

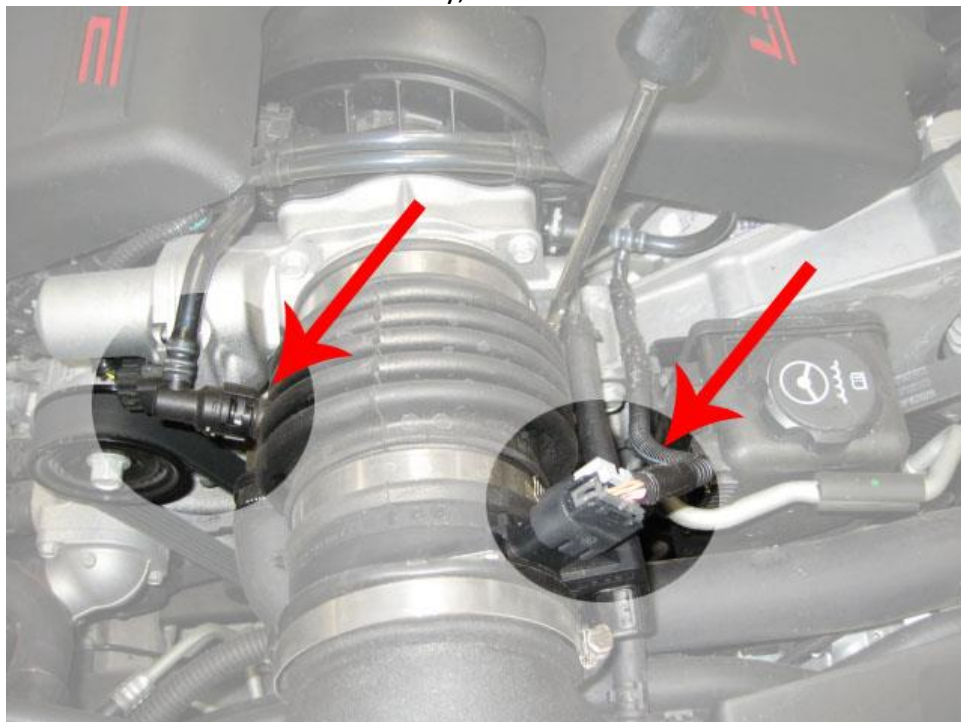
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NOTE: The car will require PCM reprogramming after the installation. The car may be driven MODERATELY with the stock injectors prior to tuning to check for leaks, belt alignment or even to drive it to the tuning shop. Any application of too much throttle will put the car into “reduced power” mode. You will have to pull over, shut the car off for 10 seconds and restart to proceed. If you have a code scanner, you can delete the codes on the fly and keep driving. Only do this if you have somebody with you to handle it. I always suggest that you purposely make it go into reduced power mode, so you get a feel for what it takes to do it and how it feels. That way you can avoid it or at least have an idea of what to expect. We can provide a base tune that will make the car drivable but we still recommend professional dyno tuning to verify the settings so you can get the most out of your car. If installing a C.A.R.B compliant kit, contact us to obtain a compliant tune file.

Loosen the hose clamp at the throttle body to intake tube. Disconnect the Mass Air Flow Sensor (MAF) connector by removing gray lock, push tab in and pull gently. Remove the valve cover breather hose by using a flat screwdriver and pushing the gray tab into the connector. Pry up on the tabs located on the air bridge until released. Remove complete air filter assembly.

These pictures show an LS2 air filter assembly, but LS3 and LS7 are similar.





VALVE COVER BREATHER HOSE, MAF CONNECTOR AND AIR FILTER ASSY REMOVED

Remove 4 (10mm) bolts holding plastic upper radiator hold down.



(TOP RADIATOR COVER

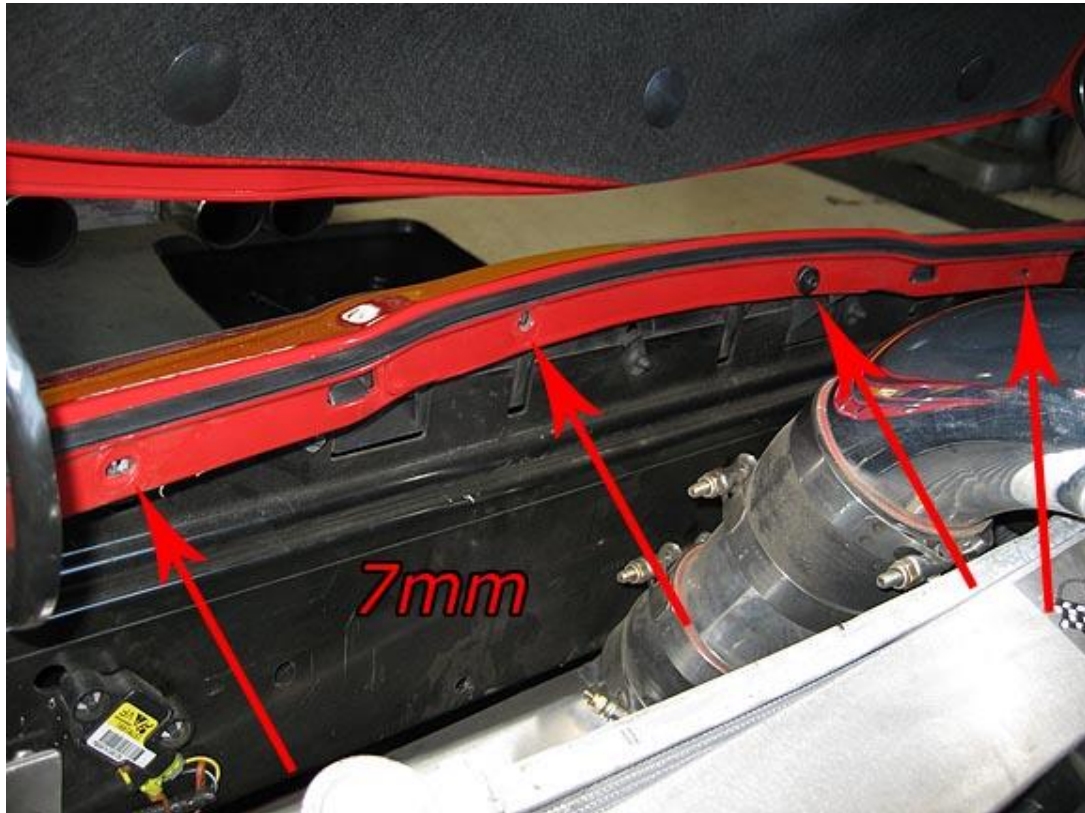
Remove the large plastic radiator shroud that seals the radiator and AC condenser area in front of the radiator. This panel slopes down at an angle from the top of the radiator down to the bottom of the bumper. Remove any hoses or lines connected to the radiator. Disconnect the 4-pin connector coming out of the fan control module. Remove the 2 (10mm) bolts that hold the fan assembly to the radiator. These are located on the driver's side bottom and passenger side top.

