

ELECTRIC THROTTLE



The electric throttle body is located in the intake tract to the air intake manifold. The electric throttle controls the volume of air allowed into the inlet manifold by means of a direct current (DC) motor which controls a butterfly valve in the body of the throttle. The motor is controlled by the ECM which operates the motor in response to driver inputs from the APP sensor and other engine related sensors to provide the correct air flow to the intake manifolds.

The ECM has 5 connections to the electric throttle motor; a 5V reference voltage, a signal connection back to the ECM for butterfly position, a ground and 2 12V motor feeds to operate the motor in each direction to open or close the butterfly valve.

DIESEL PARTICULATE FILTER (DPF) CONTROL

A diesel particulate filter (DPF) is fitted which collects the particulate matter produced during the combustion process and reduces the particulates entering the atmosphere.

The DPF is located in the exhaust system, downstream of the catalytic converter. A major feature of the DPF is its ability for regeneration. Regeneration is the burning of particulates trapped by the filter to prevent obstruction to the free flow of exhaust gasses. The regeneration process is controlled by the ECM and takes place at calculated intervals and is not noticeable by the driver of the vehicle.

For details of the DPF and the regeneration processes refer to the relevant exhaust system section.

For additional information, refer to: Exhaust System (309-00A, Description and Operation).

Regeneration is most important, since an overfilled filter can damage the engine through excessive exhaust back pressure and can itself be damaged or destroyed.























