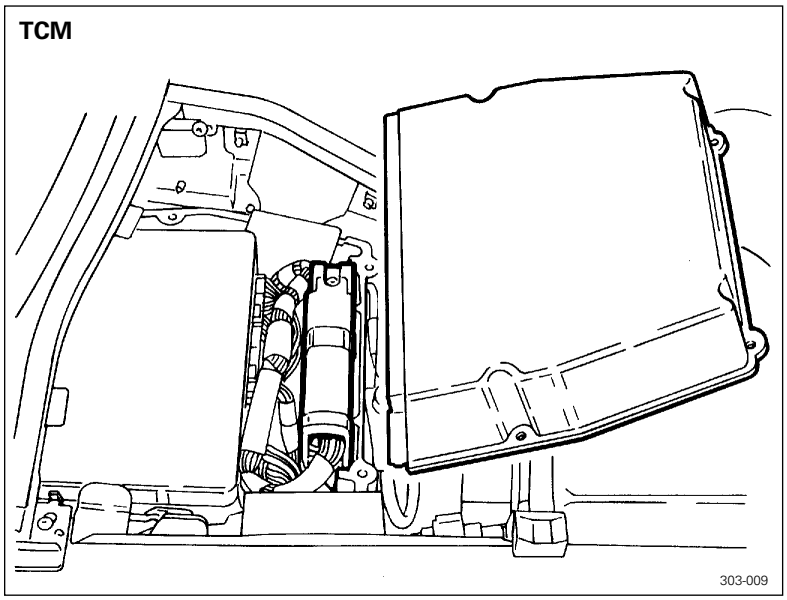
TCM



Transmission Management

The transmission management system uses both analogue and digital signals, to control the operation of the transmission. Digital signals are processed by the TCM to and from the vehicle multiplex network. Other input/output analogue signals are hardwired to the TCM. This information is used primarily by the TCM to decide which shift program to implement, which gear to select and for shift energy management. If a fault occurs, the TCM will take default action and inform the driver via the Message Centre and amber warning light.

Harness Connector

The vehicle harness connector for the TCM is an 88-way latching connector. The TCM is wired to the electrical pressure regulators/solenoids, oil temperature sensor and shaft speed sensors in the transmission casing.

Sport Mode

When sport mode is selected by the driver using the mode switch, the sport pattern is only activated when a set cornering force is achieved, or the kickdown switch is pressed. The vehicle speed and the difference in speeds between the two front wheels is used to calculate the amount of cornering force.

Torque Convertor Lock-up

The torque convertor lock-up clutch is engaged as a function of throttle position, output speed, oil temperature, gear shift and shift program. Lockup is possible in 2nd, 3rd, 4th and 5th gears but is usually restricted to 4th and 5th gears. During a gear shift the TCM controls the amount of slip of the lock-up clutch to enhance shift quality.

Oil Temperature

When the engine coolant or transmission oil temperature exceeds set thresholds a hot mode program is selected which locks the torque convertor clutch, minimising the amount of heat entering the engine cooling system from the transmission oil.