

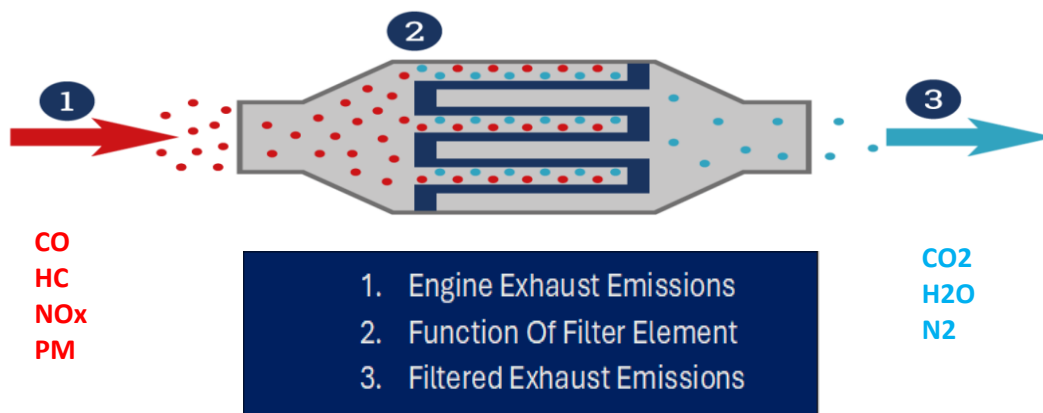


Gasoline Particulate Filter (GPF)

Since September 2018 after the passing of new emissions legislations MG Petrol Vehicles fitted with the GDI engines (Gasoline Direct Injection) have been subject to legislative test criteria, namely WLTC – Worldwide Harmonised Light Vehicle Test Cycles and RDE – Real Driving Emissions. To achieve these high standards your MG may be fitted with a Gasoline Particulate Filter.

What is a Gasoline Particulate Filter?

The Gasoline Particulate Filter is similar in design to a catalytic Converter, it consists of a synthetic ceramic substrate in a honeycomb design. The GPF sits within the exhaust system and captures particulates as they are produced by the engine. On entering the filter, particulates are burned off at a very high temperature, usually around 650 degrees Celsius, subsequently reducing them to less harmful amounts of Carbon Dioxide (CO₂), Water (H₂O) and Nitrogen (N).



Gasoline Particulate Filter Regenartion

Over time, as the filter accumulates particulates, it can become clogged, resulting in decreased performance and increased emissions. In order to maintain the effectiveness of the filter, regeneration is necessary.


Regeneration is the process of cleaning or regenerating the Gasoline Particulate Filter.






Gasoline Particulate Filter Methods of Regeneration

Passive Regeneration: Under normal driving conditions the high exhaust temperatures are sufficient to burn captured particulates. The Engine Management System monitors the filter and initiates regeneration if required. Note the driving style can impact the regeneration process, prolonged driving cycles without regeneration can result in an amber GPF warning lamp being presented. This is the Engine Management System warning a regeneration is required. The vehicle should be driven at plus 40 mph until the light extinguishes. If the vehicle is continually driven without allowing for the Passive Regeneration cycle this may result in reduced power and the appearance of the red GPF warning lamp. In this circumstance the vehicle **must** be presented to an MG Authorised Repairer immediately for diagnosis.

Active regeneration: Additional methods are required to increase the exhaust gas temperature to initiate regeneration. This is required when Passive Regeneration fails because conditions have not been met. Active Regeneration can only be undertaken by an MG Authorised Repairer.

GPF – REGENERATION & WARNINGS 

	<ul style="list-style-type: none">● Amber/Yellow – Regeneration required. Active regeneration cycle - drive at 40mph + until light extinguishes
	<ul style="list-style-type: none">● Red – GPF soot level is too high or full. Ignoring this lamp will result in staged power reduction.
	<ul style="list-style-type: none">● Forced regeneration – VDS. Note: a forced regeneration may not clear this lamp – the GPF could be full!

Example of warning lamps taken from : ZS 1.0 AT Gdi 18MY



Preventative Maintenance for GPF Health

In order to maintain the durability and lifespan of your GPF there are some steps we would recommend.

- Performing routine servicing as according to your vehicles shedule ensuring original equipment specifcation parts are used and the correct grade of oil.
- Addressing engine warning lamps and running concerns as soon as possible
- Using the correct fuel for your vehicle
- Varying your driving cycle: with respect to the Passive Regeneration cycle we would recommend frequent journeys at high load speeds along dual carriageways or motorways. This will allow the exhaust system to reach and maintain an optimum temparture allowing the burning away of the soot content.

Important Warranty Note: Please note damage to the Catalytic Converter and/or gasoline particulate filter due to incorrect fuel, incorrect servicing, water immersion, running the vehicle with an engine fault or engine warning lamp illuminated and any damage to the fragile internal component as a result of an external blow or force would render the warranty void for both Catalytic Converter and gasoline particulate filter.