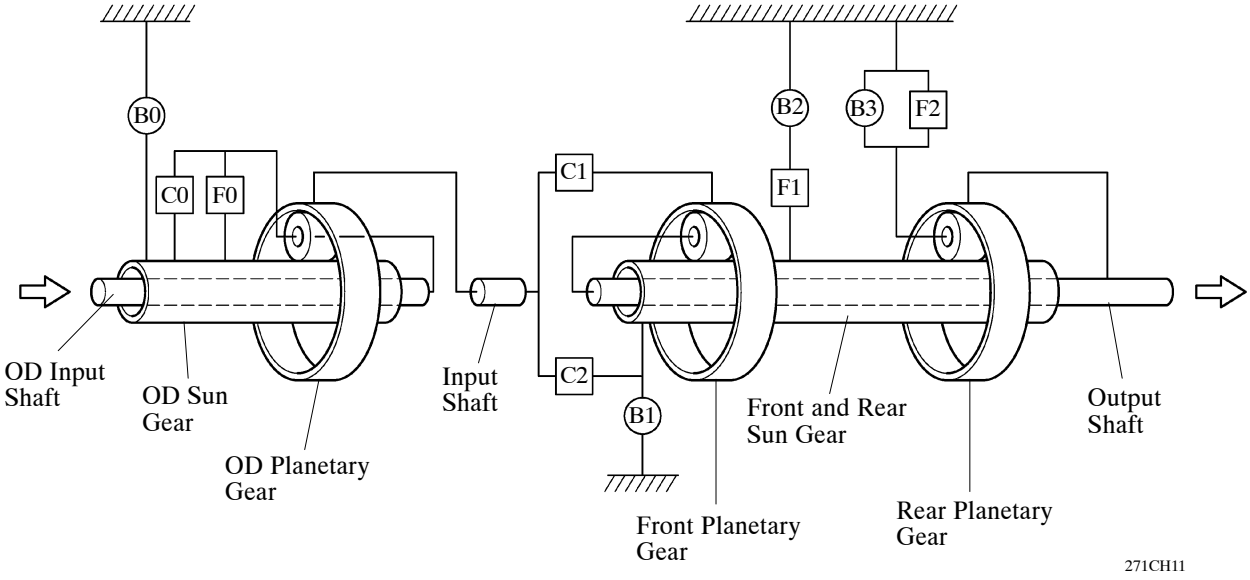
■PLANETARY GEAR UNIT

1. Construction

The gear train consists of three multi-plate clutches, three multi-plate brakes, a single band type brake, three one-way clutches, and three planetary gear sets each consisting of a sun gear, pinion gear and ring gear.



2. Function of Components

Components		Function
C_0	OD Direct Clutch	Connects OD sun gear and OD planetary carrier.
C_1	Forward Clutch	Connects input shaft and front planetary ring gear.
C_2	Direct Clutch	Connects input shaft and front and rear sun gear.
B_0	OD Brake	Prevents OD sun gear from turning either clockwise or counterclockwise.
B_1	2nd Coast Brake	Prevents front and rear sun gear from turning either clockwise or counterclockwise.
B_2	2nd Brake	Prevents outer race of F_1 from turning either clockwise or counterclockwise, thus preventing front and rear sun gear from turning counterclockwise.
B_3	1st & Reverse Brake	Prevents rear planetary carrier from turning either clockwise or counterclockwise.
F_0	OD One-Way Clutch	When engine power is transmitted to OD input shaft, connects OD sun gear and planetary carrier.
F_1	No.1 One-Way Clutch	When B_2 is operating, prevents front and rear sun gear from turning counterclockwise.
F_2	No.2 One-Way Clutch	Prevents rear planetary carrier from turning counterclockwise.
Planetary Gears		Change power transmission route according to clutch and brake operations, and increase or decrease output shaft revolution accordingly.

