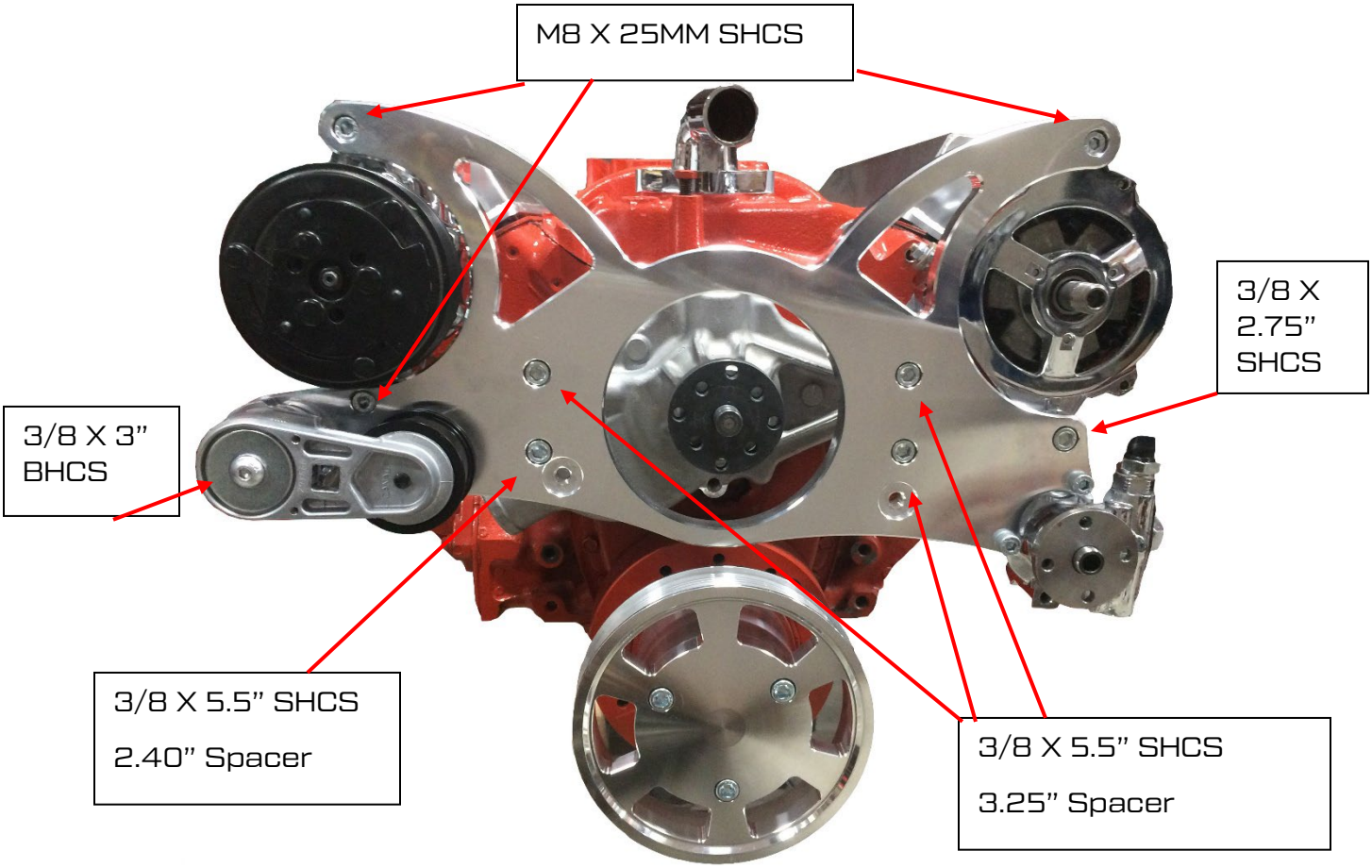
350-BRACKET-KIT-WR-S INSTALL INSTRUCTIONS

PART	QTY	APPLICATION
3/8-16 X 2.75" SHCS	1	Bottom alternator bolt
3/8-16 X 3.0" BHCS	1	Bolt holding TENSIONER-KIT
3/8-16 X 2.5" HHS	1	Bolt holding SERP-IDLER-WR
3/8" SAE Washer	1	Washer for idler
3/8-16 X .468 Lock Nut	3	Bottom alternator bolt, tensioner, & idler
M8-1.25 X 25mm SHCS	3	Top ALT Bolt and Top AC Bolt
M8-1.25 X 40mm SHCS	2	Power steering to main bracket
3/8-16 X 5.5 SHCS	4	Bracket to water pump
7517722-240 Spacer	1	Bottom left spacer between WP and Plate
7517722-325 Spacer	3	Spacers between WP and Plate
Total	20	6x6x2 Box



