

P0442: EVAPORATIVE EMISSION CONTROL SYSTEM LEAK DETECTED (SMALL LEAK)

OVERVIEW

Severity	:	Medium
DIY Difficulty Level	:	Intermediate
Repair Cost	:	\$200-\$600
Can I Still Drive?	:	Yes

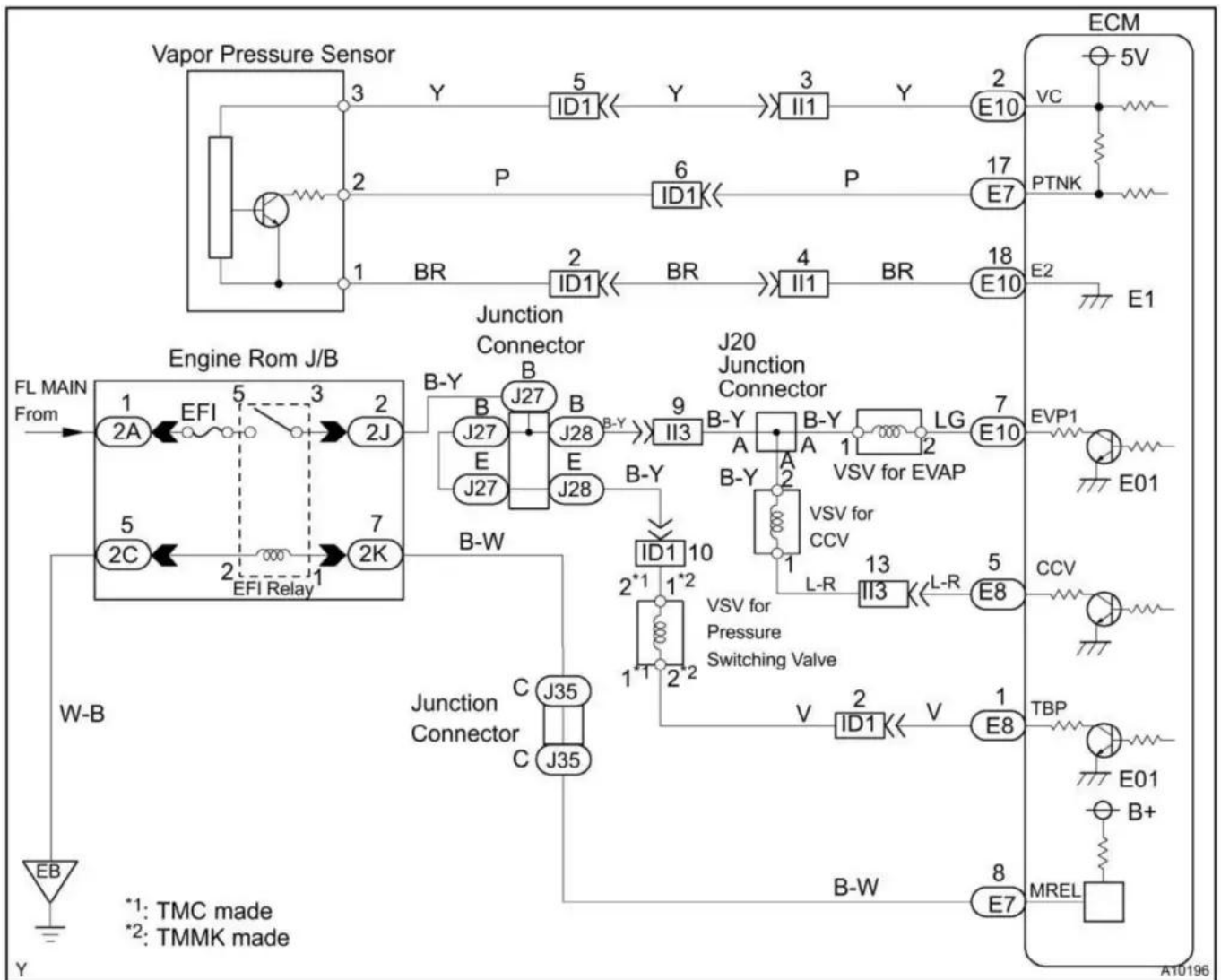
What Does The P0442 Code Mean?

The vehicle's PCM (powertrain control module) tests the evaporative emissions (EVAP) system for large and small leaks among other conditions. In the case of this DTC, it indicates a fuel vapor leak in the EVAP control system. It means a very small leak has been detected.

In fact, the leak can be from a hole as small as 0.04" in diameter. The (EVAP) emission control system prevents the escape of fuel vapors from a vehicle's fuel system.

Fuel vapors are routed by hoses to a charcoal canister for storage.

Later, when the engine is running a purge control valve opens allowing intake vacuum to siphon the fuel vapors into the engine to be burned. That results in decreased vehicle emissions.



P0442 wiring diagram

What Are The Symptoms Of The P0442 Code?

The only thing you will notice is the Malfunction Indicator Lamp (MIL) a.k.a. Check Engine Light will be illuminated. You likely won't notice any drivability problems although sometimes a fuel odor may be noticed.

What Are The Potential Causes Of The P0442 Code?

A code P0442 most likely means one or more of the following has happened:

- A loose or improperly affixed gas cap
- A non-conforming gas cap (i.e. not factory/original brand)
- A small leak/hole in a fuel vapor hose/tube
- Other small leak in EVAP system

- Faulty vent o-ring seal
- Defective vent valve
- Defective purge valve
- Defective leak detection pump

How Can You Fix The P0442 Code?

With a P0442, the most common DIY repair is to:

- Remove and reinstall the gas cap, clear the codes, and drive for a day and see if the codes come back.
- Otherwise, replace the gas cap (we recommend an OEM original part, not aftermarket part), or
- Visually inspect the EVAP system for cuts/holes in tubes/hoses

More advanced troubleshooting steps include:

- Using an advanced scan tool, perform an EVAP leak test
- Verify operation of the EVAP purge solenoid / valve
- Perform a smoke test to see where the leak is

Generally there are vehicle and model specific procedures for proper diagnosis of this DTC.

Other EVAP DTCs: [P0440](#)– [P0441](#)–[P0443](#)– [P0444](#)– [P0445](#)– [P0446](#)– [P0447](#)– [P0448](#)– [P0449](#)– [P0452](#)– [P0453](#)– [P0455](#)– [P0456](#)

Reference Sources

[Diagnostic Trouble Code \(DTC\) Charts and Descriptions for P0442](#) - Page 70.