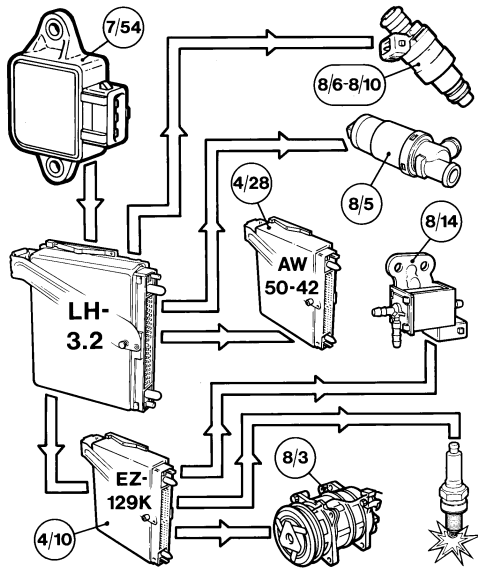


Throttle position (TP) potentiometer

Control functions

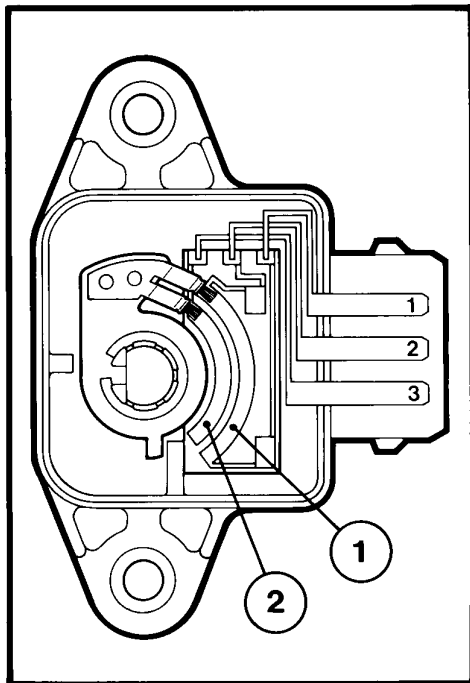


The TP potentiometer (7/54) supplies a linear signal proportional to throttle opening. The MFI module transmits the analogue signal to the ICM (4/10) and TCM (4/28).

The TP potentiometer signal is used by the:

- * MFI module (4/45) to
 - compensate the reaction time of the MAF sensor during sudden acceleration. Thus, the injector opening period is varied, for example, when acceleration enrichment is applied;
 - determine the CTP, for the purpose of controlling the IAC valve (8/5).
- * ICM (4/10) to
 - detect idling;
 - operate the solenoid valve (8/14) which controls the variable intake system (V-VIS);
 - switch out the A/C compressor (8/3) temporarily at full load;
- * TCM (4/28), to perform gear-change computations.

TP potentiometer – design



Shown above in the full-load or wide-open throttle (WOT) position, the TP potentiometer is provided with two wipers which follow the movements of the throttle, a rheostat (1) and a contact track (2). Terminal 1 is connected to ground across the control unit, while terminal 2 is maintained at a constant voltage of 5 V. Depending on the position of the contacts, the output signal from terminal 3 may vary from approx. 0.5 V at idling to approx. 4.5 V at full load.

A major advantage of the TP potentiometer is the fact that it requires no adjustment; the MFI module rapidly `learns' which signals correspond to WOT and CTP.