

TECH TIPS

DPF SENSOR



DIAGNOSIS PROCEDURE

COMMON SYMPTOMS:

- Engine warning light on: DPF or preheating warning light
- Power loss if the sensor does not correctly detect the filter level saturation



COMMON CAUSES OF FAILURE:

- Presence of water in the exhaust pipes
- Pipework clogged by unburned soot on vehicles making frequent short journey
- Problems caused by regenerations or cleaning of the DPF
- Damage to connecting cables, connector or sensor body
- Deterioration or leakage between the pipes and the sensor or the DPF

Fault codes related to the DPF sensor:

- **P0471** - The pressure value exceeds the limits (not between the upper and lower limits)
- **P2453** - The value is fixe while driving

CHECKING ELECTRICAL WIRING AND CALCULATOR:

1

Check the condition of the connector (no oxidation) and the contact spacing using a male lug (resistance to insertion).

With a voltmeter, check the 5V power supply and the sensor ground. Also measure 5V on the signal wire with the sensor disconnected (code P2455, high circuit).

By shunting the signal wire and ground (1A), the voltage drops to 0 (code P2454, low circuit).

CHECKING DPF SENSOR:

2

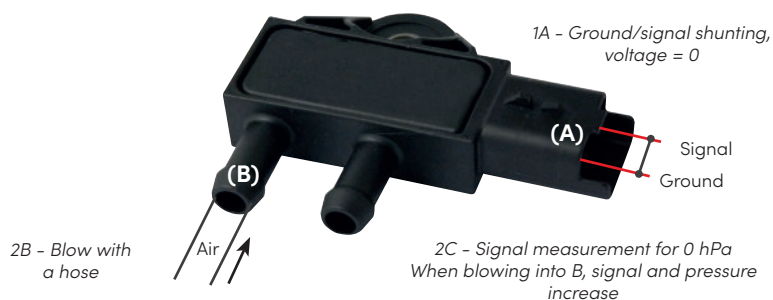
After disconnecting the 2 pressure taps of the DPF, measure the output signal with an oscilloscope and display the differential pressure value (0 hPa).

Blow into the upstream pressure port (2B): no voltage variation or differential pressure. After changing the DPF sensor, repeat the test.

Measure the output signal for 0 hPa (higher signal) (2C). By blowing into port B, the signal and differential pressure increase.

This test concludes if the DPF sensor is **faulty**, no inspection of the pipes or the DPF is necessary.

→ Reset the system to confirm the non-recurrence of the DTC.



Technical hotline

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