

Performance Converter Kit

Part No.

BWFD-RK-1

- Front Cover Assembly (Bushing Installed)
- Front Cover Thrust Washer
- Radial Lip Seal
- Piston Thrust Washer
- Turbine Hub
- Reinforcement Ring
- Rivets (10)
- Thrust Bearing, Turbine-side
- Stator Cap, Aluminum, Turbine-side
- Inner Stator Race
- Stator Cap, Steel, Impeller-side
- Thrust Bearing, Impeller-side
- Flanged Impeller Hub

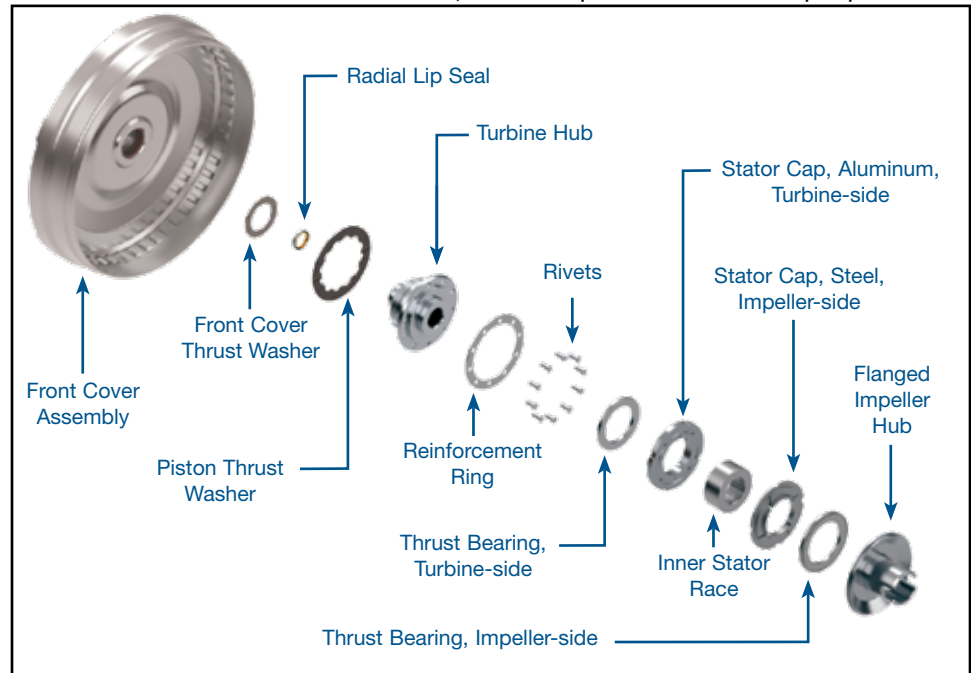
NOTE: Requires a furnace-brazed, low stall 5R110W, 6-stud core.



WARNING: This converter is not designed for high clutch capacity. Not for use over the recommended clutch capacity of 535 ft-lbs of torque.

BorgWarner A618, 47RH/RE, 48RE (310mm), Multi-Plate

Unit Size: 310mm • Core: 5R110W, 6-Stud • Dampened: Yes • Turbine Hub Input Spline Count: 23



1. Salvage Ford 5R110W Torque Converter Core

Cut, clean and inspect Ford 5R110W 6-stud torque converter core to salvage impeller, stator, turbine and piston/damper assembly. Sonnax offers piston/damper assembly **FD-DA-13** if needed.

2. Impeller Assembly

- When used in a 48RE application, remove OE impeller hub from impeller and weld Sonnax impeller hub **BWFD-90-1G** into impeller. The bore of the impeller should be .001-.002" larger than the measured pilot diameter of the impeller hub. Weld impeller hub to impeller from the inside. A low profile weld is recommended for proper clearance.
- When used in a 47RH/RE application, a modification to the inside diameter of the **BWFD-90-1G** is required. At the base of the impeller hub opposite the pump drive end, a 1.582" diameter counterbore at a depth of .850" must be added for proper fluid flow. Remove OE impeller hub from the impeller and weld the modified Sonnax impeller hub **BWFD-90-1G**.

3. Turbine Assembly

- Remove OE turbine hub from turbine and rivet Sonnax turbine hub **BWFD-HT-1HS** into turbine using ten Sonnax **MZ-RV-1L** rivets. Rivet heads should be on impeller-side, through Sonnax reinforcement ring **FD-WS-11**, through turbine and turbine hub and peened on the front cover side of the turbine hub. Ensure peen is below the counter bore of the turbine hub.
- Install Sonnax radial lip seal **CH-O-1V** into the new turbine hub with the metal clad facing out towards the front cover.
- Install both Sonnax piston thrust washer **FD-WP-17A** and front cover thrust washer **BW-WP-4** onto the front cover side of the turbine hub using transmission assembly gel to hold them in place.

