

Technical Bulletin

January 2022 TSB-VSA-FLT- 012022-03

TIPS & TRICKS

Air Filters: Troubleshootings **Applications:** All Engine types

Air Filters: symptoms and diagnosis

Some symptoms occurring in the vehicle when the air filter starts to have issues, so it's time to replace the fuel filter with a new one. Otherwise, could risk permanent damage in the engine.

Check engine lights on

An inadequate supply of air can result in carbon deposits accumulating in the engine, which will eventually light on the check engine will light. If the light comes on, check the air filter to see if it needs replacing before you run other diagnostics.

• Visual inspection: Air filter looks dirty

A brand new air filter is a white / off-white colour, which will slowly darken as it accumulates dust and dirt over time.

A visual inspection of your air filter under bright light will show a lot of dirt, but but careful, not all the tiny particles can be easily seen.

Smell of petrol in the exhaust

A smell petrol when starting the car, it's because insufficient air is entering the fuel injection system and the excess unburnt fuel exits the car through the exhaust pipe. Once replaced the air filter, the smell should go.







Air Filters: symptoms and diagnosis

Black smoke or flames in the exhaust

An insufficient air supplied means the engine will be running on a fuel-rich mixture, which won't burn completely before it enters the exhaust to leave the car as a black soot-like residue.

This residue can be seen as black smoke. The heat in the exhaust might ignite the unburnt fuel, causing flames at the end of the exhaust and a popping sound.

Consumption increasing

Fuel consumption increase is a clear sign of a bad or dirty air filter. A bad or dirty air filter restricts air flow, lowering the oxygen in the mixture.

The engine compensates for this by consuming more fuel to produce enough power to move the same distance or speed as you could with a clean filter.

Engine performance decreasing

A dirty air filter is preventing your engine from receiving the clean air it needs to perform optimally causing a drastically performance reduction, if the engine does not receive clean air or enough air only fuel will enter in the engine causing a flooded engine.

Noises

If an unusual noises appears, specially a coughing, popping or spitting noise, it shows that the engine isn't getting enough airflow, which means that the air filter needs to be replaced.

An air filter dirty or clogged will reduce the airflow, changing the air-fuel mixture. The rich fuel mixture creates a black soot residue which covers the spark plugs. The noise comes from the spark plugs not firing properly due to this residue.





