



LK7500K 4L80E/4L85E BELLHOUSING Installation Instructions

Congratulations on your purchase of the finest quality cast aluminum bellhousing available today. Please understand that Lakewood bellhousings are not vehicle specific. They are designed to adapt specific engines to specific transmissions and may require you to do some minor work to make it fit your particular vehicle.

WORK SAFELY! Installation of this bellhousing requires working underneath the vehicle. **USE EXTREME CAUTION WHEN WORKING UNDERNEATH THE VEHICLE.** Never get near or underneath the vehicle until you are confident that it is safely supported and will not move or fall from its raised position. **DO NOT USE A BUMPER JACK!**

Bellhousing kits (part numbers ending in "K") include fasteners to mount the bell to the engine, transmission to the bellhousing, and containment hardware to fasten the applicable block plate, dust cover, or inspection cover to the bell.

STARTER MOTORS:

GEN 3 HEMI Passenger's Side - O'Reilly's Ultima R612898B / 2012 Challenger R/T 5.7
GEN 3 HEMI Driver's Side - O'Reilly's Ultima R612900B / 2016 Challenger R/T 5.7

FLEXPLATE:

LK7500 bellhousing is designed for use with a NAG1 or 8HP flexplate such as Hays P/N: 40-510 or 11-021. Depending on the size of your torque converter bolts, enlarging the holes may be required.

TORQUE CONVERTER:

For installation of your 4L80E/4L85E to GEN 3 HEMI, we recommend the use of a custom built torque converter from Circle D Specialties with a billet cover matching the pattern of a OEM NAG1 or 8HP torque converter.

IMPORTANT: Always check and confirm fitment before final installation. It is recommended to check fit the bellhousing in your application before mounting it to the transmission.

PREPARATION FOR INSTALLATION:

1. Drain all fluids from your 4L80E/4L85E and tape up all openings around the transmission to prevent aluminum material from getting inside your transmission while removing the factory bellhousing (**Figure 1**).
2. Once you have taped off the transmission, rough cut the bellhousing off using a cut off wheel. Be sure not to damage the pump or any other components of the transmission during this process (**Figure 2**).
3. Once the bell housing is rough cut, take a flap disk and finish grind the case. The main goal is to ensure the case surface is ground 1/16" behind the face of the pump so that there is no interference between the case and your new bellhousing. Use a straight edge off the pump face to ensure you have achieved proper clearance (**Figure 3**).



Figure 1

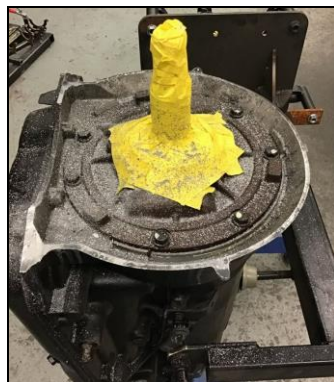


Figure 2



Figure 3

INSTALLATION INSTRUCTIONS:

1. Now that you have completed the removal of your factory bellhousing, you are ready to install your new Lakewood bell. Remove all (x7) pump bolts from the transmission. Ensure the pump surface is clean of rust and debris. If needed, use a red or green scuff pad and brake clean to prep the surface, as this is your mounting and sealing surface for the new bellhousing.
2. Using your supplied M8 x 1.25 x 80mm cap screws, put them through your bellhousing pump holes, as these will be your new pump bolts. Before installing, use the supplied RTV and go around each bolt to create a seal between the bellhousing and the pump (**Figure 4**).
3. Install the bell housing to the transmission and torque all pump bolts to 20 ft./lbs. You have now completed installation of your new bellhousing to the transmission (**Figure 5**).
4. Before installing the flexplate, you will need to put the block plate on the engine. Now, install your flexplate using appropriate hardware and torque to manufacturer's specification. **NOTE:** If your engine was originally equipped with a manual transmission depending on your torque converter selection, you may be required to install an OEM crankshaft bushing for the converter pilot to align in the crankshaft. **Figure 6** shows a flexplate properly installed with a crankshaft bushing as well.

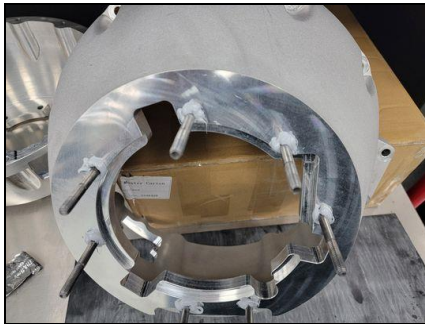


Figure 4

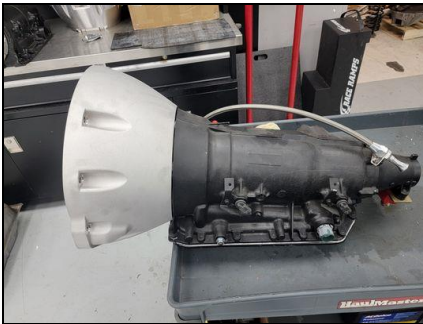


Figure 5



Figure 6

5. Install your torque converter into the transmission. Ensure you have no interference with the bellhousing. After the converter is installed, use your supplied hardware to fasten the transmission to the engine – also included are starter bolts and a block off plate for whichever starter location you do not use. After transmission installation is complete, install the cover over the leftover starter location. With the transmission installed, ensure proper torque converter pull out specified by your torque converter manufacturer. Use the hole in the bottom of the bellhousing to check pull out and install spacers if needed. There is a hole on the driver's side of the block plate that will allow you to install the torque converter bolts. Torque to manufacturer's specification (**Figure 7**). Once complete, use the ¼-20 fasteners to install the (x2) bolt block off plates onto the bottom of the bellhousing.
6. Fill fluid to manufacturer's specifications and ensure you have proper driveshaft fit. A new custom built driveshaft for your application is recommended.



Figure 7

Technical Service: 1-866-464-6553

Phone: 1-270-781-9741

For online help, please refer to the Tech Service section of our website: www.holley.com

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