

# SD Concept Engineering, Inc.

## SDCE Big Block MOPAR ProCharger Brackets

### Installation Instructions

#### Your kit contains:

- 1) Main bracket and hardware with 2) Slide Idler, 3) Tensioner, and 4) Eccentric Idler, already installed.
- 5) Crank Pulley
- 6) Blower Pulley
- 7) SDCE High Amp Alternator (optional)
- 8) SDCE Alternator bracket
- 9) Blower belt for included pulley



Figure 1

All parts are test-fit on a dummy engine before shipping to ensure proper fit and alignment. Due to differences in aftermarket components slight tweaking may be required, but no major modifications should be necessary. If you run into any problems please contact SDCE and we will help solve any issues.

1. The main bracket attaches at five points as shown in the picture to the right. It uses the three head bolts, the lower water pump bolt, and the bolt hole near the water-neck.
2. Remove all threaded rods from main bracket and install in block/head as shown in Figure 2. For tall deck applications, the 3, 7" long rods go in positions A, B, and C; the 5" long rod goes in position D; and the 3/8-16 x 1.5" bolt goes in position E. On a short deck application, positions A, B, and C slide over to the next hole.
3. After threading the rod into point D, tighten one of the nuts against the water pump to hold the rod securely in place. Turn the second nut in towards the motor, but DO NOT tighten against the first nut.
4. Install the 5.55" spacer with the support brace to point A, attach the 5.55" spacer without a support brace to point B, attach the 4.32" spacer with support brace to point C.
5. Remove the tensioner and eccentric idler from the main bracket. Slide main bracket over all threaded rods through their given holes (tall or short deck, see Figure 3. Install and tighten 3/8-16 nuts onto positions A, B, and C. Turn out the second nut on rod D from step 3 against the back of the bracket; no need to tighten it, just until it touches. Tighten the nut from the other side. Re-install tensioner and eccentric idler loosely.