Push the fan up and over the plastic radiator and remove it from the vehicle.

If everything is disconnected from the radiator, remove it from the car.

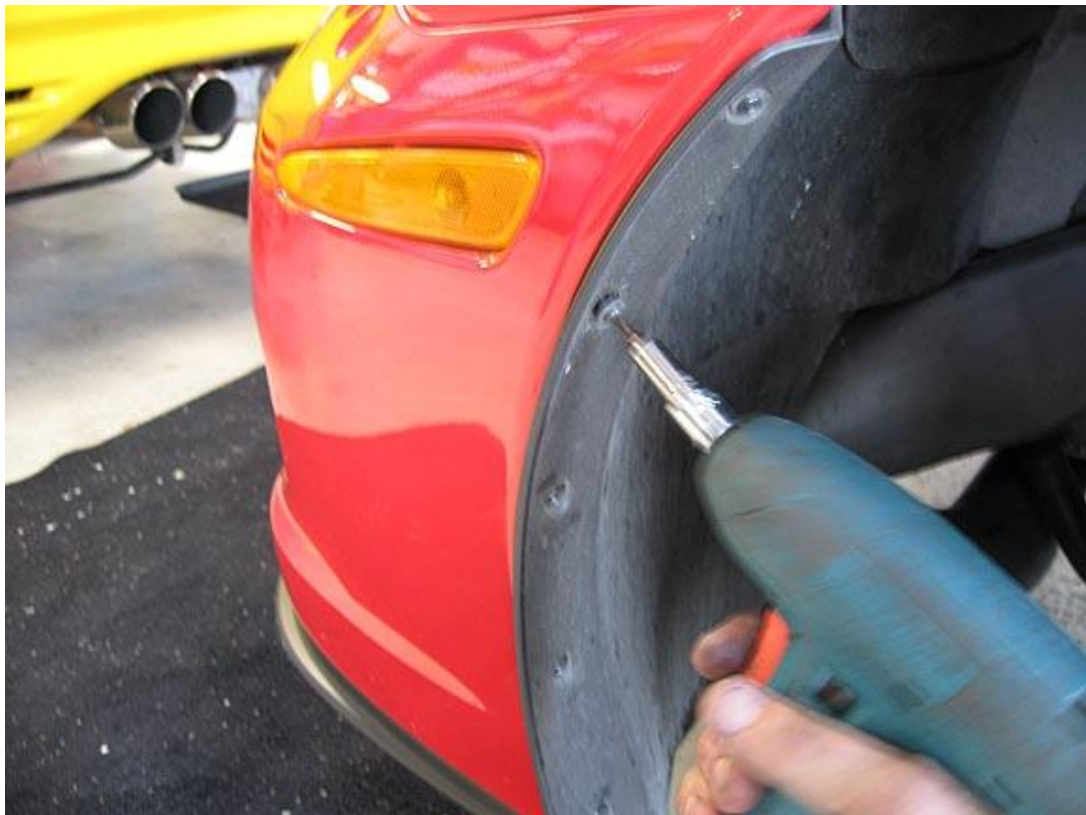
REMOVE THE FRONT FASCIA (The installation may be performed without removing the fascia, but it is MUCH easier to remove it)

Raise the car on a suitable lift or jack and jackstands. Remove the front wheels. Remove (4) 7mm screws from the top of the fascia.



(REMOVE THESE FOUR 7mm SCREWS)

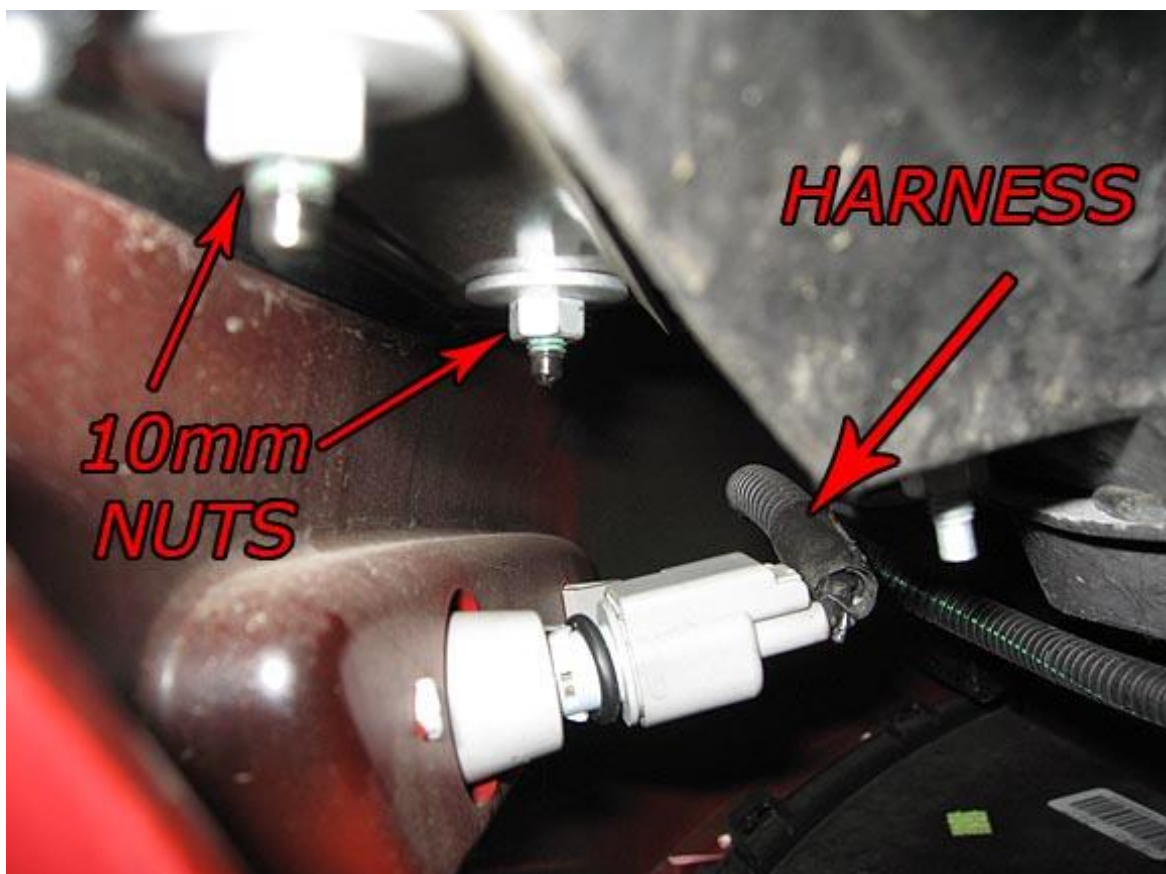
Remove FIVE T-15 screws on wheel well (some models use (5) plastic push pins).



