

# M.I.L. "ON" DTC P2237, P2238, P2240, or P2241

**Service Category** Engine/Hybrid System

**Section** Engine Control

**Market** USA

Toyota Supports  
 ASE Certification 

## Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2008	Avalon	
2008 – 2009	Camry	

## Introduction

Some 2008 model year Avalon and 2008 – 2009 model year Camry (2GR-FE and 2AZ-FE) vehicles may exhibit a M.I.L. "ON" condition with one of the following Diagnostic Trouble Codes (DTCs):

- P2238 – Oxygen (A/F) Sensor Pumping Current Circuit Low (Bank 1 Sensor 1)
- P2237 – Oxygen (A/F) Sensor Pumping Current Circuit / Open (Bank 1 Sensor 1)
- P2241 – Oxygen (A/F) Sensor Pumping Current Circuit Low (Bank 2 Sensor 1)
- P2240 – Oxygen (A/F) Sensor Pumping Current Circuit / Open (Bank 2 Sensor 1)

An improved engine wiring harness has been developed to address this condition. Use the following repair procedure to diagnose and repair customer complaint vehicles.

## Warranty Information

OP CODE	DESCRIPTION	MODEL	TIME	OFP	T1	T2
EL8045	R & R Engine Wiring Harness	Avalon	3.1	82121-07110 82121-07190 82121-07200 82121-07210	8A	73
		Camry (2GR-FE)	3.1	82121-33A61 82121-06781		
EL8046		Camry (2AZ-FE)	1.5	82121-33A51 82121-06761 82121-06771 82121-06751 82121-33A32 82121-33A42		

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**Warranty Information (Continued)**

**APPLICABLE WARRANTY**

- This repair is covered under the Toyota Comprehensive Warranty. This warranty is in effect for 36 months or 36,000 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.

**Production Change Information**

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

MODEL	PLANT	ENGINE	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Avalon	TMMK	2GR-FE	6 AT	4T1BK36B#8U317177
				4T1BK36B#8U313877
				4T1BK46K#9U085965
				4T1BK46K#9U588609
Camry	Tsutsumi	2AZ-FE	5AT	JTNBK46K#93042550
	TMMK			4T1BE46K#9U323954
				4T1BE46K#9U847824
				4T1BE46K#9U323320
		4T1BE46K#9U847404		
	SIA	2AZ-FE	5MT	4T1BE46K#9U323895
		2AZ-FE – SULEV		4T1BE46K#9U848018
		2AZ-FE – SULEV		4T4BE46K#9R083991
		2AZ-FE		4T4BE46K#9R083751
	Tsutsumi	2AZ-FE	5AT	JTNBE46K#93176346
		2AZ-FE – SULEV		JTNBE46K#93174364
		2AZ-FE		JTNBE46K#93178926
2AZ-FE				

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**Parts Information**

MODEL	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
Avalon	82121-07110 82121-07190 82121-07200 82121-07210	Same	Wire, Engine	1
	17176-0P020	Same	Gasket, Air Surge Tank to Intake Manifold	1
	22271-0P020	Same	Gasket, Throttle Body	1
Camry (2GR-FE)	82121-33A61 82121-06781	Same	Wire, Engine	1
	17176-0P020	Same	Gasket, Air Surge Tank to Intake Manifold	1
	22271-31040	Same	Gasket, Throttle Body	1
Camry (2AZ-FE)	82121-33A51 82121-06751 82121-06761 82121-06771 82121-33A32 82121-33A42	Same	Wire, Engine	1
	17177-0H010	Same	Gasket, Intake Manifold to Head, No.1	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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### Repair Procedure

1. Using TIS Techstream, check for stored DTCs.
2. Verify one of the following DTCs are present.
  - A. P2238 and/or P2237
  - B. P2241 and/or P2240

**NOTE**

If other A/F sensor DTCs are present along with any of the DTCs listed above, this TSB does NOT apply. Follow Repair Manual procedure to diagnose those DTCs.

3. Follow Repair Manual procedure to inspect the A/F sensor heater and Engine Room Junction Block (A/F Relay).

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

- 2008 Avalon:  
[Engine/Hybrid System – Engine Control – “2GR-FE Engine Control: SFI System: P2237: Oxygen \(A/F\) Sensor Pumping Current Circuit / Open \(Bank 1 Sensor 1\)”](#)
- Camry (2GR-FE):  
[2008 / 2009 Camry, Engine/Hybrid System – Engine Control – “2GR-FE Engine Control System: SFI System: P2237: Oxygen \(A/F\) Sensor Pumping Current Circuit / Open \(Bank 1 Sensor 1\)”](#)
- Camry (2AZ-FE):  
[2008 / 2009 Camry, Engine/Hybrid System – Engine Control – “2AZ-FE Engine Control System: SFI System: P2237: Oxygen \(A/F\) Sensor Pumping Current Circuit / Open \(Bank 1 Sensor 1\)”](#)

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### Repair Procedure (Continued)

4. If the A/F sensor heater and Engine Room Junction Block (A/F Relay) are within Repair Manual specifications, replace the engine wire harness.

**NOTE**

It is necessary to remove the intake manifold surge tank to access the engine wire harness on 2GR-FE vehicles. The intake manifold should be removed on 2AZ-FE engines.

**HINT**

On 2GR-FE engines it is NOT necessary to drain engine coolant or disconnect the water by-pass hoses from the throttle body.

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

For intake air surge tank removal:

- 2008 Avalon:  
[Engine/Hybrid System – Fuel System – “2GR-FE Fuel: Fuel Injector: Removal”](#)
- Camry (2GR-FE):  
[2008 / 2009 Camry, Engine/Hybrid System – Fuel System – “2GR-FE Fuel: Fuel Injector: Removal”](#)

For intake manifold removal (2AZ-FE Only):

- Camry (2AZ-FE):  
[2008 / 2009 Camry, Engine/Hybrid System – Engine Mechanical – “2AZ-FE Engine Mechanical: Engine Assembly: Removal”](#)

For intake air surge tank installation (2GR-FE only):

- 2008 Avalon:  
[Engine/Hybrid System – Fuel System – “2GR-FE Fuel: Fuel Injector: Installation”](#)
- Camry (2GR-FE):  
[2008 / 2009 Camry, Engine/Hybrid System – Fuel System – “2GR-FE Fuel: Fuel Injector: Installation”](#)

For intake manifold installation (2AZ-FE Only):

- Camry (2AZ-FE):  
[2008 / 2009 Camry, Engine/Hybrid System – Engine Mechanical – “2AZ-FE Engine Mechanical: Engine Assembly: Installation”](#)

5. After replacing the engine harness, clear DTCs and verify that no DTCs reset. Then warm vehicle to operating temperature and test drive to verify repair.