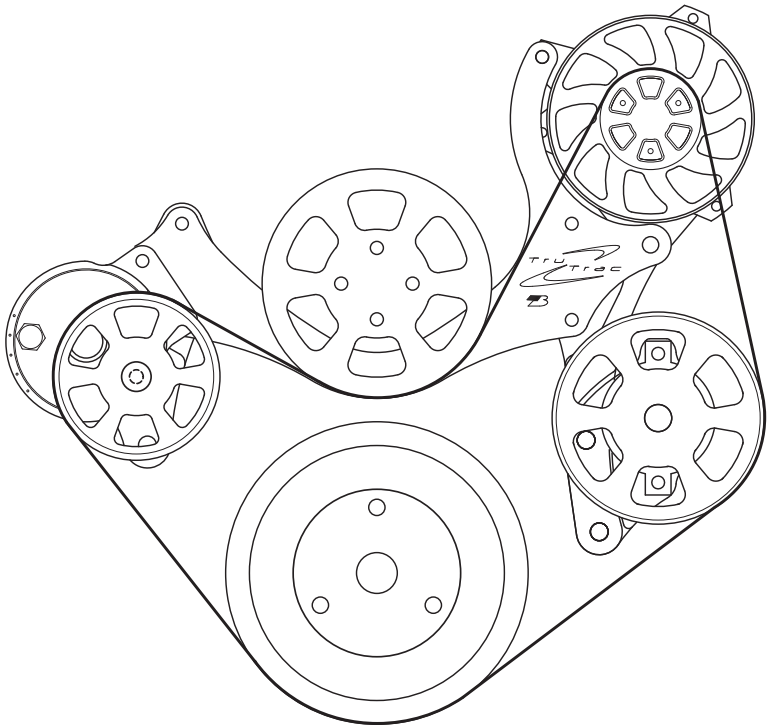


# Tru Trac™

**Big Block Chevrolet**  
Installation Manual  
For Systems Without A/C  
#14225 / #14125



# LEASE READ ALL INSTRUCTIONS BEFORE INSTALLING ANY COMPONENTS OF THE TRU TRAC SERPENTINE SYSTEM

## Required Tools & Materials

- |                                                         |                                                    |                                      |
|---------------------------------------------------------|----------------------------------------------------|--------------------------------------|
| <input type="checkbox"/> Anti-seize Compound            | <input type="checkbox"/> 9/16" Combo Wrench        | <input type="checkbox"/> 3/16" Allen |
| <input type="checkbox"/> Loc-Tite® Thread Locker        | <input type="checkbox"/> 11/16" Combo Wrench       | <input type="checkbox"/> 5/16" Allen |
| <input type="checkbox"/> RTV Silicone                   | <input type="checkbox"/> 3/4" Combo Wrench         | <input type="checkbox"/> 1/4" Allen  |
| <input type="checkbox"/> Gasket Scraper                 | <input type="checkbox"/> Socket Wrench & Extension | <input type="checkbox"/> 3/8" Allen  |
| <input type="checkbox"/> Scotch-Brite® Pad              | <input type="checkbox"/> 10mm 12pt. socket         | <input type="checkbox"/> 4mm Allen   |
| <input type="checkbox"/> 3/8-16 Thread Chaser* & Holder | <input type="checkbox"/> 12mm 12pt. socket         | <input type="checkbox"/> 5mm Allen   |
| <input type="checkbox"/> 7/16-14 Thread Chaser*         | <input type="checkbox"/> 3/8" 12pt. socket         | <input type="checkbox"/> 6mm Allen   |

\*Thread chasers are available at your local parts store and are different from a thread cutting tap.

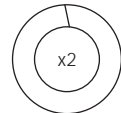
### TECH TIP:

Billet Specialties recommends the use of Anti-Seize on all fasteners to prevent thread lock-up.

