

MIL "ON" VVT-i DTCs - Oil Control Valve (OCV)

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2005 – 2011	Avalon	
2007 – 2011	Camry, Sienna	
2008 – 2011	Highlander	
2006 – 2011	RAV4	
2009 – 2011	Venza	

TSB SUPERSESSION NOTICE

The information contained in this TSB supersedes TSB Nos. EG002-08, EG003-08, and EG004-08.

- Applicability has been updated to include 2005 – 2011 Avalon, 2007 – 2011 Sienna, and 2009 – 2011 Camry, Highlander, RAV4, and Venza vehicles.
- Warranty Information, Parts Information, and Repair Procedure have all been updated.

TSB Nos. EG002-08, EG003-08, and EG004-08 are Obsolete and any printed versions should be discarded. Be sure to review the entire content of this service bulletin before proceeding.

Introduction

Some 2005 – 2011 model year 2GR-FE equipped vehicles may exhibit a MIL "ON" condition with one or more VVT-i related Diagnostic Trouble Codes (DTCs) stored in the Engine Control Module or ECM (SAE term: Powertrain Control Module/PCM). Please use the following repair procedure to address this condition.

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Warranty Information

OP CODE	DESCRIPTION	ENGINE BANK	MODEL	TIME	OFP	T1	T2
EG1103	R & R Camshaft Timing Oil Control Valve Assembly	Bank 1	2005–2011 Avalon	1.7	153#0-##0#0	8A	54
			2007–2011 Camry	1.9			
			2008–2011 Highlander	2.6			
			2006–2011 RAV4	1.5			
			2007–2010 Sienna	1.9			
			2011 Sienna	2.5			
			2009–2011 Venza	1.7			
EG1104		Bank 2	2005–2011 Avalon	0.8			
			2007–2011 Camry	0.7			
			2008–2011 Highlander	0.8			
			2006–2011 RAV4	0.7			
			2007–2010 Sienna	0.8			
			2011 Sienna	0.8			
			2009–2011 Venza	0.7			

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.

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Parts Information

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
15330-31020 15330-0P020	15330-0P020	Cam Timing Oil Control Valve, LH, No. 1	1
15340-31020 15340-0P020	15340-0P020	Cam Timing Oil Control Valve, LH, No. 2	1
15330-31020 15330-0P020	15330-0P020	Cam Timing Oil Control Valve, RH, No. 1	1
15330-31030 15330-0P030	15330-0P030	Cam Timing Oil Control Valve, RH, No. 2	1
17176-31040 17176-0P020	17176-0P020	Gasket, Air Surge Tank to Intake Manifold	3
11214-31020 11214-0P040	11214-0P040	Gasket, Cylinder Head Cover, No. 2	1
11213-31050 11213-0P010	11213-0P010	Gasket, Cylinder Head Cover	1

NOTE

- Replace only the affected OCV based on the Repair Procedure in this bulletin.
- Air surge tank gaskets are only required for replacement of either Bank 1 OCVs.

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS Techstream* or Techstream Lite NOTE: Software version 6.01.21 or later is required.	ADE	TSPKG1 or TSLITEDLR01	1

* Essential SST.

NOTE

Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

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Repair Procedure

1. Using TIS Techstream, confirm if any of the DTCs listed below are stored, remove the affected OCV, and visually inspect the spool valve for debris or sticking in its bore.

Refer to the chart below for applicable OCV by DTC:

STORED DTC	RELATED OCV
P0011, P0012, and/or P0016	Intake OCV (Bank 1)
P0021, P0022, and/or P0018	Intake OCV (Bank 2)
P0014, P0015, and/or P0017	Exhaust OCV (Bank 1)
P0024, P0025, and/or P0019	Exhaust OCV (Bank 2)

