Electronic Control System

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The electronic control system consists of the Transmission Control module (TCM), sensors, a linear solenoid and 4 solenoid valves. Shifting and lock-up are electronically controlled for comfortable driving under and conditions.
The TCM is located on the insulator center bulkhead, behind the driver's seat.

Shift control

Shifting is related to engine torque through the linear solenoid used to operate throttle valve B which is controlled by the TCM.
Getting a signal from each sensor, the TCM detects the appropriate gear shifting and activates shift control solenoid valves A and/or B.
The combination of driving signals to shift control solenoid valves A and B is shown in the table below.

Shift control solenoid valve / Range (gear)	A	B
D (1st)	OFF	ON
D (2nd)	ON	ON
D 3 (3rd), 1 (1st)	ON	OFF
D (4th), 2 (2nd)	OFF	OFF
R (Reverse)	ON	OFF

Lock-up control

From sensor input signals, the TCM detects whether to turn the lock-up ON or OFF and activates lock-up control solenoid valve A and/or B accordingly.
The combination of driving signals to lock-up control solenoid valves A and B is shown in the table below.

Solenoid valve / Lock-up condition	A	B
Lock-up OFF	OFF	OFF
Lock-up, slight	ON	OFF
Lock-up, half	ON	ON
Lock-up, full	ON	ON
Lock-up during deceleration	ON	Duty operation OFF ⟷ ON

(cont'd)

Description

Electronic Control System (cont'd)