sonnax®
PERFORMANCE

HIGH PERFORMANCE **TORQUE CONVERTER** PARTS

Instructions

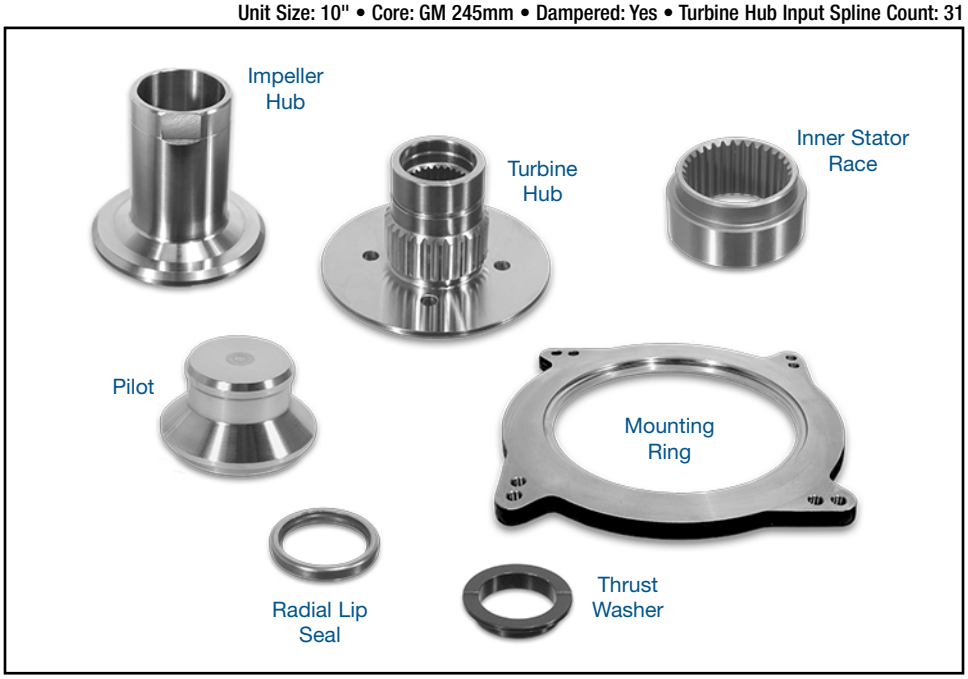
Ford A0DE, 4R70W

Unit Size: 10" • Core: GM 245mm • Dampered: Yes • Turbine Hub Input Spline Count: 31

Performance Converter Mounting Ring Kit

Part No.
FD-RK-10

- Impeller Hub
- Inner Stator Race
- Turbine Hub
- Radial Lip Seal
- Thrust Washer
- Mounting Ring
- Pilot



1. Impeller Assembly (Figure 1)

a. Remove the stock GM 245mm impeller hub by boring a 3.380–3.385" diameter hole on center in the stock GM 245mm impeller.

b. Install the Sonnax impeller hub from the outside. Weld around the O.D. of the impeller hub, making sure that it is centered in the impeller.

2. Stator Assembly

a. Remove the OE snap ring, stator cap, inner stator race, rolls and springs from the GM 245mm stator assembly.

b. Thoroughly clean and inspect the stator body and outer race.

c. Install the Sonnax stator race into the stator body. The smaller O.D. of the stator race should be fitted toward the impeller. This will convert the stator for use with the 32-tooth Ford stator support shaft.

d. Install new springs and rolls into the stator.

e. Install the OE stator cap. Use either a new Sonnax **GM-WA-4** stator cap or, if it is not damaged, reuse the OE stator cap. Install the OE snap ring.

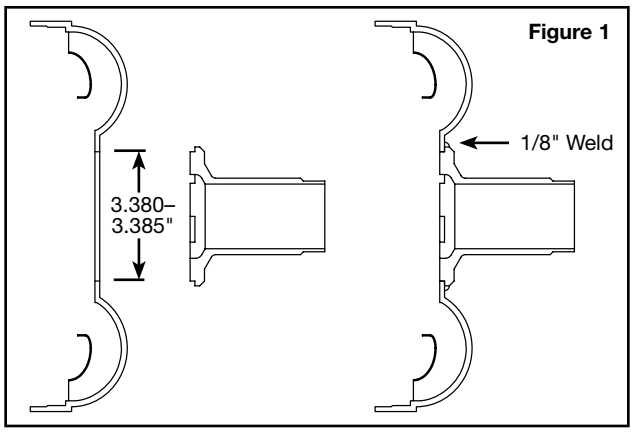


Figure 1

3. Turbine Assembly

a. Bore a 3.200–3.205" diameter hole on center in the stock GM 245mm turbine. This will remove the OE turbine hub.