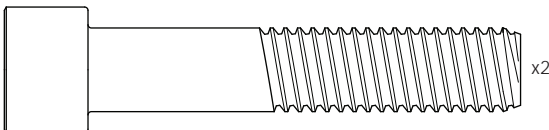
## Skin Board #1 - Packaged with Power Steering Pump



5/16-24 x 3" Socket Head Cap Screw  
Power Steering Pump



5/16" Lock Washer

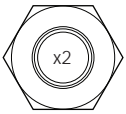


7/16-14 x 2-1/4" Socket Head Cap Screw  
Power Steering Bracket

## Prepping The Block

- Disconnect the battery.
- Remove the existing alternator, air conditioning compressor and associated brackets
- Remove pulleys and water pump
- Remove all traces of gasket and sealer with a gasket scraper and Scotch Brite® pad.
- Clean threads in block by chasing the water pump mounting threads with a 3/8-16 thread chaser and the threads on the two lower bosses on either side of the balancer with a 7/16-14 thread chaser.

### Skin Board #2 - Packaged with Water Pump



Zinc Coated  
Hex Nuts  
(Discard After Use)

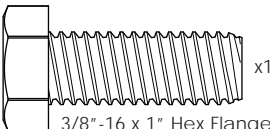
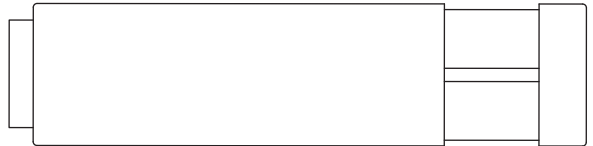
Short Stand-off  
2-3/8" x1



Long Stand-off  
3" x3



Tensioner Stand-off  
With Boss 3" x1

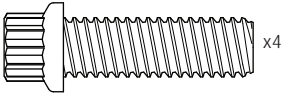


3/8"-16 x 1" Hex Flange Bolt x1

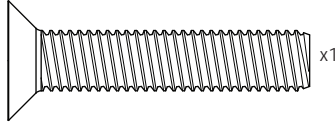


3/8-16 x 3" Threaded Stud x4

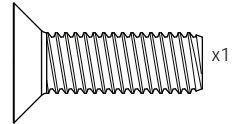
# Skin Board #3 - Packaged In Main Box



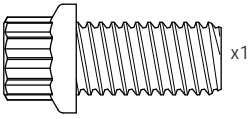
8mm-1.25 x 25mm 12pt. Cap Screw  
Bridge Bracket



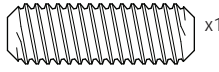
8mm-1.25 x 40mm Flat Socket  
Cap Screw - Bridge Bracket



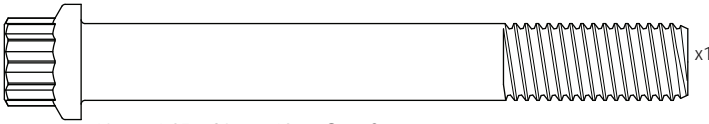
8mm-1.25 x 25mm Flat Socket  
Cap Screw - Bridge Bracket



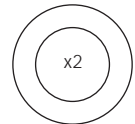
3/8-16 x 3/4" 12pt. Cap Screw  
Tensioner Pulley



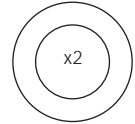
8mm-1.25 x 25mm Socket Set Cup Point  
Tensioner Assembly



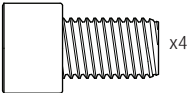
10mm-1.25 x 80mm 12pt. Cap Screw  
Alternator



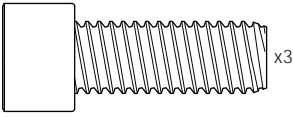
10mm x .5mm  
Shim Washer



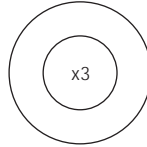
10mm x 1mm  
Shim Washer



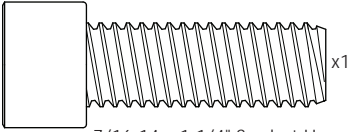
5/16-24 x 1/2" Socket Head Cap Screw  
Water Pump Pulley



