



Technical Service BULLETIN

September 20, 2007

Title:

M.I.L. "ON" DTC P0601, P0606, AND/OR P0607 OR ENGINE "NO START" CONDITION

Models:

'05 – '07 Corolla & Matrix (1ZZ-FE)

ENGINE
EG042-07
REVISED

TSB REVISION NOTICE:

- October 18, 2007: TSB No. EG018-05 and EG049-06 have been added to the TSB Update Notice as obsolete TSBs.

Previous versions of this TSB should be discarded.

TSB UPDATE NOTICE:

The information contained in this TSB supersedes TSB No. EG018-05, EG049-06, and EG024-07. TSB No. EG018-05, EG049-06, and EG024-07 are now obsolete and should be discarded.

Introduction Some 2005 – 2007 model year Corolla and Matrix vehicles equipped with a 1ZZ-FE engine may exhibit one or both of the following conditions:

- Engine cranks, but will NOT start
- Diagnostic Trouble Codes (DTCs) P0601, P0606, and/or p0607 stored in the Engine Control Module or ECM (SAE term: Powertrain Control Module/PCM)

Please use the following procedure to repair the vehicle.

Applicable Vehicles

- 2005 – 2007** model year **Corolla** and **Matrix (2WD)** vehicles equipped with the **1ZZ-FE engine** and produced **BEFORE** the Production Change Effective VINs shown below.

Production Change Information

MODEL	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
Corolla	Takaoka	JTDBR3#E#70136498
	NUMMI	1NXBR3#E#7Z923238
	TMMC	2T1BR3#E#7C844178
Matrix		2T1KR3#E#7C679298

Warranty Information

OP CODE	DESCRIPTION	MODEL	TIME	OFF	T1	T2
EG7035	R & R Engine Control Computer (ECM)	Corolla	0.4	89661-0####	01	99
		Matrix	0.5			

Applicable Warranty*:

This repair is covered under the Toyota Federal Emissions Warranty. This warranty is in effect for 96 months or 80,000 miles, whichever occurs first, from the vehicle's in-service date.


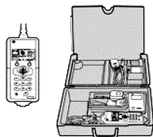
* Warranty application is limited to correction of a problem based upon a customer's specific complaint.



Parts Information

MODEL	TRANS	PREVIOUS PART NUMBER			CURRENT PART NUMBER	PART NAME	QTY
		2005 MY	2006 MY	2007 MY			
Corolla	A/T	89661-02C0#	89661-02C9#	89661-02K10	89661-02K11	Computer, Engine Control (ECM/PCM)	1
		89661-02C1#	89661-02D0#	89661-02K20	89661-02K21		1
Matrix		89661-0112#	89661-02D4#	89661-02K30	89661-02K31		1
		89661-0113#	89661-02D5#	89661-02K40	89661-02K41		1
Corolla & Matrix	M/T	89661-0Z04#	89661-02D1#	89661-02K50	89661-02K51	1	

Required Tools & Equipment

REQUIRED EQUIPMENT	PART NUMBER	QTY	DRW**
TIS Techstream* NOTE: Software version 2.11.004 or later is required. 	TSUNT	1	N/A
Digital Battery System Analyzer* NOTE: • All components from this kit/set are required. 	00002-V8150-KIT	1	19

* Essential SSTs.

** Drawer number in SST Storage System.

NOTE:

- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- The Toyota Diagnostic Tester and CAN Interface Module may also be used to perform the service procedures listed in this bulletin.

Inspection Procedure A

If the vehicle is currently exhibiting a "no start" condition, refer to the Technical Information System (TIS) for the diagnostic procedure.

- 2005 model year Corolla or Matrix Repair Manual: *Engine/Hybrid System – Engine Control – "SFI System (1ZZ-FE): Basic Inspection"*.
- 2006 or 2007 model year Corolla or Matrix Repair Manual: *Engine/Hybrid System – Engine Control – "1ZZ-FE Engine Control System: SFI System: Basic Inspection"*.

NOTE:

When the "no start" condition is related to the ECM (PCM) issue, there will be NO spark or injector pulse during cranking. Also, TIS Techstream may fail to initialize with the engine ECM (PCM).

- Inspection Procedure B** If the vehicle is currently exhibiting a M.I.L. "ON" with DTC P0601, P0606, and/or P0607 set with the ECM (PCM) in fail–safe mode, refer to TIS:
- 2005 model year Corolla or Matrix Repair Manual, *Engine/Hybrid System – Engine Control – "SFI System (1ZZ–FE): P0601, P0604, P0606, P0607, P0657 Actuator Supply Voltage Circuit/open"*
 - 2006 or 2007 model year Corolla or Matrix Repair Manual, *Engine/Hybrid System – Engine Control – "1ZZ–FE Engine Control System: SFI System: P0601: Internal Control Module Memory Check Sum Error"*
 - 2006 or 2007 model year Corolla or Matrix Repair Manual, *Engine/Hybrid System – Engine Control – "1ZZ–FE Engine Control System: SFI System: P0606: ECM / PCM Processor"*
 - 2006 or 2007 model year Corolla or Matrix Repair Manual, *Engine/Hybrid System – Engine Control – "1ZZ–FE Engine Control System: SFI System: P0607: Control Module Performance"*

NOTE:

Prior to condemning the ECM (PCM), confirm NO problems exist with the following circuits/components:

- Tail and stop light bulb operation.
- Secure connection at connector R9 (Rear Combination Light LH).
- Secure connection at connector R11 (Rear Combination Light RH).
- Improper installation and/or operation of a trailer towing wire harness kit.
- Sensor operation and circuit integrity for all 5V reference circuits:
VC, IGF, THA, THW, VTA1, VTA2, VPA1, VPA2, VCPA, VCP2, PPMP

If a problem is diagnosed with any of the above components/circuits, repair the condition and confirm if the DTC(s) resets. ECM replacement may not be necessary.

If NO other problems are found, replace the ECM (PCM).

Repair Procedure

1. Replace the ECM (PCM).

Refer to TIS:

- 2005 model year Corolla or Matrix Repair Manual, *Engine/Hybrid System – Engine Control – "ECM (1ZZ–FE/2ZZ–GE): Replacement"*.
- 2006 or 2007 model year Corolla or Matrix Repair Manual, *Engine/Hybrid System – Engine Control – "1ZZ–FE Engine Control System: ECM Removal"*.
- 2006 or 2007 model year Corolla or Matrix Repair Manual, *Engine/Hybrid System – Engine Control – "1ZZ–FE Engine Control System: ECM Installation"*.

2. Register the VIN into the replacement ECM (PCM).

Refer to the Technical Information System (TIS):

- 2005 model year Corolla or Matrix Repair Manual, *Engine/Hybrid System – Engine Control – "SFI System (1ZZ–FE/2ZZ–GE): Registration"*.
- 2006 or 2007 model year Corolla or Matrix Repair Manual, *Engine/Hybrid System – Engine Control – "1ZZ–FE Engine Control System: SFI System: Registration"*.

3. Confirm the repair.