(REMOVE THESE 5 SCREWS OR PLASTIC PUSH PINS)

Pull the wheel well aside and unplug side marker light by twisting and pulling the harness.

Remove the (2) 10mm nuts.



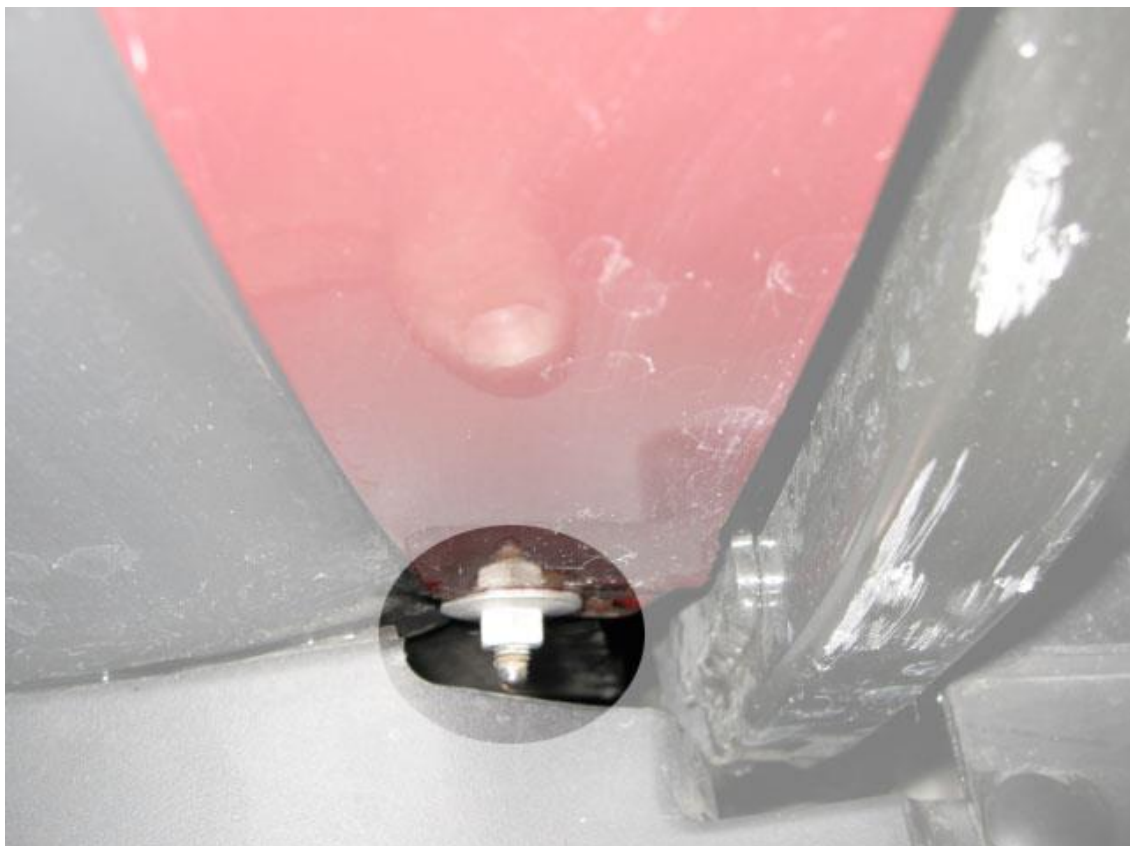
(UNDO SIDE MARKER HARNESS AND REMOVE TWO 10mm NUTS)

Unplug the fog light harness by pulling up on the tab and pulling the harness down.

