

## Apply Components

### Band — Overdrive (O/D)

For component location, refer to [Transmission](#) in this section.

During 2nd and 5th gear operation, hydraulic pressure is applied to the Overdrive (O/D) servo.

- This pressure causes the piston to move and apply force to the band.
- This action causes the [O/D](#) band to hold the [O/D](#) drum.
- This causes the [O/D](#) sun gear to be held stationary through the adapter plate and the [O/D](#) drum.

### Band — Low/Reverse

For component location, refer to [Transmission](#) in this section.

During 2nd gear, 1st gear and REVERSE operation, hydraulic pressure is applied to the low/reverse servo.

- This pressure causes the servo to move and apply force to the low/reverse band.
- This action causes the low/reverse brake drum to be held.
- This action causes the low/reverse planetary assembly to be held stationary.

### Band — Intermediate

For component location, refer to [Transmission](#) in this section.

During 3rd gear operation, hydraulic pressure is applied to the intermediate servo.

- This pressure causes the servo to move and apply force to the intermediate band.
- This action causes the direct clutch drum to be held.
- The intermediate band holds the intermediate brake and direct clutch drum to the case in 3rd gear.
- This causes the input shell and forward sun gear to be held stationary.

### Clutches — Direct

For component location, refer to [Transmission](#) in this section.

The direct clutch is a multi-disc clutch made up of steel and friction plates.

- The direct clutch is applied with hydraulic pressure and disengaged by return springs and the exhaust of the hydraulic pressure.
- It is housed in the direct clutch drum.
- During 4th, 5th and REVERSE gear application, the direct clutch is applied transferring torque from the forward clutch cylinder to the direct clutch drum.
- This action causes the forward sun gear to drive the pinions of the low/reverse planetary carrier.

## Clutches — Forward

For component location, refer to [Transmission](#) in this section.

The forward clutch is a multi-disc clutch made up of steel and friction plates.

- The forward clutch is applied with hydraulic pressure and disengaged by return springs and the exhaust of the hydraulic pressure.
- The forward clutch is applied in all forward gears.
- When applied, the forward clutch provides a direct mechanical coupling between the center shaft and the forward ring gear and hub.

## Clutches — Coast

For component location, refer to [Transmission](#) in this section.

The coast clutch is a multi-disc clutch made up of steel and friction plates.

- The coast clutch is applied with hydraulic pressure and disengaged by return springs and the exhaust of the hydraulic pressure.
- The coast clutch is housed in the Overdrive (O/D) drum.
- The coast clutch is applied when in manual 1st and 3rd, 4th with (D) cancelled and REVERSE positions.
- When applied, the coast clutch locks the [O/D](#) sun gear to the [O/D](#) planetary carrier, thus preventing the One-Way Clutch (OWC) from overrunning when the vehicle is coasting.
  - This allows engine compression to help slow the vehicle and provide engine braking.

## One-Way Clutch (OWC) — Direct

For component location, refer to [Transmission](#) in this section.

The direct [OWC](#) is a sprag-type [OWC](#) that is pressed into the center shaft.

- The direct [OWC](#) is driven by the ring gear of the [O/D](#) planetary carrier.
- The direct [OWC](#) holds and drives the outer splines of the center shaft in 1st, 3rd, 4th and REVERSE gears.
- The direct [OWC](#) overruns during all coast operations and at all times in 2nd and 5th gear.

## One-Way Clutch (OWC) — Low/Reverse

For component location, refer to [Transmission](#) in this section.

The low/reverse [OWC](#) is a sprag-type [OWC](#).

- The low/reverse [OWC](#) holds the low/reverse drum and low/reverse planetary assembly to the case in 1st and 2nd gear.
- In all other gears the low/reverse [OWC](#) overruns.

## One-Way Clutch (OWC) — Overdrive (O/D)

For component location, refer to [Transmission](#) in this section.

The [O/D OWC](#) is a sprag-type [OWC](#) that connects the input shaft to the center shaft during drive operation.

The [O/D OWC](#) transmits torque in REVERSE, 1st, 3rd and 4th gears, as well as in manual 1st, manual 3rd and manual 4th gears.

- The input shaft connects through the [O/D](#) planetary carrier to the inner race.
  - The outer race is part of the center shaft.
  - The inner race contacts the assembly of sprags, and wedges them between the inner and outer races.
  - The wedging action causes the input shaft and center shaft to be connected.
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