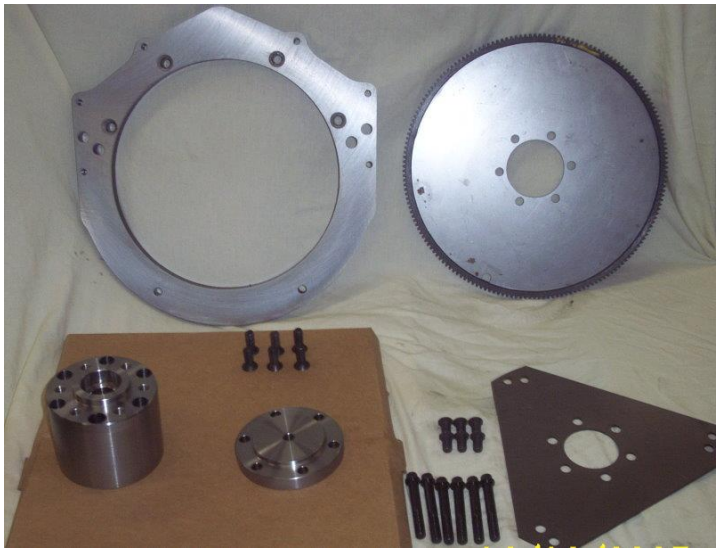
BENDTSEN'S

SPEED GEMS II



Bendtsen's Transmission Adapters 763 767 4480

303/324/371/394 Oldsmobile and 331 Cadillac (49 - 53 only) to Chev Transmission Adapter Kit.

We assume that the person installing this kit has a certain amount of mechanical aptitude and ability. It is not for the beginner. Make sure you clean all surfaces when mating these parts together. Always check bolt clearances. 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. Check and recheck as you go. We can't foresee every change or modification that could possibly occur in the building of a custom vehicle. Especially when we are dealing with 50-year-old motors.

A few common sense installation tips.

1. Install all bolts before tightening in any sequence.
2. Use loctite and torque bolts where applicable.
3. Don't over tighten bolts. There is NO warranty on stripped threads
4. Super-clean everything! Remove all burrs.

Be careful and don't assume. Check everything and be sure.

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Oldsmobile changed so much over the years that it would be impossible (without writing a novel) to list all the information here. The bottom line is that Olds changed their flywheel diameter and ring-gear tooth count 3 times. That means they have at least 3 different starters with different starter locations in the lower bellhousing (cast inspection cover). They also changed the crankshaft bolt hole locations. Most Olds engines have one bolt hole that is .070 offset on the crankshaft. Some Olds cranks have 6 symmetrical bolt holes. The different combinations are listed on my website. The flywheel that is included with this kit has one bolt hole that is elongated. This is to fit both style crankshafts. It is difficult at best to try to cover all the possible combinations you can find in the Olds motors. This (and the fact that they have extremely long block extensions) is the reason no-one has made adapters for these motors before.

The crank adapters we sell with this kit are made to fit on both style crankshafts. We have drilled one of the holes oblong so it will fit on both cranks. If you have the crank with the older, symmetrical bolt circle, it doesn't matter how they are rotated when you bolt them on. If you have a crank with the offset bolt hole, you will need to line the inner and outer crank adapter and flywheel up so the offset bolt hole lines up with the holes in the crankshaft.

Make sure that the crank flange is super-clean (no burrs). Trial fit the inner crank adapter onto the crankshaft and make sure the holes line up AND that the crank adapter goes on ALL the way flush. This is a heavy and long outer adapter. Any type of burr, debris or any other possible reason for it not to be flush will cause a wobble which will result in a vibration. These crank adapters are held to very tight tolerances when made, so any vibration or wobble is the result of them not being flush on your crank. I've enclosed a picture of an Olds crank with an arrow pointing to the offset bolt hole. Look at the position of the factory notch in the crank compared to the position of the offset bolt hole. This will be the same on all offset crankshafts.

After aligning and checking the inner crank adapter, install the provided flywheel. Align it also. If there is a balance weight, it goes towards the engine. If you have a 303 or 324, the flywheel should not have a balance weight. The side of the flywheel with the deeper recess on the ring gear will point towards the engine. Then install the outer crank adapter, making sure it is aligned also. Don't force anything. If it doesn't go on fairly easily, find out why. They are made to fit snug. If everything goes on OK, install the provided bolts. They are 12 point ARP bolts which are the best bolts in the world as far as I am concerned. Torque them to factory specs. Make sure that they don't hit the block behind the crank.

Check to see if the ring gear hits the block. Some of the Olds blocks have more material in the flywheel area than others. I can only surmise that it was because of the 166 tooth ring gears used with the slim-jim transmissions. These flywheels had a smaller diameter.

If this is the case, you will have to grind material away to clear the flywheel ring gear. I've enclosed a picture of the area that can be a problem.