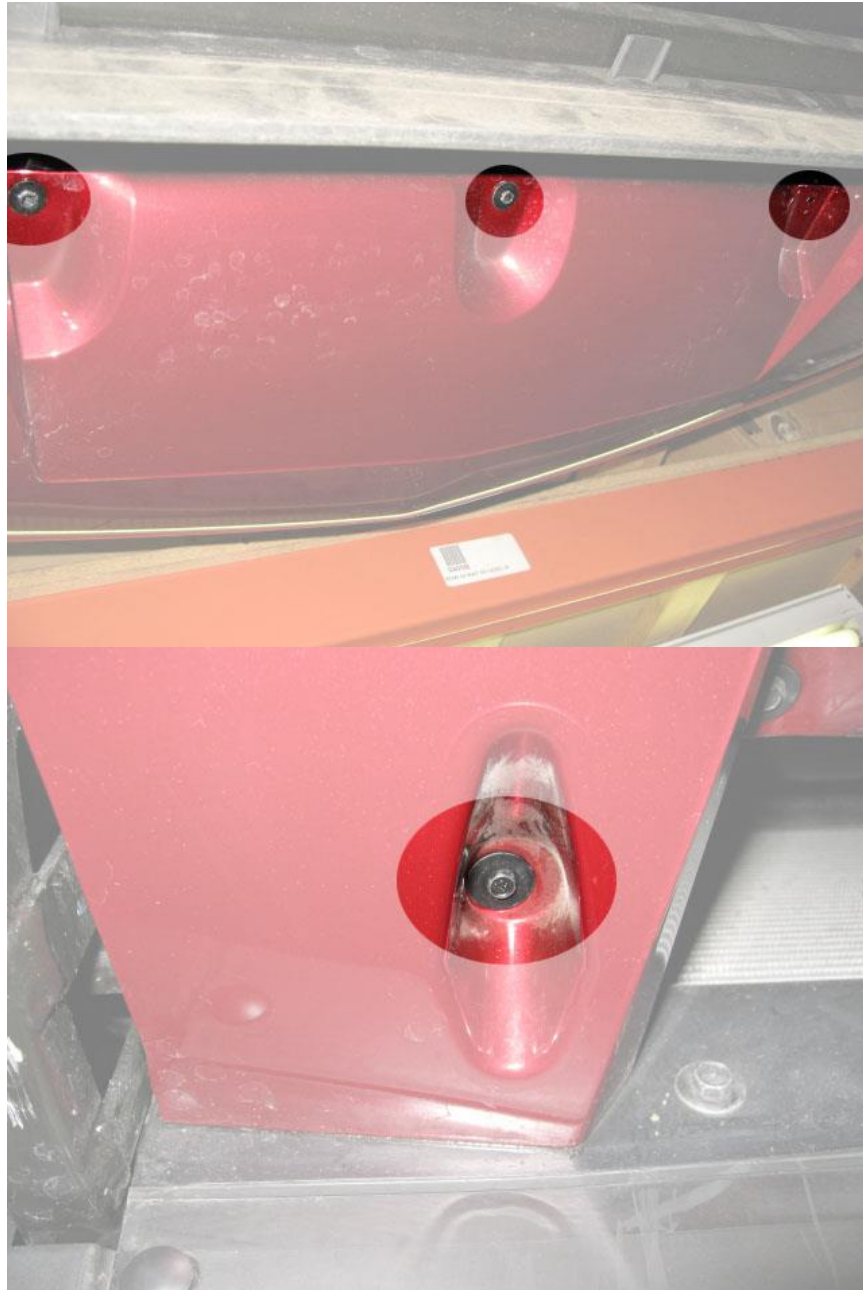


(UNDO FOG LIGHT HARNESS)

Remove (2) 10mm nuts and (5) 7mm screws from under the front fascia.



(ONE OF TWO 10mm NUTS)



(7mm SCREWS IN BOTTOM OF FASCIA)

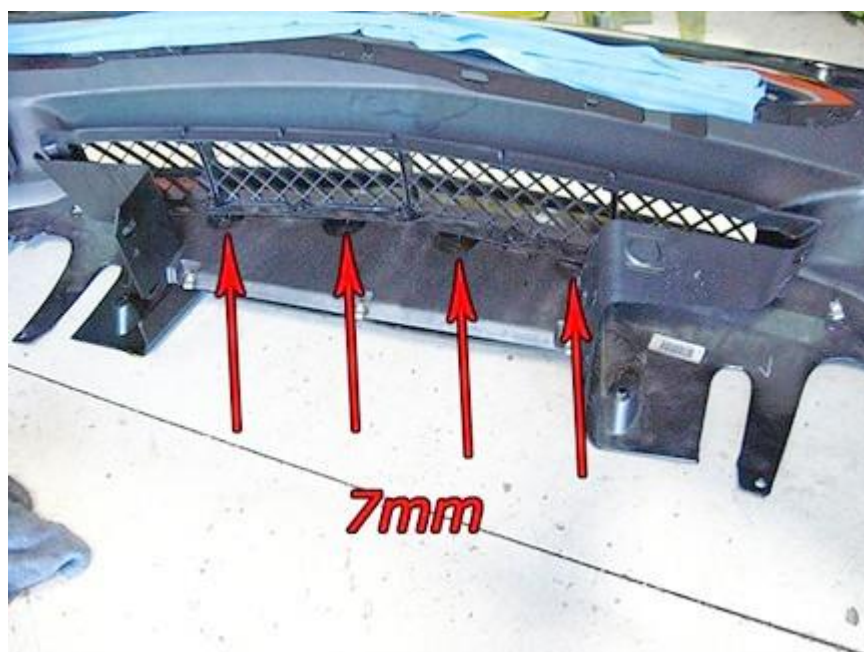
If your hood is still on, use masking tape on the front nose of the hood and adjacent fascia while you are removing the front fascia from the car.

Pull straight up on corners of the front fascia until the clip “pops.” Remove fascia from vehicle and set aside.

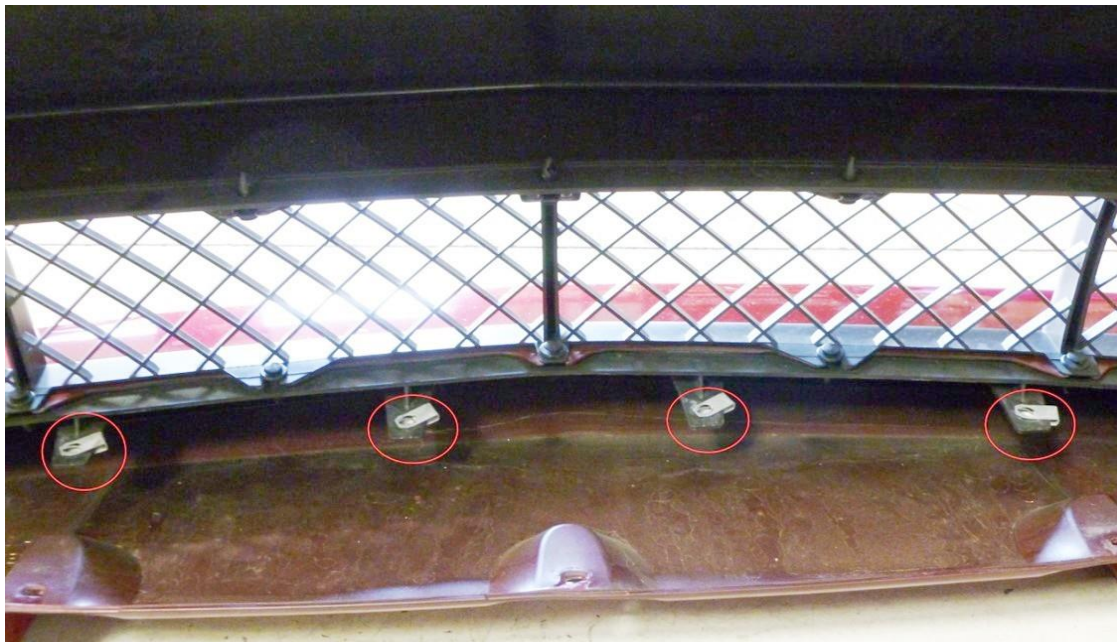


(PULL UP UNTIL THE PANEL POPS OUT)

Remove the 4 (7mm) bolts holding this inner panel to the front fascia. Remove the panel from the fascia, it will not be reused. Trim off bolt tabs so they don't interfere with the intercooler duckbill when reinstalling the fascia.



