



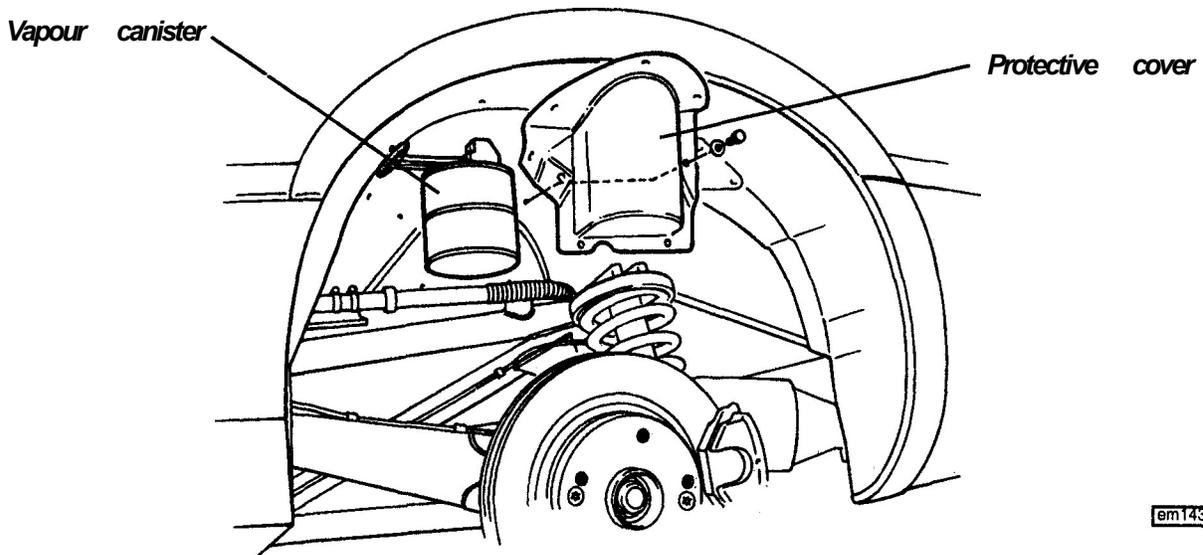
Note that because the ECM monitors boost pressure via the MAP sensor, maximum boost pressure is controlled to absolute values which are independent of atmospheric pressure. For this reason, the maximum readings of the boost gauge in the instrument panel will tend to rise with increasing altitude and decreasing atmospheric pressure.

EMM.2 • V EVAPORATIVE EMISSION CONTROL SYSTEM (EECS)

In order to prevent fuel vapour venting from the fuel tanks to atmosphere, the vent pipes from both tanks are routed to a canister filled with activated-charcoal, which adsorbs the fuel vapour. When the engine is running, the canister is connected to the intake plenum (via the EGR manifold), such that under 'no boost' conditions, fresh air is drawn through the canister to purge the charcoal of its adsorbed fuel, with the resultant gas then consumed by the engine in the normal combustion process.

Vapour Canister

This is mounted within the LH rear wheelarch, where it is protected by a plastic cover.



Fuel vapour from both fuel tank filler necks is routed via a roll-over valve (to prevent fuel spillage if the car is inverted) adjacent to the LH filler neck, to the canister port labelled 'tank'. A central tube in the canister connects this port to the underside of the charcoal bed, below which is a reservoir to collect any liquid fuel. The top side of the charcoal bed is connected via a port in the top of the canister, to atmosphere. A purging port, controlled by a solenoid valve on the top of the canister, connects the engine intake plenum with the tank vent and underside of the charcoal bed. When the ECM controlled solenoid valve is open, the depression in the engine intake draws air through the charcoal bed to purge the canister of vapour, and prepare the charcoal for further adsorption. A one-way valve in the pipe between canister and engine prevents gas back-flow when intake plenum pressure becomes positive under turbo boost conditions.

Control System

A solenoid valve mounted on top of the canister and controlling the purge line to the engine, uses pulse width modulation to control the amount of purging to take place at any one time. The square wave signal to the valve is supplied by the ECM which opens and closes the normally closed solenoid valve many times a second. Under cold engine conditions, the solenoid valve remains closed and no purging takes place. The ECM energises the solenoid valve and allows purging under the following conditions:

- i) The engine is warm;
- ii) Closed loop fuel control is operating.

The pulse width of the solenoid valve signal is controlled by the ECM, which uses various inputs including