4. Stator Assembly

- a. Disassemble OE stator.
- b. Remove .125" from impeller-side of the stator for correct clearance. Double check the assembly for proper clearance. If the weld profile recommended under impeller assembly is too high, more material should be removed for proper clearance.
- c. Assemble stator components from turbine-side of stator. Put OE snap ring in the impeller-side of stator. Drop in impeller-side Sonnax Steel Stator Cap **BWFD-WS-1**.
- d. It is recommended to replace the accordion springs and rollers with eight new Sonnax springs **FD-S-1*** and rollers **FD-RO-900***. Install Sonnax inner stator race **FDGM-HR-HP**. Place Sonnax aluminum stator cap **BWFD-WA-1** into place and use the OE snap ring to hold everything in place (**Figure 1**).
- e. Install Sonnax thrust bearing **MI-N-28** onto impeller-side of steel stator cap of stator and Sonnax thrust bearing **CH-N-1** on turbine-side of aluminum stator cap of stator.

5. Final Assembly

- a. Start with the front cover, installing OE piston/damper assembly (or new Sonnax **FD-DA-13***) into the front cover.
- b. Insert the turbine assembly through the piston/damper assembly until it contacts the front cover.
- c. Place the stator assembly onto the turbine with the steel stator cap and bearing facing out towards the impeller side.
- d. Place the impeller assembly onto the front cover.

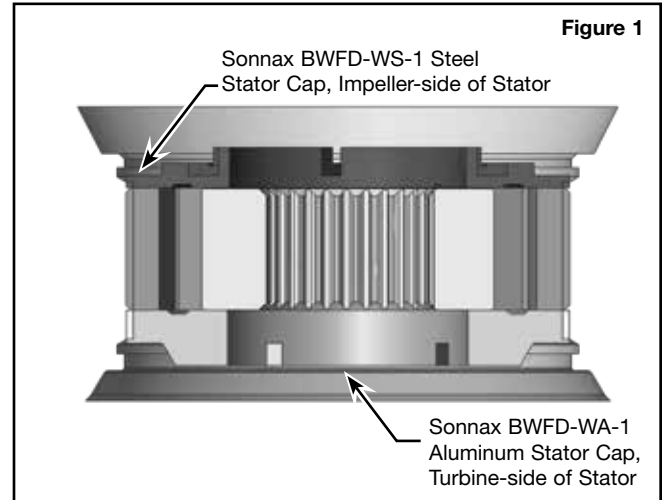


Figure 1

- e. Check clutch release clearance recommended at .035-.050" (**Figure 2**).
- f. Check internal clearance recommended at approximately .100" (**Figure 2**).
- g. Set end play at .020-.025" before welding impeller to front cover which should yield .005-.010" after welding together.
- h. Measure overall height from mounting pads to end of impeller hub, it should be approximately 6.720".

***NOTE:** Not included in this kit.

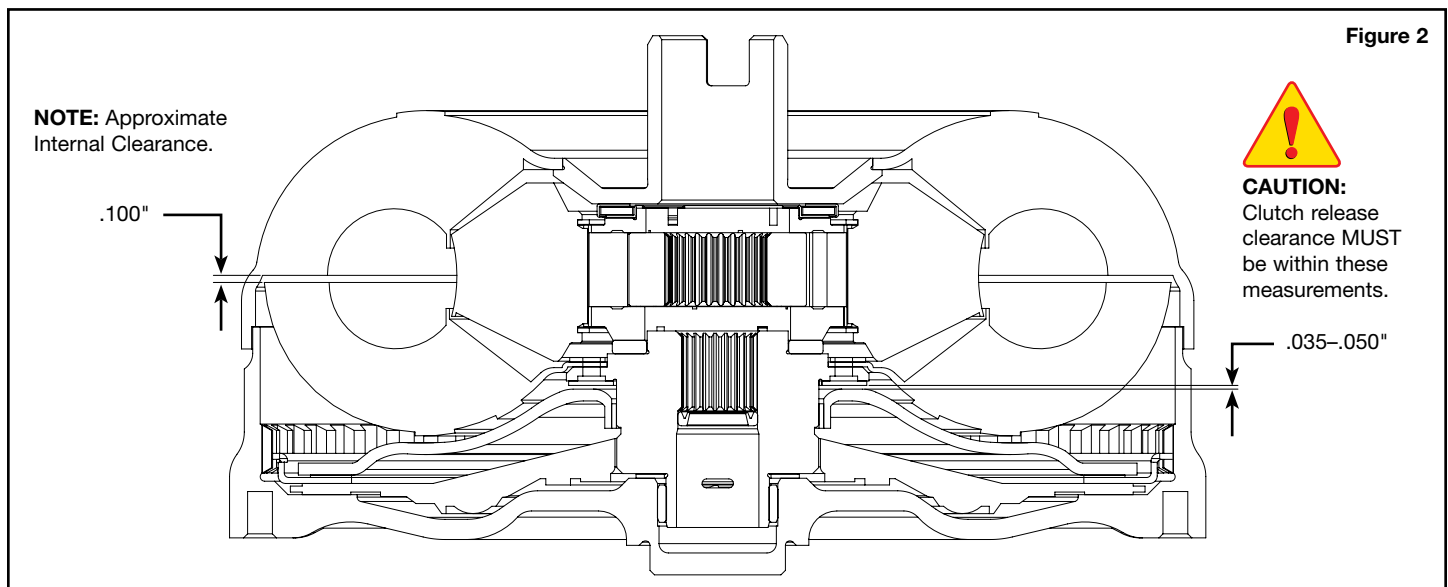


Figure 2