(REMOVE 7mm SCREWS)



(TRIM OFF TABS CIRCLED IN RED)

REMOVE THE FACTORY BELT

Remove accessory drive belt and the two bolts holding the tensioner to the water pump. Keep these bolts handy as they will be used to mount part of the rear supercharger bracket. Remove the 15mm bolt holding the evaporation solenoid bracket and remove the solenoid from the bracket. (The bracket will not be reused)



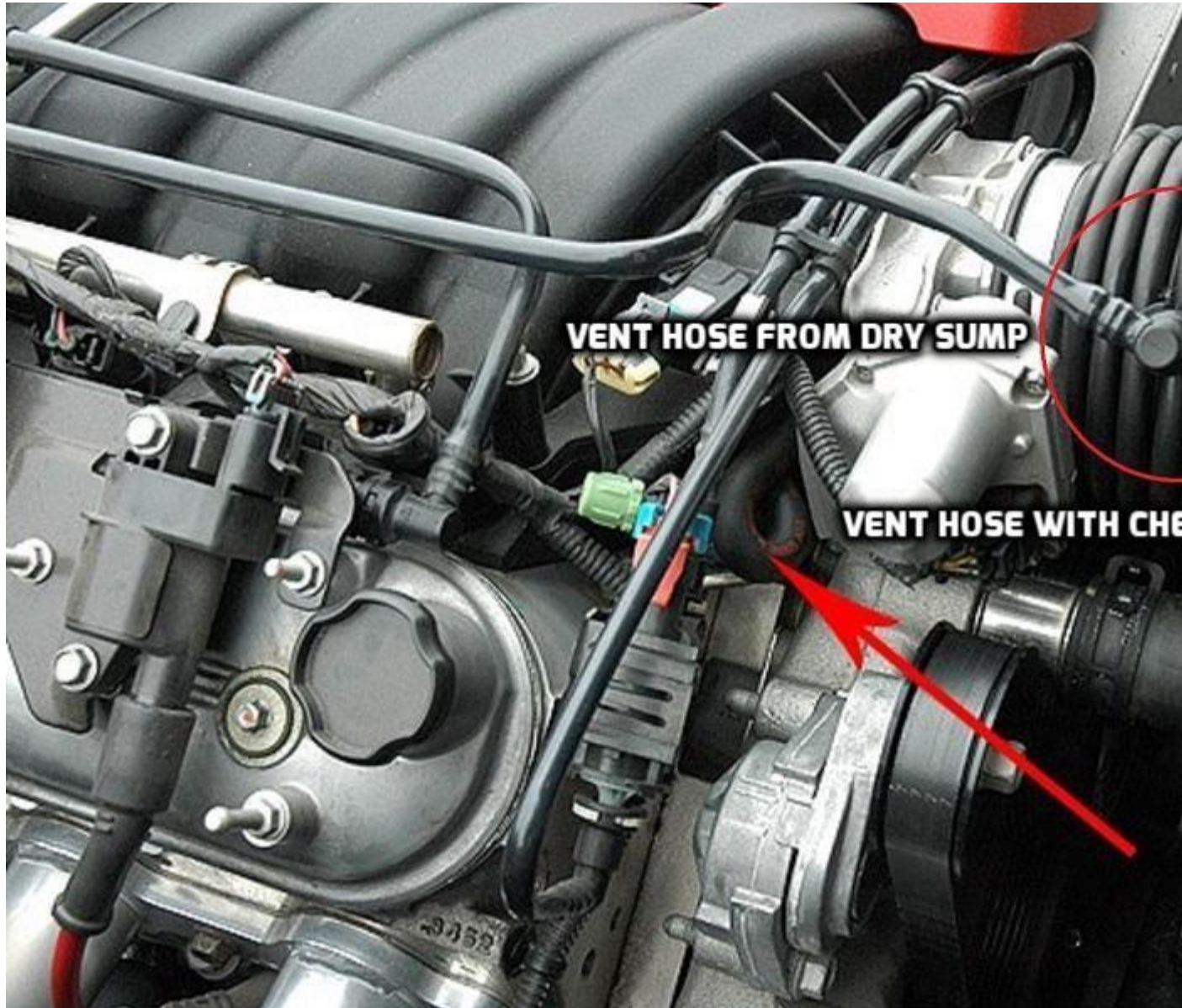
(TOP: EVAP. BRACKET – BOTTOM: TENSIONER)

CRANKCASE VENTILATION HOSES

Locate the small, U-shaped hose going from the intake manifold to the engine valley cover located under the manifold. Remove this hose and replace it with the hose containing the small plastic check valve. **Orient the check valve so that airflow is allowed to flow from the valley cover towards the intake manifold and is blocked from traveling the other way. Putting it in backwards will cause high crankcase pressure and oil leaks.**

This vent hose is common to standard C6 and Z06.

The vent hose shown below going to the dry sump tank is for Z06 and LS3 dry sump cars only. This hose is removed completely. On the dry sump tank itself, slip the short piece (1") of 3/8" hose over the empty nipple to act as a sleeve. Slip the 5/8 hose over the sleeve and clamp. This hose goes directly to the air filter in front of the radiator.



(VENT TUBE- Z06 SHOWN)