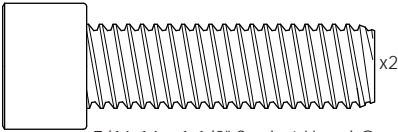
3/8-16 x 1" Socket Head Cap Screw  
Crank Pulley



3/8" Belleville Washer



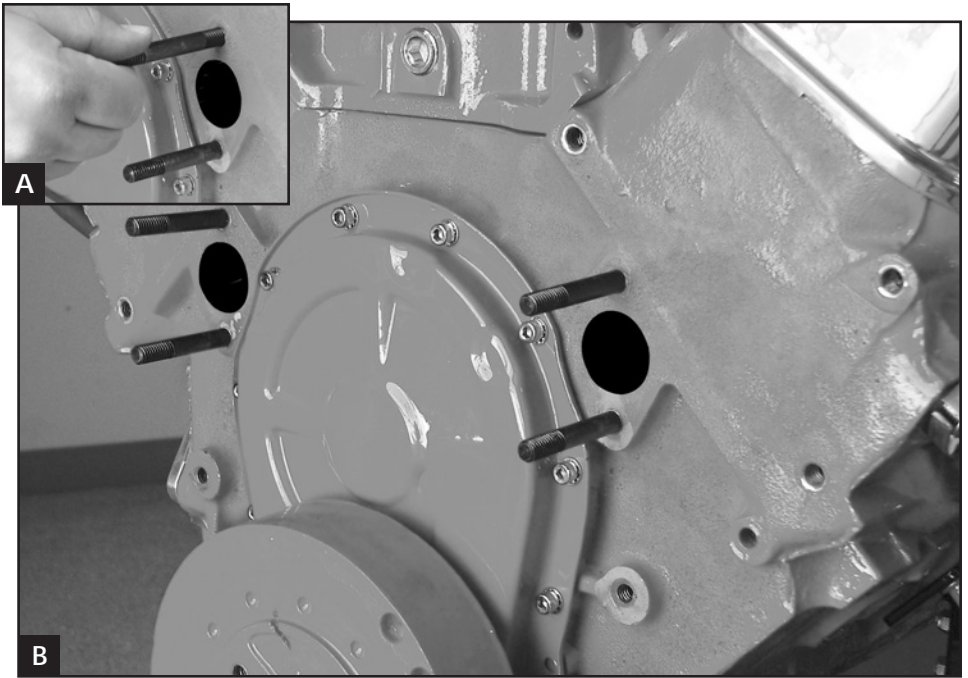
7/16-14 x 1-1/4" Socket Head Cap Screw  
Tensioner Support Bracket



7/16-14 x 1-1/2" Socket Head Cap Screw  
Alternator Bracket (Without Power Steering)

### Other Hardware / Gaskets

Continental Elite Poly-V Serpentine Belt: 56" #4060560 (with power steering)  
Continental Elite Poly-V Serpentine Belt: 53-3/4" #4060537 (without power steering)



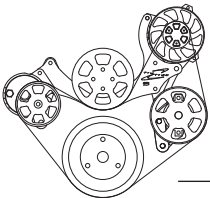
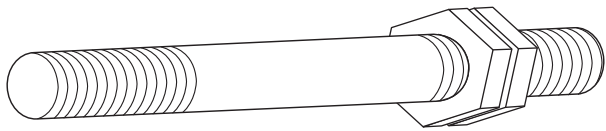
**Figure 1: Installing Mounting Studs**

Apply RTV silicone to one end of the four 3/8-16 x 3" threaded studs.

**A]** Use the two included 3/8-16 nuts (zinc plated) tightened against each other to act as a drive nut to ease installation (see illustration below).

