

M.I.L. "ON" DTC P2714 with Transmission Performance DTCs

Service Category Vehicle Interior

Section Meter/Gauge/Display

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2008	Tundra	Body Type(s): Double CabCrew Max, Regular Cab, Drive Type(s): 4WD, 2WD Plant Code(s): S, X Transmission(s): 6AT VDS(s): BV541, BV581, CV541, DV541, DV581, EV541, EV581, JV521, KV521, LV521, MV521, RV541, RV581, SV541 WMI(s): 5TB, 5TF

Introduction

Some customers may complain about a M.I.L. "ON" condition with DTC P2714 (Pressure Control Solenoid "D" Performance – Shift Solenoid SLT) combined with other transmission performance DTCs such as P0751, P0756, P0761, P0766, P0729, P0781, P0894, P2757, or P0776 with abnormal transmission shifting. Replacement of the transmission and installation of revised Engine Control Module/ECM (SAE term: Powertrain Control Module/PCM) software logic may be required to repair the vehicle. Follow the repair procedure below to address customer concerns.

NOTE

Confirm correct fluid level **BEFORE** ordering parts or reprogramming the ECM (PCM) since incorrect fluid level can also cause these DTCs.

Warranty Information

OP CODE	DESCRIPTION	TIME		OFP	T1	T2
TC8005	R & R Transmission Assembly	2WD	7.2	35000-0C###	8A	99
TC8006		4WD	7.8			
Combo A	Recalibrate ECM (PCM) Engine	0.5		89661-#####	26	

APPLICABLE WARRANTY

- This repair is covered under the Toyota Powertrain Warranty. This warranty is in effect for 60 months or 60,000 miles, whichever occurs first, from the vehicles in-service date.
- Warranty application is limited to correction of a problem based upon a customers specific complaint.

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Production Change Information

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

PLANT	DRIVETRAIN	WHEELBASE	CAB TYPE (BED LENGTH)	PRODUCTION CHANGE EFFECTIVE VIN
TMMI	2WD	3700 (145.7)	Double Cab (Standard), CrewMax, Regular Cab (8-ft)	5TB*V5#1*8S477507
	4WD			5TB*V5#1*8S500970
TMMTX	2WD	3220 (126.8)	Regular Cab (Standard)	5TF*V521*8X002650
		3700 (145.7)	Double Cab (Standard), CrewMax, Regular Cab (8-ft)	5TF*V5*1*8X044466
		4180 (164.6)	Double Cab (8-ft)	5TFSV541*8X005152
	4WD	3220 (126.8)	Regular Cab (Standard)	5TF*V521*8X002670
		3700 (145.7)	Double Cab (Standard), CrewMax, Regular Cab (8-ft)	5TF*V5#1*8X044869
		4180 (164.6)	Double Cab (8-ft)	5TFCV541*8X006119

* Wheel base dimensions shown in mm (in.).

NOTE

The production plant can be identified by the first 3 digits and the 11th digit of the VIN:

- 5TB = TMMI
- S as 11th digit = TMMI
- 5TF = TMMTX
- X as 11th digit = TMMTX

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Parts Information

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	MODEL DETAIL	QTY
N/A	89661-0CB81	ECM (PCM)	2WD w/o Tow Package	—
N/A	89661-0CB91		2WD w/ Tow Package	—
N/A	89661-0CC01		4WD w/o Tow Package	—
N/A	89661-0CC11		4WD w/ Tow Package	—
N/A	00451-00001-LBL	Authorized Modifications Label	—	1
00289-ATFWS	Same	ATF WS	—	As needed
N/A	35000-0C250	Transmission Assembly	2WD w/ Tow Package	1
	35000-0C260		2WD w/o Tow Package	1
N/A	35000-0C270		4WD w/ Tow Package	1
	35000-0C280		4WD w/o Tow Package	1

NOTE

- The ECM (PCM) should NOT be replaced as part of the repair procedure.
- Authorized Modification Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through Dealer Daily Dealer Support Materials System, or by calling the MDC at 1-800-622-2033.

