

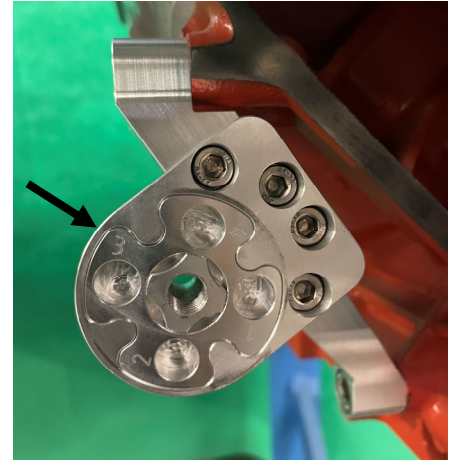
Instructions

1. MOUNTING TENSIONER

- a) Install the Tensioner Mount Bracket on the side of the Engine Block. Apply a small amount of Loctite to the threads and torque the (3) M10-1.5 x 35MM Socket Head Screws to 25 ft. lbs.

Note: The "Cloverleaf" Housing is factory installed on the Tensioner Mount Bracket and the four M6 screws are already torqued to specification.

- b) Place the "Cloverleaf" into its Housing with the #3 position to the left side. (as seen in the picture to the right)
- c) Install the Tensioner onto the Cloverleaf Housing. Lightly snug the retaining bolt



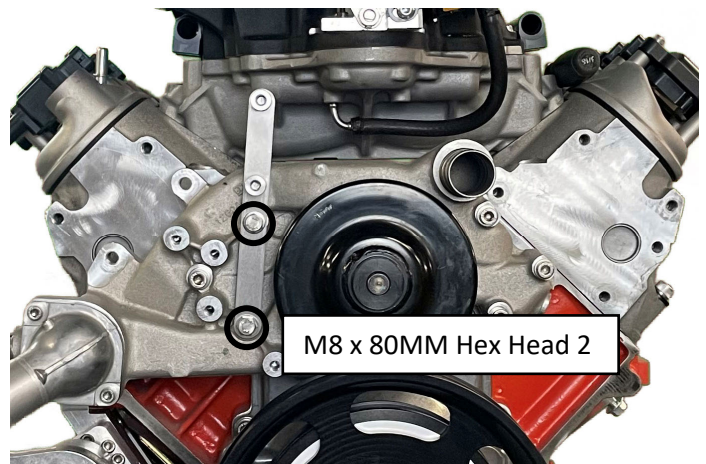
- d) Install the 10 Rib Tensioner Pulley with the provided stainless steel spacer and torque to 30ft. lbs. – **Note: The factory bolt is left-handed, please take care when installing and removing this bolt as they are not sold separately by GM (In the event you do break one we do sell replacement bolts)**

2. INSTALL SUPPORT ARM ONTO WATER PUMP

- a) If you are installing this kit with a High Mount A/C kit, install the A/C first
- b) Install the Support Arm onto the Water Pump. Use (2) M8 Hex Head Bolts and M8 washers as shown.

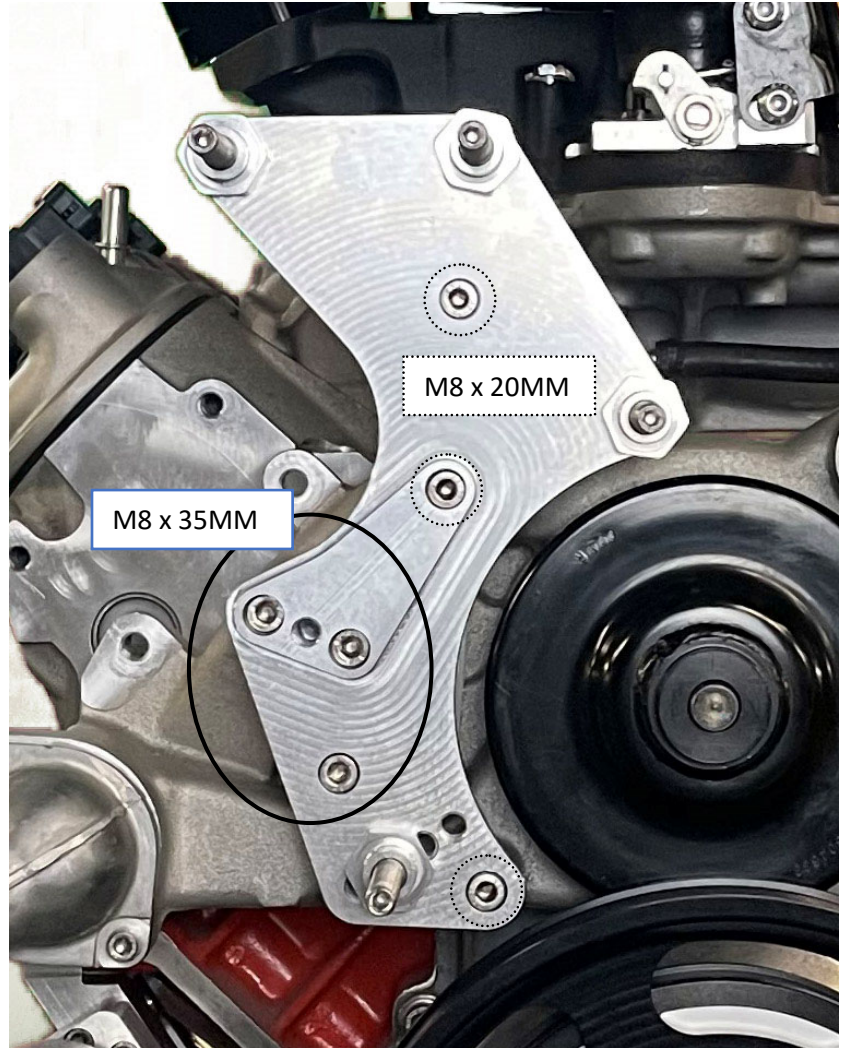
NOTE: Test the Support Arm and Spacer alignment to the Rear Bearing Support Plate. The Support Arm may need minor adjustment to line up with the upper hole in the Rear Bearing Support. There is enough clearance in the Support Arm mounting bolt holes to do so.

