

# Olson Kustom Works

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## F-Body/GTO Front Accessory Drive Kit For LSA Superchargers (rev 6.2)

Thank you for your purchase from OKW. If you have any questions about your products feel free to call or email!

The full version of this manual is available on our website, OKW-Inc.com under "Product Support". This is only page 1 of 5, to conserve paper we do not ship kits with full manuals.

**Please read the instruction manual completely before starting the installation.**

### Kit Contents:

- LSA Specific 8 Rib Upper Pulley 2.45" Diameter (with included pulley hub and hardware)
- Dayco Idler Pulley (Same as factory idler located on alternator bracket, only works with 6 rib belt)
- Idler Pulley Bracket
- M10x30mm Bolt with 1pc idler or M10x50mm for 2pc idler
- 10mm Large Fender Washer
- (3)M8x100mm Bolt w/Washer

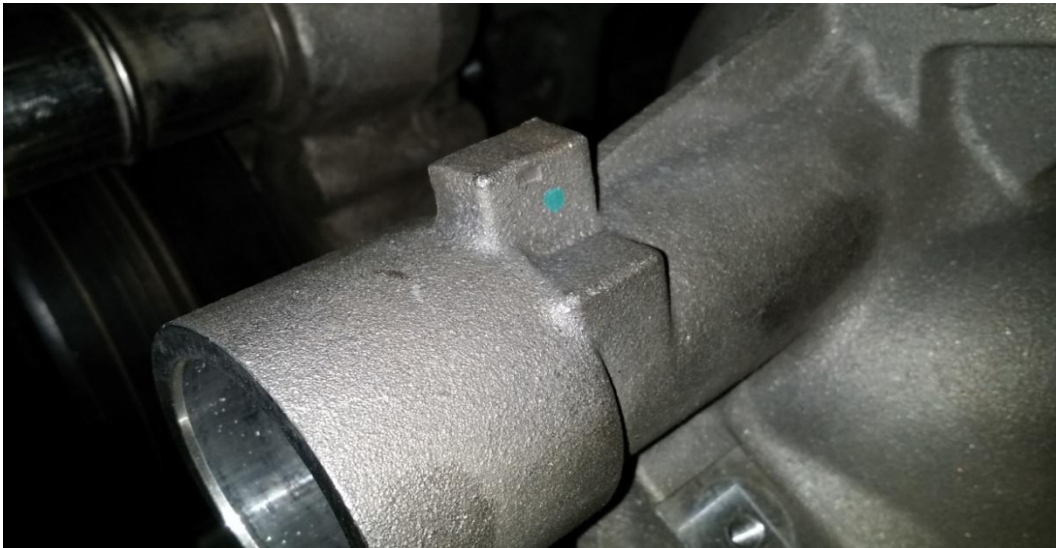
### Install Instructions for bracket kit:

1. One the drivers side of the water pump, remove all 3 bolts, they should be a 10mm or 13mm socket.
2. The bracket only installs one way, use the washers and install the 3 100mm hex bolts through the bracket, water pump, and into the block.
3. The top 2 holes on the idler bracket are drilled large, to accommodate different power steering pulley diameters. If you have clearance issues with the idler and power steering pump pulley, loosen the bolts, move the idler and bracket, and tighten back down. There are 2 PS pulley diameters that GM used, both with the same part number!!
4. Torque the 3 8mm water pump bolts to 22 ft lbs.
5. Take the included idler, 30mm bolt and large washer, and install them onto the main bracket.
6. Torque the 10mm idler bolt (17mm head) to 37 ft lbs.
7. Check the clearance between the idler pulley and the snout of the blower, there should be roughly 1/8", a little more or less is ok. If there is any contact, a file or small grinder will be needed to clearance the lower part of the snout. This will not affect the blower or throttle body.
8. This kit was designed to use either a truck style or LS3 style throttle body, and both have fit without any modifications. If you are using any other type of throttle body, you may need a spacer or other shims to make it fit. Call us if you need any assistance. We have 1/2" Throttle Body spacers in stock at all times.

