

MIL "ON" - Fuel in EVAP System

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2006 – 2010	RAV4	

Introduction

Some 2006 – 2010 model year RAV4 vehicles may exhibit one or more of the following conditions due to fuel in the EVAP system:

- MIL "ON" with the following DTCs stored: P043E, P043F, P2401, P2401, and P2419
- Intermittent rough idle when at operating temperature

Follow the repair procedure in this bulletin to address this condition.

Warranty Information

OP CODE	DESCRIPTION	ENGINE	TIME	OFF	T1	T2
EG9028	R & R Fuel Tank & Charcoal Canister	2AR-FE 2AZ-FE	2.4	77001-4218# 77001-0R010	08	13
		2GR-FE	2.3			
Combo A	R & R Canister Filter Assembly	–	0.1			

APPLICABLE WARRANTY

- This repair is covered under the Toyota Federal Emission 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 sold, registered, and operated in California, Connecticut (starting with '08 MY), Maine, Massachusetts, New Jersey (starting with '09 MY), Oregon (starting with '09 MY), Pennsylvania (starting with '08 MY), Rhode Island (starting with '08 MY), Vermont, and Washington (starting with '09 MY), this repair is covered under the California Emission Warranty. This warranty is in effect for 84 months or 70,000 miles, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

MIL "ON" - Fuel in EVAP System

Production Change Information

This TSB applies to all 2006 – 2009 RAV4, all 2010 TMMC-built RAV4, and to 2010 RAV4 vehicles produced **BEFORE** the Production Change Effective VINs shown below.

MODEL YEAR	MODEL	PLANT	DRIVETRAIN	ENGINE	PRODUCTION CHANGE EFFECTIVE VIN
2010	RAV4	Tahara	2WD	2GR-FE	JTM#K#DV#A5026699
				2AR-FE	JTM#F#DV#A5020610
			4WD	2GR-FE	JTM#K#DV#A5089319
				2AR-FE	JTM#F#DV#A5024215
		Shokki	2WD	2GR-FE	JTM#K#DV#AD003793
				2AR-FE	JTM#F#DV#AD022346
			4WD	2GR-FE	JTM#K#DV#AD013248
				2AR-FE	JTM#F#DV#AD029820

Parts Information

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
77001-0R010	77001-42182	Tank Assembly, Fuel	1
77001-42180			
77001-42181			
N/A	77169-52010	Gasket, Fuel Suction Tube Set	1
77740-42090	77740-0R010	Canister Assembly, Charcoal*	1
77740-0R010			1
77706-42010	77706-0R011	Filter Sub-assembly, Charcoal Canister*	1
77706-0R010			
N/A	77641-0R020	Protector, Fuel Tank*	1
N/A	90467-07201	Clip*	1

* Replace ONLY if necessary — Refer to the Repair Procedure.

NOTE

When replacing the filter sub-assembly with the current part number (77706-0R011), it may be necessary to install an additional protector (77641-0R020). For more details, refer to [T-SB-0098-09](#), "M.I.L. 'ON' DTC P043E, P043F, P2401, P2402, and P2419".

MIL "ON" - Fuel in EVAP System

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
TIS Techstream* NOTE: Software version 4.21.002 or later is required.	ADE	TSPKG1	1

* Essential SST.

NOTE

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

Repair Procedure

- Using TIS Techstream, check for DTCs P043E, P043F, P2401, P2401, and P2419.
 - If one or more of the above DTCs are present — Proceed to step 3.
 - If NO DTCs are stored in memory — Proceed to step 2.
- Active test the Purge VSV using Techstream with the engine running at idle:
Powertrain > Engine and ECT > Active Test > Activate the VSV for Evap Control
With the VSV cycled ON did the vehicle run rough or nearly stall?
 - Yes** — Proceed to step 3.
 - No** — This TSB does NOT apply, continue diagnostics per the Repair Manual.
- Check for fuel in the EVAP system by disconnecting the fuel tank vent hose from the charcoal canister refueling valve.
Is fuel present in the fuel tank vent hose?
 - Yes** — Proceed to step 4.
 - No** — This TSB does NOT apply, continue diagnostics per the Repair Manual.

