P0453: EVAPORATIVE EMISSIONS CONTROL SYSTEM PRESSURE SENSOR HIGH INPUT

OVERVIEW

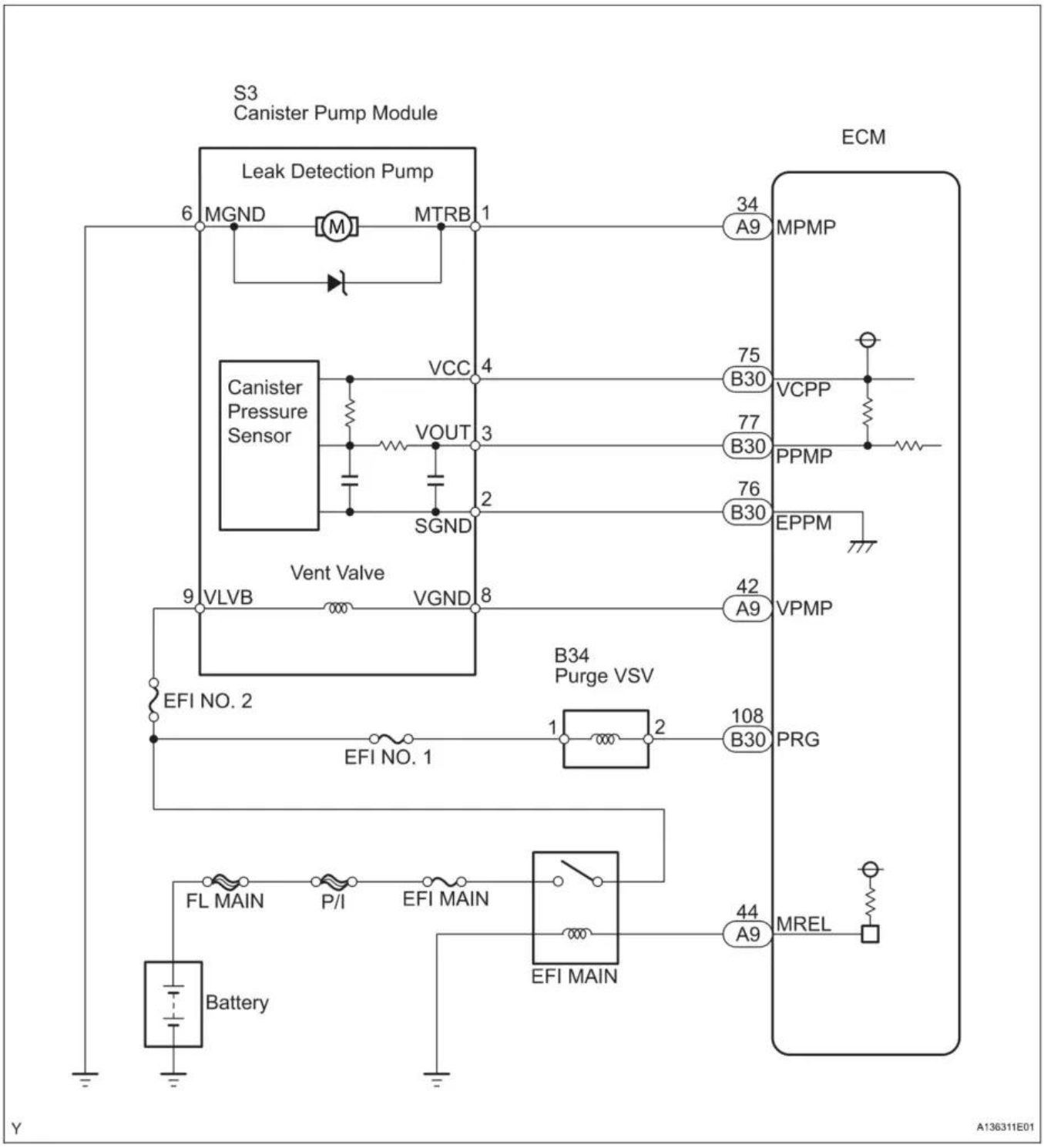
Severity	:	Medium
DIY Difficulty Level	:	Intermediate
Repair Cost	:	**$200-$353**
Can I Still Drive?	:	**Yes**

What Does The P0453 Code Mean?

The EVAP (Evaporative Emissions) System allows fuel tank vapors to be purged into the engine and burnt rather than expelled into the atmosphere as harmful emissions. The EVAP system contains a pressure sensor to check the integrity of the system.

Periodically, the EVAP system performs a pressure test to check that there are no leaks in the system. It uses this sensor, also known as a fuel tank pressure (FTP) sensorto check for leaks. Basically P0453 means the PCM (Powertrain Control Module) noticed the EVAP Pressure sensor or FTP is indicating a higher than normal pressure (above 4.5 Volts) in the EVAP system.

NOTE: On some vehicles the FTP is a part of the fuel pump assembly in the tank.



P0453 wiring diagram

Related evaporative emission trouble codes include P0450, P0451, P0452, P0454, P0455, P0456, P0457, P0458, and P0459.

What Are The Symptoms Of The P0453 Code?

There will likely be no noticeable symptoms along with this code other than the MIL (Malfunction Indicator Lamp), commonly known as Check Engine Light illumination. However, there may be noticeable fuel odors in some cases.

What Are The Potential Causes Of The P0453 Code?

A P0453 DTC trouble code may be caused by one or more of the following:

- Open on FTP sensorsignal wire
- Short to voltage on FTP sensorsignal wire
- Bad FTP sensor
- Abnormally high pressure in fuel tank due to blockage in EVAP purge hoses or overfilled tank
- Loose/damaged FTP sensor/connector
- Loss of ground to the sensor

How Can You Fix The P0453 Code?

Using an scan tool access FTP sensorvalue with Key on Engine off (KOEO). Normal value is usually somewhere near 2.5 Volts at atmospheric pressure (may fluctuate some due to altitude). It shouldn't ever be above 4.5 Volts.

1) If it is close to 2.7V with the gas cap off, the problem is likely intermittent. Using a Digital Volt Ohm Meter, measure the voltage on the signal wire while trying to induce the problem by wiggle testing all the wiring at the FTP sensor. If the voltage fluctuates when wiggle testing, check for connector problems; i.e. water in the connector, broken or chafed wiring.

2) If the value shown on the scan tool is above 4.5V, unplug the sensor (if possible) and check for voltage again. If the high voltage is still present when unplugged, inspect wiring harness for a short to voltage on the signal wire. If the high voltage disappears when unplugging the sensor, check for a good ground to the sensor and proper reference voltage. If you have a good ground and 5 Volts reference voltage, replace the FTP sensor since it's likely shorted out.

Reference Sources

Diagnostic Trouble Code (DTC) Charts and Descriptions for P0453 - Page 72.