

Diversified Environmental Catalysts



Tech-Note

The following Toyota factory bulletin refers to codes P0171 and P0174, lean conditions on either or both banks, but this raises cause for concern when diagnosing catalytic converter codes as well. This bulletin is acknowledging there may be a problem with the Intake Air Control Valves on 2004 Camry, Sienna and Solara vehicles with 3.3L (3MZ-FE) engines.

The same procedure prescribed in this factory publication should be performed before replacing any catalytic converter on one of the affected vehicles. The reason is that this potential vacuum leak may be causing higher than acceptable fuel trims, even if not high enough to set the P0171/P0174 codes which generally appear with fuel trims in excess of 25%. False catalyst codes will often be set when combined fuel trims on either bank approach or exceed 10%. This is because the exhaust gas contains too much oxygen and not enough CO to react with the precious metals on the catalytic converter substrate. In these cases, the substrate may not get to operating temperature, or may cool down during the drive cycle. This will allow the exhaust gas to pass both upstream and downstream O2 sensors “unchanged”, triggering a catalyst code (P0420/P0430). While it is true the catalytic converter was not operating, it would have likely been the fault of the exhaust mixture entering the converter, not the catalyst itself. Correct the mixture and the offending catalytic converter code(s) would very likely disappear as well.

Please see the bulletin below



Technical Service BULLETIN

August 4, 2004

Title:

M.I.L. "ON" DTC P0171 AND/OR P0174: ENGINE RUNNING LEAN

Models:

'04 Camry, Sienna & Solara (3MZ-FE)

ENGINE
EG029-04

Introduction Some 2004 model year Camry, Sienna and Solara (3MZ-FE) vehicles may exhibit a M.I.L. "ON" condition with one or both of the following Diagnostic Trouble Codes stored as a result of a vacuum leak in the Intake Air Control Valve.

- P0171 (System Too Lean [Bank 1])
- P0174 (System Too Lean [Bank 2])

Applicable Vehicles

- **2004** model year **Camry, Sienna and Solara** vehicles (**3MZ-FE engine only**) produced **BEFORE** the Production Change Effective VINs shown below.

Production Change Information

MODEL	PLANT	PRODUCTION CHANGE EFFECTIVE VIN
Camry	TMMK Line 1	4T1BA3#K*4U502118
	TMMK Line 2	4T1BA3#K*4U017745
Solara	TMMK	4T1CA3#P*4U017744

MODEL	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Sienna	2WD	5TDZA2#C*4S112604
	AWD	5TDBA2#C*4S013366

Parts Information

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
17320-20020 17320-0A010	17320-0A010	Intake Air Control Valve No. 2	1
17127-20010	Same	Surge Tank Cover Gasket	1

Warranty Information




OP CODE	DESCRIPTION	TIME	OFF	T1	T2
EG4011	R & R Intake Air Control Valve Assembly No. 2	0.5	17320-20020 17320-0A010	8A	57

Applicable Warranty*:
 This repair is covered under the Toyota Federal Emissions Warranty. This warranty is in effect for 36 months or 36,000 miles, whichever occurs first, from the vehicle's in-service date.
 For California specification vehicles registered and operated in California, Maine, Massachusetts or Vermont, this repair is covered under the California Emissions Warranty, which is in effect for 36 months or 50,000 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

SPECIAL SERVICE TOOLS (SSTs)	PART NUMBER	QUANTITY
Toyota Diagnostic Tester Kit* 	01001271	1
CAN Interface Module Kit* 	01002744	1
12 Megabyte Diagnostic Tester Program Card with version 10.2a Software (or later)* 	01002593-005	1

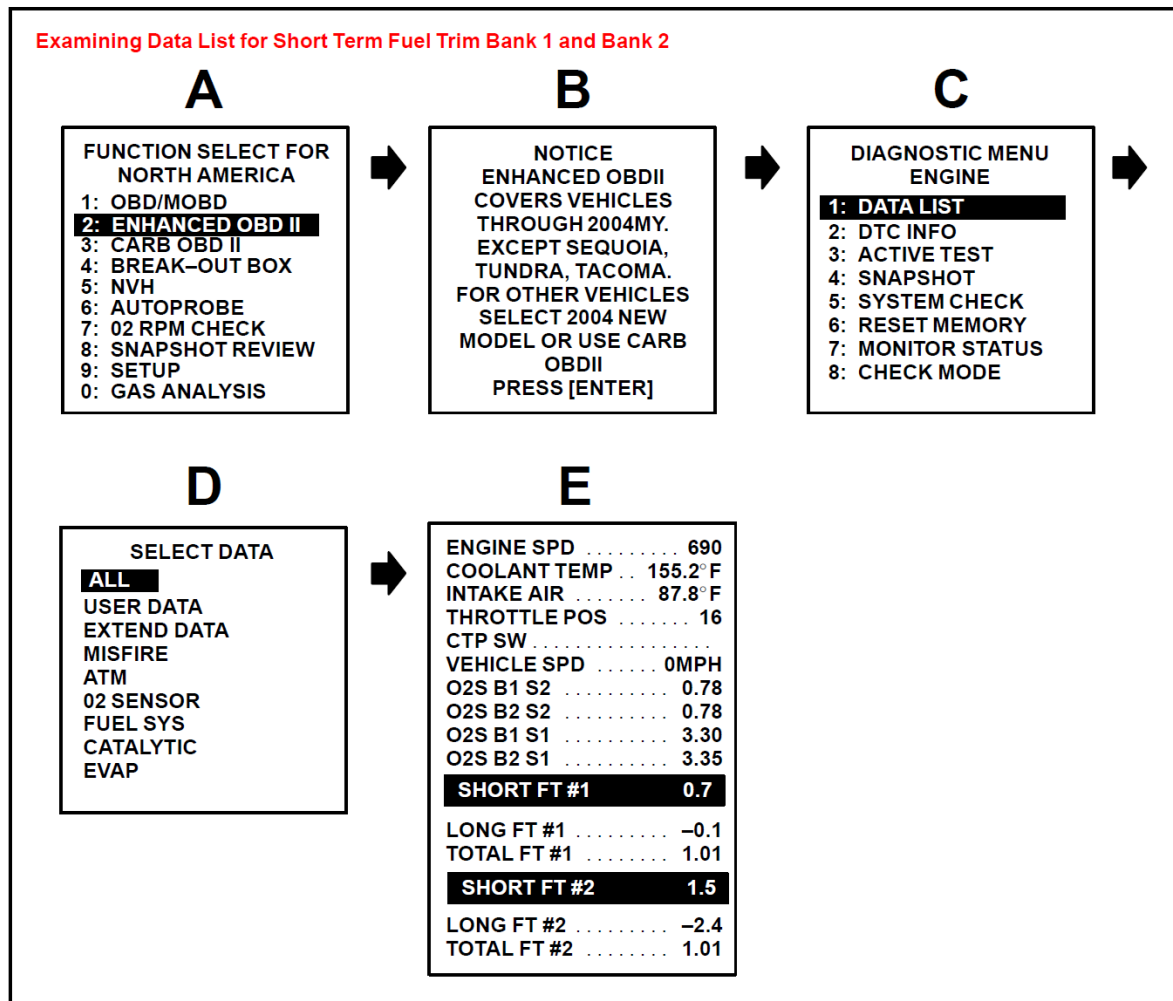
* Essential SSTs.