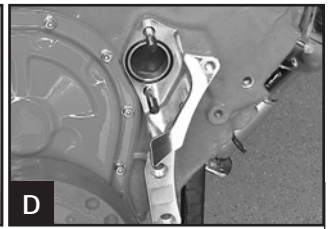
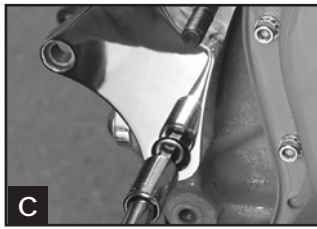
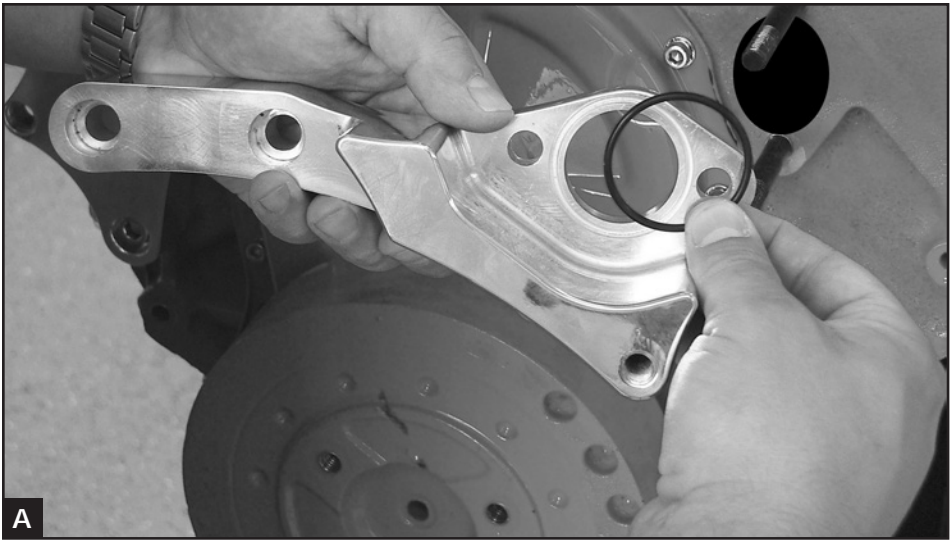
**B]** Seat studs firmly into block.

**EXAMPLE**



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*Billet Specialties*



**Figure 2: Install Tensioner Support & Alternator Bracket**

**A]** *The tensioner support and alternator mounting bracket incorporate o-rings on both sides for sealing.*

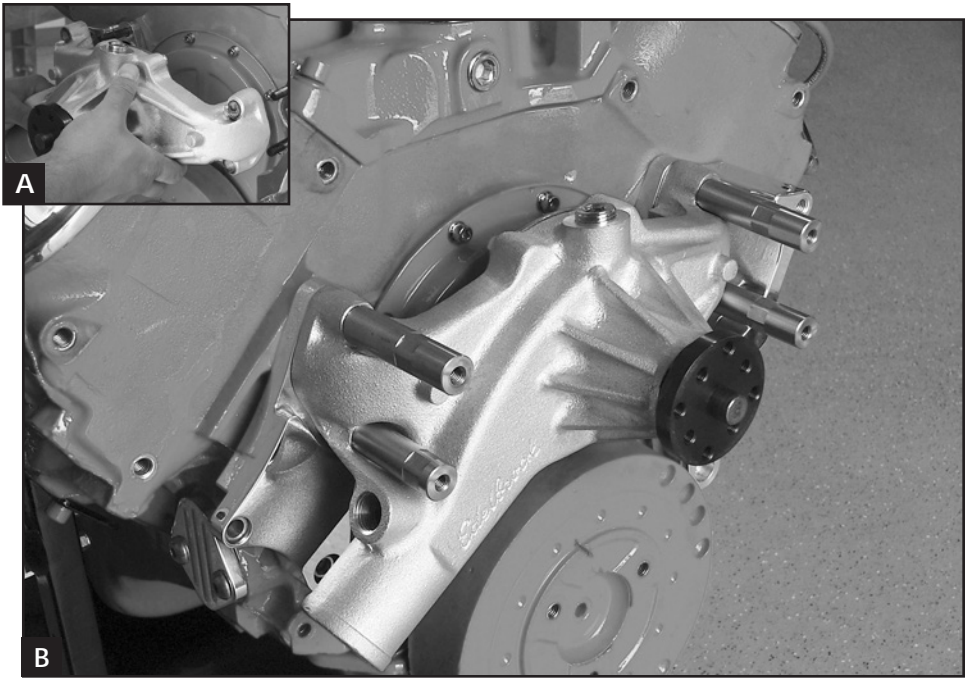
**B]** Slide the tensioner support bracket onto the water pump studs on passenger side of block and seat against block.\*

**C]** Apply anti-seize to the 7/16-14 x 1-1/4" socket head cap screw and thread the bolt through the tensioner support bracket and into the block.