At this point I would recommend installing the lower bellhousing and starter to make sure the starter is going to work with the provided flywheel. You can turn the engine over with the starter to make sure everything is going to work. At this time I would be looking for depth of starter engagement, distance of the drive to the flywheel ring-gear, and concentricity of the installed crank adapters. If the engine will start and run, you can also make sure there is no vibration.

If everything is good-to-go, you can install the adapter plate. I've reamed the dowel locating holes slightly larger than on some of my other adapter plates, because I've found that some of the Olds engines have larger dowel pins in them. This plate will fit snug on these dowels, and looser on others. Now you can bolt on the torque converter drive plate with the provided 12 point flywheel bolts.

You should now be ready to bolt on ANY Chev V8 style automatic transmission, made from 1955 to present day if you use the right converter. The converters and cranks changed somewhere around 1998.

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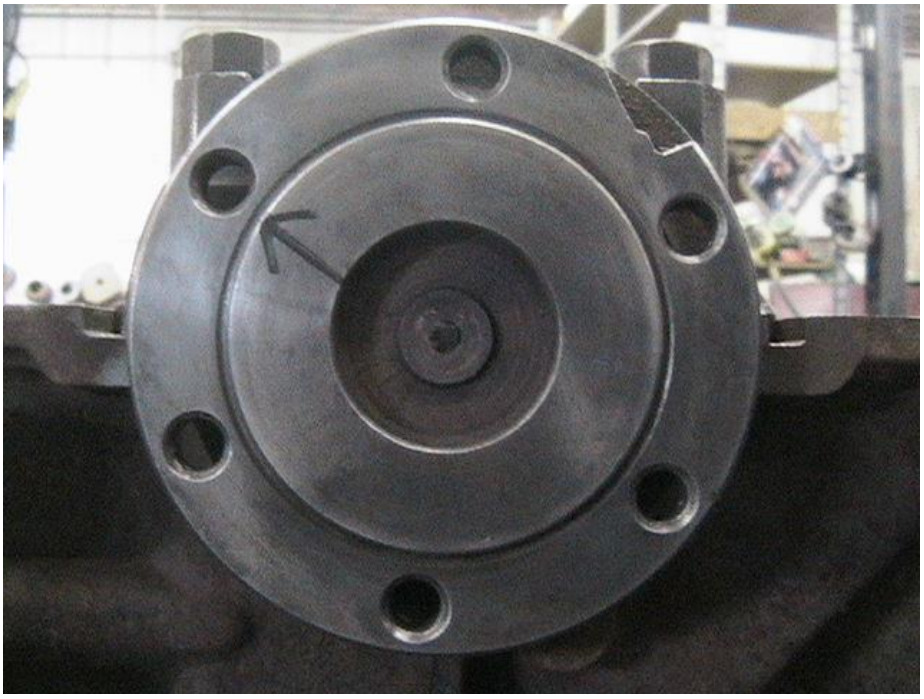

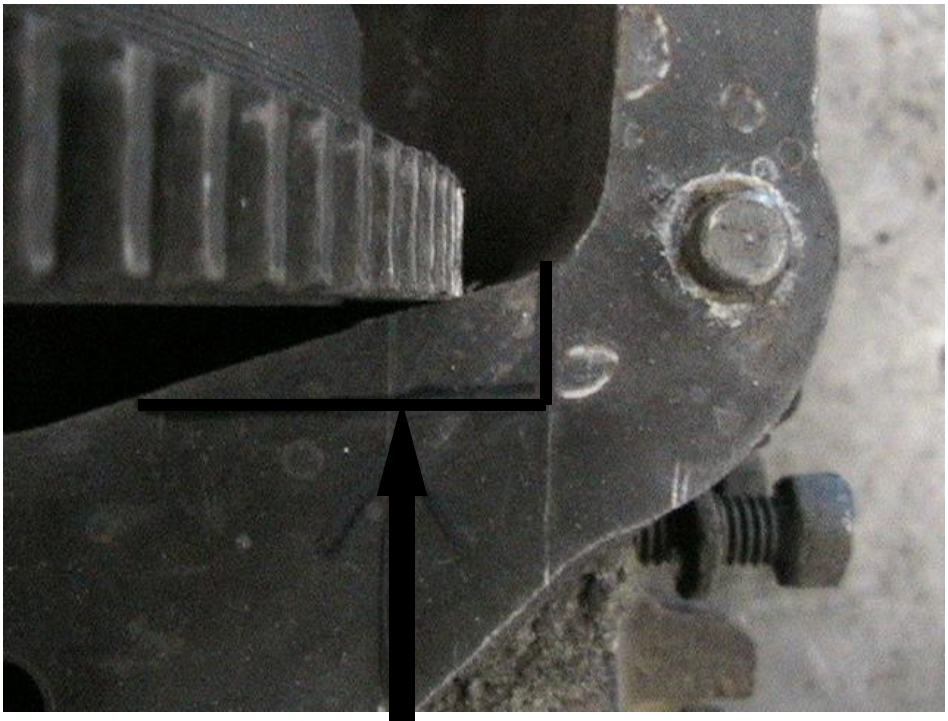

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