- c) Once the Support Arm is fitted, apply a small amount of blue Loctite, torque the bolts to 15 ft. lbs. NOTE: remove one bolt at a time to keep bracket lined up with the upper bolt hole on the Rear Bearing Support Plate.
- d) Install your 6 rib serpentine belt for the main accessories before proceeding to the next step, you will not be able to install the belt once the rear idler plate is installed.



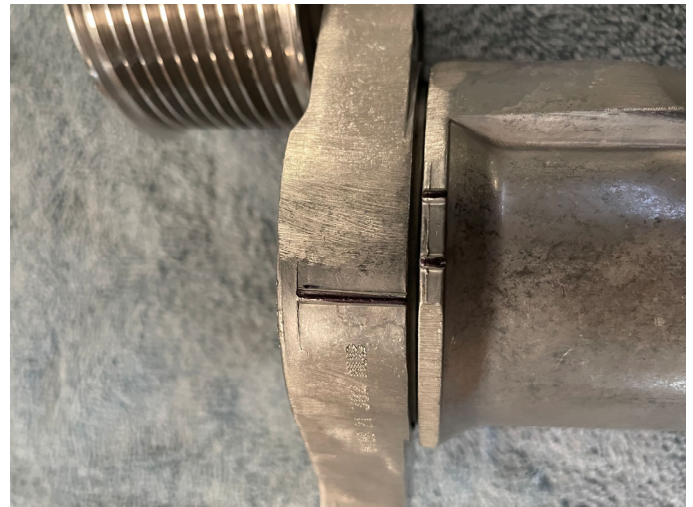
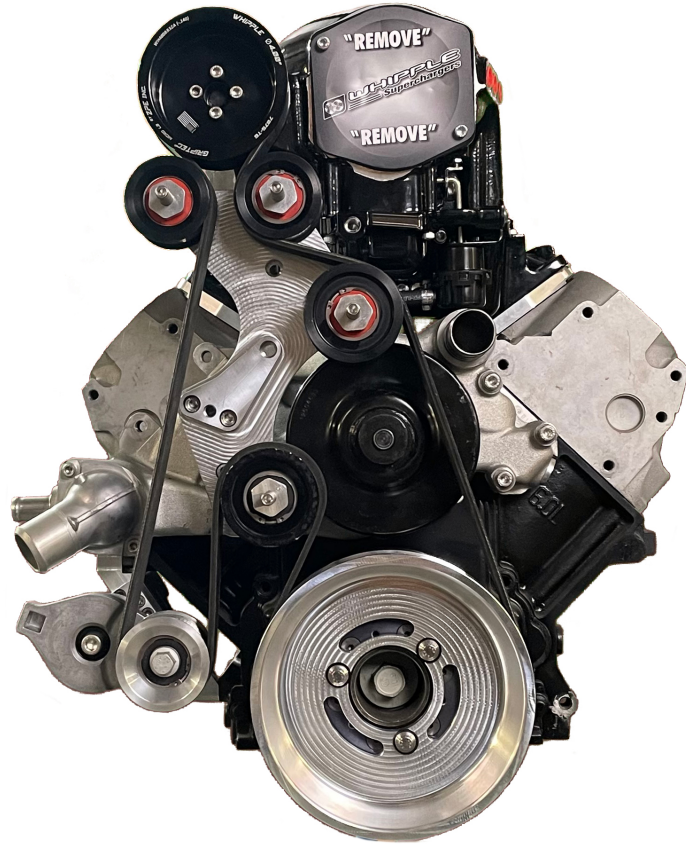
3. INSTALL REAR IDLER SUPPORT PLATE AND STUDS

