

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

Service Category Engine/Hybrid System

Section Emission Control

Market USA



Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2012 – 2013	Sequoia	
2012 – 2013	Tundra	

Introduction

Some 2012 – 2013 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).

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Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG1406	Reprogram ECM (PCM) Engine	0.4	89661-0CM20	8A	99
			89661-0CM21		
			89661-0CM22		
			89661-0CM23		
			89661-0CM30		
			89661-0CM31		
			89661-0CM32		
			89661-0CM33		
			89661-0CM60		
			89661-0CM61		
			89661-0CM62		
			89661-0CM63		
			89661-0CM64		
			89661-0CM70		
			89661-0CM71		
			89661-0CM72		
			89661-0CM73		
			89661-0CM74		
			89661-0CM80		
			89661-0CM81		
			89661-0CM82		
			89661-0CM83		
			89661-0CM90		
			89661-0CM91		
			89661-0CM92		
			89661-0CM93		
			89661-0CN20		
			89661-0CN21		
89661-0CN22					
89661-0CN23					
89661-0CN24					
89661-0CN30					
89661-0CN31					
89661-0CN32					
89661-0CN33					
89661-0CN34					

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.

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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		
2012 – 2013	3UR-FE	2WD	-	89661-0CM90	89661-0CM94	Computer, Engine Control (ECM/PCM)	-
		4WD		89661-0CM91			
		2WD	89661-0CM92				
		4WD	89661-0CM93				
	3UR-FBE	4WD	Towing	89661-0CM80	89661-0CM84		-
				89661-0CM81			
		2WD	89661-0CM82				
		4WD	89661-0CM83				
3UR-FBE	4WD	-	89661-0CN20	89661-0CN25	-		
			89661-0CN21				
	89661-0CN22						
	89661-0CN23						
3UR-FBE	4WD	Towing	89661-0CN30	89661-0CN35	-		
			89661-0CN31				
	89661-0CN32						
	89661-0CN33						
			89661-0CN34				

TUNDRA							
MODEL YEAR	ENGINE	TRANS	OPTION	PART NUMBER		PART NAME	QTY
				PREVIOUS	NEW		
2012 – 2013	3UR-FE	2WD	-	89661-0CM20	89661-0CM24	Computer, Engine Control (ECM/PCM)	-
		4WD		89661-0CM21			
		2WD	89661-0CM22				
		4WD	89661-0CM23				
	3UR-FBE	4WD	Towing	89661-0CM30	89661-0CM34		-
				89661-0CM31			
		2WD	89661-0CM32				
		4WD	89661-0CM33				
3UR-FBE	4WD	-	89661-0CM60	89661-0CM65	-		
			89661-0CM61				
	89661-0CM62						
	89661-0CM63						
3UR-FBE	4WD	Towing	89661-0CM70	89661-0CM75	-		
			89661-0CM71				
	89661-0CM72						
	89661-0CM73						
			89661-0CM74				

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Parts Information (Continued)

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*.

Calibration Information

SEQUOIA					
MODEL YEAR	ENGINE	TRANS	OPTION	CALIBRATION ID	
				PREVIOUS	NEW
2012 – 2013	3UR-FE	2WD	-	30CK2000 30CK2100 30CK2200 30CK2300	30CK2400
		4WD		30CK2001 30CK2101 30CK2201 30CK2301	30CK2401
		2WD	Towing	30CK1000 30CK1100 30CK1200 30CK1300	30CK1400
		4WD		30CK1001 30CK1101 30CK1201 30CK1301	30CK1401
	3UR-FBE	4WD	-	30CK5000 30CK5100 30CK5200 30CK5300 30CK5400	30CK5500
			Towing	30CK6000 30CK6100 30CK6200 30CK6300 30CK6400	30CK6500

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Calibration Information (Continued)