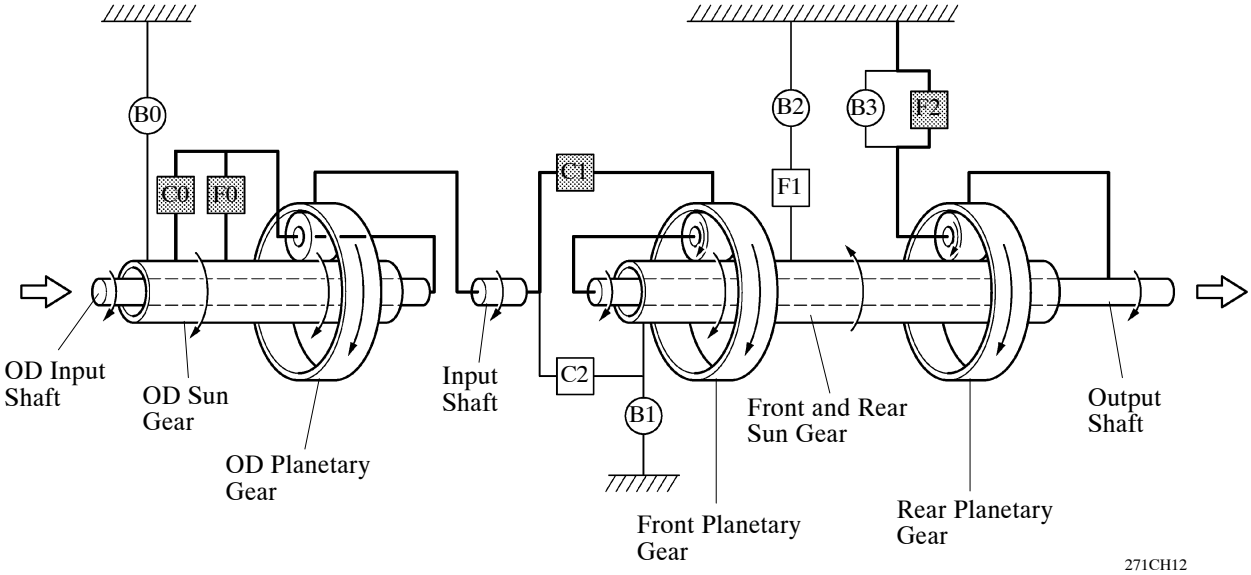
CH

3. Transmission Power Flow

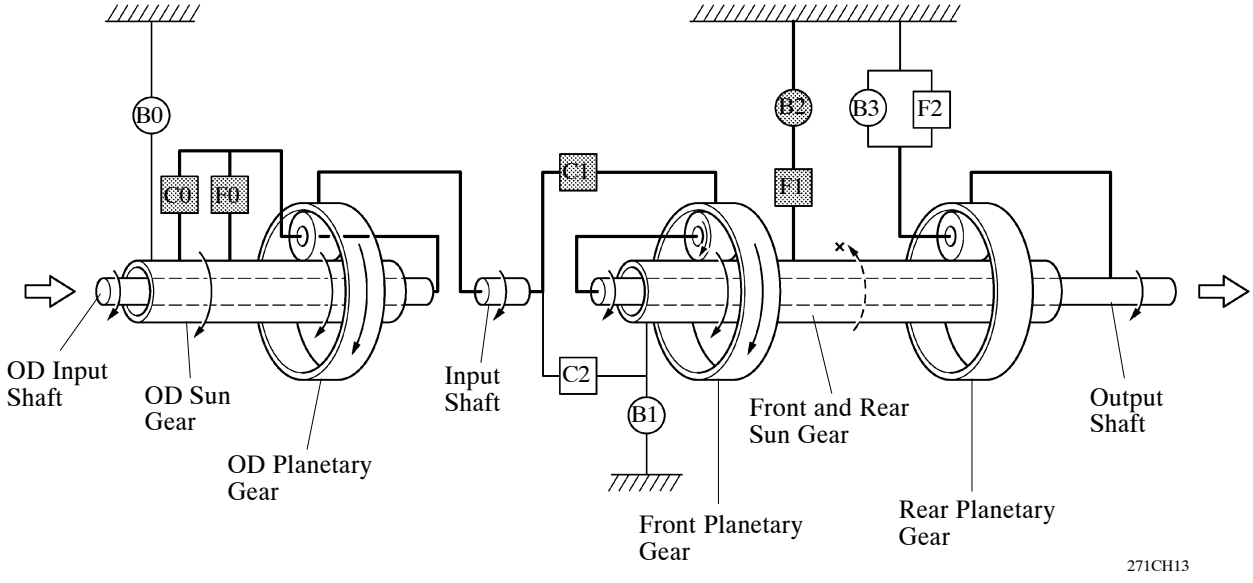
▶ Operating Conditions ◀

Shift Lever Position	Gear	Solenoid Valve S1	Solenoid Valve S2	Clutch			Brake				One-way Clutch		
				C_0	C_1	C_2	B_0	B_1	B_2	B_3	F_0	F_1	F_2
P	Park	ON		○									
R	Reverse	ON		○		○				○	○		
N	Neutral	ON		○									
D	1st	ON		○	○						○		○
	2nd	ON	ON	○	○				○		○	○	
	3rd		ON	○	○	○			○		○		
	4th				○	○	○		○				
2	1st	ON		○	○						○		○
	2nd	ON	ON	○	○			○	○		○	○	
L	1st	ON		○	○					○	○		○

1st Gear (D or 2 Position)

