

DTC	P0450	Evaporative Emission Control System Pressure Sensor Malfunction
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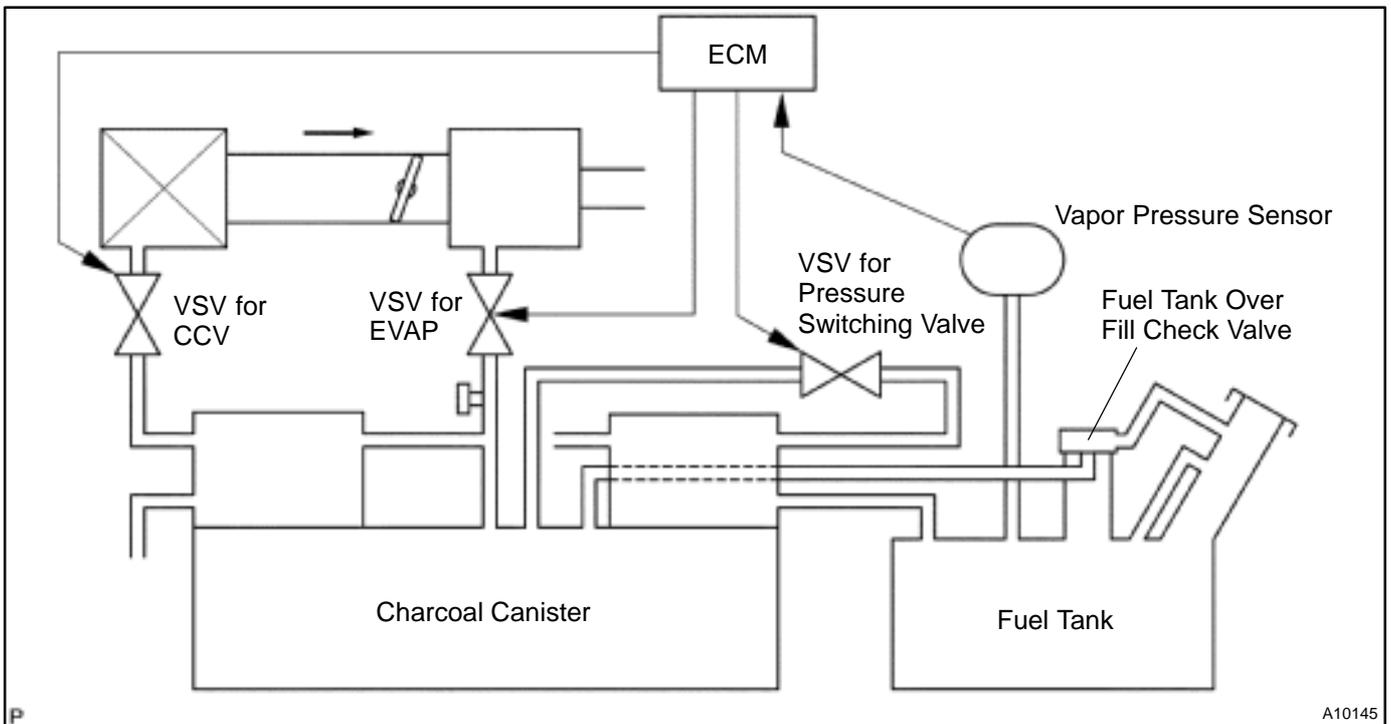
DTC	P0451	Evaporative Emission Control System Pressure Sensor Range/Performance
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CIRCUIT DESCRIPTION

The vapor pressure sensor, VSV for canister closed valve (CCV) and VSV for pressure switching valve are used to detect abnormalities in the evaporative emission control system.

The ECM decides whether there is an abnormality in the evaporative emission control system based on the vapor pressure sensor signal.

DTC P0450 or P0451 is recorded by the ECM when the vapor pressure sensor malfunctions.



DTC No.	DTC Detection Condition	Trouble Area
P0450	10 seconds or less after engine starting condition (a) or (b) continues for 7 seconds or more: (2 trip detection logic) (a) Vapor pressure sensor value < -4.0 kPa (-30 mmHg, -1.2 in.Hg) (b) Vapor pressure sensor value ≥ 2.0 kPa (15 mmHg, 0.6 in.Hg)	<ul style="list-style-type: none"> • Open or short in vapor pressure sensor circuit • Vapor pressure sensor • ECM
P0451	Vapor pressure sensor output extremely changes under conditions of (a) or (b): (2 trip detection logic) (a) Vehicle speed: 0 km/h (0mph), Engine speed: Idling and VSV for pressure switching valve is OFF (b) High vapor pressure sensor	<ul style="list-style-type: none"> • Open or short in vapor pressure sensor circuit • Vapor pressure sensor • ECM

WIRING DIAGRAM

Refer to DTC P0440 on page [DI-78](#).

INSPECTION PROCEDURE

HINT:

- If DTC P0441, P0446, P0450 or P0451 is output after DTC P0440, first troubleshoot DTC P0441, P0446 P0450 or P0451. If no malfunction is detected, troubleshoot DTC P0440 next.
- Read freeze frame data using TOYOTA hand-held tester or OBD II scan tool. Because freeze frame records the engine conditions when the malfunction is detected. When troubleshooting, it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, the air-fuel ratio was lean or rich, etc. at the time of the malfunction.
- When the ENGINE RUN TIME in the freeze frame data is less than 200 seconds, carefully check the VSV for EVAP, charcoal canister and vapor pressure sensor.

1	Check voltage between terminals VC and E2 of ECM connector (See page DI-78).
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Check and replace ECM (See page [IN-28](#)).

OK

2	Check voltage between terminals PTNK and E2 of ECM connectors (See page DI-78).
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OK

Check and replace ECM (See page [IN-28](#)).

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3	Check for open and short in harness and connector between vapor pressure sensor and ECM (See page IN-28).
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Repair or replace harness or connector.

OK

Replace vapor pressure sensor.