

## 2GR-FE MIL "ON" DTC P0505

**Service Category** Engine/Hybrid System

**Section** Engine Control

**Market** USA

Toyota Supports  
 ASE Certification 

### Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2005 – 2009	Avalon	
2007 – 2010	Camry	Engine(s): 2GR VDS(s): BK3EK, BK46K
2008 – 2009	Highlander	
2006 – 2009	RAV4	Engine(s): 2GR VDS(s): BK31V, BK32V, BK33V, BK34V, BK35V, ZK31V, ZK32V, ZK33V, ZK34V, ZK35V
2007 – 2010	Sienna	
2009	Venza	Engine(s): 2GR VDS(s): BK11A, ZK11A

### Introduction

Some vehicles with 2GR-FE engines may exhibit a MIL "ON" condition with Diagnostic Trouble Code (DTC) P0505 stored in the Engine Control Module or ECM (SAE term: Powertrain Control Module/PCM). Use the following repair procedure to address customer concerns.

### Parts Information

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
22030-0P050	22030-0P050	Body Assy, Throttle w/ Motor	1
22030-31030			
22271-0P020	Same	Gasket, Throttle Body	1

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### Production Change Information

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

MODEL	PLANT	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Avalon	TMMK	2WD	4T1BK3*B*9U347317
Camry	TMMK Line 1		4T1BK3*K*AU099489
	TMMK Line 2		4T1BK3*K*AU598644
	Tsutsumi		JTNBK3*K*A3048700
Highlander	TMK	2WD	JTEDS4*A*92083133
		AWD	JTEES4*A*92133657
RAV4	Tahara	2WD	JTMZK3*V*95025473
		AWD	JTMBK3*V*95080464
	Shokki	2WD	JTMZK3*V*9D002401
		AWD	JTMBK3*V*9D007626
	TMMC	2WD	2T3ZK3*V*9W002504
		AWD	2T3BK3*V*9W006956
Sienna	TMMI	2WD	5TD*K*CC*AS291112
		AWD	5TD*K*CC*AS028446
Venza	TMMK	2WD	4T3ZK1*A*9U010559
		AWD	4T3BK1*A*9U011568

## 2GR-FE MIL "ON" DTC P0505

### Warranty Information

OP CODE	DESCRIPTION	MODEL	TIME	OFP	T1	T2
210061	R & R Throttle Body Assembly and Gasket	Avalon	1.0	22030-##0#0	8A	99
		Camry	0.7			
		Highlander	1.7			
		RAV 4	0.8			
		Sienna	0.7			
		Venza	1.7			

#### APPLICABLE WARRANTY

- This repair is covered under the Toyota Federal Emission 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 vehicles sold, registered, and operated in California, Connecticut (starting with '08 MY), Maine, Massachusetts, New Jersey (starting with '09 MY), Oregon (starting with '09 MY), Pennsylvania (starting with '08 MY), Rhode Island (starting with '08 MY), Vermont, and Washington (starting with '09 MY), this repair 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 correction of a problem based upon a customer's specific complaint.

### Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS Techstream* NOTE: Software version 4.12.001 or later is required.	ADE	TSPKG1	1

\* Essential SST.

#### NOTE

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

REQUIRED MATERIAL	PART NUMBER	QTY
Super Long Life Coolant (SLLC)	00272-SLLC2	9.5 U.S. qts (9.0 liters)

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### Repair Procedure

1. Using TIS Techstream, check for any stored DTCs.

Verify that DTC P0505 is present.

**NOTE**

**If other DTCs are present along with P0505, this TSB does NOT apply. Follow Repair Manual procedures to diagnose those DTCs.**

2. Inspect the PCV hose connections and air induction system for leaks.
3. If no concerns are found, replace the throttle body assembly.

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

- 2005 Avalon:  
[Engine/Hybrid System – Engine Control – “Throttle w/ Motor Body Assy \(2GR-FE\): Replacement”](#)
- [2006](#) / [2007](#) / [2008](#) / [2009](#) Avalon:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Removal**”*
- [2006](#) / [2007](#) / [2008](#) / [2009](#) Avalon:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Installation**”*
- [2007](#) / [2008](#) / [2009](#) / [2010](#) Camry:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Removal**”*
- [2007](#) / [2008](#) / [2009](#) / [2010](#) Camry:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Installation**”*
- [2008](#) / [2009](#) Highlander:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Removal**”*
- [2008](#) / [2009](#) Highlander:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Installation**”*
- [2006](#) / [2007](#) / [2008](#) / [2009](#) RAV4:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Removal**”*
- [2006](#) / [2007](#) / [2008](#) / [2009](#) RAV4:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Installation**”*

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### Repair Procedure (Continued)

- [2007](#) / [2008](#) / [2009](#) / [2010](#) Sienna:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Removal**”*
  - [2007](#) / [2008](#) / [2009](#) / [2010](#) Sienna:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Installation**”*
  - [2009](#) Venza:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Removal**”*
  - [2009](#) Venza:  
*Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: Throttle Body: **Installation**”*
4. Start the engine, allow it to reach normal operating temperature, and test drive to verify the repair.