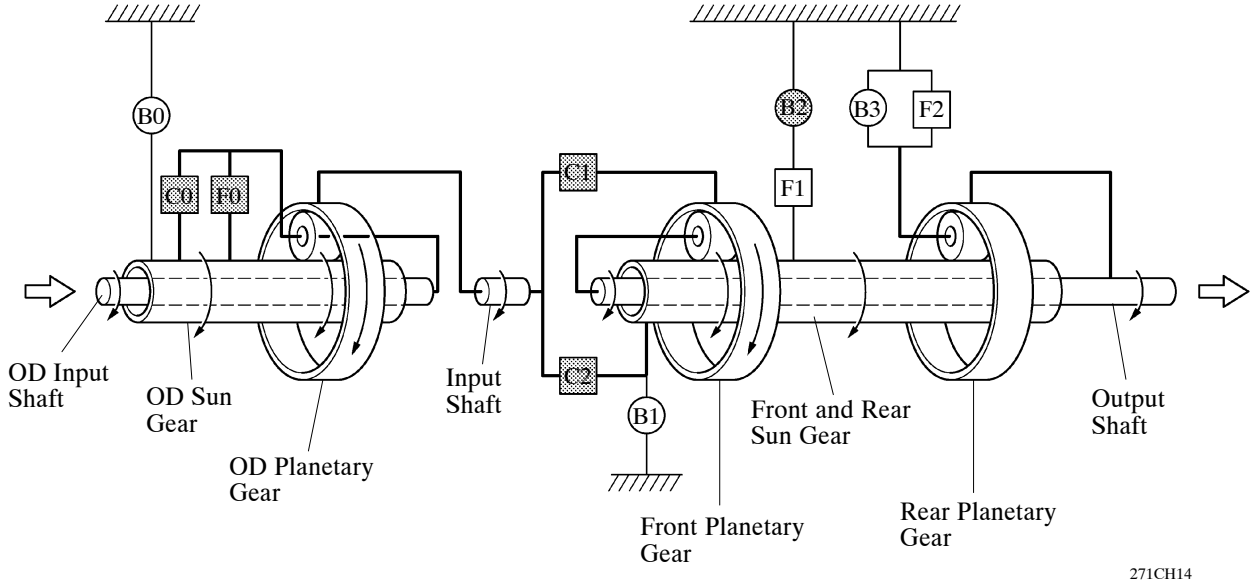


2nd Gear (D Position)



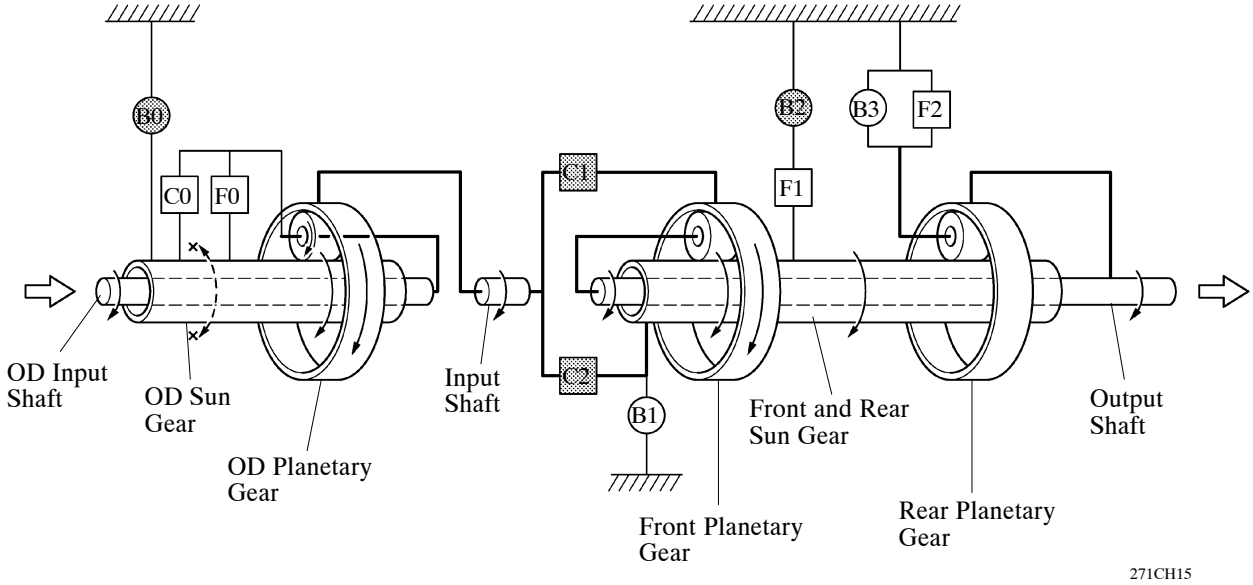
271CH13

3rd Gear (D Position)