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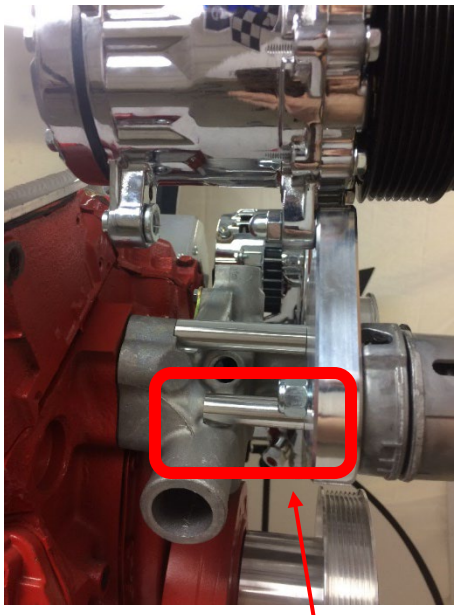
Step 1: Remove old brackets, pulleys, water pump, and accessories.

Tech Tip: We recommend thread chasing the water pump mounting holes. Loose debris in the holes can cause slight spacing issues and/or bolts not fully securing.

Step 2: Apply RTV Blue or similar gasket sealer to both sides of the water pump gaskets.

Step 3: Install the water pump and main bracket (350-WR-S). It is recommended to do this all at once. It may be beneficial to have someone help with this step. Everything from here on out will attach directly to the main bracket. Use (4) 3/8 X 5.5" SHCS and the spacers. The shorter 2.40" inch will be used on the bottom left (when facing the front of the engine). Use (3) 3.25 spacers in the remaining locations. Do not fully tighten any bolts until all have been started. Secure in an alternating pattern.

Tech Tip: Step 3 can be done with one person, use a spare bolt to hold one end of the water pump on while you get the assembly started.



Step 3: The 2.40" spacer is used for the longer boss

Step 4: Install the alternator to the right side of the bracket. The CVF logo should face towards the fender. Use a M8 X 25MM SHCS on top and a 3/8 X 2.75 on the bottom. Secure the bottom bolt with a locknut.

Tech Tip: If side post of alternator is not in a desired location, you can carefully unbolt the back housing of the alternator and rotate to a preferred location. DO NOT REMOVE the back housing completely or you will have to re-install the bushings.

CVF Alternators are 1-Wire and will not use the pin plug. You will need to run a dedicated ground. Alternator pig tails are not included. If you want to avoid a 1-Wire install, look for part #30700 at CVFracing.com to purchase a high amperage wiring kit. Further instructions and tips can be found at support.cvfracing.com

350-BRACKET-KIT-WR-S INSTALL INSTRUCTIONS

Step 5: Install the Peanut Compressor to the left side of the bracket. The CVF logo will face towards the fender and the fittings will face up. Use (2) M8 X 25 MM. **The compressor does come pre-charged with 4.75 oz pag100 oil.**

Variation: If you are running without AC, you can install the AC Idler at this time (AC-DELETE). It will install similarly to the compressor. Instructions can be found in that box.

Step 6: Install the spring-loaded tensioner (TENSIONER-KIT). Leave the decorative cap off until the belt is installed. Use the 3/8 X 3" BHCS and secure on the back with a locknut.

Step 7: Install the crank pulley and hub spacer with their provided hardware. They will install as one assembly with the bolts going through the crank pulley and hub adapter. Leave the decorative cap off the crank pulley until you are done installing. This cap allows for correcting timing without removing the entire crankshaft pulley.

Step 8: Install the power steering pump. Instructions for each pump are as follows:

GM T2 Pumps: bolt directly onto the bracket with (2) M8 X 40MM SHCS

KRC Hydroboost Pumps: require the use of HYDRO-BRACKET-KIT-WR, see instructions inside that box.

Saginaw Pumps: Require the use of CHEVY-WRAPTOR-SAGINAW-KIT. Instructions can be found inside that box.

