

## ■ ELECTRONIC CONTROL SYSTEM

### 1. General

The electronic control system of the A340E/F automatic transmission consists of the control listed below:

System	Function	'03 4Runner	'02 4Runner
Shift Timing Control	The ECM sends current to the solenoid valve S1 and/or S2 based on signals from each sensor and shifts the gear.	○	○
Lock-Up Timing Control	The ECM sends current to the solenoid valve SL based on signals from each sensor and engages or disengages the lock-up clutch.	○	○
Line Pressure Control	Actuates the solenoid valve SLT to control the line pressure in accordance with information from ECM and the operating conditions of the transmission.	○	○
Engine Torque Control	Retards the ignition timing temporarily to increase shift feeling during up or down shifting.	○	○
“N” or “D” Squat Control	When the shift lever is shifted from “N” to “D” position, the gear is temporarily shifted to OD and then 1st to reduce vehicle squat.	○	○
2nd Start System	The 2nd start system that enables the vehicle to start off in the 2nd gear when the transfer unit is in the L4 mode and the shift lever is in the 2nd range, and thus, make it easy to start off snowy, sandy or muddy terrain.	○	○
Self-Diagnosis	When the ECM detects a malfunction, the ECM makes a diagnosis and memorizes the failed section.	○	○
	To comply with the OBD-II regulations, all the DTC (Diagnostic Trouble Code) have been made to correspond to the SAE controlled codes. Some of the DTC have been further divided into smaller detection areas than in the past, and new DTC have been assigned to them.	○	—
Fail-Safe	Controls other normally operating components, permitting continued driving when malfunctions occur in the electrical circuit.	○	○

**NF**