

DTC	P0451	Evaporative Emission Control System Pressure Sensor/Switch Range/Performance
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DTC	P0452	Evaporative Emission Control System Pressure Sensor/Switch Low Input
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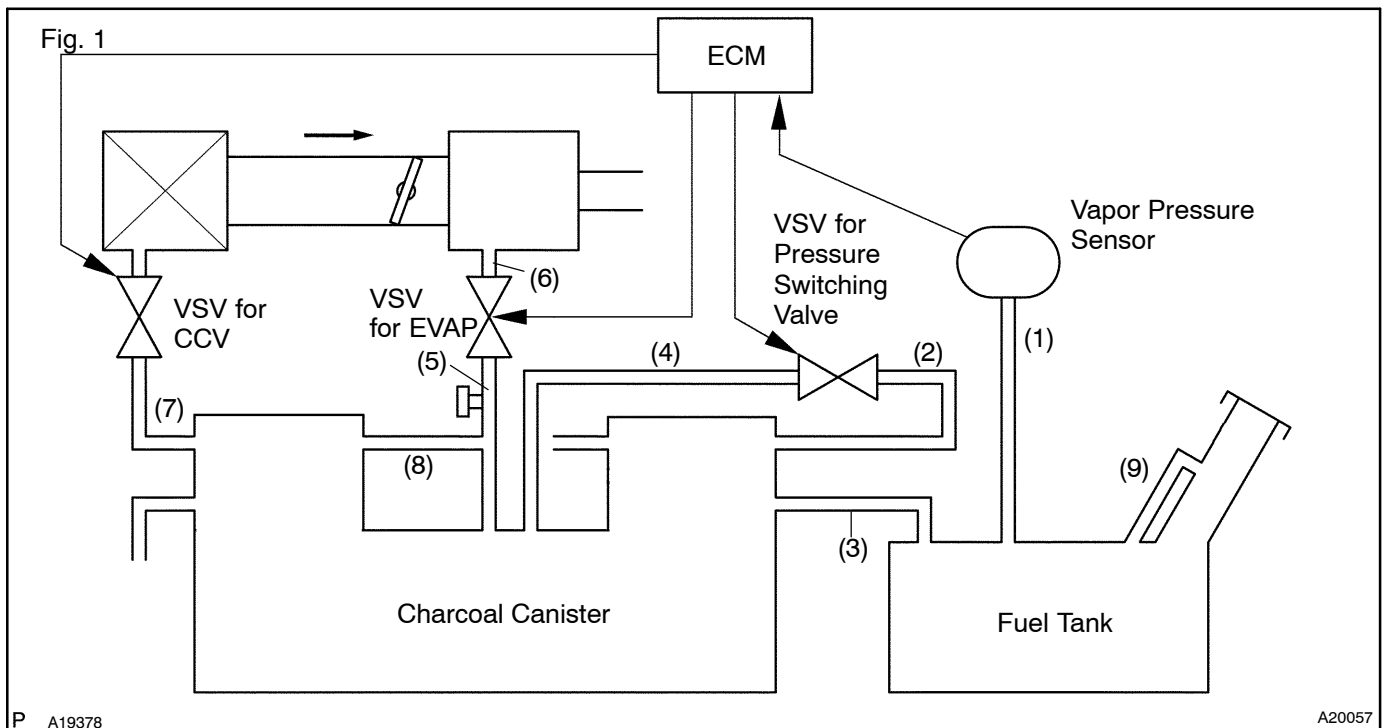
DTC	P0453	Evaporative Emission Control System Pressure Sensor/Switch High Input
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CIRCUIT DESCRIPTION

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 P0451, P0452 or P0453 is recorded by the ECM when the vapor pressure sensor malfunction.



DTC No.	DTC Detecting Condition	Trouble Area
P0451	Vapor pressure sensor output extremely changes under conditions of (a) and (b): (2 trip detection logic) (a) Vehicle speed: 0 km/h (0mph), Engine speed: Idling and VSV for pressure switching valve is OFF (b) Vapor pressure sensor value $\geq$ opening pressure valve of charcoal canister	• Open or short in vapor pressure sensor circuit • Vapor pressure sensor • ECM
P0452	10 seconds or less after engine starting condition vapor pressure sensor fixed value continues for fixed value or less: (2 trip detection logic)	
P0453	10 seconds or less after engine starting condition vapor pressure sensor fixed value continues for fixed value or more: (2 trip detection logic)	

WIRING DIAGRAM

Refer to DTC P0441 and P0446 on page [DI-128](#).

INSPECTION PROCEDURE

HINT:

- If DTC P0441 (Purge flow), P0446 (VSV for CCV for pressure switching valve), P0451 (Evaporative pressure sensor), P0452 (Evaporative pressure sensor low input), or P0453 (Evaporative pressure sensor low input) is output after DTC P0442 or P0456, first troubleshoot DTC P0441, P0446, P0451, P0452 or P0453. If no malfunction is detected, troubleshoot DTC P0442 or P0456 next.
- Read freeze frame data using hand-held tester or the OBD II scan tool, as freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, this 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-128).
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Check and replace ECM (See page [IN-36](#)).

OK

2	Check voltage between terminals PTNK and E2 of ECM connectors (See page DI-128).
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OK

Check and replace ECM (See page [IN-36](#)).

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3	Check for open and short in harness and connector between vapor pressure sensor and ECM (See page IN-36).
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Repair or replace harness or connector.

OK

Replace vapor pressure sensor.