



Revision
12/20/12

1033040 1GR 4.0 Liter To Chevy Trans Adapter Kit 1033039 1GR 4.0 Liter Bell Housing Adaptor 1052025 1GR 4.0 Liter Flexplate Adaptor

1033039 Kit Contents

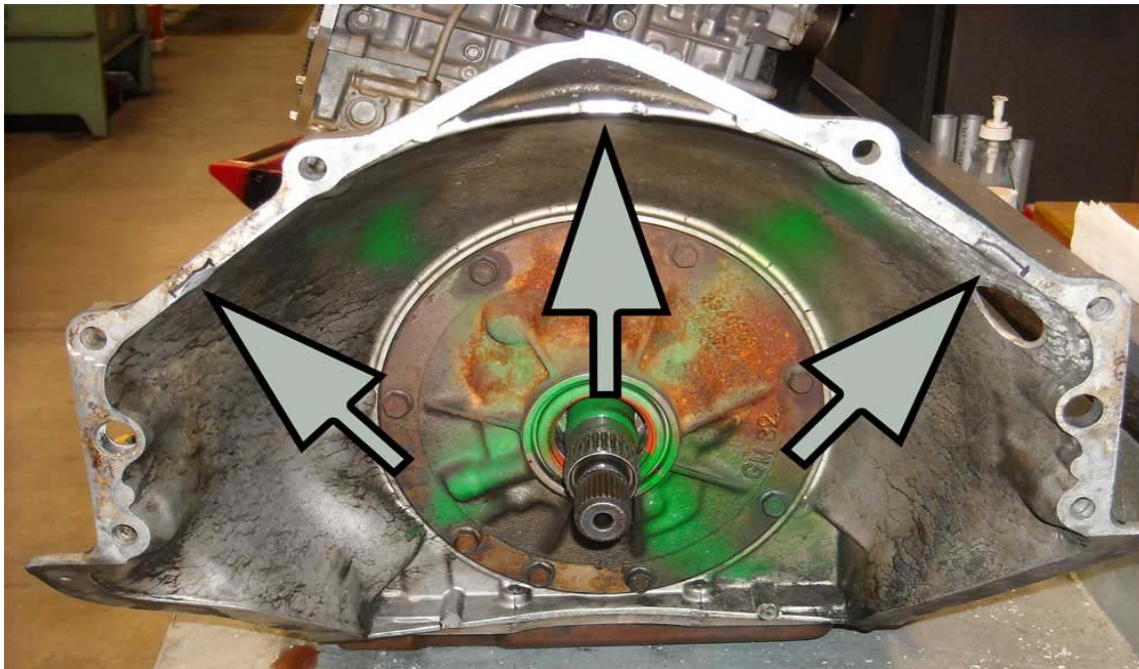
- 1 Bell housing Adapter Plate
- 2 M10x1.25 x 45mm Flange Head Bolt
- 6 3/8-16 x 1-1/4" Bolt
- 4 M12x1.25 x 30mm Bolt
- 1 M10x1.25 x 30 Flange Bolt
- 4 M12 Flat Washer
- 6 3/8" Lock Washer

1052025 Kit Contents

- 1 Torque Converter Adapter Ring
- 1 Torque Converter Pilot Collar
- 3 M10x1.25 x 16 Flange Bolt
- 3 3/8-16 x 3/4" Flat Socket Head Allen Bolt

This kit is designed to mate a 1GR 4.0 Toyota V6 to GM automatic transmission. This kit is available with our adapter flexplate ring and torque converter pilot or as an adapter plate only. LC Engineering strongly recommends using the adapter plate only and having a custom torque converter made. This is a lot stronger than running the torque converter pilot and flexplate ring.

