



**Technical Service  
BULLETIN**

September 20, 2007

Title:

**HARSH SHIFT AND M.I.L. "ON"  
DTC P2716**

Models:

'05 – '07 Corolla & Matrix (1ZZ-FE)

TRANSMISSION & CLUTCH  
TC015-07

**TSB UPDATE NOTICE:**

The information contained in this TSB supercedes TSB No. TC014-06.  
TSB No. TC014-06 is now obsolete and should be discarded.

**Introduction** Some 2005 – 2007 model year Corolla and Matrix vehicles equipped with an automatic transaxle may exhibit a harsh shift condition and a M.I.L. "ON" with DTC P2716 stored. Improvements have been made to the Engine Control Module (ECM) (SAE term: Powertrain Control Module/PCM) to reduce the possibility of this condition occurring. 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.

**Warranty Information**

OP CODE	DESCRIPTION	MODEL	TIME	OFP	T1	T2
895011	R & R Engine Control Module (ECM/PCM)	Corolla	0.4	89661-#####	8A	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 YEAR	MODEL	TRANS	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
2005, 2006, 2007	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

**Required Tools & Equipment**

SPECIAL SERVICE TOOLS (SSTs)	SUPPLIER	PART NUMBER	QTY
<b>TIS Techstream*</b> NOTE: Software version 2.11.004 or later is required. 	ADE	TSUNT	1

\* Essential SSTs.

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

**Inspection Procedure**

If the vehicle is currently exhibiting a harsh shift condition and M.I.L. "ON" with DTC P2716 stored, refer to the Technical Information System (TIS) and follow the diagnostic procedures below.

- 2005 model year Corolla Repair Manual, *Drivetrain – Automatic Transmission/Transaxle – “Electronic Controlled Automatic Transaxle [ECT]: P2716 Pressure Control Solenoid ‘D’ Electrical”*
- 2006 or 2007 model year Corolla Repair Manual, *Drivetrain – Automatic Transmission/Transaxle – “A245E Automatic Transaxle: Automatic Transaxle System: P2716: Pressure Control Solenoid ‘D’ Electrical (Shift Solenoid Valve SLT)”*
- 2005 model year Matrix Repair Manual, *Drivetrain – Automatic Transmission/Transaxle – “A246E: Electronic Controlled Automatic Transaxle [ECT]: P2716 Pressure Control Solenoid ‘D’ Electrical”*
- 2006 or 2007 model year Matrix Repair Manual, *Drivetrain – Automatic Transmission/Transaxle – “A246E Automatic Transaxle: Automatic Transaxle System: P2716: Pressure Control Solenoid ‘D’ Electrical (Shift Solenoid Valve SLT)”*

**Repair  
Procedure**

1. Replace the ECM (PCM).

Refer to TIS:

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

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

Refer to TIS:

- 2005 model year Corolla or Matrix Repair Manual, *Engine/Hybrid System – Engine Control – “1ZZ–FE: SFI System: 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. Test drive the vehicle to confirm the repair.