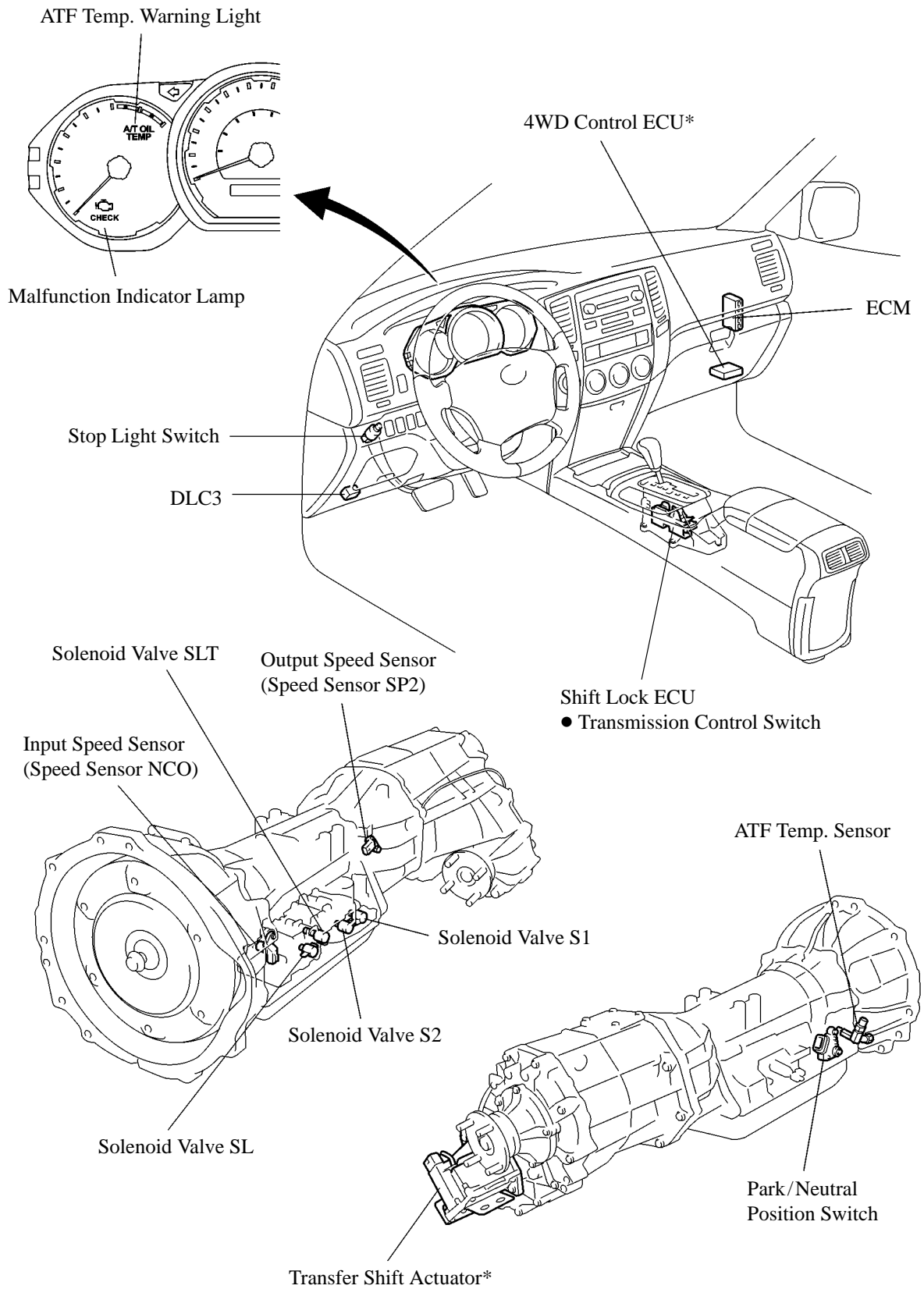


3. Layout of Main Component



NF

*: Only for A340F Automatic Transmission

4. Construction and Operation of Main Component

Input Speed Sensor

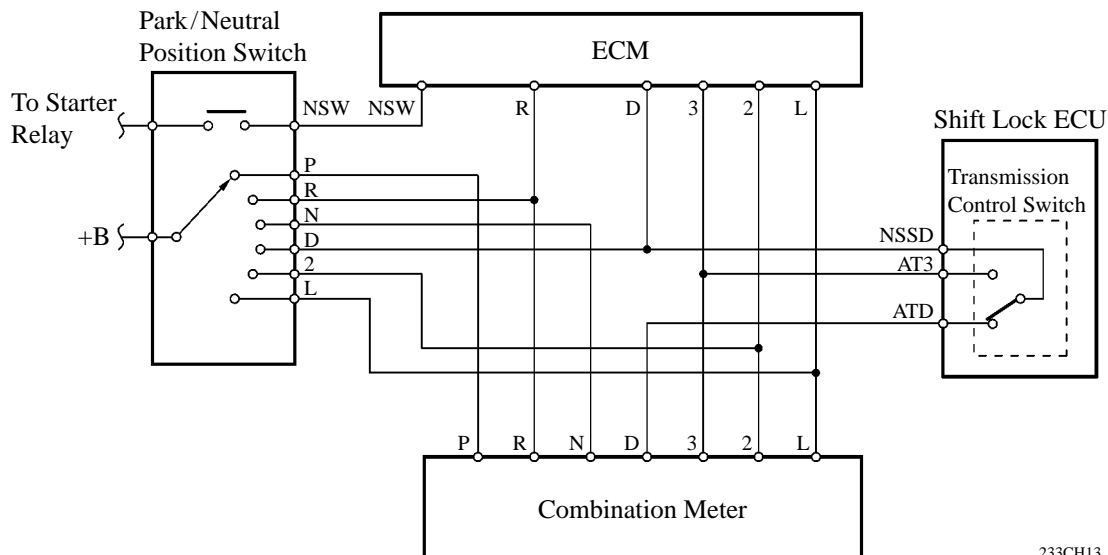
- An input speed sensor is used to improve the shift control precision of the ECM, thus improve the shift feel.
- The input speed sensor is provided at the front left side of the transmission case. It detects the speed of the O/D direct clutch drum, which rotates at the same rate as the input speed of the transmission, and outputs it to the ECM.

Transmission Control Switch and Park/Neutral Position Switch

The ECM uses these switches to detect the shift position.

- The park/neutral position switch sends the R, D, 2, L and NSW position signals to the ECM. It also sends signals for the shift indicator light (P, R, N, and 2, L) in the combination meter.
- The transmission control switch is located in the shift lock ECU. This switch sends the 3rd signal to the ECM. It also sends signals for the shift position indicator light (D and 3rd) in the combination meter.

► Wiring Diagram ◀



5. Diagnosis

- When the ECM detected a malfunction, the ECM makes a diagnosis and memorizes the failed section. Furthermore, the MIL (Malfunction Indicator Lamp) in the combination meter illuminates or blinks to inform the driver.
