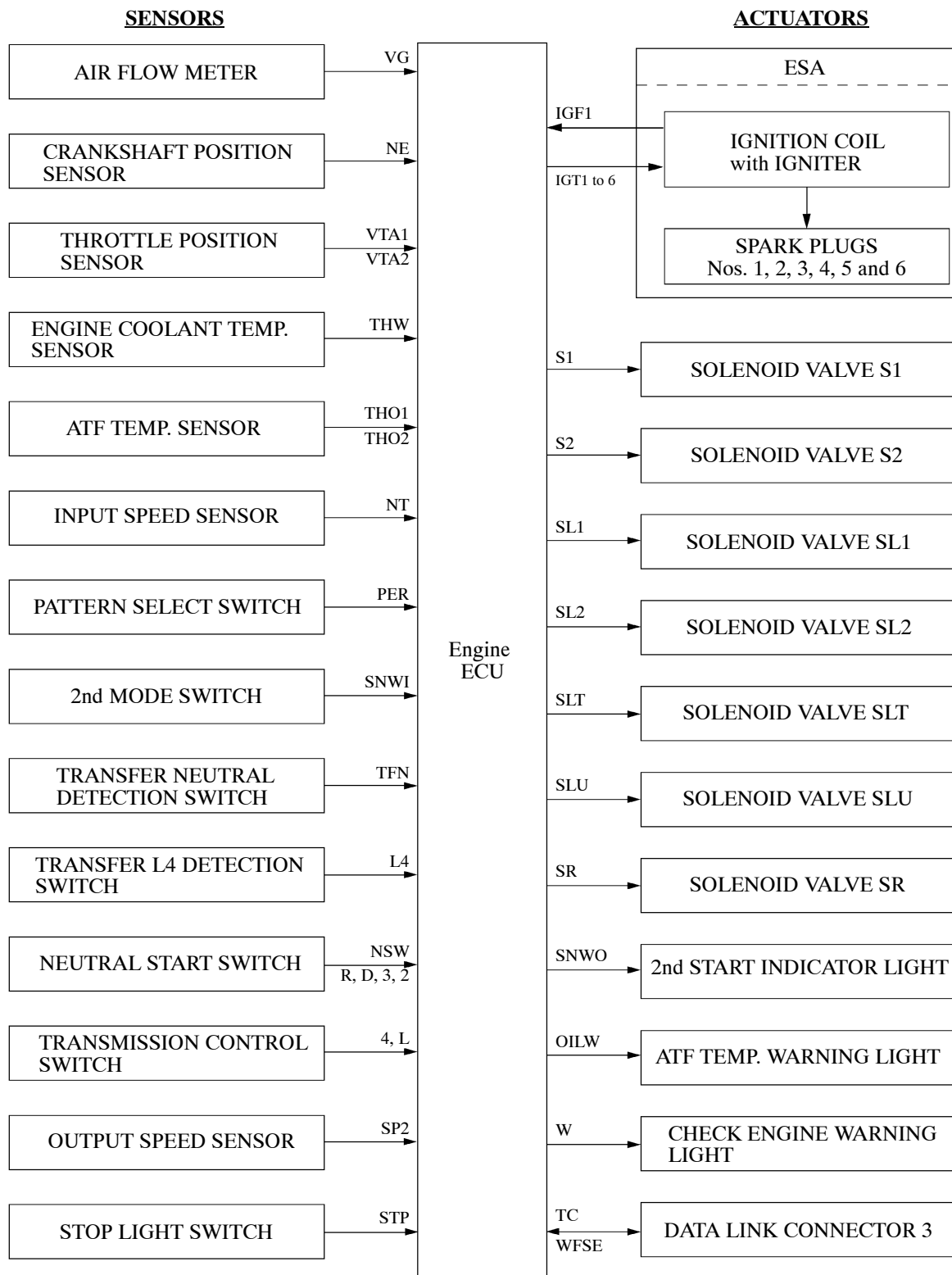


3. Electronic Control System

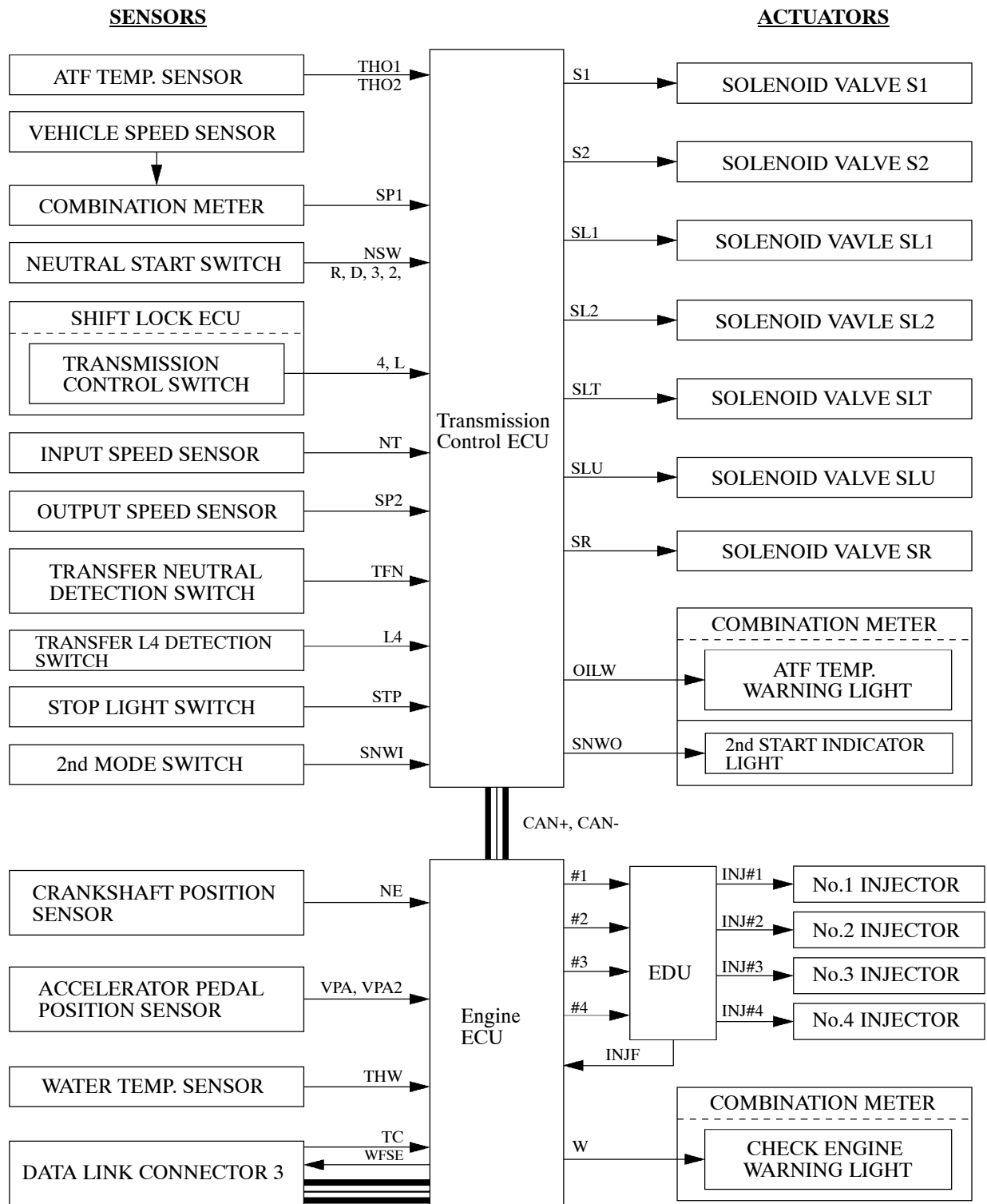
Construction

The configuration of the electronic control system in the new Land Cruiser/ Land Cruiser Prado's A750F is as shown in the following chart.