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## LSA Fbody/GTO Upper Blower Pulley Install:

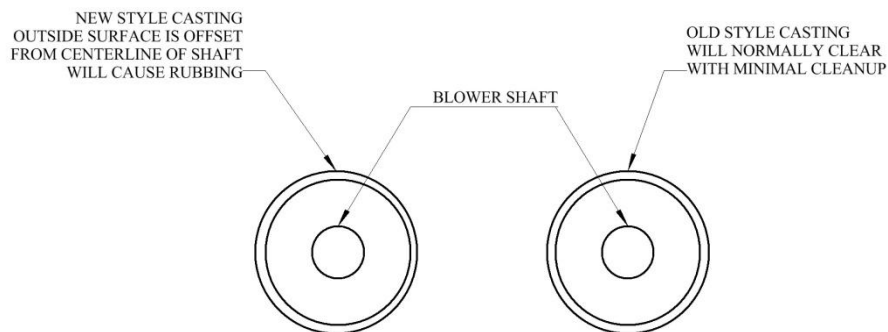
1. If the blower is on the engine already, it may be necessary to remove the blower to unbolt the snout. This isn't always needed, if you can access all 6 bolts.
2. Remove the 6 bolts that attach the snout to the blower housing.
3. Unplug any vacuum lines going from the snout to the blower housing (video on OKW Facebook page will explain proper vacuum line hookup for swaps).
4. Using a pry bar, there are small tabs on each side of the blower snout, using a quick snapping motion, pry against the blower housing to break the snout free. It may take a little bit of work. You can also use a chisel, place it between the blower and the tab on the snout, and use the chisel as a wedge to pop the seal. After the gasket seal has been broken, just wiggle the snout off.
5. Remove the factory coupler inside the snout (you should be replacing this anyways).
6. Using a shop press, press off the factory blower pulley. If you are not comfortable with this, any competent machine shop should be able to do this. **WARNING:** Incorrectly installing a new pulley and not properly supporting the shafts and placing load on the snout bearings **WILL** destroy your snout and cause the blower to make a TON of noise, and fail prematurely.
7. You will need to remove 2 cast tabs on the snout (see picture below). A grinder or carbide burr will work well. As long as it sits flush with the front part of the snout, it will not hit the pulley. Each snout has a slightly different cast pattern, and it has been found that newer snouts have casting that interferes with the pulley.
8. **BEFORE:**



9. AFTER:



10. It is advised to use a little bit of green loctite, also called shaft retaining compound, on the shaft. This is just a precaution and will help ensure the pulley hub will not spin. Marking the pulley hub and shaft with a sharpie, and checking the alignment from time to time will let you know if there is ever an issue.
11. Press on the new pulley hub. Make sure the shaft is properly supported in the MIDDLE of the 3 pins on the coupler flange. If the 3 pins are placed directly onto the press surface, you will damage the snout, or press the pins out of the flange (not good). **ONLY USE THE CENTER SHAFT FOR SUPPORT!!!!**
12. The pulley hub should be pressed on until the shaft is flush with the front of the pulley, or the shaft is very slightly recessed. The snout should spin freely, and make no noise. The back of the hub should be tight against the front of the front snout bearing. You should feel when the hub is seated all the way, even with a press. Dont over-press the hub, you can bend the blower shaft and ruin the bearings.
13. On some installs that will see high rpm or lots of on and off the throttle use, a small tack weld can be applied to the snout shaft and pulley hub, to keep it from spinning.
- 14. SECOND PART OF CLEARANCE, THIS IS VERY IMPORTANT TO CHECK!!!!**
15. The early blower castings were more concentric to the shaft, and only needed a small amount of grinding to make sure that the pulleys didnt hit. This isnt the case with some newer castings, as pictured below:



16. To get around this, you need to make sure that extra material is removed on the side that sticks out more. Using a ruler or anything else straight, put it against the side of the hub, and make sure its flat all the way back. Like so (tabs havent been taken off this snout yet, its a shop junk snout):



17. Once you think you've taken enough material off, wrap 3-5 layers of masking tape around the snout, this will give enough clearance when the snout and pulley get hot and grow for proper clearance (most masking tape is .005" thick). Put the pulley on the snout with just a few bolts and make sure it spins, if it doesn't, take it off and grind more. Once you can spin the pulley with the tape still on the snout, remove the pulley and tape, and install the pulley for good. (this isn't our hub this was a spare snout used just for demos).

