

## GM Powerglide, TH400 (258mm)

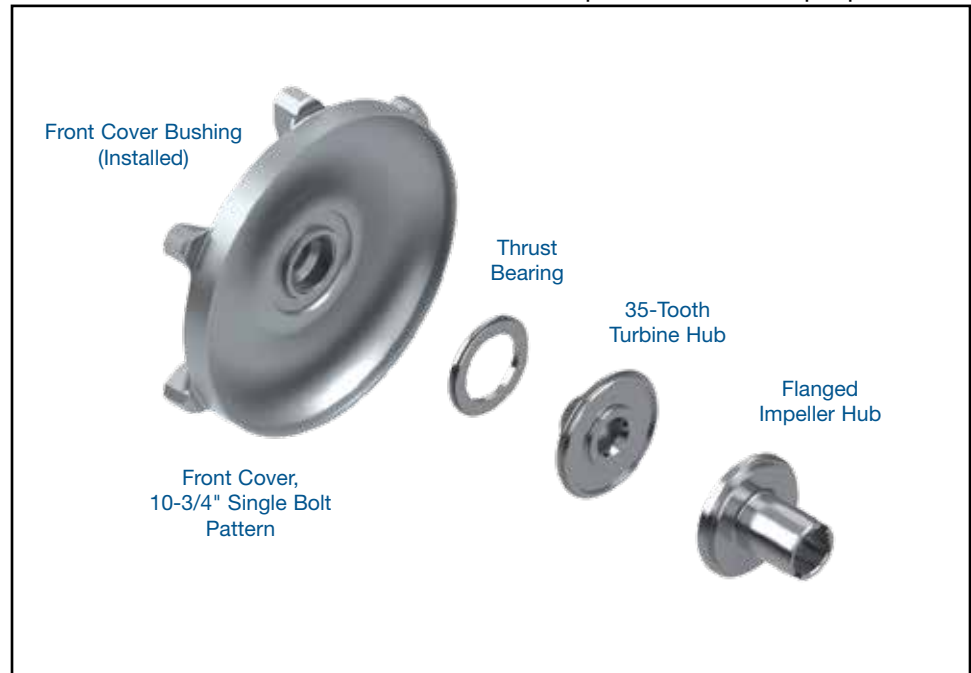
Unit Size: 258mm • Core: GM 258mm • Dampened: No • Turbine Hub Input Spline Count: 35

## 258mm Performance Converter Kit

**Part No.**  
**GM-RK-358**

- Thrust Bearing
- Flanged Impeller Hub
- 35-Tooth Turbine Hub
- Front Cover,  
10-3/4" Single Bolt Pattern
- Front Cover Bushing (*Installed*)

**NOTE:** Pilot kit not included. Powerglide transmissions must be upgraded with the 35-spline Sonnax big input shaft kit 353532-01K.



### 1. Impeller Assembly (Figure 1)

- Remove stock GM 258mm impeller hub by boring a 3.753–3.757" dia. hole on-center in the impeller.
- Install Sonnax flanged impeller hub from the outside but, do not weld it yet.

### 2. Turbine Assembly (Figure 2)

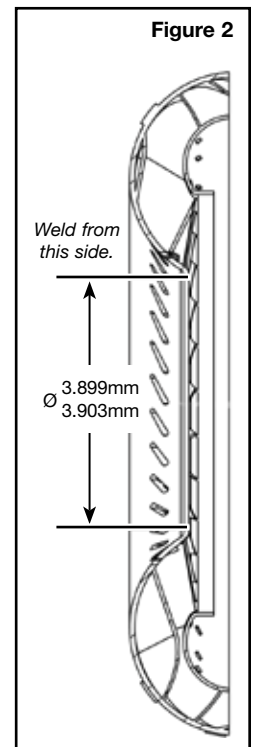
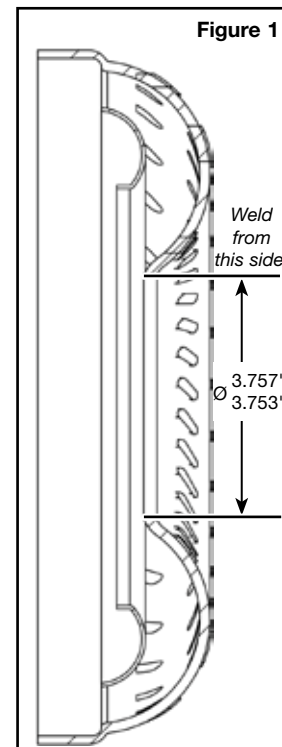
- Remove OE turbine hub.
- Bore a 4.135–4.137" dia. hole on-center in the stock GM 258mm turbine.
- Weld around the O.D. of turbine hub, ensuring it is centered on the turbine.

### 3. Stator Assembly

Install new stator, stator adapter, stator cap and stator clutch (*not included in kit*).



**NOTE:** If the Sonnax optional stator and clutch parts are not used, the stator and clutch assembly to be used must be 1.548" ± .010 high including impeller and turbine bearings (Figure 3).



#### 4. Measuring Turbine Clearance

- Stack the converter parts on a table with the impeller hub first then impeller. Ensure the impeller hub flange edge contacts the impeller.
- Stack stator assembly including clutch and needle bearings.
- Stack the turbine hub assembly.
- Measure from the end of the turbine hub to the end of the impeller hub. Calipers can be used here by going through the center of the turbine hub to the table top. Take note of this measurement.
- Remove stator and stator clutch assembly.
- Place the turbine assembly directly on top of the impeller.
- Measure as you did before.
- Subtract this dimension from the first and this is the current turbine clearance.
- Before making adjustments to the turbine clearance. Measure the overall height as some adjustments affect both.

#### 5. Measuring the Overall Height

- Install the stator assembly with bearings, turbine assembly, cover bearing and cover.
- Measure the overall height from the pad to impeller hub end. Note this measurement.

#### 6. Set Turbine Clearance & Overall Height (Figure 3)

- Shims can be added to increase the overall height or turbine clearance at various locations however, adding shims at some locations will increase both.
- Conversely, machining some surfaces will decrease the overall height or turbine clearance and at some locations decrease both.
- Adding shims or machining material will affect overall height and turbine clearance.
- For reference the OE turbine clearance is .100" and overall height is 6.135" ± .015 however, for this high performance converter your application may require different values.
- Once the clearance and overall height are set for your application weld the impeller hub from the outside of the impeller.

#### 7. Front Cover Assembly (Figure 3)

- Apply thread locking compound to internal pilot threads.
- Screw pilot onto the threaded pilot of front cover and tighten with a pin spanner wrench.
- Permanently attach spacers. If using mounting pad spacers, secure spacer to the appropriate bolt hole of the front cover using a 7/16"-20 mounting bolt. Tack weld the spacer in place, then remove bolt. Repeat for other mounting pads.