MIL "ON" - Fuel in EVAP System

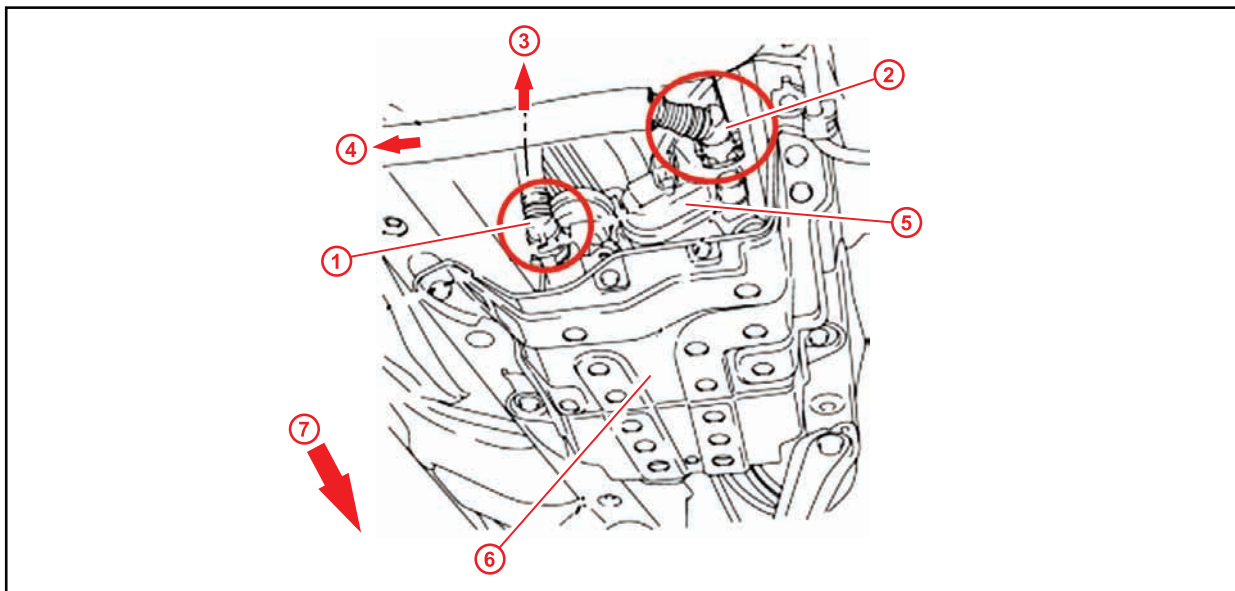
Repair Procedure (Continued)

4. Disconnect the EVAP vent hose from the key-off pump module.

Is fuel present in the EVAP vent hose?

- **Yes** — Proceed to step 5.
- **No** — Proceed to step 6.

Figure 1.



1	Fuel Tank Vent Hose at Charcoal Canister Refueling Valve
2	EVAP Vent Hose
3	Fuel Tank
4	Air Filter Case

5	Key-off Pump Module
6	Charcoal Canister
7	Front of Vehicle

5. If fuel is present in the EVAP vent hose, replace the following components:

- Fuel tank assembly
- Charcoal canister assembly
- Charcoal canister filter assembly
- Remove and discard the No. 2 fuel tank protector
- Install the fuel tank protector (refer to [T-SB-0098-09](#), "M.I.L. 'ON' DTC P043E, P043F, P2401, P2402, and P2419". for details).

MIL "ON" - Fuel in EVAP System

Repair Procedure (Continued)

6. If NO fuel is present in the EVAP vent hose, replace the following components:

- Fuel tank assembly
- Charcoal canister assembly

7. Confirm the repair:

- Clear all DTCs.
- Run the Automatic EVAP System check and verify NO pending DTCs set.

System Select > Engine and ECT > Utility > EVAP System Check

NOTE

If the Automatic EVAP System Check fails to run, perform the following:

- Turn the ignition key OFF.
- Turn TIS Techstream OFF.
- Turn the ignition key ON and TIS Techstream ON and restart the Automatic EVAP System Check.