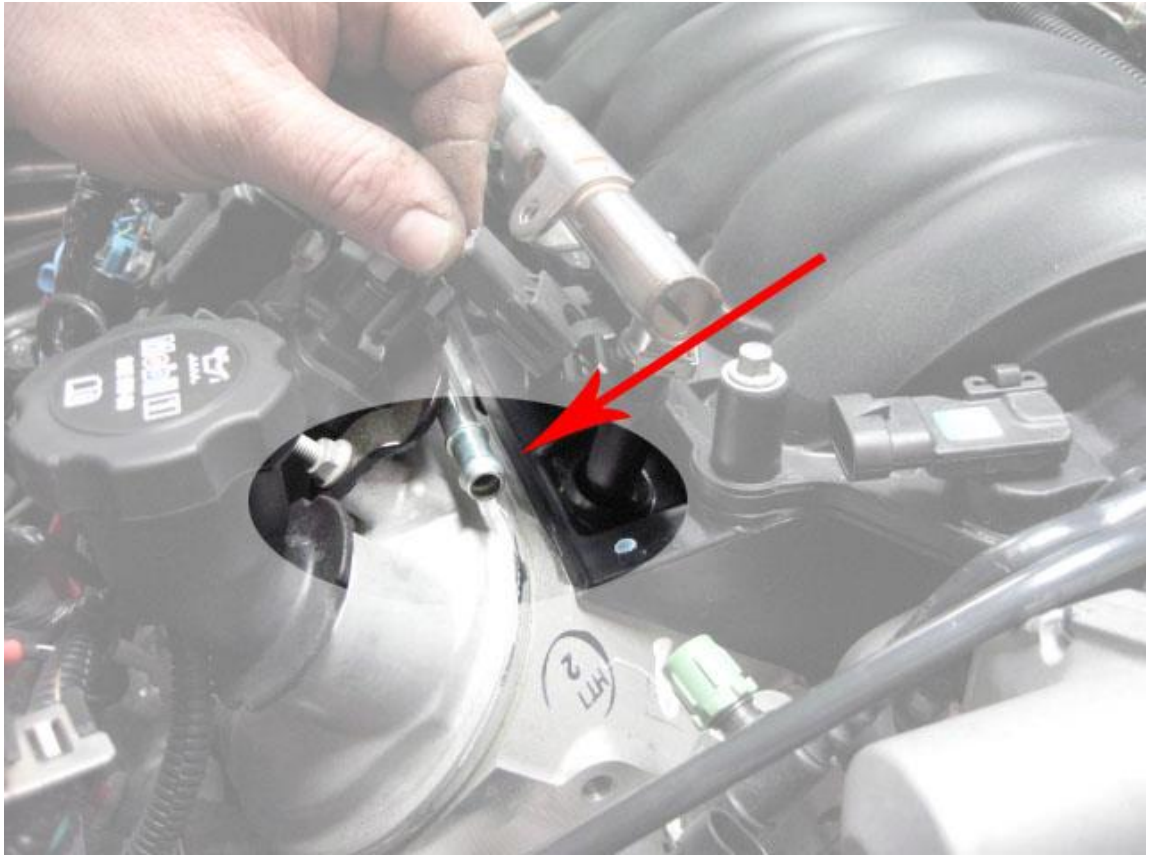


(CHECK VALVE INSTALLED IN VENT TUBE FROM VALLEY COVER)



(VENT TUBE WITH CHECK VALVE INSTALLED, AIRFLOW DIRECTION INDICATED)

On standard C6, cap the nipple on the passenger side valve cover that originally had the vent hose running from the valve cover to the factory inlet coupler. Replace the oil fill cap with the provided cap and 90-degree fitting. The supplied 5/8" hose runs directly from the cap to the air filter. Venting from the cap raises the fitting above the oil spraying around and eliminates the need for a catch can.



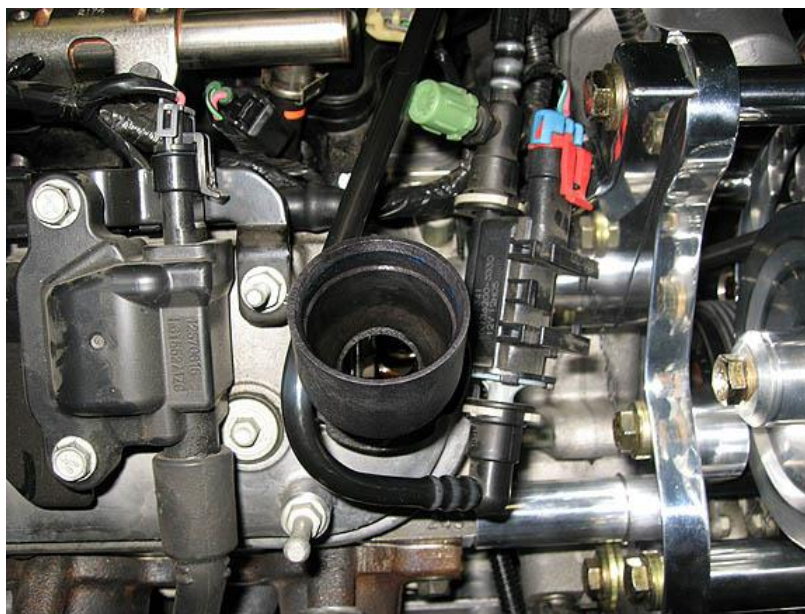
(ATTACH SUPPLIED RUBBER VACUUM CAP TO NIPPLE)



VENT HOSE ON Z06 DRY SUMP



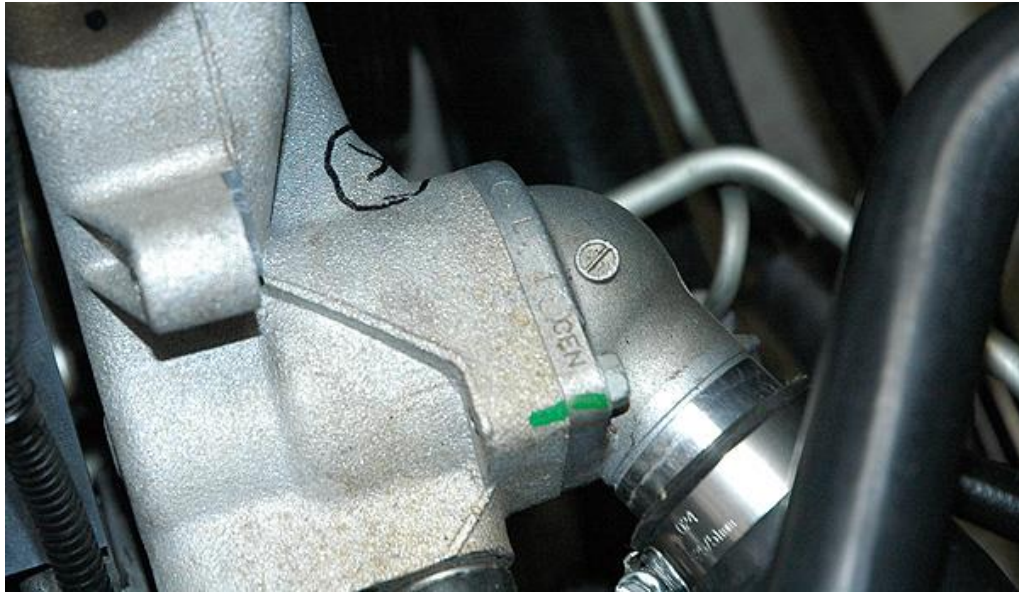
SUPPLIED OIL CAP and VENT HOSE INSTALLED ON STANDARD C6