Calibration Information

MODEL	ENGINE	DRIVETRAIN	TOW PACKAGE	PREVIOUS CALIBRATION ID	NEW CALIBRATION ID
Tundra	3UR-FE	2WD	Yes	30C83000	30C83100
			No	30C82000	30C82100
	5.7 L V8	4WD	Yes	30C85000	30C85100
			No	30C84000	30C84100

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Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS techstream* NOTE: Software version 3.00.021 or later is required.	ADE	TSUNT	1

* Essential SST.

NOTE

- Additional TIS techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- The Diagnostic Tester is NOT recommended for flash reprogramming with this calibration file. Please use TIS techstream or an approved J2534 interface to perform this update. Visit techinfo.toyota.com for more information regarding J2534 reprogramming.



SPECIAL SERVICE TOOLS (SST'S)	PART NUMBER	QTY
GR8 Battery Diagnostic Station*	00002MCGR8	1
Transmission Fill System*	000021110002	1

* Essential SST.

NOTE

- Additional SSTs may be ordered by calling SPX/OTC at 1-800-933-8335.
- The GR8 Battery Diagnostic Station (P/N 00002-MCGR8) supersedes the Automatic Trickle Charger (P/N 00002-YA122-01) and Fast Battery Chargers (Associated P/N ASE6003 and Christie P/N CAPPDQ). P/N 00002-YA122-01, ASE6003, and CAPPDQ are now obsolete.

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Repair Procedure

1. Check the transmission for evidence of fluid leakage.
2. Check the transmission fluid level.

Refer to the Technical Information System (TIS), 2008 model year Tundra Repair Manual:

Drivetrain – Automatic Transmission/Transaxle – ["AB60E/AB60F Automatic Transmission: Automatic Transmission Fluid: Adjustment"](#)

NOTE

Incorrectly adjusted fluid level can cause transmission shifting issues and M.I.L. "ON" conditions.

Is the transmission fluid level correct?

- **YES — Go to step 3.**
 - **NO —** Adjust fluid level to correct level then repeat step 2 to confirm correct fluid level.
3. Does the transmission fluid smell burnt or have a gritty feel from contaminants?

NOTE

It is normal for WS transmission fluid to change from a clear red color when new to an opaque brown color with use.

- **YES — Go to step 5.**
 - **NO — Go to step 4.**
4. Clear DTCs and test drive the vehicle.
 - A. Does the M.I.L. ON reoccur with DTC P2714 or other transmission performance DTCs resetting?

NOTE

DTC P2714 and most transmission performance DTCs are two-trip detection logic DTCs. For more information on two-trip detection, refer to Techstream Help.

- B. Does the transmission display any transmission shifting issues?
 - **YES to A or B — Go to step 5.**
 - **NO to A and B —** Continue test driving the vehicle and try to duplicate the M.I.L. ON or abnormal transmission shifting. **If unable to duplicate complaint, return the vehicle to the customer with NO repairs attempted.**

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Repair Procedure (Continued)

5. Replace the transmission.

Refer to TIS, 2008 model year Tundra Repair Manual:

Drivetrain – Automatic Transmission/Transaxle – [“AB60E/AB60F Automatic Transmission: Automatic Transmission Assembly: Removal”](#)

Drivetrain – Automatic Transmission/Transaxle – [“AB60E/AB60F Automatic Transmission: Automatic Transmission Assembly: Installation”](#)

6. Check the transmission fluid level.

Refer to TIS, 2008 model year Tundra Repair Manual:

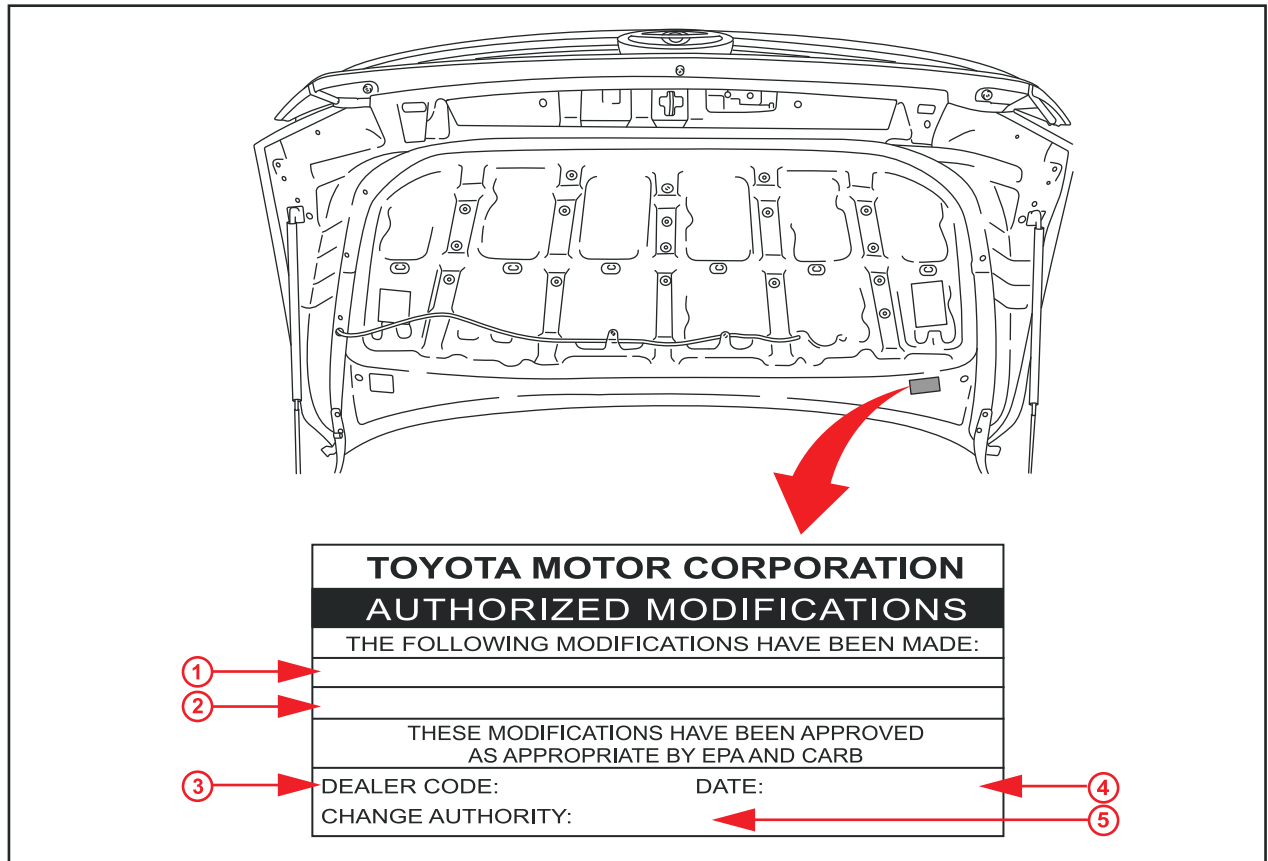
Drivetrain – Automatic Transmission/Transaxle – [“AB60E/AB60F Automatic Transmission: Automatic Transmission Fluid: Adjustment”](#)

7. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 1. Confirm if the ECM (PCM) calibration has been updated. If the calibration ID listed is NOT the latest ECM (PCM) calibration — go to step 8.

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Repair Procedure (Continued)

Figure 1. Location of Authorized Modifications Label on 2008 Tundra



1	Replacement ECM (PCM) Part Number (i.e., 89661-0CB91)
2	New Calibration ID(s) (i.e., 30C83100)
3	Dealer Code

4	Date Completed
5	This TSB Number

8. Flash Reprogram the ECM (PCM).

NOTE

- The GR8 Battery Diagnostic Station **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5 volts while flash reprogramming the vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the [GR8 Instruction Manual](#) located on the Technical Information System (TIS), *Diagnostics Battery*.

Follow the procedures outlined in TSB No. [SS002-07](#), "Techstream ECU Flash Reprogramming Procedure", and flash the ECM (PCM) with the NEW calibration file update.

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Repair Procedure (Continued)

9. Start the engine and warm it up to normal operating temperature before test driving.
10. Test drive the vehicle to confirm proper vehicle operation.
11. Install the Authorized Modifications Label.
 - A. Using a permanent marker, enter the following information on the label:
 - ECM part number [Refer to the **Parts Information** section for the **CURRENT PART NUMBER**]
 - Calibration ID(s) [Refer to the **Calibration Identification Chart** for the **NEW CALIBRATION ID**]
 - Dealer Code
 - Repair Date
 - Change Authority [**This TSB number**]
 - B. Affix the Authorized Modifications Label to the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.