■ELECTRONIC CONTROL SYSTEM

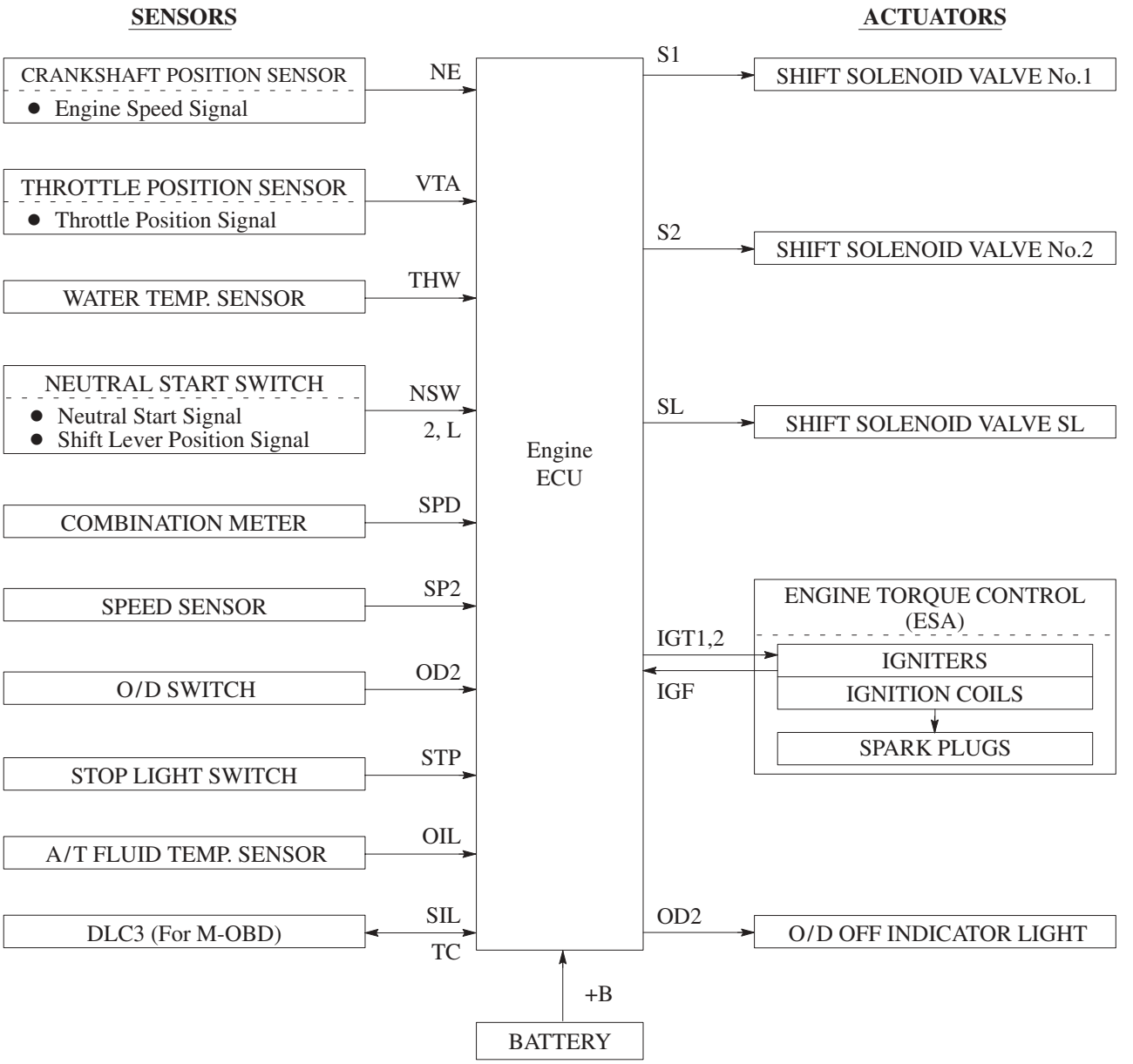
1. General

The electronic control system of the A340E carries out the controls described below to realize smooth driving.

