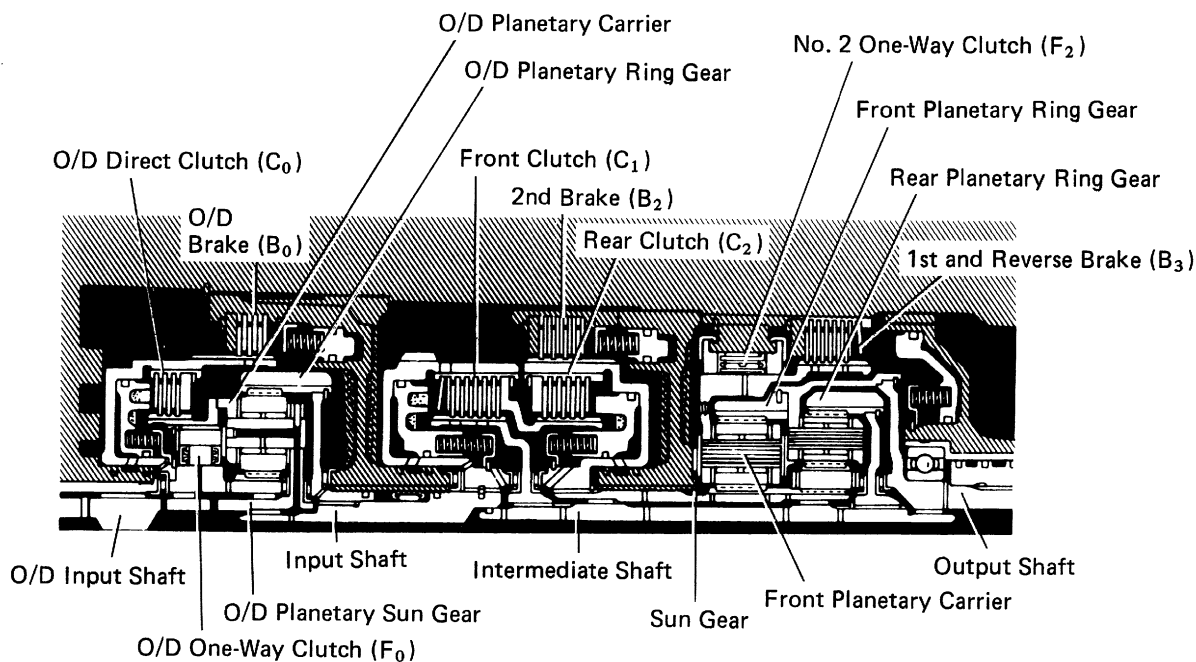


OPERATION

Mechanical Operation

OPERATING CONDITIONS



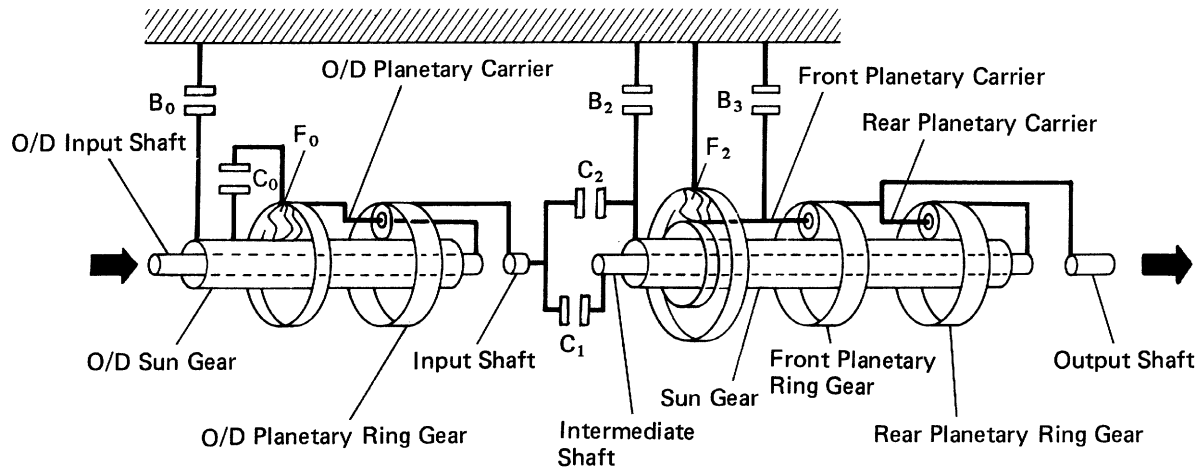
Q00717

○.....Operating

Shift lever position	Gear position	C_0	C_1	C_2	B_0	B_2	B_3	F_0	F_2
P	Parking	○						○	
R	Reverse	○		○			○	○	
N	Neutral	○						○	
D	1st	○	○					○	○
	2nd		○			○		○	
	3rd	○	○	○				○	
	O/D		○	○	○				
3	1st	○	○					○	○
	2nd		○			○		○	
	3rd	○	○	○				○	
2	2nd	○	○			○		○	
L	1st	○	○				○	○	○

FUNCTION OF COMPONENTS

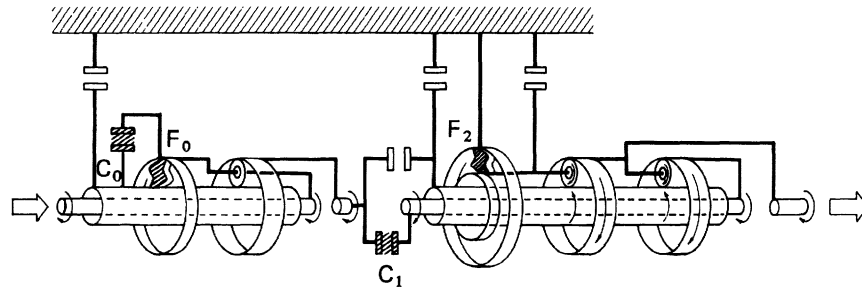
NOMENCLATURE	OPERATION
O/D Direct Clutch (C_0)	Connects overdrive sun gear and overdrive carrier
O/D Brake (B_0)	Prevents overdrive sun gear from turning either clockwise or counterclockwise