**D]** Slide the alternator bracket onto the water pump studs on driver side of block and seat against the block.

\* **Gen VI Blocks without mechanical fuel pump provision:** Place 3/8-16 x 1" hex head flange bolt through tensioner support bracket at this time.





**Figure 3: Install Water Pump & Stand-offs**

Apply anti-seize to all exposed threads on the block mounting studs.

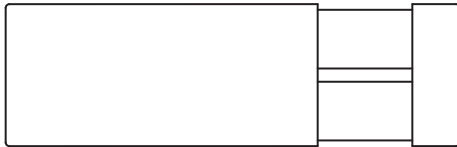
**A]** Slide the water pump over the four mounting studs.

**B]** Install the four stand-offs that hold the water pump in place.

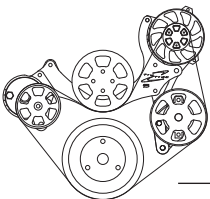
- The short stand-off attaches to the passenger side lower stud.
- The long stand-offs without a boss install on the three remaining studs.
- Tighten all firmly

Now would be a good time to install the heater hose fitting onto the water pump.

Short Stand-off x1



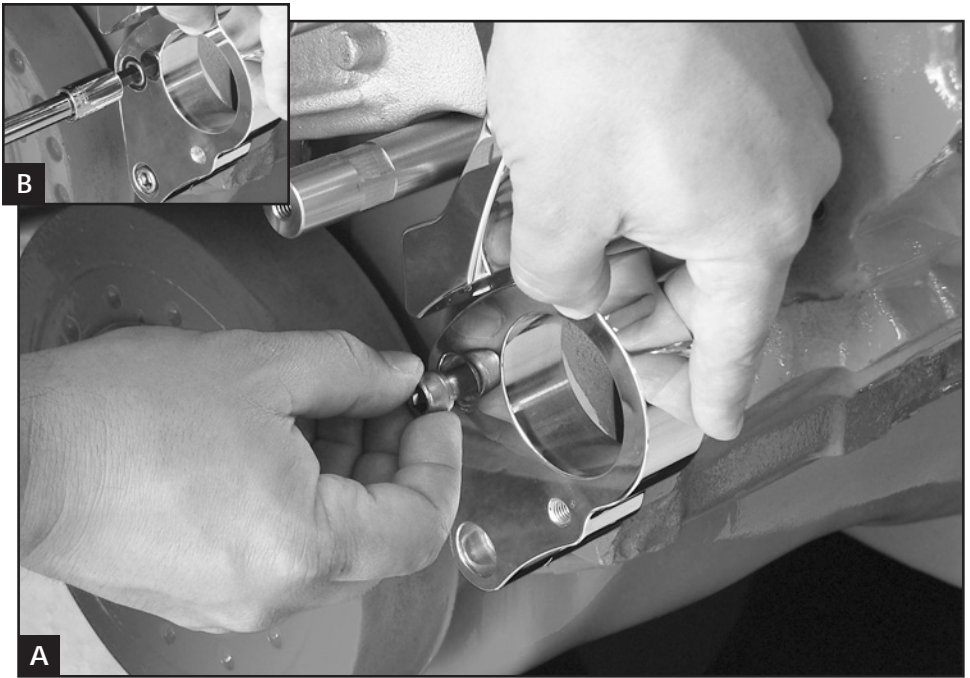
Long Stand-off x3



