Electronically Controlled Transmission



140



Electronically Controlled Transmission



142



System Outline

Previous automatic transaxle have selected each gear shift using mechanically controlled throttle hydraulic pressure, governor hydraulic pressure and lock-up hydraulic pressure. The electronically controlled transmission, however, controls the line pressure and lock-up pressure etc. electrically, through the solenoid valve. The engine control module controls each solenoid valve based on the input signals from each sensor, which makes smooth driving possible by shift selection for each gear that is most appropriate to the driving conditions at that time.

1. Gear Shift Operation

When driving, the engine warm up condition is input as a signal to TERMINAL THW of the engine control module from the engine coolant temp. sensor and the vehicle speed signal from vehicle speed sensor is input to TERMINAL SPD of the engine control module. At the same time, the throttle valve opening signal from the throttle position sensor is input to TERMINALS VTA1 and VTA2 of the engine control module as throttle angle signal.

Based on these signals, the engine control module selects the best shift position for the driving conditions and sends current to the electronically controlled transmission solenoid.

2. Stop Light SW Circuit

If the brake pedal is depressed (Stop light SW on) when driving in lock-up condition, a signal is input to TERMINAL STP of the engine control module, the engine control module operates and continuity to the lock-up solenoid is cut.

3. Overdrive Circuit

* Overdrive on

When the engine is turned on from ignition off, the engine control module turns the O/D on. When the O/D main SW is pushed while the O/D is off, a signal is input into TERMINAL ODMS of the engine control module, and the O/D is turned on by the engine control module. In this case, the engine control module controls the gear shift according to the vehicle's driving condition, using the O/D range. At this time, the O/D OFF indicator light is off.

* Overdrive off

When the O/D main SW is pushed while the O/D is on, a signal is input into TERMINAL ODMS of the engine control module, and the O/D is turned off. At this time, the current flows through the O/D OFF indicator light to TERMINAL ODLP of the engine control module. As a result, the O/D OFF indicator light turns on, and the engine control module controls the gear shift according to the vehicle's driving condition, without using the O/D range.

O : Parts Location

Code		See Page	Code		See Page	Code		See Page
A9		36	E5 C		36	J7		37
C11	A	36	E6	D	36	P1		35
C18	В	36	11	1	37	Q1	А	35
D1		36	J	2	37	В		35
E1		34	J3	A	37	\$7		37
E2		34	J4	В	37	Т6		35
E3	A	36	J5	В	37	V	1	35
E4	В	36	J6	A	37			

: Relay Blocks

Code	See Page	Relay Blocks (Relay Block Location)
1	23	Engine Room R/B (Engine Compartment Left)

: Junction Block and Wire Harness Connector

Code	See Page	Junction Block and Wire Harness (Connector Location)	
IC	25	Engine Room Main Wire and Instrument Panel J/B (Lower Finish Panel)	
IG	25		
IK		Instrument Panel Wire and Instrument Panel J/B (Lower Finish Panel)	
IL	IL 24		
IM			
1A	23	Engine Wire and Engine Room J/B (Engine Compartment Left)	
ЗA			
3B	29	Instrument Panel Wire and RH J/B (Right Side of the Instrument Panel Reinforcement)	
3C			
4B	32	Instrument Panel Wire and Center J/B (Behind the Combination Meter)	
4C			

Connector Joining Wire Harness and Wire Harness					
Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)			
EA1	40	Engine Wire and Engine Room Main Wire (Inside of the Engine Room R/B)			
IA2					
IA5	42	Engine Room Main Wire and Instrument Panel Wire (Instrument Panel Reinforcement LH)			
IA6					
IG1	43	Engine Wire and Instrument Papel Wire (Blower Linit RH)			
IG3					

: Ground Points

Code	See Page	Ground Points Location	
EB	40	Front Left Suspension Tower	
EC	40	Left Side of the Cylinder Head	
ED			
IE	42	Behind Combination Meter	
IG	42	Right Kick Panel	