NOTE: The mounting diameter is different than non-lockup performance converter kit turbine hubs. Also different from other performance converter kits is that both flanges of the OE turbine hub assembly are removed.

b. Install the Sonnax turbine hub into the turbine from the front cover side and then weld around the O.D. of the turbine hub (**Figure 2A**).

c. Install the Sonnax radial lip seal into the Sonnax turbine hub (**Figure 2B**).

d. The Sonnax aluminum thrust washer gets pressed into the end of the Sonnax turbine hub the same way as the OE 245mm assembly (**Figure 2C**).

4. Front Cover Assembly

a. Remove the pilot of the stock GM 245mm front cover (FWD) and, from the outside of the cover, bore a 1.750–1.752" diameter hole.

b. Remove the OE mounting pads and make a skim cut (.005–.010") of the front cover stamping where the Sonnax mounting ring will fit. Make sure that the parallelism between the lockup surface and where the skim cut was taken is minimal.

c. Install the Sonnax pilot from the outside of the cover and then weld around the O.D. of the pilot (**Figure 3A**).

d. Center the Sonnax mounting ring to the Sonnax front cover pilot. Weld at the seam between the O.D. of the cover and the mounting ring. Weld again where the I.D. of the mounting ring meets the front cover (**Figure 3B**).

e. After the welding process, check the runout of the lockup surface to the mounting pads. If it exceeds .005" or the lockup surface is damaged, it is recommended that the lockup surface be remachined. A minimal skim cut should be taken and surface finish should not exceed 20 Ra micro-inches. Polishing with Scotch-brite™ or emery cloth is recommended at this point.

5. Clutch Assembly

The kit is designed to work with early model GM 245mm piston/damper assemblies. Some consideration should be used when deciding what friction ring to use. It is suggested to use Woven Carbon or High Thermal Engaging (HTE) friction material.

6. Final Assembly

From this point on, the kit can be assembled in the same way as a stock GM 245mm converter. The endplay of the converter should be set the same as a stock GM 245mm converter, .001–.015". The height from the mounting pads to the impeller hub will be the same as an OE Ford AODE converter, approximately 6.625".

NOTE: High torque applications can overpower the torque capacity of stock GM 245mm single disc clutch and damper assemblies. The ability of this single disc clutch to handle a specific torque load is dependent on many factors, including the amount of input torque and the strategy that is used in applying the torque converter clutch. Sonnax does not guarantee that the capability of the 245mm damper assembly will be adequate in all applications.

Figure 2A

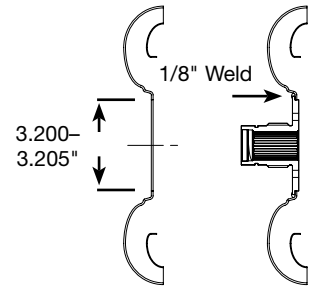


Figure 2B

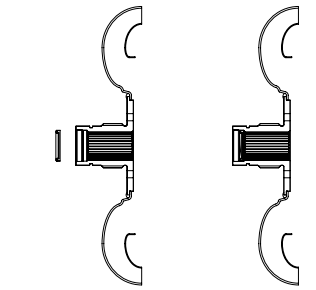


Figure 2C

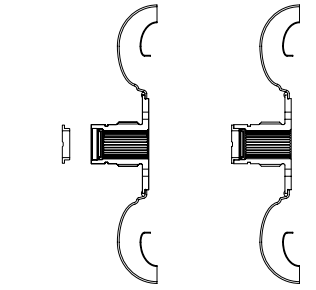


Figure 3A

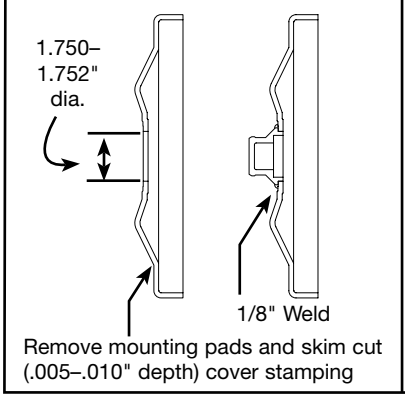


Figure 3B