

Description and Operation

The engine management system of the 2,9 litre V6 12V engine in the Scorpio '95 comprises a powertrain control module and a number of other components which are either sensors or actuators. The sensors supply the powertrain control module with input signals which relate to engine operating conditions and the actuators respond to output signals from the powertrain control module. These output signals are based on the evaluated input signals which are compared with calibrated data tables or maps before the output signal is generated.

The 2,9 litre V6 12V engine meets 93 EEC emissions regulations. To achieve this standard of emission control, the engine is equipped with a catalytic converter and an evaporative emission fuel vapour management system.

The evaporative emission fuel vapour management system comprises a carbon canister and a purge valve. A combination of plastic and rubber pipes connect the carbon canister to the fuel tank and the purge valve and to the inlet manifold. When the purge valve is closed, the fuel tank is vented into the carbon canister which absorbs the fuel vapour and prevents the release of hydro-carbons into the atmosphere. When the purge valve is activated, the carbon canister is exposed to inlet manifold vacuum and the fuel vapour deposits are drawn into the inlet manifold where they mix with the incoming air/fuel charge.

The evaporative emission fuel vapour management system is controlled by the powertrain control module according to calibrated data tables. The function of the system is to reduce hydro-carbon emissions from the fuel tank.

The engine management system utilises a 60-pin powertrain control module (EEC IV) which is located behind the glove compartment.

The sensors and actuators utilised are part of the generic family of components used on previous Ford EEC IV and EEC V engine management systems and their functions are described in detail in the FDS 2000 Vehicle System Test Manual (CG1591).