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.

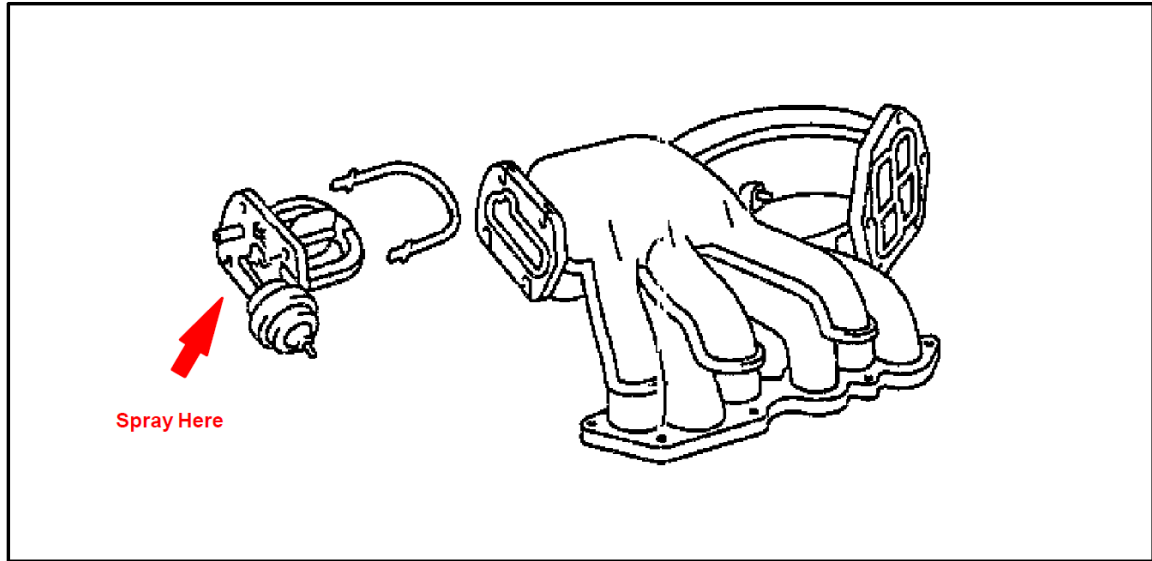
Repair Procedure

1. Monitor the Bank 1 and Bank 2 Short Term Fuel Trim in the Data List.



**Repair
Procedure**
(Continued)

2. Spray carburetor cleaner near the Intake Air Control Valve pivot shaft and monitor Short Term Fuel Trim as indicated in step 1.



3. Was the short term fuel trim changing to a rich reading, or negative fuel trim in step 2?

If Yes – Replace the Intake Air Control Valve. Refer to the Technical Information System (TIS), 2004 model year applicable model Repair Manual: *Intake: Intake Air Control Valve Assy No. 2 (3MZ-FE): Replacement.*

After the Intake Air Control Valve has been replaced, proceed to step 4.

If NO – Check for other vacuum leaks or lean running conditions per Technical Information System (TIS), 2004 model year applicable model Repair Manual: *Diagnostics: SFI System (3MZ-FE): P0171, P0172, P0174, P0175 System Too Lean.*

4. Is the short term fuel trim now in the negative percent? Is the long term fuel trim returning closer to 0%?

If Yes – Clear short and long term fuel trims by disconnecting the negative battery cable for 90 seconds. Reconnect the negative battery cable and test drive the vehicle.

After the test drive, proceed to step 5.

If NO – Continue diagnosis for lean running conditions per TIS, 2004 model year applicable model Repair Manual: *Diagnostics: SFI System (3MZ-FE): P0171, P0172, P0174, P0175 System Too Lean.*

5. Confirm lean running condition has been eliminated (short term and long term fuel trims on All Data List are less than $\pm 3\%$ on both banks).