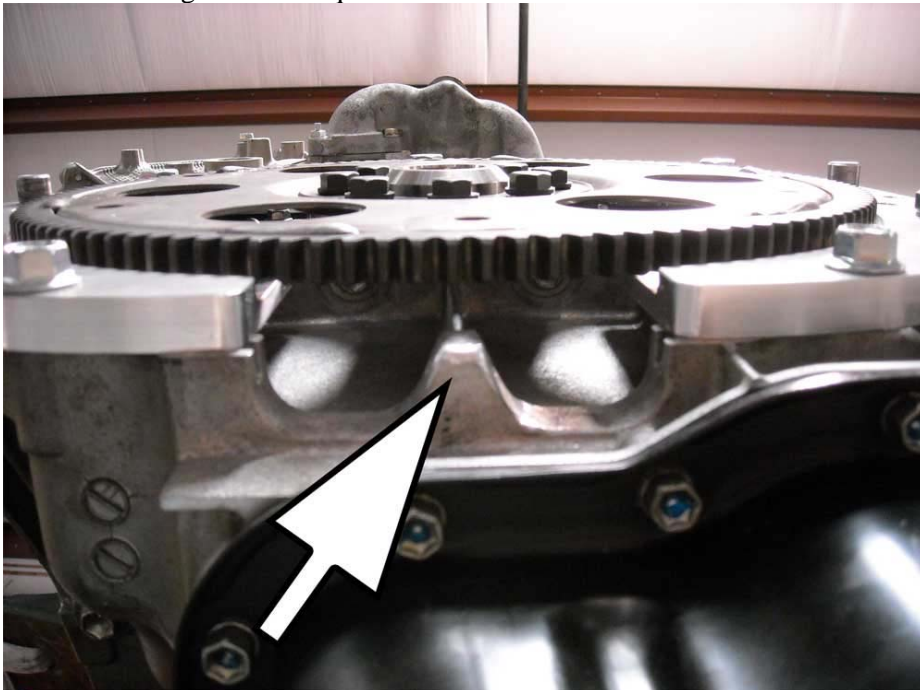
1. Modify your transmission bell housing to clear the adapter plate bolts as shown in the following image. Use the adapter plate and 12mm bolts as a template to assure adequate clearance before installing the transmission to the engine. This may take a few tries before proper clearance is obtained. Note location of arrows for where to remove material. See back pages for more close-up pictures of clearance needed.



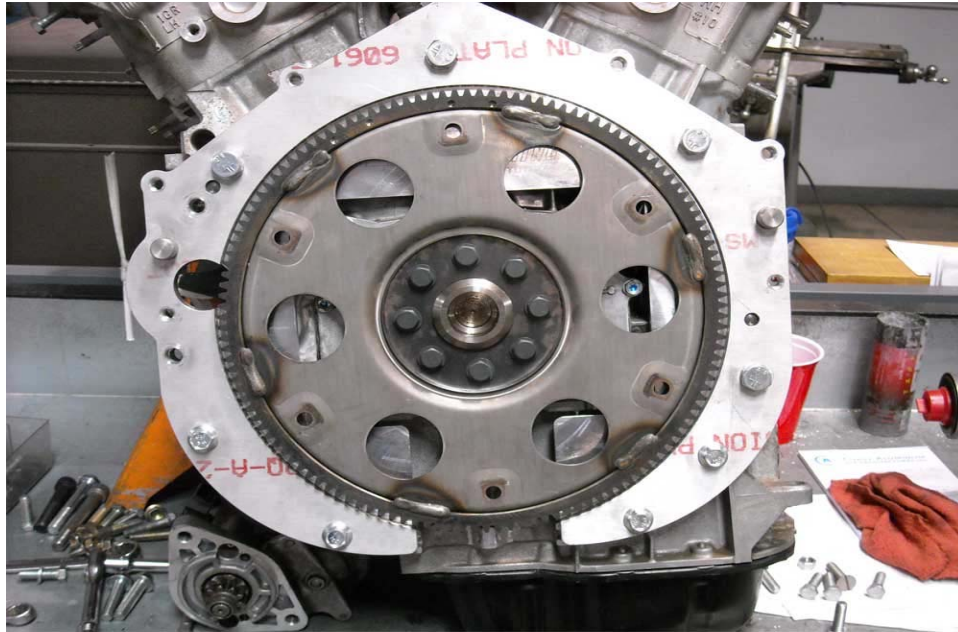
2. Using a hole saw, drill a 1- 1/2" hole in the bellhousing as shown for access to the top starter bolt. Grind or file as necessary for proper access for a 14mm deep socket. Use the starter as a template for proper hole location. **Failure to follow this step will result in needing to remove the transmission to access the top starter bolt! If you plan on removing the starter without removing the transmission, this step is crucial!**



3. Clearance the bottom of the engine block as shown for torque converter bolt access. The more clearance, the easier it will be to install and tighten the torque converter bolts.



