "ON" condition with the following Diagnostic Trouble Codes (DTCs):

- P2440: Secondary Air Injection System Switching Valve Stuck Open Bank 1
- P2442: Secondary Air Injection System Switching Valve Stuck Open Bank 2

This condition may be caused by debris/ice in the air switching valve assembly. The Engine Control Module/ECM (SAE term: Powertrain Control Module/PCM) logic has been changed to reduce the possibility of this condition occurring. Use the following procedure to reprogram the ECM (PCM).

Warranty Information

OP CODE	DESCRIPTION	TIME	OPF	T1	T2
EG1408	Reprogram ECM (PCM) Engine	0.4	89661-0CL20 89661-0CL21 89661-0CN80 89661-0CN81 89661-0CP00 89661-0CP01 89661-0CP10 89661-0CP11 89661-0CP30 89661-0CP31 89661-0CP40 89661-0CP41 89661-0CP70 89661-0CP71 89661-0CP80 89661-0CP90	8A	99

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Warranty Information (Continued)

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.

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream 2.0*	ADE	TS2UNIT	1
Techstream Lite		TSLITEPDLR01	

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 9.30.029 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.



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.

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Parts Information

SEQUOIA							
MODEL YEAR	ENGINE	TRANS	OPTION	PART NUMBER		PART NAME	QTY
				PREVIOUS	NEW		
2014 – 2015	3UR-FE	2WD	-	89661-0CN80	89661-0CN82	Computer, Engine Control (ECM/PCM)	-
		4WD		89661-0CN81			-
	2WD	Towing	89661-0CL20	89661-0CL22	-		
	4WD		89661-0CL21		-		
3UR-FBE	4WD	-	89661-0CP70	89661-0CP72	-		
Towing		89661-0CP71	-				

TUNDRA							
MODEL YEAR	ENGINE	TRANS	OPTION	PART NUMBER		PART NAME	QTY
				PREVIOUS	NEW		
2014 – 2015	3UR-FE	2WD	-	89661-0CP00	89661-0CP02	Computer, Engine Control (ECM/PCM)	-
		4WD		89661-0CP01			-
	2WD	Towing	89661-0CP10	89661-0CP12	-		
	4WD		89661-0CP11		-		
3UR-FBE	4WD	-	89661-0CP30	89661-0CP32	-		
		Towing	89661-0CP40		89661-0CP42	-	
2015	3UR-FE	2WD	Towing, Large Fuel Tank	89661-0CP80	89661-0CP81	Computer, Engine Control (ECM/PCM)	-
	4WD	-					
3UR-FBE	4WD	Towing, Large Fuel Tank	89661-0CP90	89661-0CP91	-		

PART NUMBER	PART NAME	QTY
00451-00001-LBL	Authorized Modification Labels	1

NOTE

- 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*.

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Calibration Information

SEQUOIA							
MODEL YEAR	ENGINE	TRANS	OPTION	ECU	CALIBRATION ID		
					PREVIOUS	NEW	
2014 – 2015	3UR-FE	2WD	-	Main	30CJ4000 30CJ4100	30CJ4200 / 50C88100	
				Sub	50C88000		
		4WD		Main	30CJ4001 30CJ4101	30CJ4201 / 50C88101	
				Sub	50C88001		
		2WD		Towing	Main	30CG3000 30CG3100	30CG3200 / 50C87100
					Sub	50C87000	
	4WD	Main	30CG3001 30CG3101		30CG3201 / 50C87101		
		Sub	50C87001				
	3UR-FBE	4WD	-		Main	30CM0000 30CM0100	30CM0200 / 50CA2100
			Towing		Sub	50CA2000	

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Calibration Information (Continued)

TUNDRA							
MODEL YEAR	ENGINE	TRANS	OPTION	ECU	CALIBRATION ID		
					PREVIOUS	NEW	
2014 – 2015	3UR-FE	2WD	-	Main	30CL0000 30CL0100	30CL0200 / 50C80100	
				Sub	50C80000		
		4WD		Main	30CL0001 30CL0101	30CL0201 / 50C80101	
				Sub	50C80001		
		2WD		Towing	Main	30CL1000 30CL1100	30CL1200 / 50C81100
					Sub	50C81000	
	4WD	Towing	Main	30CL1001 30CL1101	30CL1201 / 50C81101		
			Sub	50C81001			
	3UR-FBE	4WD	-	Main	30CL3000 30CL3100	30CL3200 / 50C83100	
				Sub	50C83000		
Towing			Main	30CL4000 30CL4100	30CL4200 / 50C84100		
			Sub	50C84000			
2015	3UR-FE	2WD	Towing, Large Fuel Tank	Main	30CM2000	30CM2100 / 50C81100	
				Sub	50C81000		
		4WD		Main	30CM2001	30CM2101 / 50C81101	
				Sub	50C81101		
	3UR-FBE	4WD		Main	30CM3000	30CM3100 / 50C84100	
				Sub	50C84000		

