

M.I.L "ON" DTC P2195, P2197, P0138, P0158, P0171, P0174, P0031, or P0051

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2005 – 2007	Avalon	
2007 – 2008	Camry	

Introduction

Some 2005 – 2007 model year Avalon and 2007 – 2008 model year Camry vehicles with 2GR-FE engines may exhibit a M.I.L. "ON" condition with one or more of the following DTCs:

- P2195 – Oxygen (A/F) Sensor Signal Stuck Lean (Bank 1 Sensor 1)
- P2197 – Oxygen (A/F) Sensor Signal Stuck Lean (Bank 2 Sensor 1)
- P0138 – Oxygen Sensor Circuit High Voltage (Bank 1 Sensor 2)
- P0158 – Oxygen Sensor Circuit High Voltage (Bank 2 Sensor 2)
- P0171 – System Too Lean (Bank 1)
- P0174 – System Too Lean (Bank 2)
- P0031 – Oxygen (A/F) Sensor Heater Control Low (Bank 1 Sensor 1)
- P0051 – Oxygen (A/F) Sensor Heater Control Circuit High (Bank 2 Sensor 1)

Use the following repair procedure to diagnose and repair customer complaint vehicles.

Production Change Information

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

MODEL	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
Avalon	TMMK	4T1BK36B#7U248585
Camry	Tsutsumi	JTNBK46K#83032940
	TMMK	4T1BK46K#7U050287 4T1BK46K#7U556275

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Warranty Information

OP CODE	DESCRIPTION	MODEL	TIME	OFP	T1	T2
EG8021	R & R A/F Sensors and Exhaust Manifold	Avalon	1.2	89467-07010 89467-07020	8A	71
EG8022		Camry	1.4			

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, Maine, Massachusetts, and Vermont, and 2008 model year vehicles in Connecticut, Pennsylvania, and Rhode Island, this repair is covered under the California Emission Warranty, which is 36 months or 50,000 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.

Parts Information

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
89467-07010 89467-33090	89467-07030	Air Fuel Ratio Sensor (LH)	1
89467-07020 89467-33130	89467-07040	Air Fuel Ratio Sensor (RH)	1
17140-0P040 17140-31160	17140-0P041	Exhaust Manifold (RH)	1
17173-0P020	Same	Gasket, Exhaust Manifold to Head	1
90080-43036	Same	Gasket, Exhaust Pipe	1

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS Techstream* NOTE: Software version 3.01.000 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.

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Required Tools & Equipment (Continued)

SPECIAL SERVICE TOOLS (SST'S)	PART NUMBER	QTY
Oxygen Sensor Socket*	09224-00010-01	1

* Essential SST.

NOTE

Additional SSTs may be ordered by calling SPX/OTC at 1-800-933-8335.

Repair Procedure

- Using TIS Techstream, check for any stored DTCs.
- If DTCs P2195, P2197, P0138, P0158, P0171, P0174, P0031, P0051 are present, replace both A/F sensors and the Bank 1 (RH) exhaust manifold.

A. Air Fuel Ratio Sensor:

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

- 2005 Avalon:
Engine/Hybrid System – Emission Control – [“Air Fuel Ratio Sensor \(2GR-FE\): Replacement”](#)
- 2006 Avalon:
Engine/Hybrid System – Emission Control – “2GR-FE Emission Control: Air Fuel Ratio Sensor: [Removal](#) and [Installation](#)”
- 2007 Avalon:
Engine/Hybrid System – Emission Control – “2GR-FE Emission Control: Air Fuel Ratio Sensor: [Removal](#) and [Installation](#)”
- 2007 Camry:
Engine/Hybrid System – Emission Control – “2GR-FE Emission Control: Air Fuel Ratio Sensor: [Removal](#) and [Installation](#)”
- 2008 Camry:
Engine/Hybrid System – Emission Control – “2GR-FE Emission Control: Air Fuel Ratio Sensor: [Removal](#) and [Installation](#)”

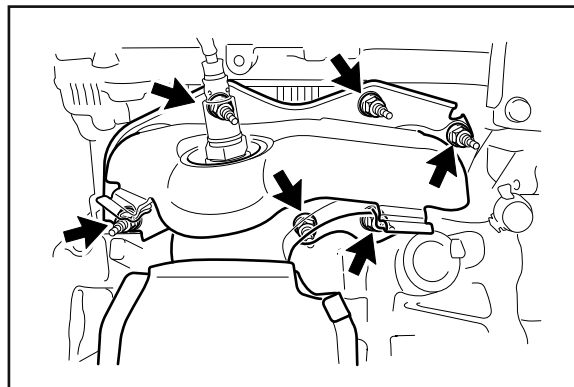
B. Bank 1 (RH) Exhaust Manifold Sub-assembly:

- Disconnect the air fuel ratio sensor connector clamp.

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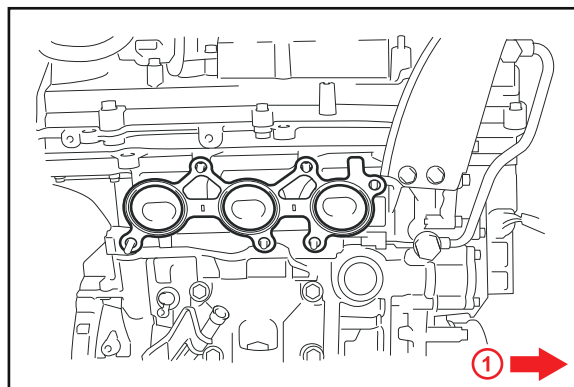
Repair Procedure (Continued)

- (2) Uniformly loosen and remove the 6 nuts. **Figure 1.**



- (3) Remove the manifold and gasket.
- (4) Install a NEW gasket as shown.

Figure 2.



1 Front of Vehicle

- (5) Install the NEW exhaust manifold sub-assembly RH with the 6 nuts and reassemble in reverse order.

Torque: 21 N*m (214 kgf*cm, 15 ft*lb)

NOTE

The revised A/F sensor is not compatible with the previous A/F sensors or previous Bank 1 (RH) exhaust manifold.

3. After the repair is complete, clear any stored DTCs and test drive to confirm the repair.