► 1GR-FE Engine Model ◀

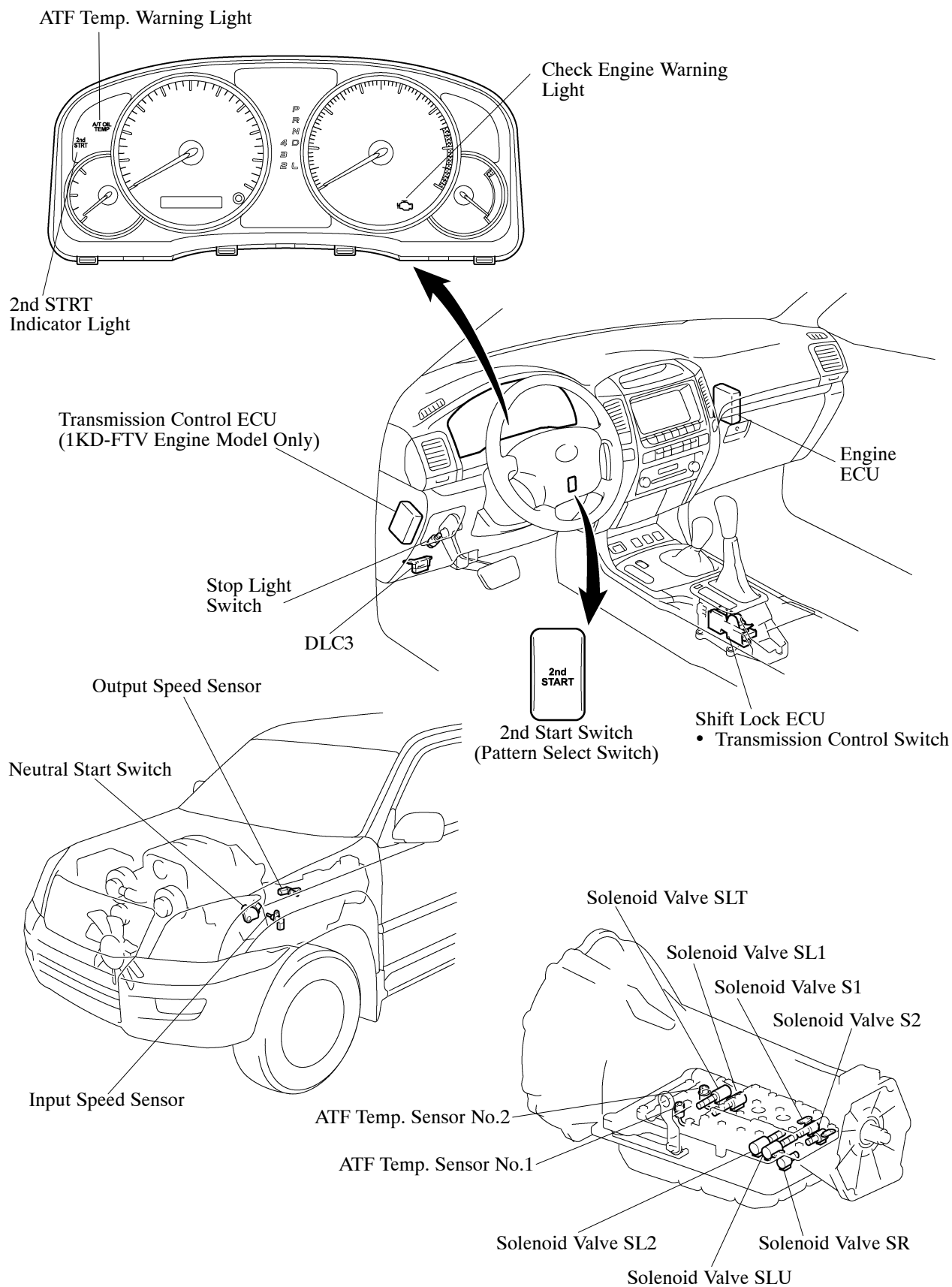


► 1KD-FTV Engine Model ◀



≡ : CAN (Controller Area Network)