O/D One-Way Clutch (F_0)	When transmission is being driven by engine, connects overdrive sun gear and overdrive carrier
Front Clutch (C_1)	Connects input shaft and intermediate shaft
Rear Clutch (C_2)	Connects input shaft and front & rear planetary sun gear
2nd Brake (B_2)	Prevents front & rear planetary sun gear from turning either clockwise or counterclockwise
1st & Reverse Brake (B_3)	Prevents front planetary carrier from turning either clockwise or counterclockwise
No.2 One-Way Clutch (F_2)	Prevents front planetary carrier from turning counterclockwise



FUNCTION OF COMPONENTS (Cont'd)

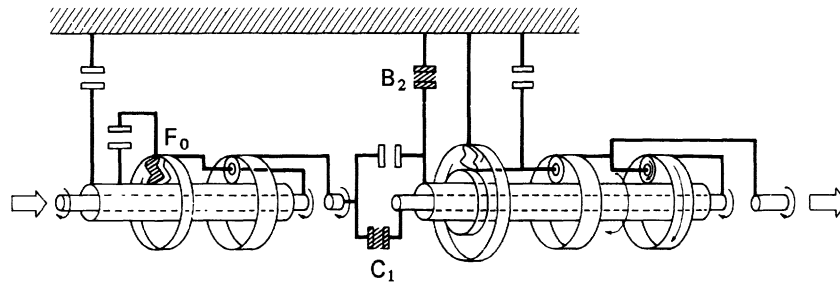
The conditions of operation for each gear position are shown on the following illustration:

D or 3 Range 1st Gear



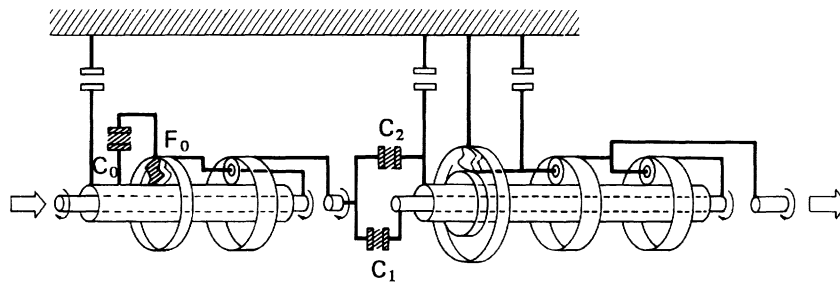
AT5949

D or 3 Range 2nd Gear



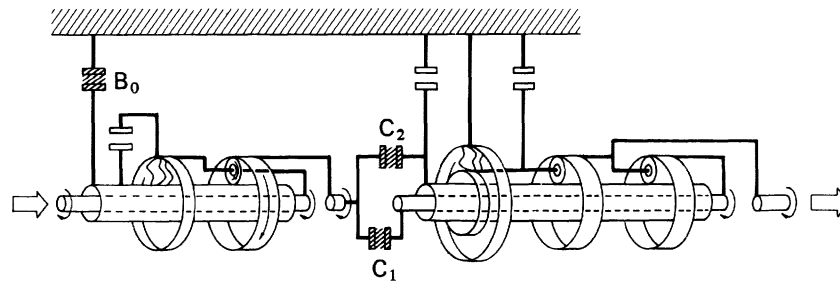
AT5950

D or 3 Range 3rd Gear



AT5951

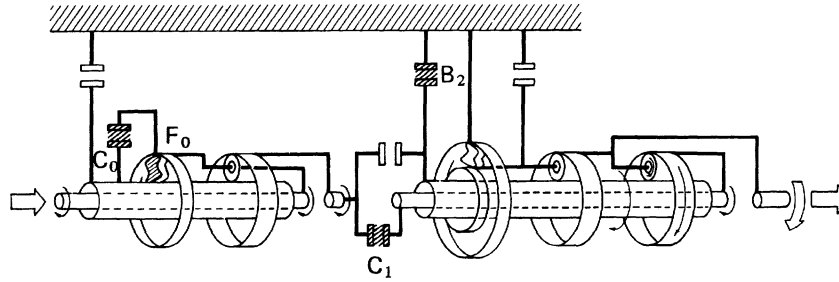
D Range O/D



AT5952

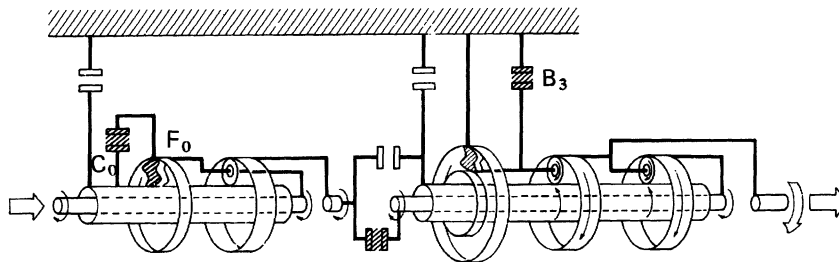
FUNCTION OF COMPONENTS (Cont'd)

