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1949-53 Ford Flat-head to Chevy Automatic Transmission

<u>Disclaimer - Please Read Carefully</u>

WARNING: Due to the nature of engine and transmission swaps, we cannot guarantee fitment into your vehicle without having to make mild to extensive modifications. This should be considered when starting your project. It is highly recommended to take the time to research any potential issues you may face prior to starting your build. There are numerous forums and websites that can help and give insight into any potential issues involved in the project. This project is not for a novice mechanic. If an individual is not confident in performing such extensive vehicle modifications, Speed Gems recommends finding a capable shop for assistance.

Prior to and during installation of your new Speed Gems Transmission Adapter Kit, always ensure to:

- Clean everything, including all components and surfaces.
- Use proper torque and Loctite all bolts.
- Do not force anything and begin all bolts by hand before using any tools. This will prevent cross-threading.
- Check all bolt clearances.

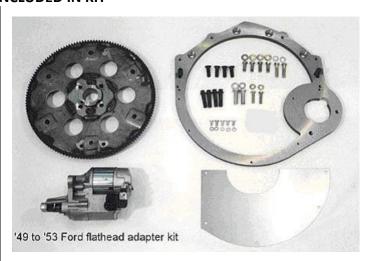
(3) EXTRA THICK HARD WASHER 3/8

We try to make everything as simple as possible to help you, but the ultimate responsibility as to the assembly of the kit is up to the installer.

If you have any additional questions, please contact us by phone (763) 767-4480 during business hours or email <u>sales@transmissionadapters.com</u> at any time.

COMPONENTS INCLUDED IN KIT

| (1) Adapter Plate – 1949-1953 Ford Flat-head to Chevy Auto. |
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| (1) Crank Adapter – 1949-1953 Ford Flat-head to Chevy Auto. |
| (1) Flexplate |
| (1) 139G-Tooth Ring-Gear |
| (1) Starter |
| (1) Inspection Cover-1949-1953 Ford Flat-head to Chevy Auto. |
| (2) Dowel Pins – 0.620 x 1 |
| (2) Dowel Pins – 0.500 x 3/4 |
| (4) FHSCS 7/16-14 x 1-1/4 |
| (2) HCS 3/8-16 x 1-1/2 |
| (4) HCS 3/8-16 x 1-1/4 |
| (2) LOCK WASHER 3/8 |
| (2) HCS 5/16-18 x 1-1/4 |
| (2) FLAT WASHER 5/16 |
| (2) HCS 7/16-14 x 1-1/4 |
| (2) LOCK WASHER 7/16 |
| (4) SHCS 7/16-20 x 1-3/4 |
| (5) HCS 1/4-20 x 1/2 |
| (5) FLAT WASHER 1/4 |
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INSTALLATION INSTRUCTIONS

- 1. Once the transmission is removed, clean the back surface of the block where the adapter will contact. Make sure both alignment dowels are in place.
- 2. Make sure that the crank flange is extremely clean (i.e. no burrs). Note the position of the factory notch in the crankshaft compared to the position of the offset bolt hole. This will be the same on all offset crankshafts.
- 3. Bolt the provided crank adapter and flexplate onto the crank making sure to line up the bolt holes first. Using the (4) $7/16-20 \times 1-3/4$ " SHCS included, ensure that the bolts don't go through the crank flange too far binding on the crank. Tighten all bolts to factory specifications.
- 4. Install the provided adapter plate using the (4) 7/16-14 x 1-1/4" FHSCS and (4) 3/8-16 x 1-1/4" HCS (These go through the block to the plate below the dowel pins) included. Tighten all bolts to factory specifications.

NOTE: The adapter is a tight fit over the dowel pins to ensure correct location. Make sure the dowels are in place and free of burrs. Gently tap the adapter into place.

NOTE: To clear the two bottom bolts through the back of the block, it may be necessary to use a 7/16" bit to drill the two holes just enough to open them up (appx. 1/8") from the front of the block. This is because the original blocks were not drilled all the way through. The threads do not have to be drilled out, since the 3/8" bolts will fit snugly through the 7/16" tapped holes. This will retain the option of going back to the original transmission/bellhousing if ever needed. *See pictures below.





- 5. Install the provided starter to the adapter plate using the (2) $7/16-14 \times 1-1/4$ " HCS included.
- 6. Install the provided starter to the adapter plate using the (2) 7/16-14 x 1-1/4" HCS included . Check to make sure it aligns with the ring gear. Next, turn the engine over with the starter to make sure everything is going to work correctly. Check and confirm the depth of starter engagement, or distance of the drive to the ring gear. If the engine can be started and ran, you can also make sure there is no vibration present.

NOTE: Ensure that the starter drive clears the flexplate. Approximately .040-.080" is the desired clearance, although sometimes less is acceptable.

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INSTALLATION INSTRUCTIONS – Continued...

- 7. Everything should now be set to install the Torque Converter and Chevy Automatic Transmission using the (2) 3/8-16 x 1-1/2" HCS (Upper Transmission to Adapter Plate) and (2) 5/16-18 x 1-1/4" HCS (Lower Transmission to Adapter Plate) included. *Do not over-tighten these bolts! Speed Gems is not responsible for any stripped threads.*
- 8. Install torque converter bolts. *Prior to tightening any bolts, check to make sure the clearance is correct.*

NOTE: Once the transmission is tight to the adapter plate, make sure that there is about 1/8-3/16" clearance between the torque converter and the flexplate. Meaning, the torque converter should be able to move forward to the flexplate the a distance of 1/8-3/16". If there is more space than this, there could be a bad crankshaft thrust bearing needing attention.

NOTE: This kit should work with any Chevrolet Automatic Transmission using the smaller of the two bolt circle torque converter diameters. Stock 400 and 4L80E torque converters need the larger bolt circle. The flexplates for these applications are available by request and are not standard since these torque converters have very low stall speeds. Applications that have the higher stall speed and smaller bolt circle include the 350TH, 700R4 and Powerglide torque converters.

9. Install the provided inspection cover plate as needed using the (5) 1/4-20 x 1/2" HCS included.



Speed Gems would like to THANK YOU for purchasing our products!

We would love to see pictures of our products installed on your Hotrod. Please tag us on our social media or send a picture to sales@transmissionadapters.com and we will get your project posted on our website.

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