- At the same time, the DTC (Diagnosis Trouble Code) are stored in memory. The DTC can be read by connecting a hand-held tester to DLC 3.
- 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. For details, refer to the 2003 4Runner Repair Manual Supplement (Pub. No. RM1034U).
- The DTC listed below is used.

DTC No.	Detection Item	DTC No.	Detection Item
P0500	Vehicle speed sensor "A"	P0751	Shift solenoid "A" performance (Shift solenoid valve S1)
P0705	Transmission range sensor circuit malfunction (PRNDL input)	P0756	Shift solenoid "B" performance (Shift solenoid valve S2)
P0710	Transmission fluid temperature sensor "A" circuit	P0850	Park/Neutral switch input circuit
P0712	Transmission fluid temperature sensor "A" circuit low input	P0973	Shift solenoid "A" control circuit low (Shift solenoid valve S1)
P0713	Transmission fluid temperature sensor "A" circuit high input	P0974	Shift solenoid "A" control circuit high (Shift solenoid valve S1)
P0717	Input speed sensor circuit no signal	P0976	Shift solenoid "B" control circuit low (Shift solenoid valve S2)
P0722	Output speed sensor	P0977	Shift solenoid "B" control circuit high (Shift solenoid valve S2)
P0724	Brake switch "B" circuit high	P1782	T/F L4 range position switch performance
P0741	Torque converter clutch solenoid performance (shift solenoid valve SL)	P2716	Pressure control solenoid "D" electrical (Shift solenoid valve SLT)
P0743	Torque converter clutch circuit electrical	—	—