2 Range 2nd Gear



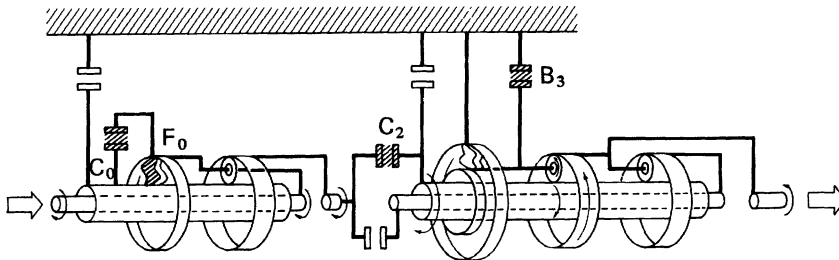
AT5953

L Range 1st Gear



AT5954

R Range Reverse Gear



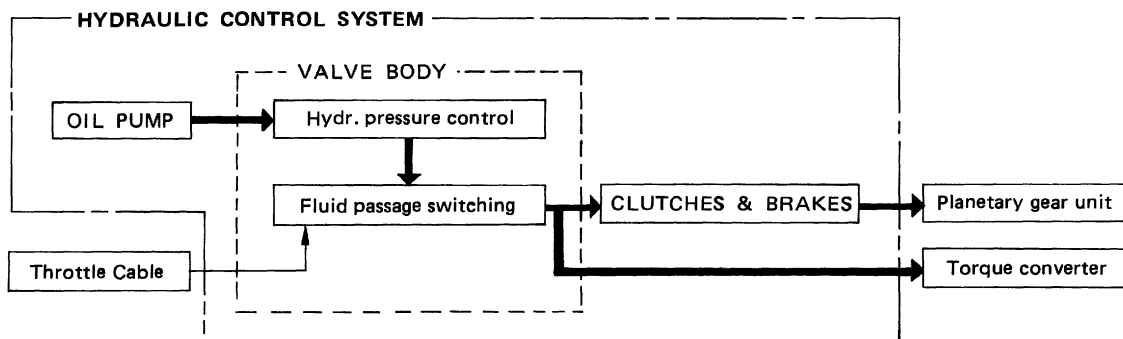
AT5955

Hydraulic Control System

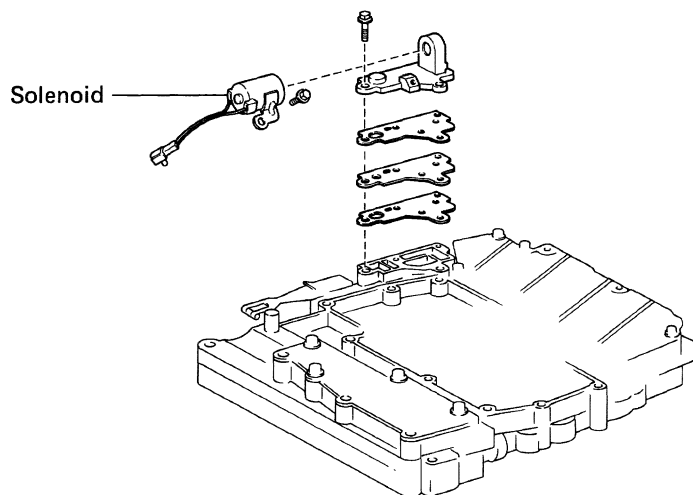
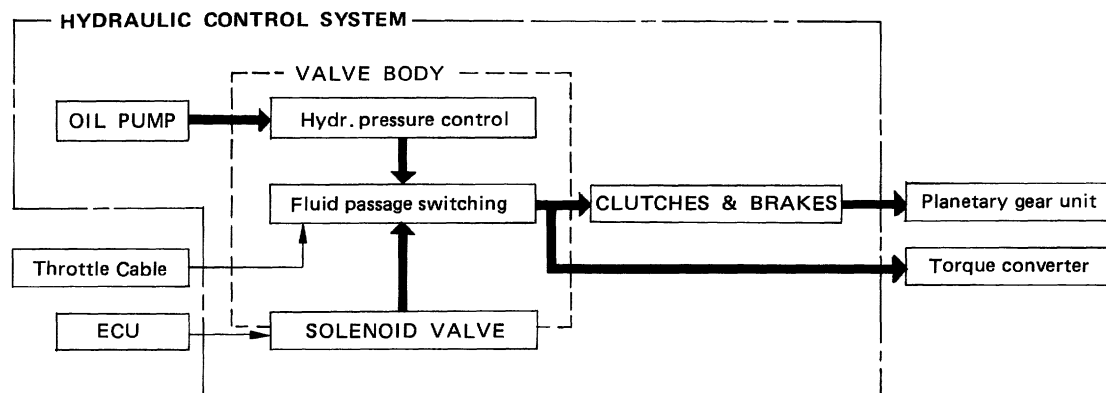
The hydraulic control system is composed of the oil pump, the valve body, the solenoid valve, the accumulators, the clutches and brakes, as well as the fluid passages which connect all of these components. Based on the hydraulic pressure created by the oil pump, the hydraulic control system governs the hydraulic pressure acting on the torque converter, clutches and brakes in accordance with the vehicle driving conditions.