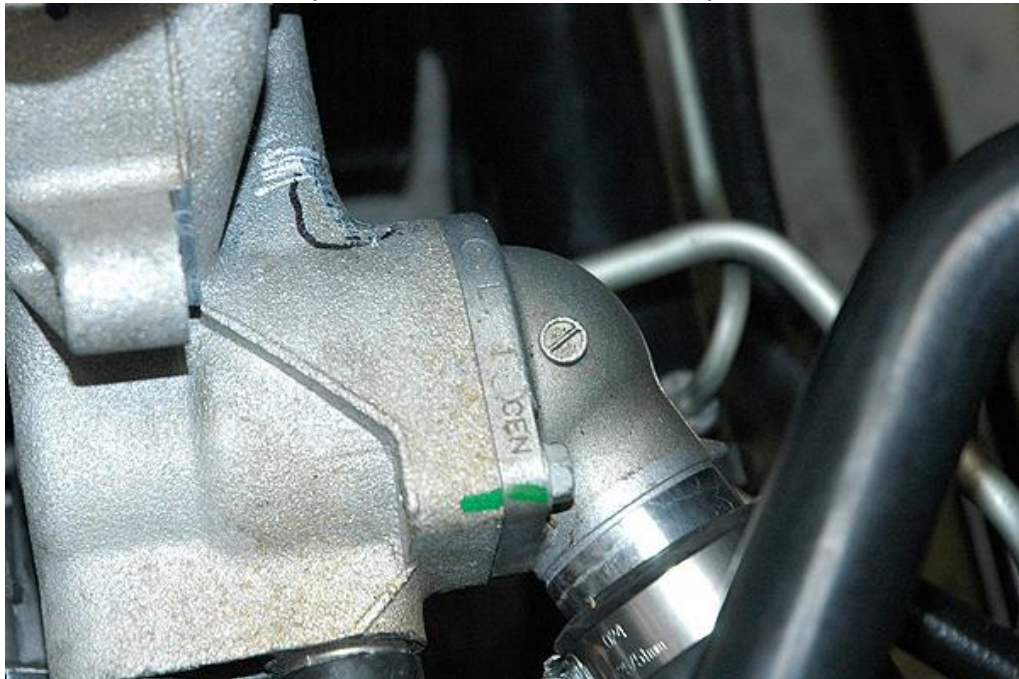
MOVE THE EVAP SOLONOID TUBE OVER THE FILL TUBE AS SHOWN

WATER PUMP PREPARATION

Some water pumps **may (most do not)** need to be ground down near the thermostat. This is for added belt clearance. Most pumps do not require this at all. Mark a spot like the one shown and use a grinder to take off material. Only a small amount is removed. Look at the 2nd picture for guidance. You're just squaring off that inside corner.

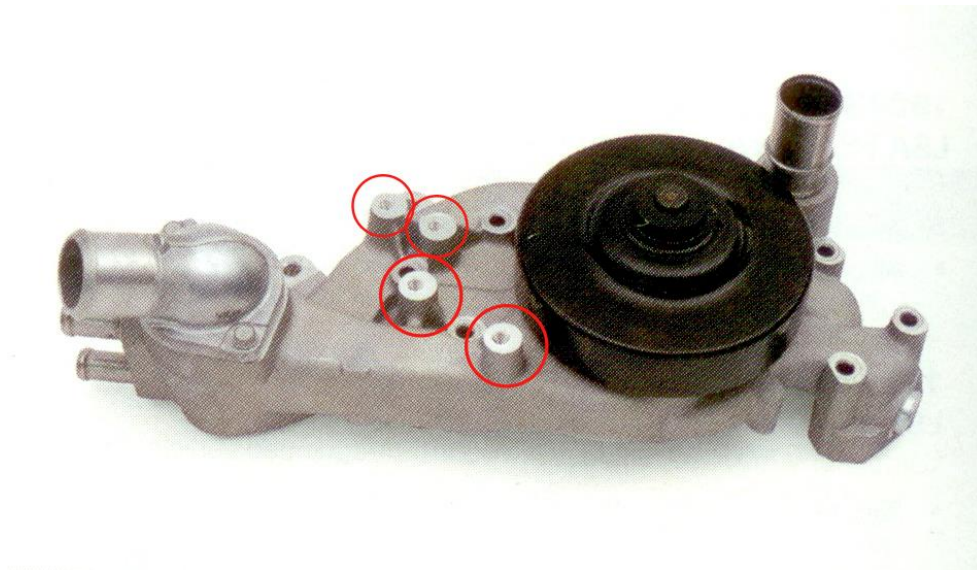


(WATER PUMP/THERMOSTAT)

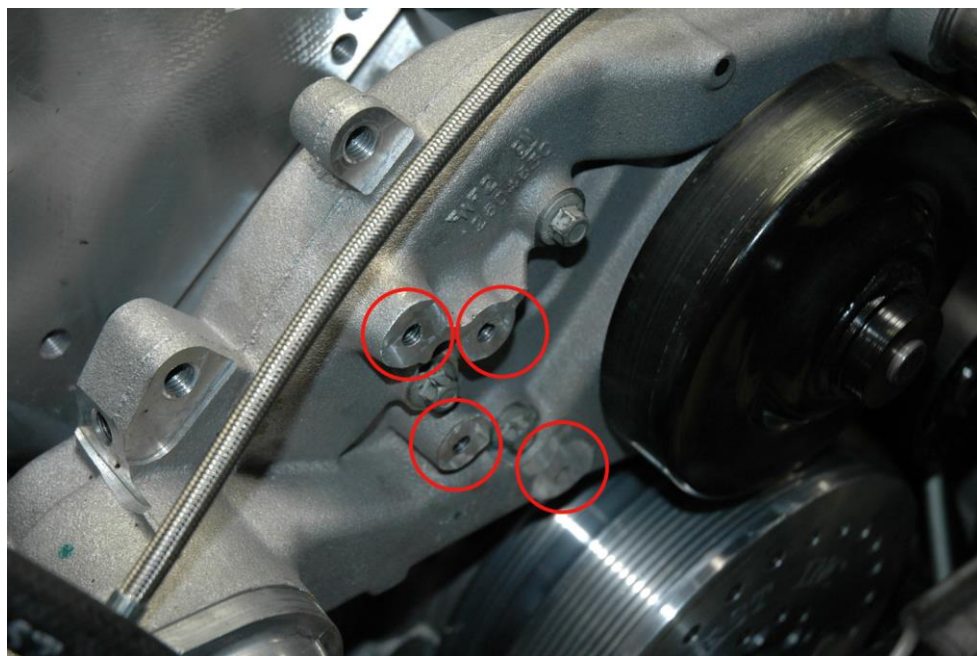


(WATER PUMP/THERMOSTAT AFTER GRINDING)

On most 2009+ vehicles, the water pump will need to be modified further. There are four aluminum bosses that will need to be milled or ground down. (The water pump is shared with the ZR-1 and these are not used on the LS3/LS7 cars) You will want to make sure they are even or just below the flat part on the bottom of the pump.



