

MIL "ON" DTC P0401 and/or Rattle After Cold Soak

Service Category Engine/Hybrid System

Section Emission Control

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2010, 2012	Prius PHV	
2012	Prius V	
2010 - 2012	Prius	

Introduction

Some Prius, Prius V and Prius PHV vehicles may exhibit a vibration due to rough idle and/or tapping noise from the HV transaxle at cold start. The Check Engine Light may also illuminate with (DTC) P0401 (Exhaust Gas Recirculation Flow Insufficient Detected). Due to excess carbon build up at the valve assembly, the valve will stick causing the engine RPM to fluctuate. Follow the procedures in this bulletin to address this condition.

Production Change Information

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

MODEL	Engine	PRODUCTION CHANGE EFFECTIVE VIN
Prius	2ZR-FXE	JTDKN3DU#C5491168
Prius V		JTDZN3EU#C3159675
Prius PHV		JTDKN3DP#C3023590

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Warranty Information

OP CODE	DESCRIPTION	TIME	OFFP	T1	T2
EG1601	Reprogram Engine ECU R & R Exhaust Recirculation Valve Modify Wire Harness	2.4	25620-37120	8A	54

APPLICABLE WARRANTY

- This repair is covered under the Toyota Basic Warranty. This warranty is in effect for 36 months or 36,000 miles, whichever occurs first, from the vehicle's in-service date.
- For California specification Prius and Prius PHV vehicles sold, registered, and operated in Arizona ('12 MY only), California, Connecticut, Maine, Maryland (starting with '11 MY), Massachusetts, New Jersey, New Mexico ('10-'11 MY only), New York, Oregon, Rhode Island, and Vermont, the Exhaust Recirculation Valve 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 and Prius PHV vehicles sold, registered, and operated in Delaware, Pennsylvania and Washington, the Exhaust Recirculation Valve 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.
- For California specification Prius V vehicles sold, registered, and operated in Arizona ('12 MY only), California, Connecticut, Maine, Maryland, Massachusetts, New Jersey, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington, the Exhaust Recirculation Valve is covered under the California Emission Warranty. This warranty is in effect for 84 months or 70,000 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

PART NUMBER	PART NAME	QTY
04004-58137	Kit, EGR Valve (Valve Assy, EGR) (Gasket, EGR Inlet) (Gasket, EGR Pipe) (Gasket, EGR Valve)	1
25685-37010	Gasket No. 1, EGR Cooler	1
00451-00001-LBL	Authorized Modifications Label	1

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Parts Information

MODEL	MODEL YEAR	ECU PART NUMBER		PART NAME	QTY
		PREVIOUS	NEW		
Prius	2010	89660-47300 89660-47301 89660-47302 89660-47303 89660-47304 89660-47305	89660-47306	Computer, Engine Control	-
	2011	89660-47430 89660-47431 89660-47432 89660-47433 89660-47434	89660-47435		
	2012	89660-47510 89660-47511 89660-47512 89660-47513	89660-47514		
Prius V	2012	89660-47400 89660-47401 89660-47402 89660-47403 89660-47404	89660-47405		
Prius PHV	2012	89660-47590 89660-47591	89660-47592		

NOTE

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

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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 11.00.017 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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Calibration Information

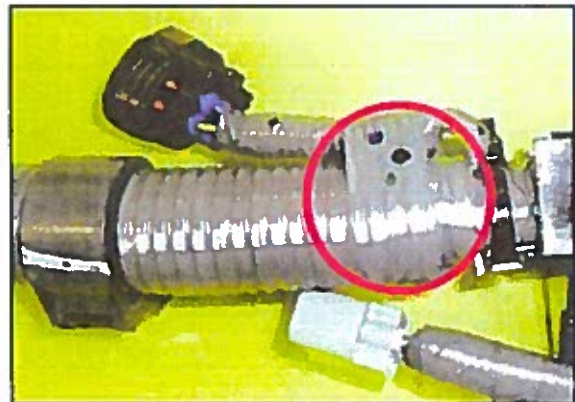
MODEL	MODEL YEAR	ECU CALIBRATION IDs	
		PREVIOUS	NEW
Prius	2010	34715000 34715100 34715200 34715300 34715400 34715500 34715600	<u>34715700</u>
	2011	34728000 34728100 34728200 34728300 34728400	<u>34728500</u>
	2012	34734000 34734100 34734200 34734300	<u>34734400</u>
Prius V	2012	34725000 34725100 34725200 34725300 34725400	<u>34725500</u>
Prius PHV		34740000 34740100	<u>34740200</u>