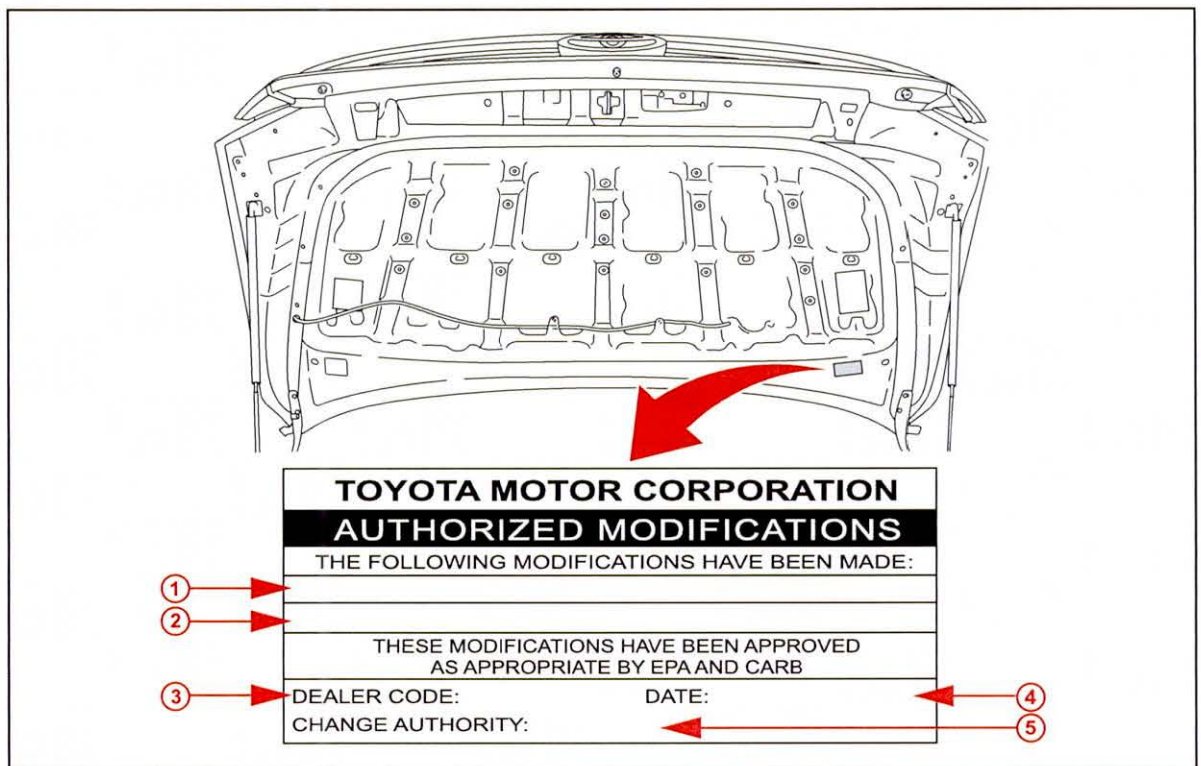
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Repair Procedure

1. Using Techstream, confirm one of more of the following DTCs is present:
 - P2440: Secondary Air Injection System Switching Valve Stuck Open Bank 1
 - P2442: Secondary Air Injection System Switching Valve Stuck Open Bank 2

If any of the above DTCs is present, reprogram the ECM (PCM). Proceed to step 2.
2. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 1. Confirm if the ECM (PCM) calibration has been updated.
 - If the calibration ID listed is NOT the latest ECM (PCM) calibration — go to step 3.
 - If the calibration ID listed is the latest ECM (PCM) calibration – this bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

Figure 1. Location of Authorized Modifications Label on 2014 – 2015 Sequoia and Tundra



1	Replacement ECM (PCM) Part Number (i.e., 89661-0CN82)
2	New Calibration ID(s) (i.e., 30CJ4200)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (Continued)

- 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. [T-SB-0012-13](#), "Techstream ECU Flash Reprogramming Procedure," and flash the ECM (PCM) with the NEW calibration file update.

- Install the Authorized Modifications Label.
 - 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**]
 - Affix the Authorized Modifications 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.
- Test drive the vehicle to confirm proper vehicle operation.