

Ford AOD

Unit Size: 10" • Core: GM 245mm • Damped: NO • Turbine Hub Input Spline Count: 35

Performance Converter Kit

Part No. FD-RK-1

- Impeller Hub
- Inner Stator Race
- Turbine Hub
- Damper Eliminator
- Thrust Washer
- Front Cover Bushing
- Front Cover
- Set Screws (4)
- Stud Covers (4)



There are two ways to assemble Sonnax Ford AOD performance converter kit **FD-RK-1**: turbine-driven or front cover-driven.

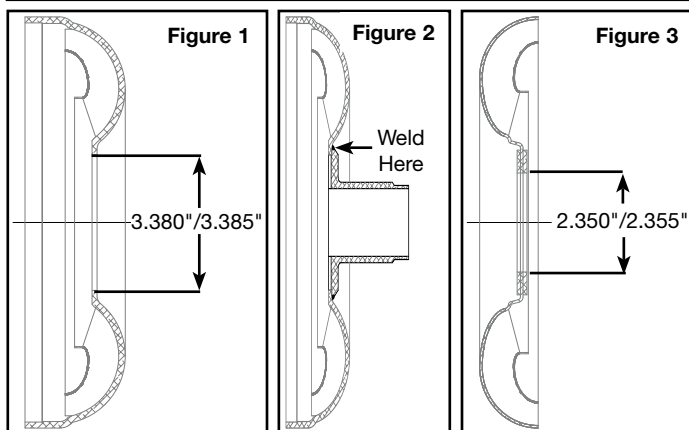
Turbine-Driven

This method eliminates the front cover damper and engages the front splines of the direct drive shaft via the Sonnax damper eliminator included in this kit. This results in a better performing, more reliable, and easily built unit. However, the direct clutch is driven by the fluid coupling, which results in slightly elevated converter temperatures and marginally lower fuel economy. The 2-3 and 3-4 shifts will be less harsh, as the fluid coupling acts in a dampening capacity.

Front Cover-Driven

Building the unit in this manner allows the direct clutch to be driven by the front cover, resulting in the same power flow as the OE AOD torque converter. This results in fuel economy and converter temperatures comparable to those found with the OE AOD torque converter. Using this method requires the builder to use an original AOD damper assembly (not included in this kit). Only the late-style, heavy-duty damper units should be used.

TURBINE-DRIVEN OR FRONT COVER-DRIVEN



1. Impeller Assembly

- Remove OE 245mm impeller hub by boring a 3.380–3.385" dia. hole on center in the impeller (**Figure 1**).
- Install Sonnax impeller hub from the outside. Ensure hub is centered on the impeller, then weld around the O.D. of impeller hub (**Figure 2**).

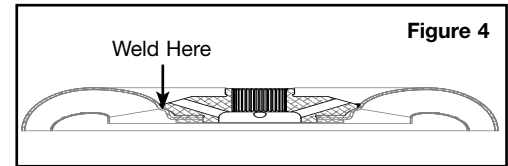
2. Turbine Assembly

- Bore a 2.350–2.355" dia. hole on center in the OE turbine (**Figure 3**). This will allow removal of the OE turbine hub.

NOTE: Both flanges of OE turbine hub assembly are retained and should not be removed.

2. Turbine Assembly (continued)

- b. Install the Sonnax hub into the turbine from the front cover side and weld around the O.D. of the turbine hub (Figure 4).



From this point, assemble in one of the following two ways:

TURBINE-DRIVEN

2. Turbine Assembly (continued)

- c. Fit Sonnax damper eliminator on the turbine hub and apply weld (Figure 5).

3. Front Cover Assembly

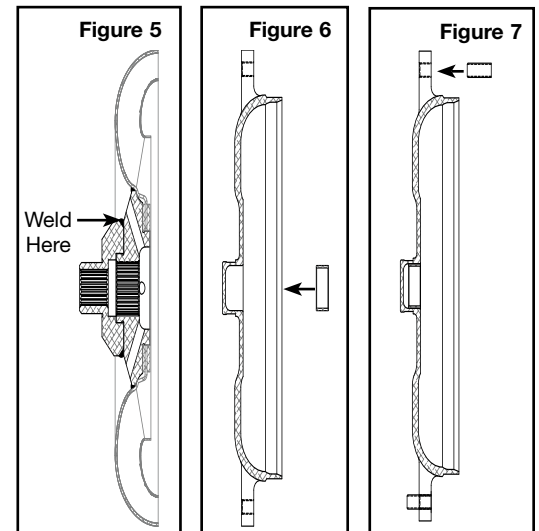
- a. Install Sonnax front cover bushing. Make sure it is flush or slightly below the front cover's thrust face (Figure 6).
- b. Clean the four threaded holes and set screws to remove any oil residue.
- c. Install the four set screws with socket end on the impeller side, extending out of the cover pad 1/2 inch.
- d. TIG weld the four set screws securely in the tapped holes from the impeller side.
- e. Place Sonnax stud covers on exposed threads.

4. Stator Assembly

- a. Install Sonnax stator race.
- b. Install new springs and rolls (not included in kit).
- c. Install OE stator cap and snap ring.

5. Final Assembly

Continue converter assembly. Sonnax thrust washer is included for use during reassembly. Final endplay after welding should be between .000–.010", and the stator and turbine assemblies should be able to turn with minimal effort.



FRONT COVER-DRIVEN

3. Front Cover Assembly

- a. Install OE AOD front cover damper into front cover (Figure 8). Weld damper in place using holes that were left from milling the original spot welds.
- b. Clean the four threaded holes and set screws to remove any oil residue.
- c. Install the four set screws with socket end on the impeller side, extending out of the cover pad 1/2 inch.
- d. TIG weld the four set screws securely in the tapped holes from the impeller side.
- e. Place Sonnax stud covers on exposed threads.

4. Stator Assembly

- a. Install Sonnax stator race.
- b. Install new springs and rolls (not included in kit).
- c. Install OE stator cap and snap ring.

5. Final Assembly

Continue converter assembly, using an OE AOD bi-metal thrust washer (not included in kit). Final endplay after welding should be .000–.010", and the stator and turbine assemblies should be able to turn with minimal effort.