4. Install the adapter plate to the engine block using the hardware provided. 4 M12x1.25 x 30mm bolts with flat washers and 4 M10x1.25 x 30mm flange head bolts. Use thread locking compound on the threads and tighten.
5. Install the stock flexplate to the engine using the stock bolts and spacers ring. Use thread locking compound on the threads and torque to the factory spec.



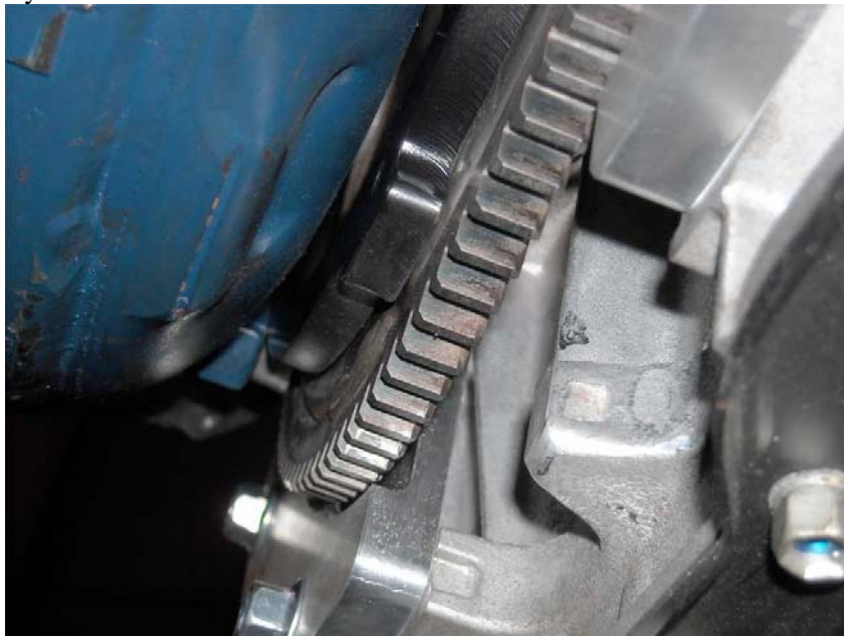
6. We have provided a torque converter pilot collar to support the nose of the torque converter and to keep it centered with the crankshaft. If you are custom making a torque converter then we would recommend having the torque converter made with a longer nosepiece to align itself in the crank, which will eliminate the need for this pilot collar. If you are not using a custom-made torque converter then follow step 7 for installation of the pilot collar.
7. Verify that the torque converter nose will fit into the supplied collar. This should be a loose fit. If the nose of the converter does not fit into the collar then the collar may need to be machined for your torque converter. Install the pilot collar onto the stock Toyota flexplate spacer ring as shown. This is an interference fit (press fit). We recommend using an aluminum or wood block against the collar and drive the collar onto the crank with a hammer. Verify that the collar is firmly pressed against the flexplate spacer ring. The torque converter nose will now ride inside the collar.



8. Install the torque converter adapter ring to the converter using the 3 allen-head bolts provided. Use thread locking compound on the threads and tighten. Use the 3 outer diameter holes for the converter.



9. Install the converter into your prepared transmission. Lube the front seal and make sure the converter registers completely on the input shaft. **Do not force the converter onto the shaft! Make sure the converter is fully seated on the shaft! Failure to properly install the converter will result in front pump damage!**
10. Install the trans to the engine using the (6) 3/8-16 x 1-1/4" bolts and lock washers provided. The trans should slide into place without much force. Tighten bolts.
11. Bolt the converter to the flex plate using the (3) M10x1.25 x 16mm flange head bolts provided. Use thread locking compound on the threads and tighten. You will need to rotate the crankshaft to access these 3 bolts and line them up correctly.



12. Install the starter using the M10x1.25 x 45mm flange bolts provided. This is where you will use the access hole you drilled in the bellhousing earlier. Tighten bolts.

