

A detailed cross-sectional diagram of a manual transmission assembly, showing the internal components and their arrangement. The diagram is labeled with various parts, including clutches, brakes, planetary gears, and shafts. The components are arranged in a longitudinal section, showing the input shaft, intermediate shaft, and output shaft. The input shaft is connected to the O/D Direct Clutch (C<sub>0</sub>) and the O/D One-Way Clutch (F<sub>0</sub>). The intermediate shaft is connected to the Forward Clutch (C<sub>1</sub>) and the 2nd Brake (B<sub>2</sub>). The output shaft is connected to the 1st & Reverse Brake (B<sub>3</sub>) and the Front & Rear Planetary Sun Gear. The diagram also shows the O/D Planetary Carrier, O/D Planetary Ring Gear, O/D Planetary Sun Gear, Front Planetary Carrier, Front Planetary Ring Gear, and Rear Planetary Carrier. The assembly is shown in a cross-section, with the housing and internal components clearly visible.

Labels in the diagram include:

- O/D Direct Clutch (C<sub>0</sub>)
- 2nd Coast Brake (B<sub>1</sub>)
- Forward Clutch (C<sub>1</sub>)
- 1st & Reverse Brake (B<sub>3</sub>)
- Rear Planetary Carrier
- Rear Planetary Ring Gear
- O/D Brake (B<sub>0</sub>)
- Direct Clutch (C<sub>2</sub>)
- 2nd Brake (B<sub>2</sub>)
- O/D Input Shaft
- O/D One-Way Clutch (F<sub>0</sub>)
- O/D Planetary Ring Gear
- O/D Planetary Carrier
- O/D Planetary Sun Gear
- Input Shaft
- Front Planetary Carrier
- Front Planetary Ring Gear
- No.1 One-Way Clutch (F<sub>1</sub>)
- No.2 One-Way Clutch (F<sub>2</sub>)
- Front & Rear Planetary Sun Gear
- Output Shaft

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○ - - - - Operating

| Shift Lever Position | Gear Position | C <sub>0</sub> | C <sub>1</sub> | C <sub>2</sub> | B <sub>0</sub> | B <sub>1</sub> | B <sub>2</sub> | B <sub>3</sub> | F <sub>0</sub> | F <sub>1</sub> | F <sub>2</sub> |
|----------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| P                    | Parking       | ○              |                |                |                |                |                |                |                |                |                |
| R                    | Reverse       | ○              |                | ○              |                |                |                | ○              | ○              |                |                |
| N                    | Neutral       | ○              |                |                |                |                |                |                |                |                |                |
| D                    | 1st           | ○              | ○              |                |                |                |                |                | ○              |                | ○              |
|                      | 2nd           | ○              | ○              |                |                |                | ○              |                | ○              | ○              |                |
|                      | 3rd           | ○              | ○              | ○              |                |                | ○              |                | ○              |                |                |
|                      | O/D           |                | ○              | ○              | ○              |                | ○              |                |                |                |                |
| 2                    | 1st           | ○              | ○              |                |                |                |                |                | ○              |                | ○              |
|                      | 2nd           | ○              | ○              |                |                | ○              | ○              |                | ○              | ○              |                |
|                      | *1 3rd        | ○              | ○              | ○              |                |                | ○              |                | ○              |                |                |
| L                    | 1st           | ○              | ○              |                |                |                |                | ○              | ○              |                | ○              |
|                      | *2 2nd        | ○              | ○              |                |                | ○              | ○              |                | ○              | ○              |                |

\*2 Down-shift only in the L position and 2nd gear-no up-shift.