271CH14

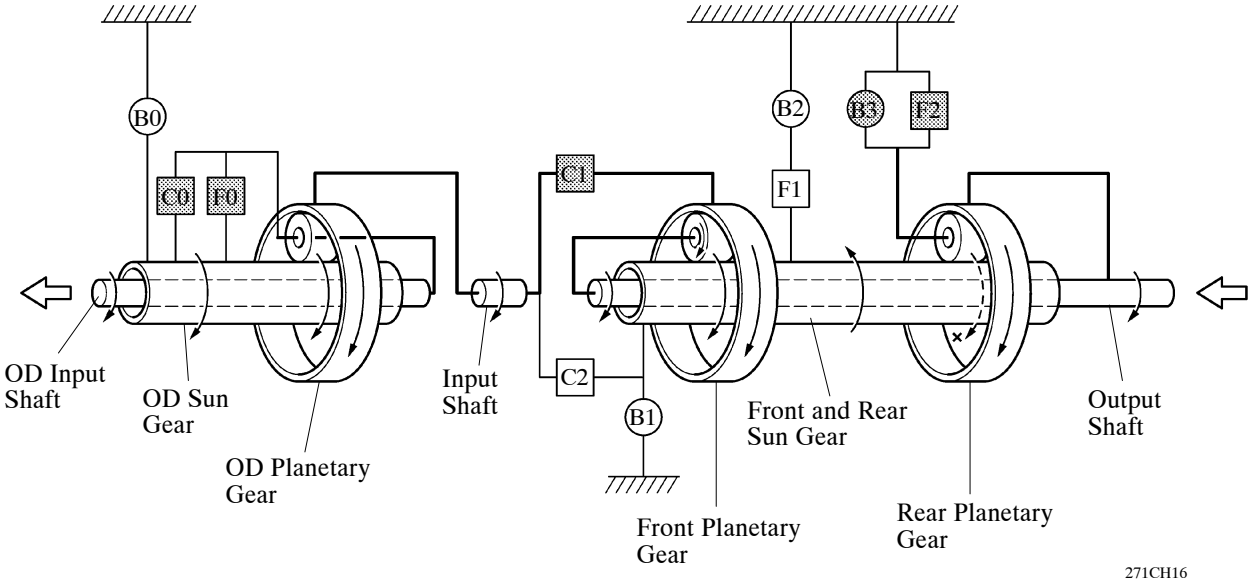
4th Gear (D Position)



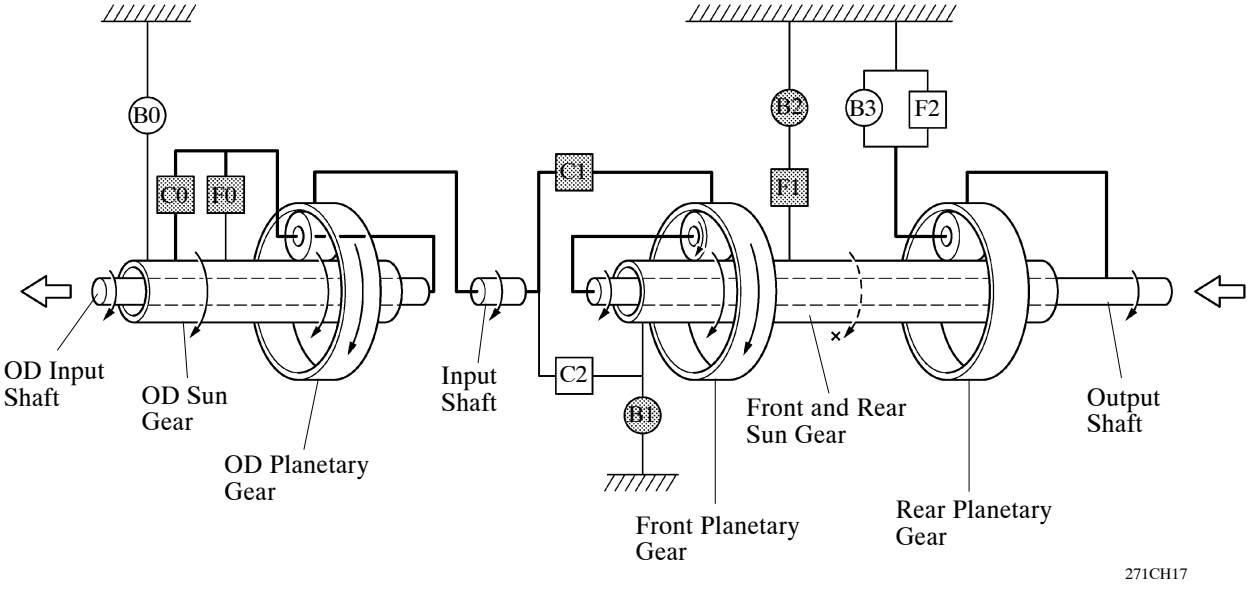
271CH15

CH

1st Gear (L Position), Engine Braking



2nd Gear (2 Position), Engine Braking



Reverse Gear (R Position)

