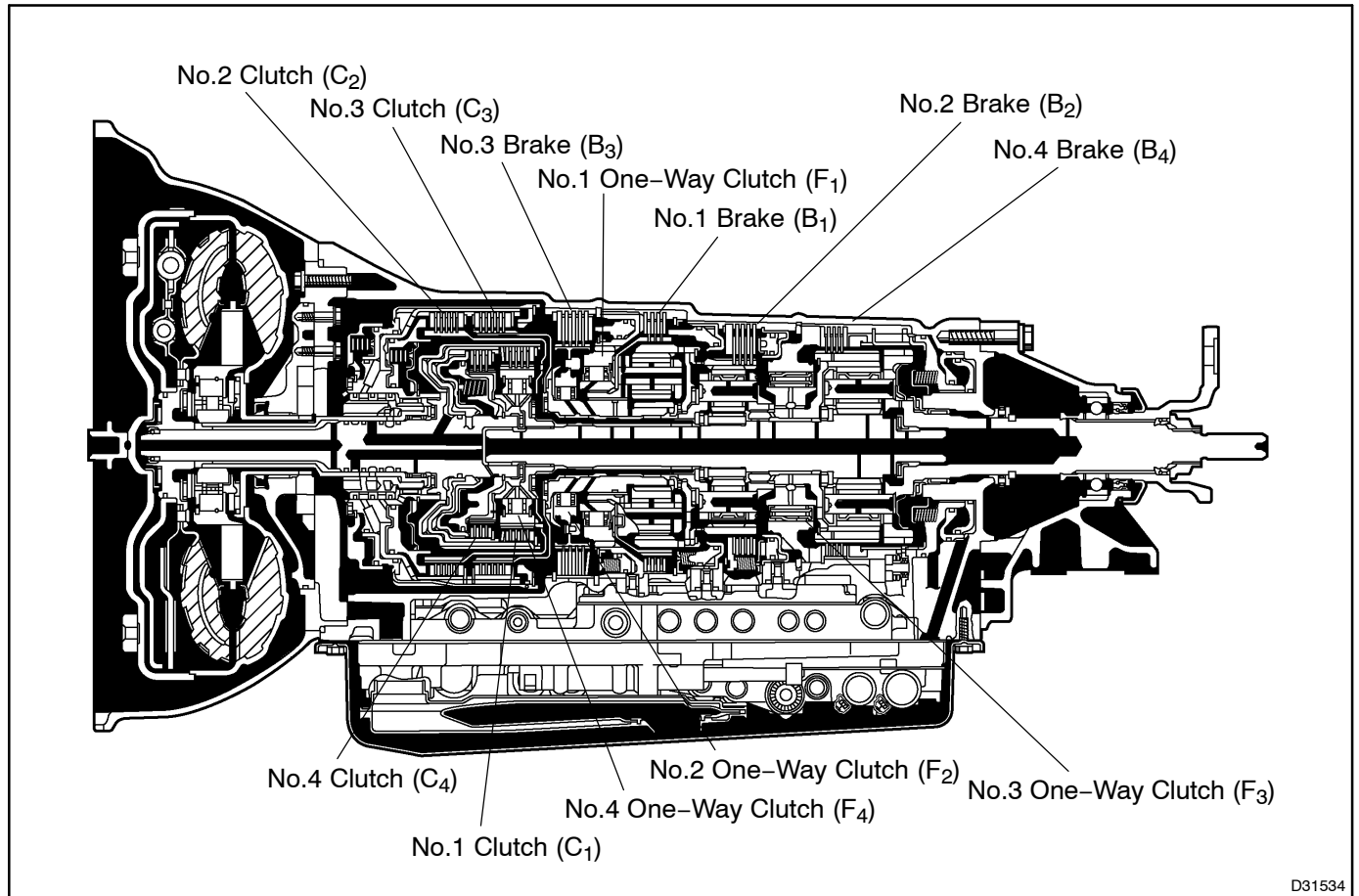


# SYSTEM DESCRIPTION

## 1. OPERATION



D31534

Shift Lever Position	Solenoid Valve								Clutch				Brake				One-way Clutch				
	S1	S2	S3	S4	SR	SL1	SL2	SLU	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	B <sub>4</sub>	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	
P		ON	ON		ON		ON														
R*		ON	ON		ON		ON				○			○			○	○			
N		ON	ON		ON		ON														
D, S (6)	1st		ON	ON		ON		ON		○			○							○	○
	2nd	ON	ON	ON		ON		ON	ON	○			○			○		○	○		○
	3rd	ON		ON		ON		ON	ON	○		○	○			●		○			○
	4th	ON				ON		ON	ON	○	○	●	○			●					○
	5th	ON			ON		ON		ON	●	○	○		○		●					
	6th	ON	ON		ON		ON		ON	●	○			●	○	●					