- a) Bolt the Rear Idler Support Plate to the Water Pump being sure all the holes line up. Then remove the bolts one at a time. Add a small amount of Blue Loctite and torque the (5) M8-1.25 bolts to 15 ft. lbs.
- b) Snug the upper Pulley Mounting Studs into the Rear Bearing Support Plate and Install the (1) Pulley Standoff Retention Nut. Apply a small amount of Anti-Seize to the threads and Torque to 20 ft. lbs. **NOTE: On 12 Rib configurations back off the stud about two turns to accommodate for the wider pulleys and spacers.**
- c) Snug the center left Pulley Mounting Stud into the Rear Bearing Support Plate. Install (1) Pulley Standoff Retention Nut. Apply a small amount of Anti-Seize to the threads and Torque to 20 ft. lbs.
- d) Snug the lower Pulley Mounting Stud into the Rear Bearing Support Plate. There are 4 positions. Start in position "B". Install the (1) Pulley Standoff Retention Nut. Apply a small amount of Anti-Seize to the threads and Torque to 20 ft. lbs.
- e) Install the Pulleys with snap rings facing outwards and install the outside (3) Pulley Standoff Retention Nuts. Apply a small amount of Anti-Seize to the threads and Torque to 20 ft. lbs.



3. DISCOVER BELT LENGTH

- a) Simply wrap the Cloth Tailors Tape Measure (provided) following the belt path around the pulleys according to the picture. Your belt length should be $\frac{1}{2}$ inch shorter than that measurement.
- b) Available belt lengths may vary, the catalog may skip the length you desire. Pick the one closest to your measurement. If you need assistance in finding the right belt, give us a call @ 844-579-7927 or email us at sales@lsxconcepts.com. The lower stud location can adjust for $\frac{1}{2}$ inch longer or shorter belts, it's $\frac{1}{2}$ inch belt length per hole position. Relocate the stud as necessary and re-torque the Pulley Standoff Retention Nut to 20 ft. lbs.
- c) The tensioner gauge marks are located on the bottom side of the tensioner. And is only viewable from the bottom side of the engine. We have found it helpful to pull the tensioner to its full and minimum tension marks and draw a line with a felt pen on the top side of the housing for easy viewing (this requires two people). The two marks are highlighted in the picture to the right.



4. SYSTEM ADJUSTMENT VALUES

There are two belt adjustments, a coarse adjustment by changing stud location and fine adjustment by moving the cloverleaf location. The overall system allows for over 2 inches of belt length adjustment.

- a. The lower Pulley Stud location is worth about ½ inch in belt length. You may find that if the belt you have is longer or shorter than desired you may wish to alter the lower Pulley Stud location from the onset.
- b. Each number on the “Cloverleaf” is worth about 3/16 in belt length and about a .070 change on the Tensioner housing gauge. The lower the number being looser
- c. Each stud location is worth about 4 numbers on the “Cloverleaf” allowing some overlay for fine belt tuning without altering pulley stud location.

5. DISCOVER THE ACTUAL BELT TENSION

- a. While the Tensioner is UNLOADED slip the belt on being sure the serpentine side of the belt matches the pulley groves.

NOTE: If the belt is too tight to install, remove the tensioner and place the “Cloverleaf” in the #1 position, then try to reinstall the belt again. If the belt is still too tight move the lower stud and pulley to the “A” position and the “Cloverleaf” back to #3 position and try again.

- b. Once the belt is installed, release the Tensioner, and view the gauge. Moving the “Cloverleaf” by one number alters the gauge by .070”. If you reach the # 8 position on the “Cloverleaf” and the belt is still too loose, move the lower Pulley Stud to the “C” position and the “Cloverleaf” to #3 and try again. Torque the Tensioner retaining bolt to 20 ft. lbs.

6. INSTALL THE FRONT DOUBLE SHEER PLATE

- a. Recheck the Pulley Standoff Retention Nuts for being tight. Torque to 20 ft. lbs.
- b. Install the Front Plate. Install the (5) aluminum Washers and the (5) Nylon Lock Nuts. Torque to 25 ft. lbs.
- c. Torque the Tensioner retaining bolt to 20 ft. lbs.

7. FINAL ASSEMBLY - TORQUE VALUES

The (6) M6 Rear Plate mounting bolts - torque to 15 ft. lbs. (M6)

Loctite the (5) M10 Pulley Studs - Hand Tighten till snug, do not over tighten.

Pulley Standoff Retention Nuts - torque to 20 ft. lbs. (use Anti-Seize on threads)

Front Cover Nylon Lock Nuts torque to 25 ft. lbs.

Tensioner retaining bolt to 25 ft. lbs. (M10)

8. Belts

A complete listing of belts by length can be found on the Summit Racing website (scan QR code to visit Summit Racings 10 rib belt collection)

<https://www.summitracing.com/search/part-type/accessory-belts?N=number-of-belt-ribs%3A10&SortBy=BestKeywordMatch&SortOrder=Ascending&keyword=serpentine%20belts>

If you are unable to find a suitable belt for your combination give us a call or email with your measurements and we will be happy to find you a belt to fit your combination.

Known Combinations

For a list of known/proven belt combinations visit the website

<https://www.lsxconcepts.com/pages/instructions-billet-10-rib-lsa-supercharger-flex-drive>



10 Rib Belts