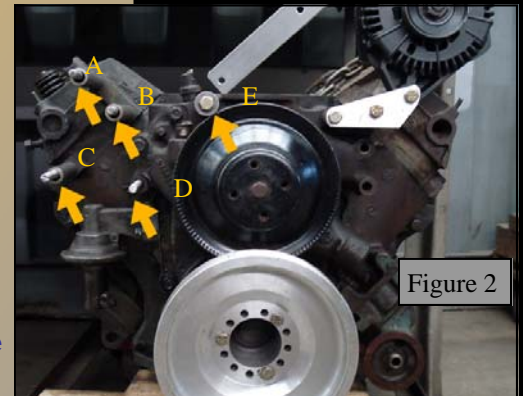


Figure 2

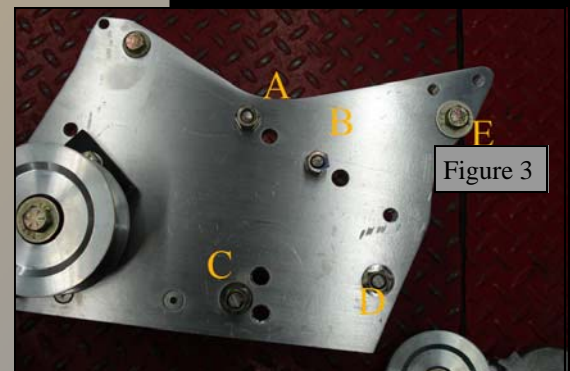


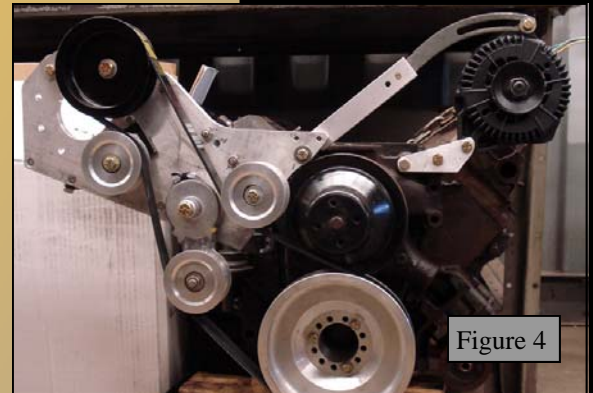
Figure 3



# SD Concept Engineering, Inc



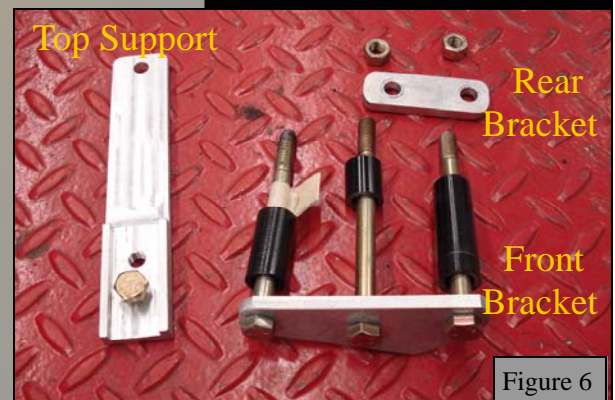
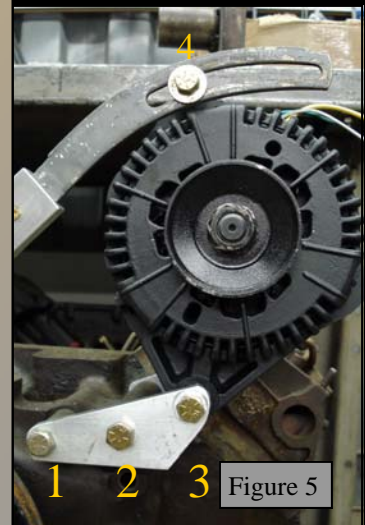
6. Install crank pulley using supplied 5/16-18 x 3.5" bolts.
7. Install supercharger onto SDCE bracketry. Use anti-seize on shaft, and loc-tite on the bolt.
8. The support braces will now bolt to the main bracket with the supplied 3/8-16 bolts.
9. Roughly route the belt as shown in Figure 4 with the slide idler all the way up. Tighten the eccentric idler to the bracket with the yellow strip facing up. Push the tensioner into the belt until tight and note it's position.
10. Slide idler down and remove belt from tensioner. Turn tensioner body to it's final position in step 8, and then turn 1"-1.5" further and tighten bolt.
11. Pull back tensioner, install belt, move slide idler up as far as it will go and tighten two bolts. Release tensioner. (If you are changing your alternator and/or belt, you will need to install any v-belts prior to this step, read ahead for alternator instructions).
12. There is a yellow mark on a corner of the tensioner arm. This is your pointer. The pointer should aim at the 18 ft/pound setting (also marked in yellow) on the tensioner body. If it does not, you will have to remove the belt again and move the tensioner body forwards or backwards to achieve the 18 ft/pound setting.



**DO NOT REMOVE THE DUST PLUG AND PRY ON THE TENSIONER WITH THE BELT ATTACHED. YOU WILL BREAK THE TENSIONER BODY.**

## Alternator Install

1. Your stock alternator arm sits in the channel of the SDCE aluminum bracket, and is secured with a single 3/8-16 bolt. The SDCE alternator bracket bolts to the supercharger bracket from the back as shown in Figure 4.
2. The lower bracket mounts to the factory power steering upper bolt (2), and the water pump bolt just inboard of it (1).
3. The parts and order of components on each hole are as follows:  
(1): 3/8-16 x 4.5" bolt. Bracket, 1.47" spacer, water pump, block.



**HORSEPOWER HAPPENS  
HERE...**



**Vehicle & Engine Building / Forced Induction Experts**  
4 Daisy Street • West Warwick, RI 02893 • 401.826.4400  
www.SD-Concepts.com

# SD Concept Engineering, Inc

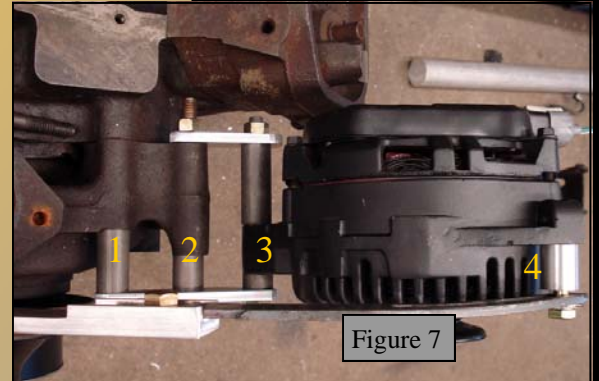


(2): 3/8-16 x 5" bolt. SDCE front bracket, .660 spacer, PS pump, water pump, PS pump, SDCE rear bracket, 3/8 nut.