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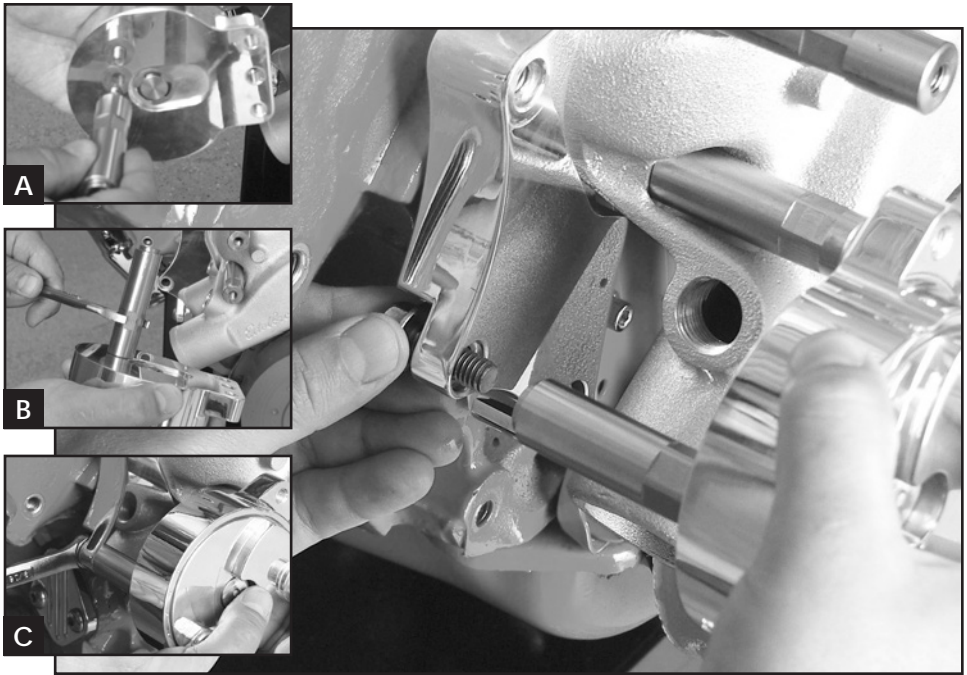
**Figure 4: Install Power Steering Bracket**

**Without Power Steering:** Apply anti-seize to the two 7/16-14 x 1-1/2" socket head cap screws and install them through the lower end of the alternator bracket into the block.

**With Power Steering:** Apply anti-seize to the threads of the two 7/16-14 x 2-1/4" socket head cap screws.

**A]** Place power steering bracket onto the lower end of the alternator bracket.

**B]** Thread the two screws through both brackets and into the block and tighten firmly.



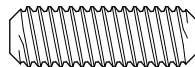
**Figure 5: Install the Tensioner**

**A]** Apply anti-seize to the 8mm-1.25 x 25mm socket set stud and thread into the remaining long stand-off with boss, tighten with 4mm Allen key (stud installs in stand-off opposite of boss).

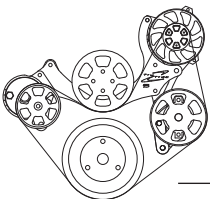
**B]** Attach the long stand-off with boss to the backside of tensioner.