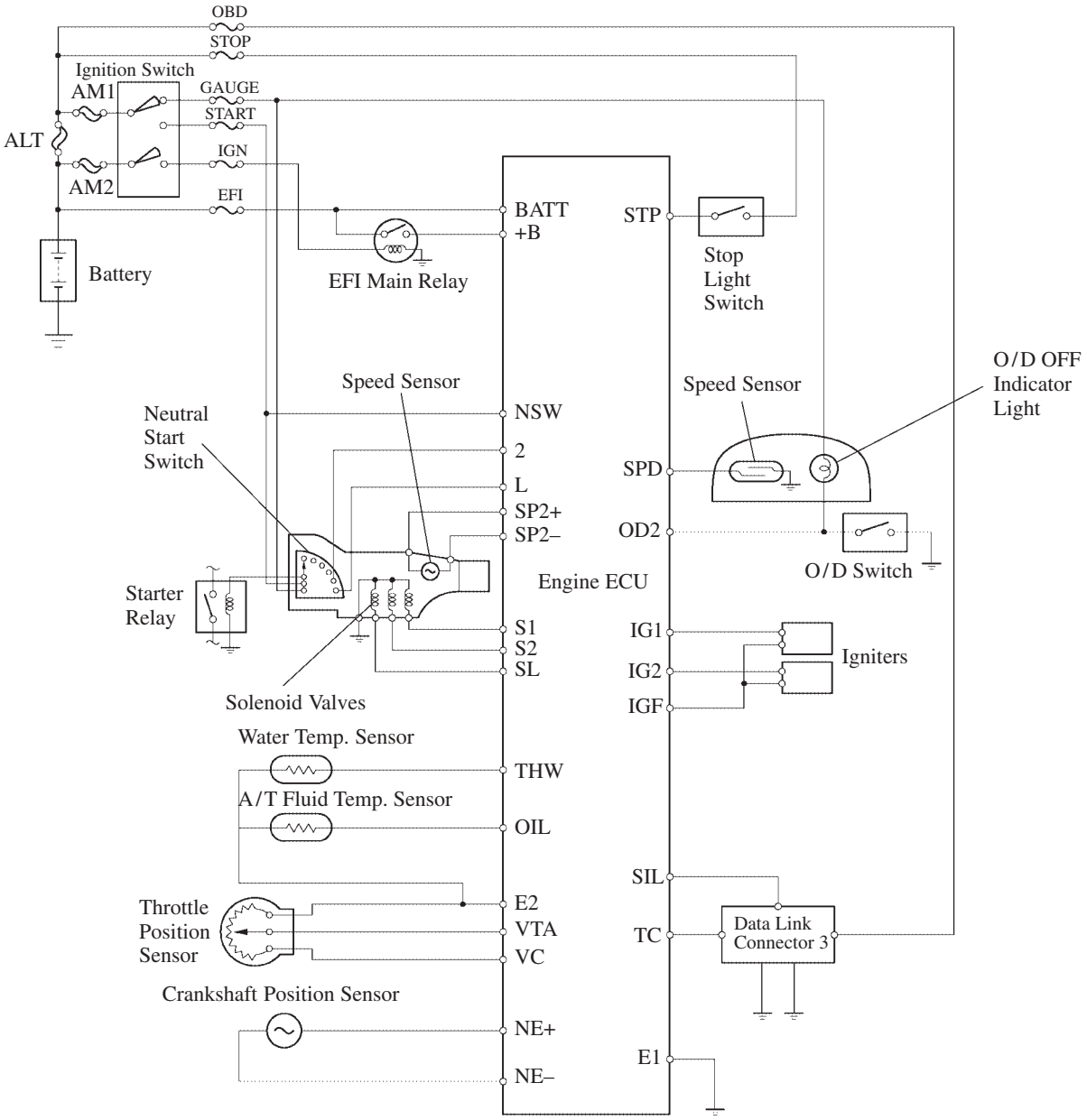
System	Function
Shift Timing Control	Based on the signals received from the sensors, the engine ECU sends signals to the solenoid valve No. 1 and/or No. 2 to achieve optimal shifting control.
Lock-Up Timing Control	Based on the signals received from the sensors, the engine ECU sends signals to the solenoid valve SL to achieve optimal lock-up timing control.
"N" to "D" Squat Control	When the shift lever is shifted from "N" to "D" range, the gear is temporarily shifted to 3rd and then to 1st to reduce vehicle squat.
Engine Torque Control	During shifting, the ignition timing of the engine is delayed to reduce the engine torque momentarily in order to engage the clutch and brake of the planetary gear unit smoothly, thus reducing the shift shock.
Self-Diagnosis	When the engine ECU detects the electrical circuit malfunctions, it flashes the O/D OFF indicator light to alert the driver. In addition, the engine ECU stores the codes of the malfunctions. Diagnosis code can be confirmed with flashing of O/D OFF indicator light. As this system adapts M-OBD, a hand-held tester can be connected to DLC3 to check the codes. For details on the diagnostic code check method, diagnostic codes, and diagnostic code clearance, see the Hilux chassis and Body Repair Manual (Pub. No. RM585E).
Fail-Safe	Controls operating components normally and permitting continued driving when malfunctions occur in the electrical circuit.

2. Construction

The electronic control system can be broadly divided into 3 groups: the sensors, engine ECU and actuators.



3. Wiring Diagram



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4. Layout of Components