There is a solenoid valve on the valve body.

The solenoid valve accompany with the cruise control system is turned on and off by signals from the ECU to operate the 3-4 shift valve, and change the gear shift position.

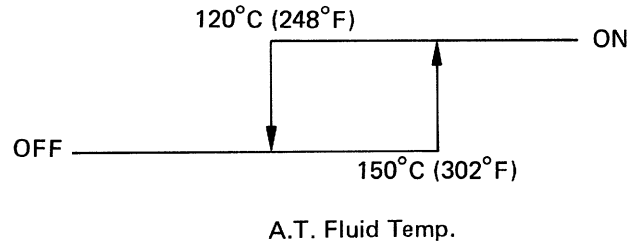
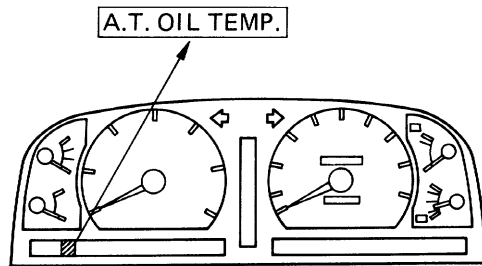


(w/ Cruise Control System)



A.T. FLUID TEMPERATURE WARNING SYSTEM

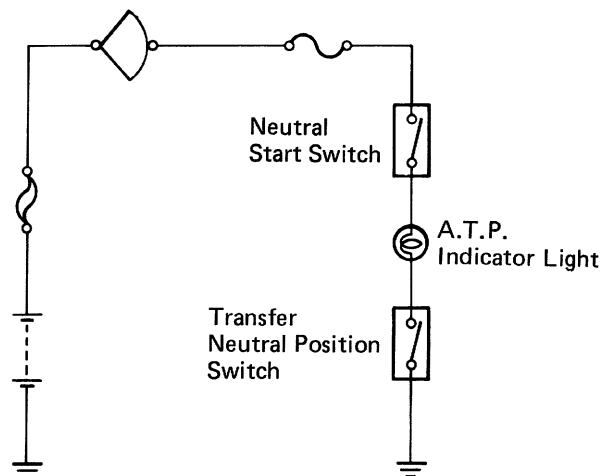
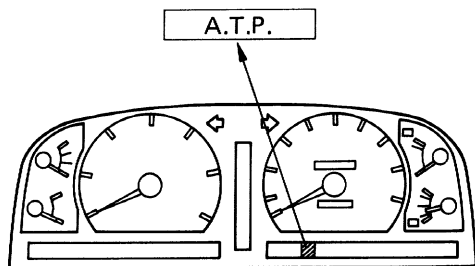
The ECU detects the A/T fluid temperature by means of a fluid temperature sensor fitted to the union. The A/T fluid may become extremely hot when the vehicle is under an extreme load, as when driving on sand or climbing uphill. Should the fluid temperature increase above 150°C (302°F), the ECU lights the warning light located in the combination meter. The light goes off when the temperature falls below 120°C (248°F).



AT6023

A.T.P. (Automatic Transmission Parking) INDICATOR

The propeller shaft and wheels are free even when the transmission shift lever is set to "P" as long as the transfer shift lever is in "neutral" position. The A.T.P. indicator lights up to warn the driver that the propeller shaft and wheels are not locked. If the A.T.P. indicator light goes on, the transfer shift lever should be shifted to out of "N" position.



AT6024

AT3920