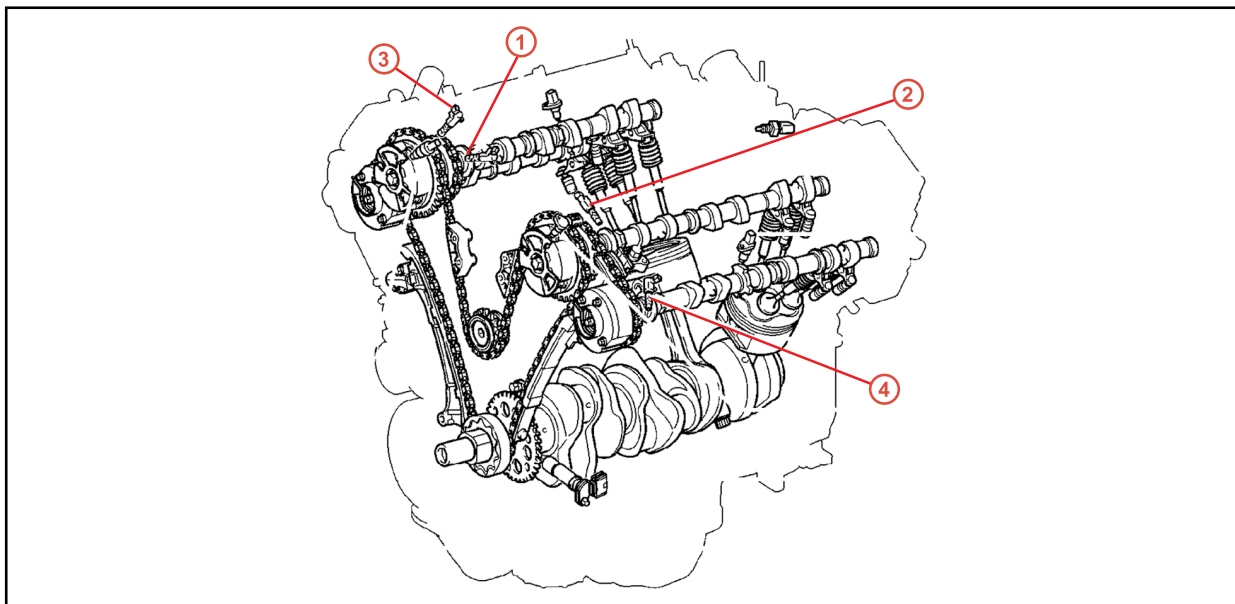
Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:

- [2005](#) Avalon:
Engine/Hybrid System – Engine Mechanical – “Partial Engine Assy (2GR-FE): Overhaul”
- [2006](#) / [2007](#) / [2008](#) / [2009](#) / [2010](#) / [2011](#) Avalon: *Engine/Hybrid System – Engine Mechanical – “2GR-FE Engine Mechanical: Engine Unit: Disassembly”*
- *Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Camshaft Timing Oil Control Valve Assembly: Removal”*
 - [2007](#) / [2008](#) / [2009](#) / [2010](#) / [2011](#) Camry
 - [2008](#) / [2009](#) / [2010](#) / [2011](#) Highlander
 - [2006](#) / [2007](#) / [2008](#) / [2009](#) / [2010](#) / [2011](#) RAV4
 - [2007](#) / [2008](#) / [2009](#) / [2010](#) / [2011](#) Sienna
 - [2009](#) / [2010](#) / [2011](#) Venza

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Repair Procedure (Continued)

Figure 1.



1	Bank 1 Intake Camshaft Timing OCV (RH)
2	Bank 2 Intake Camshaft Timing OCV (LH)

3	Bank 1 Exhaust Camshaft Timing OCV (RH)
4	Bank 2 Exhaust Camshaft Timing OCV (LH)

- If debris is present or the valve is sticking, proceed to step 3.

If no debris is present or the spool valve does not appear to be sticking, this TSB does NOT apply. Refer to Repair Manual procedures.

- Remove the valve cover from the affected bank and temporarily remove both OCVs.

NOTE

Inspect the OCV filter for any debris or damage upon removal.

Refer to TIS, applicable model and model year Repair Manual:

- [2005](#) Avalon:
Engine/Hybrid System – Engine Mechanical – “Partial Engine Assy (2GR-FE): Overhaul”
- Engine/Hybrid System – Engine Mechanical – “2GR-FE Engine Mechanical: Engine Unit: Disassembly”*
 - [2006](#) / [2007](#) / [2008](#) / [2009](#) / [2010](#) / [2011](#) Avalon
 - [2007](#) / [2008](#) / [2009](#) / [2010](#) / [2011](#) Camry
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Repair Procedure (Continued)

- [2006](#) / [2007](#) / [2008](#) / [2009](#) / [2010](#) / [2011](#) RAV4
 - [2007](#) / [2008](#) / [2009](#) / [2010](#) / [2011](#) Sienna
 - [2009](#) / [2010](#) / [2011](#) Venza
4. Clean the OCV and oil pipe union oil passages using compressed air.
5. Confirm no debris is present around the OCV mounting hole and install a **new** OCV in the affected location. Reinstall the **original** OCV in the location that was NOT affected (no DTCs stored).

Refer to TIS, applicable model and model year Repair Manual:

- [2005](#) Avalon:
Engine/Hybrid System – Engine Mechanical – “Partial Engine Assy (2GR-FE): Overhaul”
 - *Engine/Hybrid System – Engine Mechanical – “2GR-FE Engine Mechanical: Engine Unit: Reassembly”*
 - [2006](#) / [2007](#) / [2008](#) / [2009](#) / [2010](#) / [2011](#) Avalon
 - [2007](#) / [2008](#) / [2009](#) / [2010](#) / [2011](#) Camry
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 - [2009](#) / [2010](#) / [2011](#) Venza
6. Clear all DTCs, start the engine, and test drive to verify the repair.