

Throttle Position Sensor (TP)

Throttle position is detected by the Throttle Position Sensors (TP) mounted on each throttle body. These sensors report to the PCMs.

Throttle Pedal Position Sensor (PPS)

Throttle pedal position is detected by two Throttle Pedal Position Sensors (PPS) mounted in the throttle pedal assembly. These sensors report the PPS signal to the PCMs. The pedal position is constantly verified by means of a rationality check between the three potentiometer readings. If any reading goes out of normal range, the in range readings are used and a fault is flagged on the out of range potentiometer.

Throttle Motors

Motor driven throttles are mounted on the left and right inlet manifolds. As the driver moves the throttle pedal, the throttle pedal signals change, the PCMs receive the revised position signals and send drive signals to the throttle motors to drive the throttles to the new position.

Crankshaft Position Sensor (CKP)

Engine speed is measured from the pulse timing of the two Crankshaft Position Sensors (CKP). CKP signals are input to the primary and secondary Powertrain Control Modules.

Camshaft Position Sensor - Cylinder Identification Sensor (CID)

Engine position is determined by using the two Camshaft Position Sensor (CID) signals. CMP signals are input to the primary and secondary Powertrain Control Modules.

Using the CKP and CID signals, the PCMs can accurately control the start time for ignition/fuel injection events.

Evaporative Emission Canister

The Fuel Tank, may be filled to 90% of the actual measured capacity; the 10% air volume above the fuel is vented to atmosphere through the Evaporative Emission Canister. The carbon element in this canister absorbs any displaced fuel vapour. As fuel is withdrawn from the tank, air is drawn in through the canisters to avoid creating a vacuum in the fuel tank.

When the fuel laden air in the tank expands at higher temperatures, pressure is relieved by allowing the displaced air to vent through the canister which retains any suspended fuel vapour.

During normal engine running, the vapour management valve allows air flow through the carbon canister and into the inlet manifolds, constantly purging any petrol vapour and burning it in the normal combustion process.

The Vapour Management Valve

The Vapour Management Valve, is controlled by the Primary PCM and open the canister line to inlet manifold vacuum; when the inlet manifold vacuum is sufficient, the vapour management valve will open. Air can then flow through the carbon canister, carrying fuel vapour to the inlet manifold and into the engine.

Diagnostic Equipment

The Aston Martin Diagnostic System (WDS) is the principal diagnostic tool used by Aston Martin franchised dealers. Non-franchised dealers will require the AML WDS or a compatible scan tool. The WDS installation and use is described in a separate publication. The WDS connects to the diagnostic sockets.