TUNDRA					
MODEL YEAR	ENGINE	TRANS	OPTION	CALIBRATION ID	
				PREVIOUS	NEW
2012 – 2013	3UR-FE	2WD	-	30CJ5000 30CJ5100 30CJ5200 30CJ5300	30CJ5400
		4WD		30CJ5001 30CJ5101 30CJ5201 30CJ5301	30CJ5401
		2WD	Towing	30CJ6000 30CJ6100 30CJ6200 30CJ6300	30CJ6400
		4WD		30CJ6001 30CJ6101 30CJ6201 30CJ6301	30CJ6401
	3UR-FBE	4WD	-	30CJ9000 30CJ9100 30CJ9200 30CJ9300 30CJ9400	30CJ9500
			Towing	30CK0000 30CK0100 30CK0200 30CK0300 30CK0400	30CK0500

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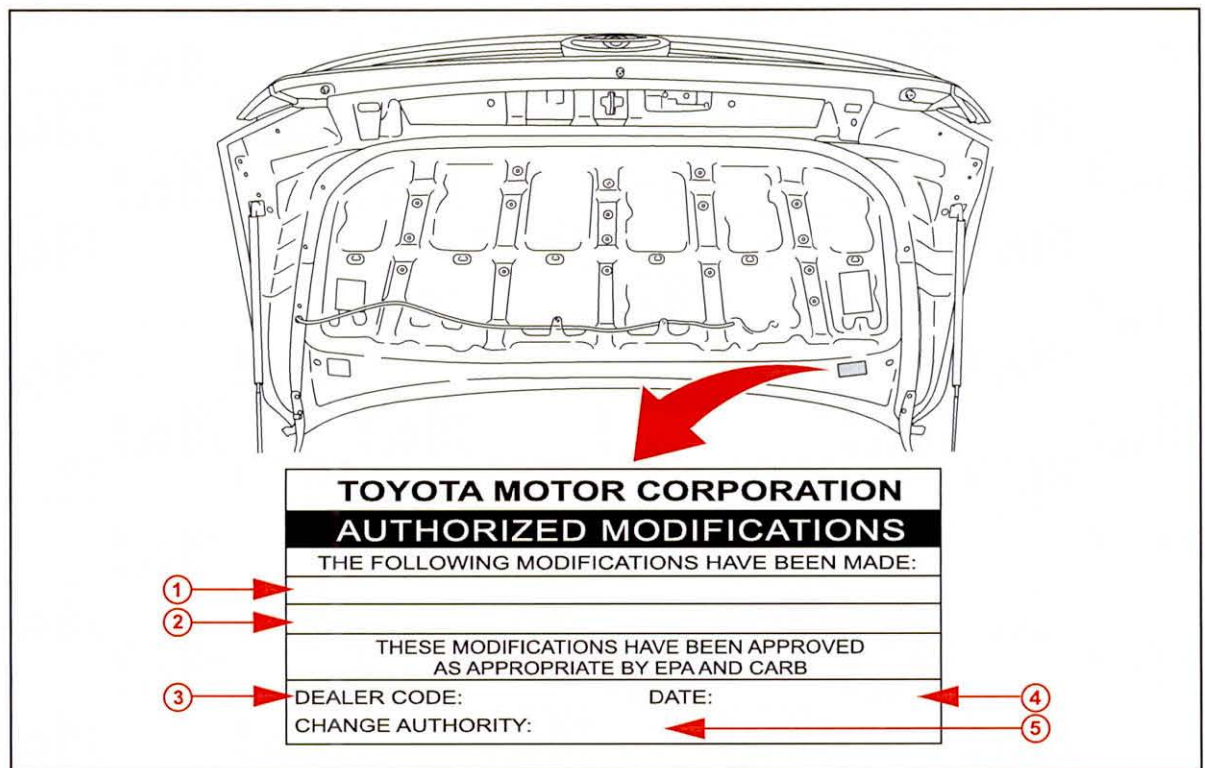
Repair Procedure

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 2012 – 2013 Sequoia and Tundra



1	Replacement ECM (PCM) Part Number (i.e., 89661-0CM94)
2	New Calibration ID(s) (i.e., 30CK2400)
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.