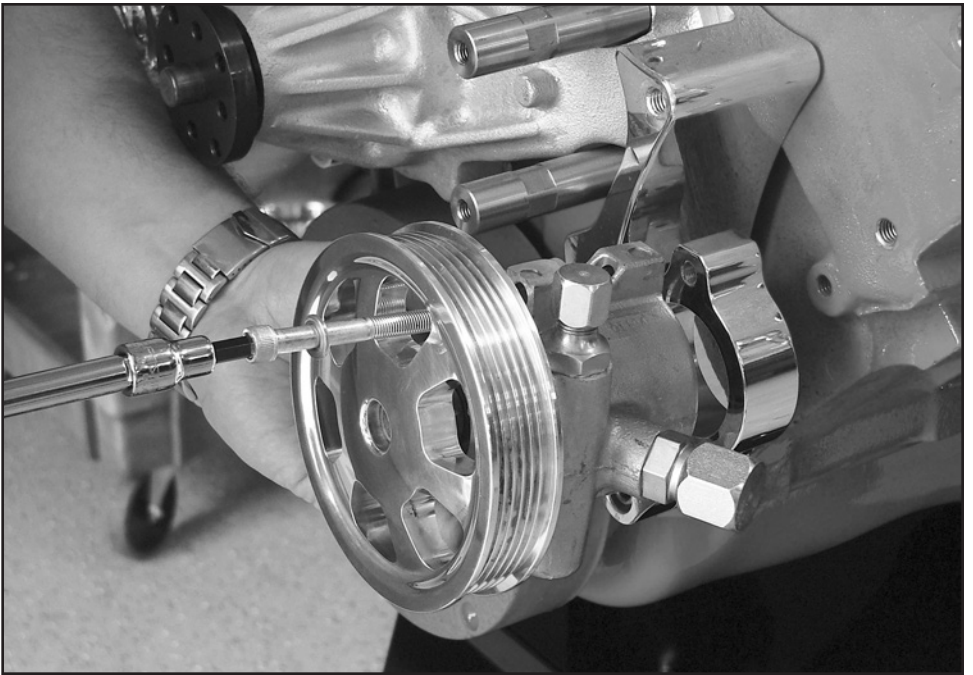
**C]** Attach assembly to lower tensioner support bracket ear by applying anti-seize to the 3/8-16 x 1" hex head flange bolt and threading it through the lower ear of the tensioner support bracket into the stand-off boss.

Do not completely tighten at this time.



8mm-1.25 x 25mm  
Socket Set Cup Point

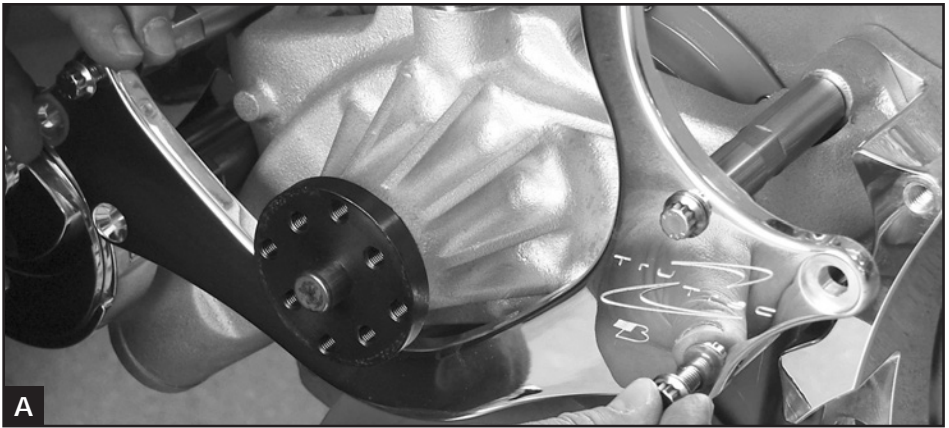




**Figure 6: Install Power Steering Pump with Pulley**

Apply anti-seize to the threads of the two 5/16-24 x 3" socket head cap screws - place pump to bracket and align.

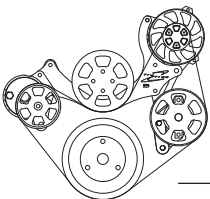
Install lock washers to screws and thread through the power steering pump into the bracket and tighten firmly.