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Repair Procedure

1. Use Techstream to check for DTCs P0401 and confirm cold start misfire and/or rattle condition after cold soak is present as described in the introduction. If DTC's or Condition are NOT present, this bulletin does NOT apply. Continue diagnosis per Repair Manual procedures.
2. Remove and replace the Exhaust Gas Recirculation (EGR) Valve with the updated part. Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:
 - [2010 / 2011 / 2012 Prius](#):
Engine/Hybrid System – Emission Control – “2ZR-FXE Emission Control: EGR Valve: Removal”
 - [2012 Prius V](#):
Engine/Hybrid System – Emission Control – “2ZR-FXE Emission Control: EGR Valve: Removal”
 - [2010 / 2012 Prius PHV](#):
Engine/Hybrid System – Emission Control – “2ZR-FXE Emission Control: EGR Valve: Removal”
 - [2010 / 2011 / 2012 Prius](#):
Engine/Hybrid System – Emission Control – “2ZR-FXE Emission Control: EGR Valve: Installation”
 - [2012 Prius V](#):
Engine/Hybrid System – Emission Control – “2ZR-FXE Emission Control: EGR Valve: Installation”
 - [2010 / 2012 Prius PHV](#):
Engine/Hybrid System – Emission Control – “2ZR-FXE Emission Control: EGR Valve: Installation”
1. Modify the wire harness using the following procedure.
 - A. Remove the vinyl tape wrapped around the main harnesses and EGR harness.

Figure 1.

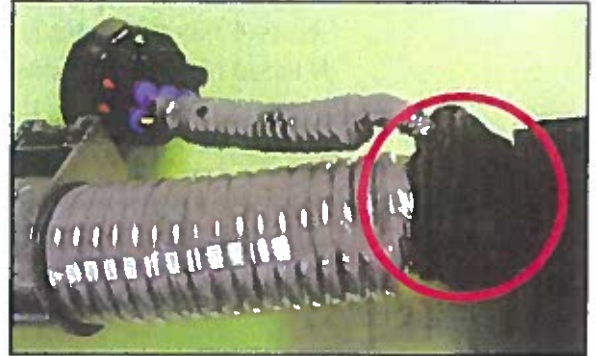


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Repair Procedure (Continued)

- A. Wrap the exposed zip tie 7 – 8 times with heat resistant vinyl tape.

Figure 3.



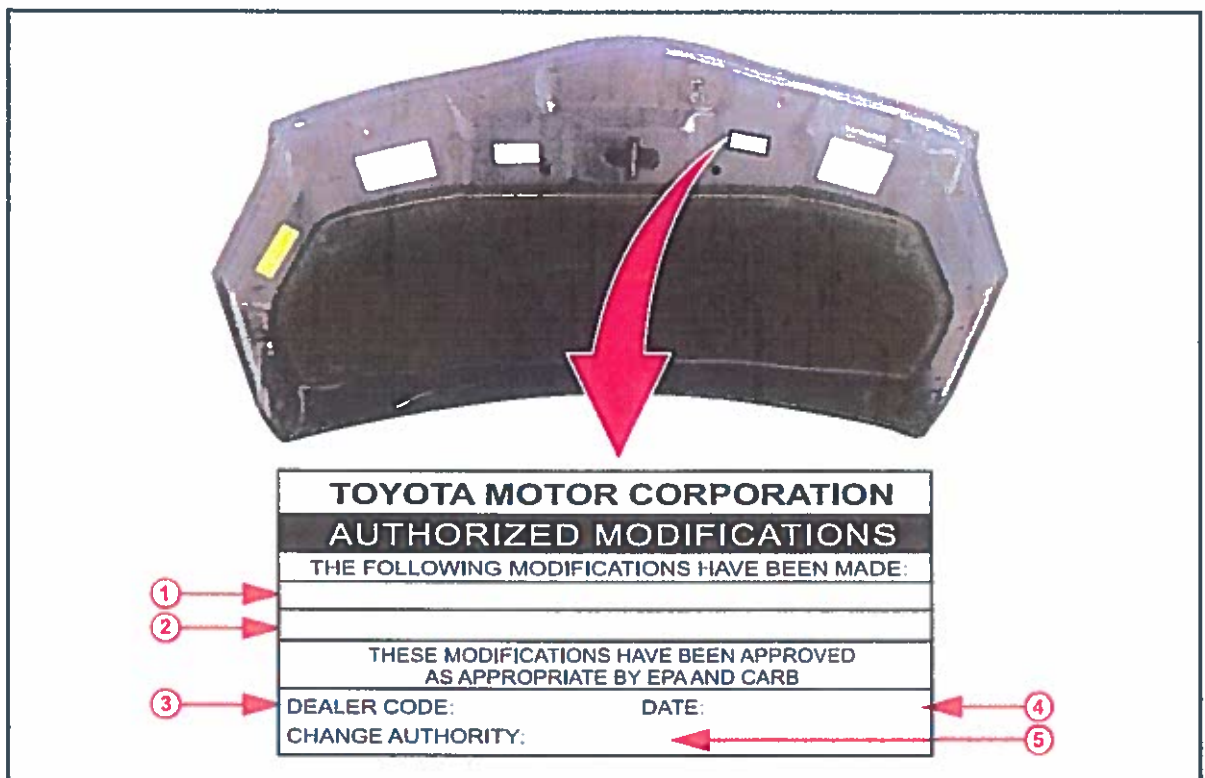
- B. Connect the EGR harness to the NEW EGR valve.

