



USCT7M2105 / USCT7M2110 Installation Instructions

For
Gen3 Hemi Spec **ZF8HP70** transmission to
Chrysler Magnum 318/360 engines- with crank sensor

PLEASE READ INSTRUCTIONS COMPLETELY BEFORE BEGINNING INSTALLATION

Note: early-version 8HP torque converters were produced with a smaller diameter (34mm/1.335") pilot hub than later-version torque converters were equipped with. These smaller pilot hubs require the use of a crank bore bushing that is available separately from USCT Motorsports.

- 1.) Clean the crankshaft flange converter alignment hub recess. Remove any rust or damage present with sandpaper to prevent any nicks or distortions present from allowing the bushing/converter hub to seat properly. This is critically important as the fitment of the reducer bushing (if needed), or torque converter hub requires this recess to be without burs or debris.
- 2.) If needing to use a crank bore bushing (**Figure 1**), ensure it can be slid freely onto the converter hub, then remove it and install it into the crankshaft recess (**Figure 2**). Do not use a hammer or other metal object to install the bushing as damage may occur that will prevent proper engagement of the converter hub within the bushing.
- 3.) After installing the bushing, verify that the converter hub can be inserted freely into the bushing without binding and then set the converter aside.
- 4.) Obtain and install a factory GEN 3 Hemi engine starter index plate, which is compatible with the specific transmission case you are using (i.e. car or truck), onto the back of the engine and engage it with the block dowel pins to hold it in place.
- 5.) Attach the flywheel to the crankshaft using six 7/16-20 bolts and tighten them to the factory torque specification of 55 ft-lbs.
- 6.) Attach your crankshaft sensor to the supplied sensor adapter bracket (**Figure 3**). The bolt heads need to bear against the sensor bracket and the nuts against the adapter bracket to provide the intended block clearance. Attach the assembly to the engine.
- 7.) Measure and mark the location to notch the transmission bellhousing to provide clearance for the crankshaft sensor (**Figure 4**), then cut the notch with a hole saw and reciprocating saw.
- 8.) Install transmission and converter onto the engine as per service manual instructions. Confirm that the converter is fully seated into the front pump of the transmission and that approximately .125" to .188" of fore-aft free-play exists between the converter and the

flexplate before attaching them together. Use the 6 supplied M8 bolts, with a drop of blue Loc-Tite applied to them, for this purpose. Tighten the bolts to 31 ft-lbs.

9.) Obtain and install a Gen 3 Hemi engine starter that is compatible with the specific index plate and transmission case that you are using. Clearancing of the starter housing at the area depicted in **Figure 5** is typically required to provide clearance for the casting of the small block engine.

8.) Install and/or fabricate a transmission mount to support the rear of the transmission.

Starter installation notes:

- ZF8HP70 with passenger-side starter; relocation of the engine oil filter will be required using an adapter.

Compatibility information:

- The dimensions and geometry of this flywheel are designed for use with stock OE torque converters; using an aftermarket, or rebuilt torque converter will require torque converter free-play cleared to be verified and adjusted if needed. If more clearance is required, the three pad mounting shims on the rear face of the flexplate can be cut-off/removed by the user.



Figure 1



Figure 2



Figure 3

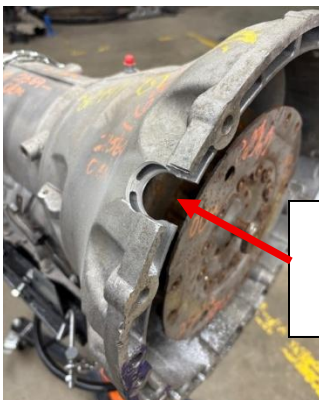


Figure 4



Figure 5