



# Technical Service BULLETIN

September 15, 2006

Title:

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

Models:

'05 Corolla & Matrix (1ZZ-FE)

TRANSMISSION & CLUTCH  
TC014-06

**Introduction** Some 2005 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) manufacturing process to reduce the possibility of this condition occurring. Use the following procedure to repair the vehicle.

- Applicable Vehicles**
- 2005 model year **Corolla** and **Matrix (2WD)** vehicles equipped with the **1ZZ-FE engine**.

### Parts Information

MODEL	TRANS	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
Corolla	A/T	89661-02C0#	89661-02C92	Computer, Engine Control (ECM/PCM)	1
		89661-02C1#	89661-02D02		1
Matrix		89661-0112#	89661-02D42		1
		89661-0113#	89661-02D52		1

### Required Tools & Material

TOOLS & MATERIAL	QUANTITY
Metric Socket Set and Hand Tools	As Needed

### Warranty Information

OP CODE	DESCRIPTION	MODEL	TIME	OFP	T1	T2
895011	R & R Engine Control Module (ECM/PCM)	Corolla	0.4	89661-02C0# 89661-02C1# 89661-0112# 89661-0113#	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.



**Required SSTs**

ITEM NO.	SPECIAL SERVICE TOOLS (SSTs)	PART NUMBER	QTY	DRW**
1	<p><b>Toyota Diagnostic Tester Kit*</b></p>  <p>NOTE:</p> <ul style="list-style-type: none"> <li>All components from this kit/set are required.</li> <li>12 Megabyte Diagnostic Tester Program Card (P/N 01002593-005) with version 13.4a Software (or later) is required.</li> </ul>	TOY220036	1	9
2	<p><b>CAN Interface Module Kit*</b></p>  <p>NOTE:</p> <ul style="list-style-type: none"> <li>All components from this kit/set are required.</li> </ul>	01002744	1	9

\* Essential SSTs.

\*\* Drawer number in SST Storage System.

**NOTE:**

**Additional Diagnostic Tester Kits, CAN Interface Modules, Program Cards, or other SSTs may be ordered by calling SPX/OTC at 1-800-933-8335.**

**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), 2005 model year Repair Manual:
  - Corolla: *Diagnostics: Electronic Controlled Automatic Transaxle (ECT): P2716 Pressure Control Solenoid 'D' Electrical*
  - Matrix: *Diagnostics: Electronic Controlled Automatic Transaxle (ECT)(A246e): P2716 Pressure Control Solenoid 'D' Electrical*
- If the vehicle exhibits the above condition, replace the ECM (PCM).

**Repair Procedure**

- Replace the ECM (PCM).  
Refer to TIS, 2005 model year Corolla or Matrix Repair Manual:  
*Engine Control System: ECM (1ZZ-FE/2ZZ-GE): Replacement.*
- Register the VIN into the replacement ECM (PCM).  
Refer to TIS, 2005 model year Repair Manual:
  - Corolla: *Diagnostics: SFI System (1ZZ-FE): Registration.*
  - Matrix: *Diagnostics: SFI System (1ZZ-FE(FF)): Registration.*
- Perform the ECU Communication ID Registration.  
Refer to TIS, 2005 model year Corolla or Matrix Repair Manual:  
*Theft Deterrent & Door Lock: Engine Immobilizer System: Registration.*