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Repair Procedure (Continued)

1. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 4 below. Confirm if the ECM (PCM) calibration has been updated. If the calibration ID listed is NOT the latest ECM (PCM) calibration — go to step 5. If the calibration ID is the latest, go to step 7.

Figure 4. Location of Authorized Modification label for 2010 - 2012 Prius and 2010, 2012 Prius PHV.



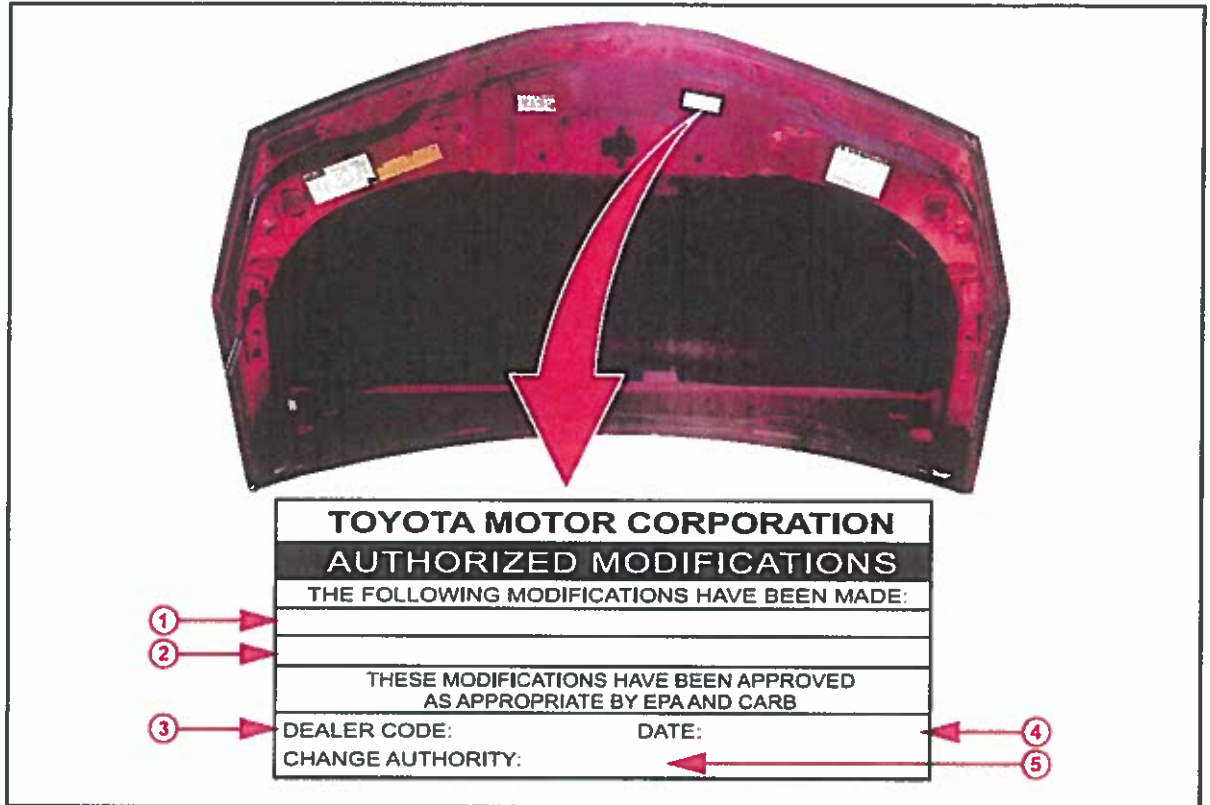
1	Replacement ECM (PCM) Part Number (i.e., 89681-76011)
2	New Calibration ID (i.e., 37601300)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (Continued)

Figure 5. Location of Authorized Modification label for 2012 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

2. 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-0085-12](#) "Techstream ECU Flash Reprogramming Procedure," and flash the ECM (PCM) with the NEW calibration file update.

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Repair Procedure (Continued)

3. 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**]*
 - Dealer Code
 - Repair Date
 - Change Authority **[This bulletin number]**
 - B. Affix the Authorized Modifications Label to the vehicle at the location shown in Figures 4 and 5. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
4. Confirm the repair.