(2, No Power Steering): 3/8-16 x 5" bolt. SDCE front bracket, .850 spacer, water pump, washers, 3/8 nut.

(3): 3/8-16 x 4.75" bolt. SDCE front bracket, alternator, 2.3" spacer, alternator, .500 spacer, SDCE rear bracket, 3/8 nut.

(3, No Power Steering): 3/8-16 x 4.75" bolt. SDCE front bracket, alternator, 2.3" spacer, alternator, .090 washer, SDCE rear bracket, 3/8 nut.



## SDCE 150A Alternator Installation (Option).

Installing the SDCE-built 150A alternator is the same as the factory alternator except for some different spacers. The three bolts are the same length, and installation sequence is as follows:

(1): SDCE front bracket, 1.47" spacer, water pump, block

(2): SDCE front bracket, .660" spacer, PS pump, water pump, PS pump SDCE rear bracket, 3/8 nut.

(2, No Power Steering): SDCE front bracket, .850" spacer, water pump, SDCE rear bracket, 3/8 nut.

(3): SDCE front bracket, .385" spacer, alternator, 2.375" spacer, SDCE rear bracket, 3/8 nut.

(3, No Power Steering): SDCE front bracket, .385" spacer, alternator, 1.945" spacer, SDCE rear bracket, 3/8 nut.

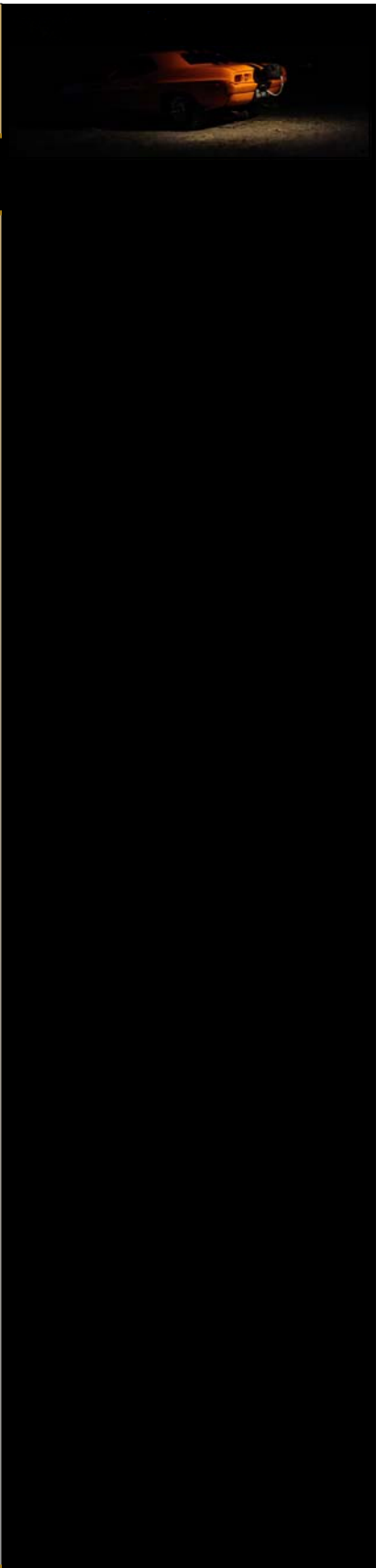
Since pulley diameters, and accessories are different from setup to setup, you must measure for your own v-belts. Contact SDCE with your measurements and we can help you get the right belts.



Vehicle & Engine Building / Forced Induction Experts

4 Daisy Street • West Warwick, RI 02893 • 401.826.4400  
www.SD-Concepts.com

# SD Concept Engineering, Inc



## Final Belt Alignment

After all accessories are bolted up, and you have checked that everything is tight, start the engine and watch the belt where it goes across the eccentric idler. The belt should be riding in the middle of the idler and should not touch either side like in Figure 8.



**Vehicle & Engine Building / Forced Induction Experts**

4 Daisy Street • West Warwick, RI 02893 • 401.826.4400  
www.SD-Concepts.com