

This article addresses the “as long as it’s out” situation.

The Corvair was designed to have the engine and transaxle (the drivetrain) removed as a unit for major service operations. Removing the engine with the transaxle in the car or removing the transaxle with the engine in the car is a good way to break a differential snout or bend a shaft. And by the time you finish this awkward procedure, you are within five minutes of having the entire drivetrain out anyway.

With the drivetrain removed, check as many of the following as possible:

Manual Transmission

- Check disc thickness: .290 minimum (original GM was .320 squeezed with a caliper) - no grease! Check or replace pressure plate – use special bolts. Install the disc with the correct side towards the flywheel.
- Rebuild flywheel if it is original (No exception!), balance pressure plate on the flywheel - check centering and ring gear. Use blue Loctite or sealer on flywheel bolts (TORQUE!). Flywheel and converter bolts are different lengths, also be sure you use the reinforcing ring on the manual flywheel.
- Change flywheel housing seal (use a Clark’s reproduction - NOS seals leak)
- Change pilot bushing every time the transaxle comes off, they take a wear set and will get noisy if you try to reuse them. Pressure oil the bushing! Replace clutch shaft seal with the proper size and change or repack the (correct) release bearing.
- Check for a straight shaft and disc. Insert the shaft in the transaxle, add the disc and turn with the stub axles. Lube the disc splines and the shaft splines. If you separate the transaxle, check the internal splines in the differential pinion shaft with a flashlight – they wear out first.
- Lube release bearing shaft, fork pivot, and fork fingers.
- Check U-Joints and re-pack rear wheel bearings, chase the threads in mounting holes.
- Check differential side seals, O-rings, shifter seal, and clean differential vent.
- This is also the time to replace or service items that are hard to do with the engine back in the car, such as heater hoses, heater box and cables, blower motor, brake lines, gas line connection, positive battery cables, harmonic balancer, engine seals, etc.

Automatic Transmission

- Check the flex plate carefully for cracks around the mounting holes. Use blue loctite or sealer on flex plate bolts. Flex plate bolts are shorter than flywheel bolts.
- Replace converter housing seal and gasket – Use Clark’s reproduction as noted above.
- Check converter hub bushing, polish seal area and replace the converter hub seal in the differential. If you are correcting a leak, make sure the converter does not have a crack around the hub area.
- Adjust low band (loosen lock nut, tighten to 40 inch pounds and back off 4 full turns).
- Replace governor seal, check vacuum modulator.
- Install a 1/8 pipe plug in the converter for draining the fluid. A tech sheet is available for instructions.
- Clean the vent on the back of the pump cover.
- See also the last three items as listed with the manual transmission above.