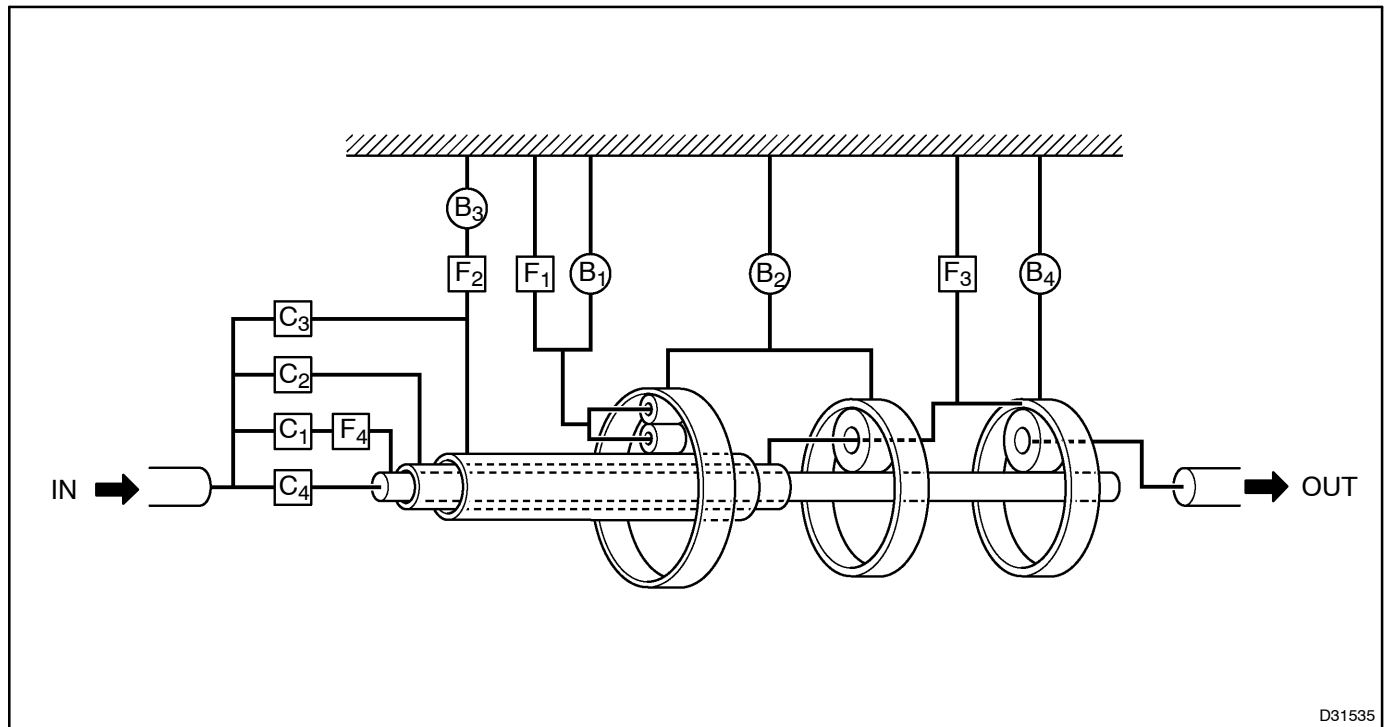
Shift Lever Position	Solenoid Valve									Clutch				Brake				One-way Clutch			
	S1	S2	S3	S4	SR	SL1	SL2	SLU	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	B <sub>4</sub>	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	
S (5)	1st		ON	ON		ON		ON		○			○							○	○
	2nd	ON	ON	ON		ON		ON	ON	○			○			○		○	○		○
	3rd	ON		ON		ON		ON	ON	○		○	○			●		○			○
	4th	ON				ON		ON	ON	○	○	●	○			●					○
	5th	ON			ON		ON		ON	●	○	○		○		●					
S (4)	1st		ON	ON		ON		ON		○			○							○	○
	2nd	ON	ON	ON		ON		ON	ON	○			○			○		○	○		○
	3rd	ON		ON		ON		ON	ON	○		○	○			●		○			○
	4th*	ON				ON		ON	ON	○	○	●	○			●					○
S (3)	1st		ON	ON		ON		ON		○			○							○	○
	2nd	ON	ON	ON		ON		ON	ON	○			○			○		○	○		○
	3rd*	ON		ON		ON		ON	ON	○		○	○	○		●					
S (2)	1st		ON	ON		ON		ON		○			○							○	○
	2nd*	ON	ON	ON	ON	ON		ON	ON	○			○		○	○					
S (1)	1st*		ON	ON		ON		ON	ON	○			○				○				

○: Operation

●: Operate but is not related to power transmission

\*: with Engine Brake

## 2. FUNCTION OF COMPONENTS



D31535

Component		Function
C <sub>1</sub>	No.1 Clutch	Connects input shaft and intermediate shaft.
C <sub>2</sub>	No.2 Clutch	Connects input shaft and center planetary carrier.
C <sub>3</sub>	No.3 Clutch	Connects input shaft and front sun gear.
C <sub>4</sub>	No.4 Clutch	Connects input shaft and intermediate shaft.
B <sub>1</sub>	No.1 Brake	Prevents front planetary carrier from turning both clockwise and counterclockwise.
B <sub>2</sub>	No.2 Brake	Prevents front and center ring gear from turning both clockwise and counterclockwise.
B <sub>3</sub>	No.3 Brake	Prevents outer race of F <sub>2</sub> from turning both clockwise and counterclockwise.
B <sub>4</sub>	No.4 Brake	Prevents rear ring gear from turning both clockwise and counterclockwise.
F <sub>1</sub>	No.1 One-Way Clutch	Prevents front planetary carrier from turning counterclockwise.
F <sub>2</sub>	No.2 One-Way Clutch	When B <sub>3</sub> is operating, prevents planetary sun gear from turning counterclockwise.
F <sub>3</sub>	No.3 One-Way Clutch	Prevents center planetary carrier and rear ring gear from turning counterclockwise.
F <sub>4</sub>	No.4 One-Way Clutch	Prevents intermediate shaft from turning counterclockwise.