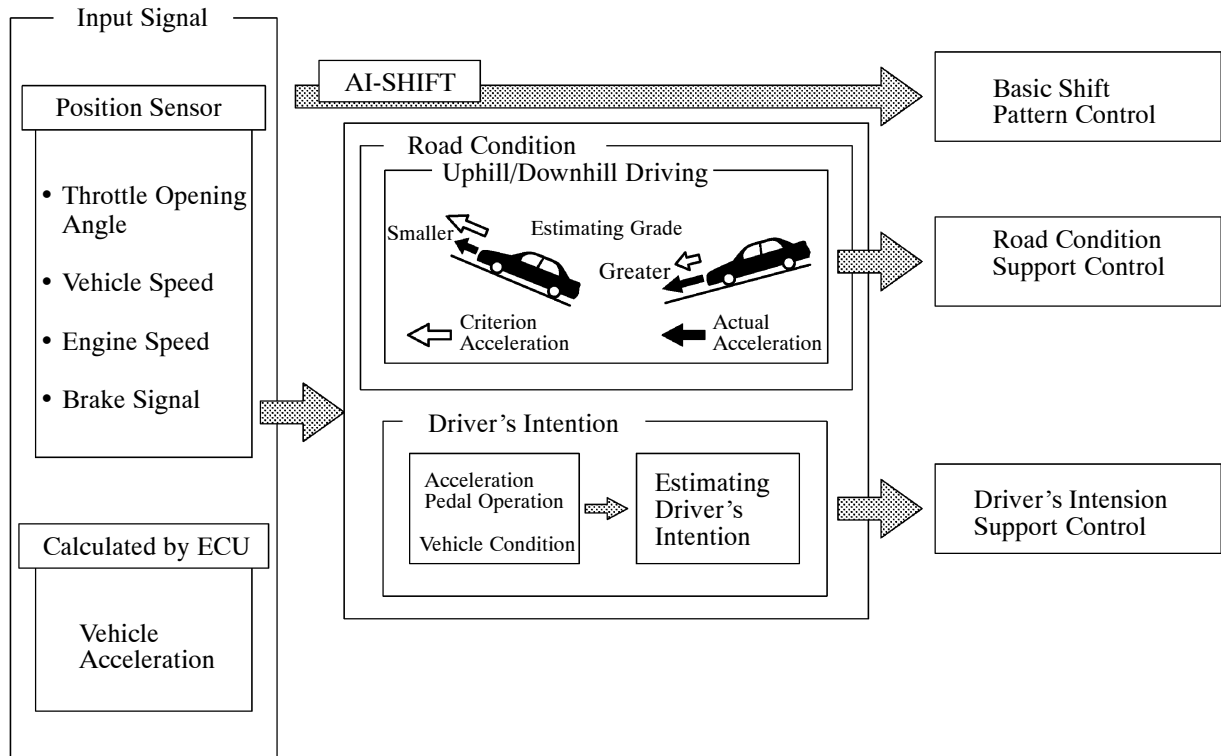
Layout of Main Components



AI (Artificial Intelligence)-SHIFT Control

1) General

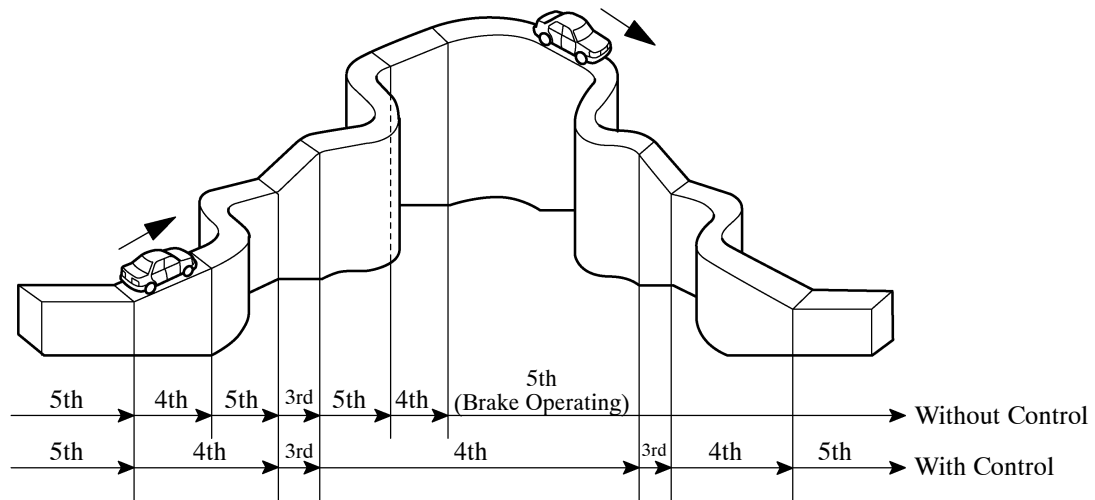
In addition to the switching of the shift pattern through the pattern select switch, the AI-SHIFT control enables the engine ECU to estimate the road conditions and the driver's intention in order to automatically switch the optimal shift pattern. As a result, comfortable ride has been realized at high levels.



2) Road Condition Support Control

Under the road condition support control, the engine ECU determines from the throttle valve opening angle and the vehicle speed whether the vehicle is being driven uphill or downhill.

To achieve an optimal drive force while driving uphill, this control helps prevent the transmission from upshifting to the 4th or 5th gear. To achieve an optimal engine brake effect while driving downhill, this control automatically downshifts the transmission to the 4th or 3rd gear.



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3) Driver's Intention Support Control

The driver's intention support control estimates the driver's intention based on the accelerator operation and vehicle condition to switch to a shift pattern that is well-suited to each driver, without the need to operate the shift pattern select switch.