

M.I.L. "ON" DTC P0101, P0121, P0171, P0172, P035#, P223#

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2009	Corolla	
2009	Matrix	

Introduction

Some 2009 model year Corolla and Matrix vehicles may exhibit a M.I.L. "ON" DTC condition with one or more of the following Diagnostic Trouble Codes (DTCs):

- P0101 – Mass Air Flow Circuit Range / Performance Problem
- P0121 – Throttle / Pedal Position Sensor/Switch "A" Circuit Range/Performance Problem
- P0171 – System Too Lean
- P0172 – System Too Rich
- P035# – Ignition Coil "#" Primary / Secondary Circuit
- P2237 – Oxygen (A/F) Sensor Pumping Current Circuit / Open
- P2238 – Oxygen (A/F) Sensor Pumping Current Circuit Low
- P2239 – Oxygen (A/F) Sensor Pumping Current Circuit High

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

M.I.L. "ON" DTC P0101, P0121, P0171, P0172, P035#, P223#

Production Change Information

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

MODEL	ENGINE	DRIVETRAIN	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
Corolla	2ZR-FE	4AT	Kanto	JTDBL40E*99049026
			Takaoka	JTDBL40E*9J024830
			NUMMI	1NXBU40E*9Z085665
			TMMC	2T1BU40E*9C078544
	5MT	NUMMI	1NXBU40E*9Z077632	
		TMMC	2T1BU40E*9C081870	
	2AZ-FE	5AT	NUMMI	1NXBE40E*9Z087456
			TMMC	2T1BE40E*9C027521
		5MT	NUMMI	1NXBE40E*9Z087455
			TMMC	2T1BE40E*9C027813
Matrix	2ZR-FE	4AT	TMMC	2T1KU40E*9C079926
		5MT	TMMC	2T1KU40E*9C082539
	2AZ-FE	5AT	TMMC	2T1KE40E*9C027466
			TMMC	2T1GE40E*9C005189
		5MT	TMMC	2T1KE40E*9C027813
			TMMC	2T1GE40E*9C005269
	4AT (4WD)	TMMC	2T1LE40E*9C010650	

Warranty Information

OP CODE	DESCRIPTION	ENGINE	TIME	OFF	T1	T2
EL8061	R & R Engine Wire Harness	2AZ-FE	2.3	82121-#####	8A	73
EL8062		2ZR-FE	1.8			

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.

M.I.L. "ON" DTC P0101, P0121, P0171, P0172, P035#, P223#

Parts Information

MODEL	ENGINE/ DRIVETRAIN	PLANT	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
Corolla	2ZR-FE (4AT)	Japan (Takaoka/ Kanto)	82121-12J20	Same	Wire, Engine	1
Corolla & Matrix	2ZR-FE (5MT)	NAP (NUMMI/ TMMC)	82121-02M40	Same		1
	2ZR-FE (4AT)		82121-02M50	Same		1
	2AZ-FE (5MT)		82121-02M60	Same		1
	2AZ-FE (5AT)		82121-02M70	Same		1
Matrix	2AZ-FE (4AT) 4WD		82121-01130	Same		1

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS Techstream* NOTE: Software version 4.00.017 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.

M.I.L. "ON" DTC P0101, P0121, P0171, P0172, P035#, P223#

Repair Procedure

1. Using TIS Techstream, check for stored DTCs.
2. Verify one or more of the following DTCs is present:

- | | | |
|---------|---------|---------|
| • P0101 | • P0351 | • P2237 |
| • P0121 | • P0352 | • P2238 |
| • P0171 | • P0353 | • P2239 |
| • P0172 | • P0354 | |

NOTE

If other DTCs are present along with any of the DTCs listed above, this TSB does NOT apply. Follow Repair Manual procedures to diagnose other DTCs first.

3. Follow Repair Manual procedure to inspect the suspect circuit/component.

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

P0101:

- 2009 Corolla:
Engine/Hybrid System – Engine Control – [“2AZ-FE / 2ZR-FE Engine Control System: SFI System: P0101: Mass Air Flow Circuit Range / Performance Problem”](#)
- 2009 Matrix:
Engine/Hybrid System – Engine Control – [“2AZ-FE / 2ZR-FE Engine Control System: SFI System: P0101: Mass Air Flow Circuit Range / Performance Problem”](#)

P0121:

- 2009 Corolla:
Engine/Hybrid System – Engine Control – [“2AZ-FE / 2ZR-FE Engine Control System: SFI System: P0121: Throttle / Pedal Position Sensor / Switch A Circuit Range / Performance Problem”](#)
- 2009 Matrix:
Engine/Hybrid System – Engine Control – [“2AZ-FE / 2ZR-FE Engine Control System: SFI System: P0121: Throttle / Pedal Position Sensor / Switch A Circuit Range / Performance Problem”](#)

M.I.L. "ON" DTC P0101, P0121, P0171, P0172, P035#, P223#

Repair Procedure (Continued)

P0171/P0172:

- 2009 Corolla:
Engine/Hybrid System – Engine Control – [“2AZ-FE / 2ZR-FE Engine Control System: SFI System: P0171, P0172: System Too Lean \(Bank 1\)”](#)
- 2009 Matrix:
Engine/Hybrid System – Engine Control – [“2AZ-FE / 2ZR-FE Engine Control System: SFI System: P0171, P0172: System Too Lean \(Bank 1\)”](#)

P0351/P0352/P0353/P0354:

- 2009 Corolla:
Engine/Hybrid System – Engine Control – [“2AZ-FE / 2ZR-FE Engine Control System: SFI System: P0351-P0354: Ignition Coil "A" Primary / Secondary Circuit”](#)
- 2009 Matrix:
Engine/Hybrid System – Engine Control – [“2AZ-FE / 2ZR-FE Engine Control System: SFI System: P0351-P0354: Ignition Coil "A" Primary / Secondary Circuit”](#)

P2237/P2238/P2239:

- 2009 Corolla:
Engine/Hybrid System – Engine Control – [“2AZ-FE / 2ZR-FE Engine Control System: SFI System: P2237-P2239,P2252,P2253: Oxygen \(A/F\) Sensor Pumping Current Circuit / Open \(Bank 1 Sensor 1\)”](#)
- 2009 Matrix:
Engine/Hybrid System – Engine Control – [“2AZ-FE / 2ZR-FE Engine Control System: SFI System: P2237-P2239,P2252,P2253: Oxygen \(A/F\) Sensor Pumping Current Circuit / Open \(Bank 1 Sensor 1\)”](#)

4. If the DTC related circuits and components are within Repair Manual specifications, replace the engine wire harness.
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.