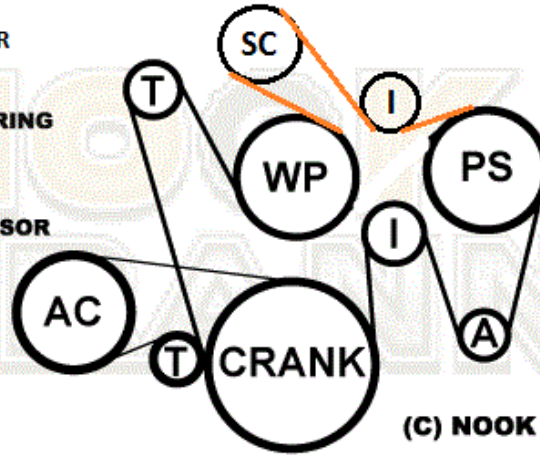


18. Using the 6 supplied bolts and lock washers, apply a small amount of loc-tite on the bolts, and tighten them all equally, and torque to 109 in-lbs. If you don't have a torque wrench, a good effort with a 1/4" ratchet is usually enough. Spin the pulley to make sure it spins true, some will need to be clocked on the hub to eliminate any small variances in machining.
19. Install your new coupler, and install the snout back onto the blower, and install the blower back onto the engine.
20. **Idler Bracket Install:** Remove the 3 water pump bolts on the driver side. Place the new bracket on the water pump, and install the 3 100mm bolts with washers through the bracket and pump. Some early pumps may require clearance on the back of the bracket. Also, if you are using AN fittings on the pump, you may have clearance issues with the idler bracket. These are made to work with OEM lines only. Tighten the bolts to 18lb-ft.
21. Take the included tapered spacer, idler, and 50mm bolt with gold washer, and bolt them to the idler bracket, and tighten to 37lb-ft.
22. Once your blower and idler is installed, you need to measure for a belt. Belt routing is pictured below. The easiest way to measure is using wire or string. The part number of a belt is the key to getting the right one. There are 2 formats. The "K" is the belt profile, the 6 is the number of ribs, and the number after that is either the length in inches or CM. A 1010K6 is a 6 rib K belt 101.0 inches long. Same belt is also a 6PK2565.
23. **THERE IS A LINK ON OUR WEBSITE TO FIND CORRECT BELT PART NUMBERS BY LENGTH AND ANY PARTS STORE CAN INTERCHANGE THESE NUMBERS WITH ALL BRANDS. IF YOU MESSAGE ME ASKING ABOUT BELT LENGTHS I WILL ASSUME YOU WERE DROPPED AS A CHILD AND CANT READ SIMPLE INSTRUCTIONS!!!!**

24. Now for the measuring:
25. Take a string or wire and wrap the pulleys following the picture below. Since belts are measured from the BACK of the belt, and you are measuring in the groove, this will give you the closest measurement. If the line on the idler isn't between the 2 lines on the base of the tensioner after you install the belt, go up or down a size. They usually have belts sized every 1/2".
26. Use a belt that will BARELY fit on once everything is in place, and the tensioner is completely maxed out. Once you get into boost a few times, the belt will stretch to its nominal length. Check the tensioner again and verify that its in the middle of its travel after the belt has had some time to stretch.

## CAMARO/FIREBIRD STYLE FRONT DRIVE

SC = SUPERCHARGER  
WP = WATER PUMP  
A = ALTERNATOR  
PS = POWER STEERING  
T = TENSIONER  
I = IDLER  
CRANK = CRANKSHAFT  
A/C = A/C COMPRESSOR



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