Step 9: Install the power steering pulley. Most applications will use S-LS11PS; however, Saginaw applications use S-SBC4PS.

Step 10: Install the water pump pulley using the provided hardware.

Step 11: Install the SERP-IDLER-WR in the bottom right hole of the bracket near the power steering pump. The boss will go against the bracket. Install with a 3/8 X 2.5" HHS and washer. Secure on the back with a lock nut. Keep the cap off until the belt is installed. The hole near the tensioner is only used for electric water pump applications.

Step 12: Use a ½" ratchet to apply tensioner to the spring-loaded tensioner and install the belt as shown on the next page.

350-BRACKET-KIT-WR-S INSTALL INSTRUCTIONS

With Power Steering

Without Power Steering

With Saginaw Pump

Step 13: Route the belt based on your configuration above. Recommended belts for proper tension are as follows:

AC & PS: K080740; No PS: K080635; Saginaw: K080760

Tech Tip: To ensure lasting performance, we recommend the tensioner be in a similar position to the picture below. Installing the belt may be difficult, we recommend completing this step with 2 people. In most cases when installing the belt, the belt can be too tight to fit over the pulley. If you remove the alternator pulley cap and the nut that holds the pulley onto the alternator, place belt around alternator pulley as shown in the pictures below. Release tension on the tensioner and slide alternator pulley onto the shaft of the alternator using the pulley as additional leverage. A properly installed belt will keep the outside line on the tensioner within the 3 positional lines as seen below.

Step 14: Once the belt is installed, all decorative caps can be installed.

350-BRACKET-KIT-WR-S INSTALL INSTRUCTIONS

Step 15: If you are going to be running a mechanical fan, you will need to install FAN-SPACER-WR onto your water pump shaft.

Step 16: Install and plumb the remote reservoir. Directions for this can be found in the box REMOTE-PS-RES. The fittings on the bottom of the reservoir are 3/8" NPT.

Tech Tip: After initial start-up, you will need to bleed air from your power steering system. To do this, you want to put the front of the car on jack stands and steer into the left stops and then into the right stops repeatedly. Check fluid level frequently and add as needed.

Further instructions regarding power steering set up can be found at support.CVFracing.com.

GENERAL FASTENER TORQUE SPECIFICATIONS

Use only when an application-specific torque value is not provided. Verify the grade or property class marked on the bolt head.
Lower torque may be required when fastening into aluminum or other soft materials.
Values assume clean, undamaged threads. Threadlocker is not a dry condition.

SAE COARSE THREAD

FASTENER	GRADE	LUBRICATED K=.15	LIGHTLY LUBRICATED K=.17	DRY K=.20
1/4"-20	5	76 in-lb	86 in-lb	101 in-lb
5/16"-18	5	157 in-lb	178 in-lb	209 in-lb
3/8"-16	5	23 ft-lb	26 ft-lb	31 ft-lb
7/16"-14	5	37 ft-lb	42 ft-lb	49 ft-lb
1/4"-20	8	107 in-lb	122 in-lb	143 in-lb
5/16"-18	8	221 in-lb	251 in-lb	295 in-lb
3/8"-16	8	33 ft-lb	37 ft-lb	44 ft-lb
7/16"-14	8	52 ft-lb	59 ft-lb	70 ft-lb

SAE FINE THREAD

FASTENER	GRADE	K=.15	K=.17	K=.20
5/16"-24	8	245 in-lb	278 in-lb	327 in-lb
3/8"-24	8	37 ft-lb	42 ft-lb	49 ft-lb

METRIC COARSE THREAD

FASTENER	CLASS	K=.15	K=.17	K=.20
M8 × 1.25	8.8 12.9	169 in-lb 283 in-lb	192 in-lb 320 in-lb	225 in-lb 377 in-lb
M10 × 1.5	8.8 12.9	28 ft-lb 47 ft-lb	32 ft-lb 53 ft-lb	37 ft-lb 62 ft-lb
M16 × 2.0	8.8	121 ft-lb	137 ft-lb	161 ft-lb

FASTENER TYPE: SAE values shown are for standard hex-head carbon/alloy steel bolts.
Socket, button, flat-head and stainless-steel fasteners require separate, generally lower values.
Verify the appropriate specification at Fastenal.com.

Need Assistance with your build or want to learn more? Visit our Youtube channel by scanning the QR code for:

- CVF Product Installs
- Troubleshooting Tips
- New Products
- Customer Builds