**Figure 7: Attaching Bridge Bracket**

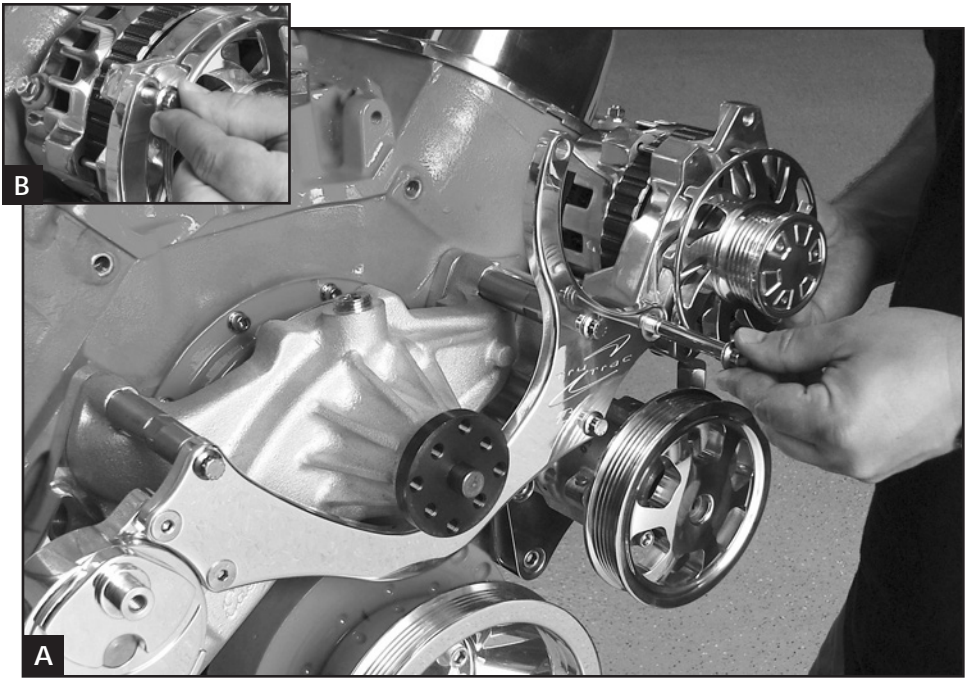
**A]** Install the bridge bracket to the three water pump stand-offs by applying anti-seize to and using three 8mm-1.25 x 25mm 12 pt. cap screws.

**B]** The bridge bracket also attaches to the tensioner using a 8mm-1.25 x 40mm flat socket cap screw (installs in lower boss through bracket and tensioner into stand-off) and a 8mm-1.25 x 25mm flat socket cap screw (installs through bracket into tensioner).



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**Figure 8: Attaching Alternator**

**A]** Place the alternator behind the bridge bracket apply anti-seize to threads and install the 10mm-1.5 x 80mm 12 pt. cap screw in the lower alternator mounting hole.

**Note:** The alternator mounting boss may vary in width due to the polishing process. 10mm shim washers are provided to shim alternator to bridge bracket (washers may not be needed).

**B]** Complete alternator installation using one 8mm-1.25 x 25mm 12 pt. cap screw by applying anti-seize to threads and threading through the bridge bracket into the top ear of the alternator.

*At this point we are ready to tighten the hex flange bolt on tensioner bracket. Once this is tightened you may then tighten all bolts on the bridge bracket assembly.*



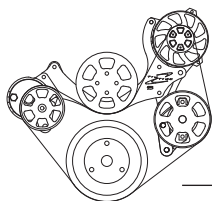
**Figure 9: Install Water Pump Pulley onto Pump**

Apply anti-seize to four 5/16-24 x 1/2" socket head cap screws and install the water pump pulley onto the water pump. Tighten firmly.



**Figure 10: Install Crankshaft Pulley**

Install the crankshaft pulley to the harmonic balancer by applying Loc-Tite to three 3/8-16 x 1" socket head cap screws with three 3/8" Belleville washers (cup towards engine). Torque to 35 ft. lbs.





**Figure 11: Install Serpentine Belt & Tensioner Pulley**

- Route belt as shown below minus tensioner pulley.
- Place a 5/8" box end wrench on tensioner, align belt onto groove of tensioner pulley.

**A]** Pull up on wrench until tensioner pulley hole lines up with boss on tensioner, slide pulley onto boss and slowly lower wrench to apply tension to serpentine belt.

**B]** Apply anti-seize to the threads of the 3/8-16 x 3/4" ARP 12pt. cap screw and thread it through the aluminum washer into tensioner boss and tighten firmly (46 ft/lbs.).

