

EMISSION CONTROL - V8

The valve is normally open, allowing any build up of air pressure within the evaporation system to escape, whilst retaining the environmentally harmful hydrocarbons in the EVAP canister. When the ECM is required to run a fuel system test, the CVS valve is closed to seal the system. The ECM is then able to measure the pressure in the fuel evaporative system using the fuel tank pressure sensor.

The ECM performs electrical integrity checks on the CVS valve to determine wiring or power supply faults. The ECM can also detect a valve blockage if the signal from the fuel tank pressure sensor indicates a depressurising fuel tank while the CVS valve should be open to atmosphere.

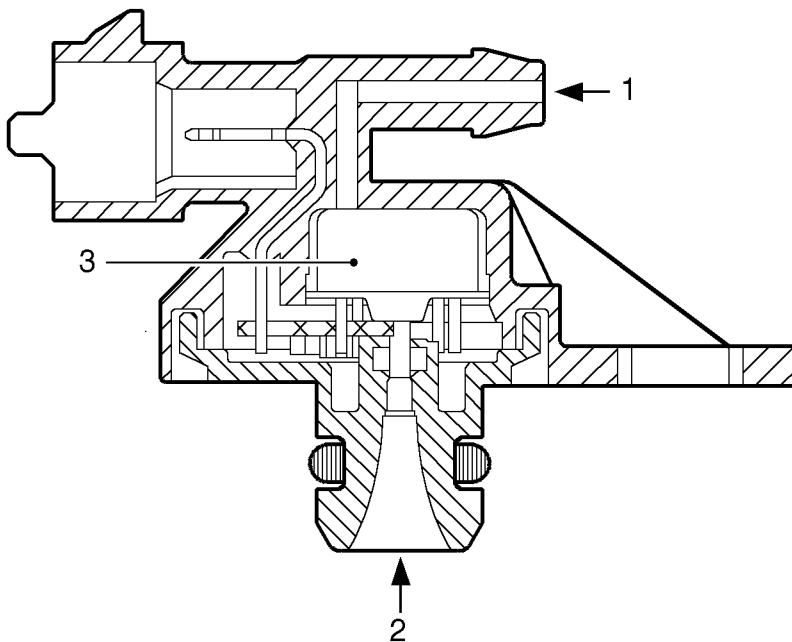
The following failure modes are possible:

- Connector or harness wiring fault (open or short circuit)
- Valve stuck open or shut
- Valve blocked

If the CVS valve malfunctions, the following fault codes may be stored in the ECM diagnostic memory, which can be retrieved using TestBook/T4:

P-code	Description
P0446	CVS valve / pipe blocked
P0447	CVS valve open circuit
P0448	CVS valve short circuit to ground
P0449	CVS valve short circuit to battery voltage

Fuel Tank Pressure Sensor (NAS vehicles with vacuum type leak detection system only)



M17 0167

- 1 Ambient pressure
2 Tank pressure

- 3 Sensor cell

The fuel tank pressure sensor is located in the top flange of the fuel tank sender / fuel pump module and is a non-serviceable item (i.e. if the sensor becomes defective, the complete fuel tank sender unit must be replaced). The fuel tank pressure sensor connector is accessible through the fuel pump access hatch in the boot area floor of the vehicle.

The pressure sensor is a piezo-resistive sensor element with associated circuitry for signal amplification and temperature compensation. The active surface is exposed to ambient pressure by an opening in the cap and by the reference port. It is protected from humidity by a silicon gel. The tank pressure is fed up to a pressure port at the back side of the diaphragm.