(2009+ WATER PUMP)



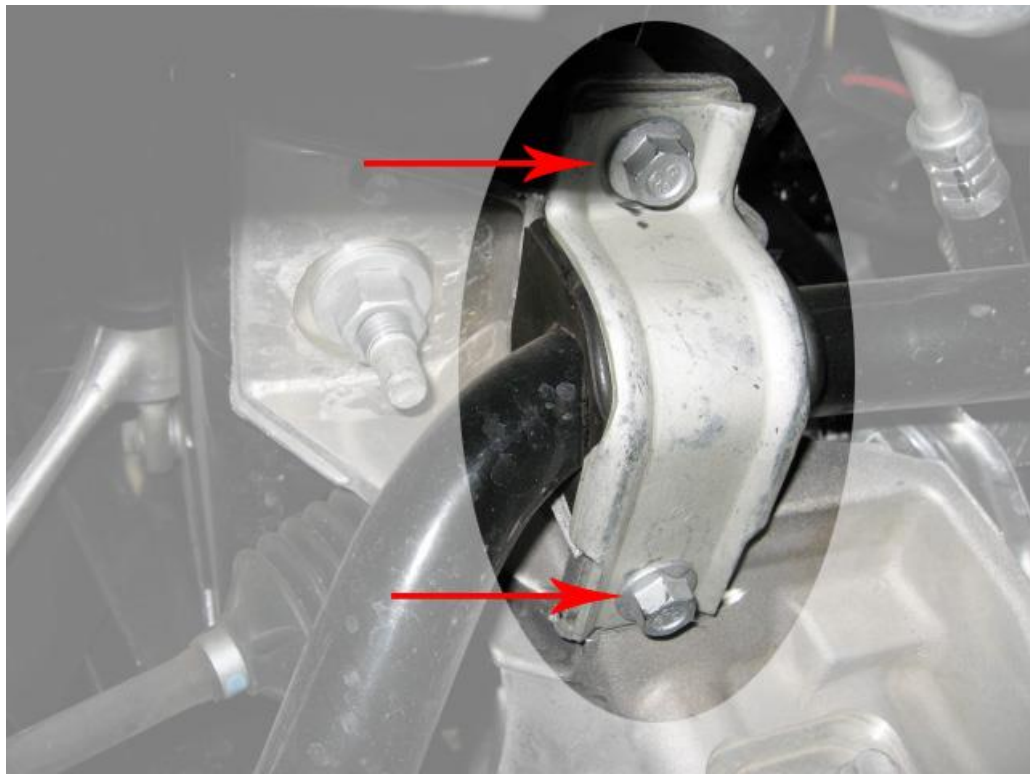
(2009+ WATER PUMP AFTER REMOVING BOSSES)

PINNING THE CRANKSHAFT PULLEY

The **STEERING RACK DOES NOT NEED TO BE REMOVED IN ORDER TO PIN THE CRANKSHAFT PULLEY**

The front sway bar needs to be dropped out of the way and the radiator fan, and power steering cooler (if equipped) will have to be removed to "pin" the crank pulley to the crankshaft.

Remove the 4 (13mm) sway bar bolts at the sub frame and let the bar drop down out of the way.



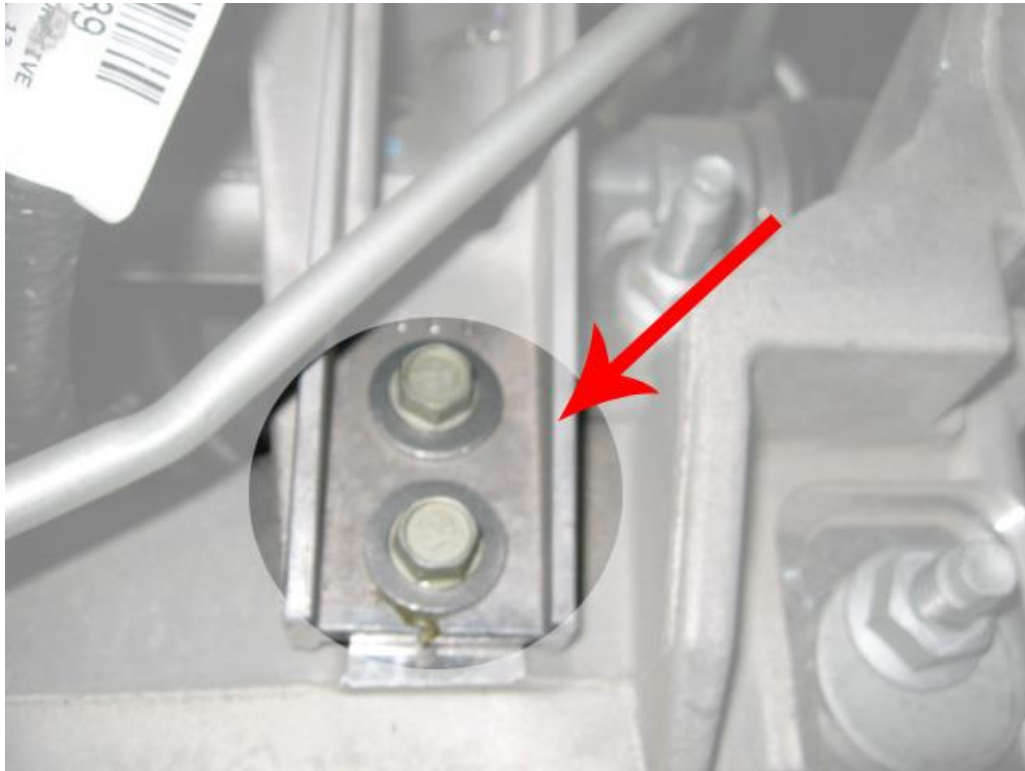
(PASSENGER SIDE SWAY BAR BOLTS)

If the vehicle is NOT equipped with a power steering cooler, skip this step. If you do have this cooler, it will need to be removed. Remove the fluid from the power steering reservoir with a turkey baster or something similar. Remove the factory clamps from the power steering hose at the cooler inlet and outlet lines. The factory clamps are removed by inserting a small blade screwdriver into the opening and prying them open. Remove the cooler and splice the two hose ends together with the supplied 3/8" barbed splice and clamps. The "cooler" is right in the flow of hot air from the radiator fan and does little or nothing to cool the PS fluid. We've never seen any ill effects from removing it.



(POWER STEERING COOLER AND HOSES)

The ABS module will need to be moved but not disconnected. Remove the two 13mm bolts holding the bracket to the frame. Remove the two 13mm nuts holding the module to the bracket. The bracket can now be removed from the bottom. Be careful not to lose the two studs that held the module into the bracket. They are supported in rubber bushings and may fall out. (Take note of the two flats machined into the threaded parts. These flat sides must be oriented vertically in order to slide into the bracket.) The module may now be pushed upwards to gain access to the steering rack.



(ABS MOUNTING BRACKET)



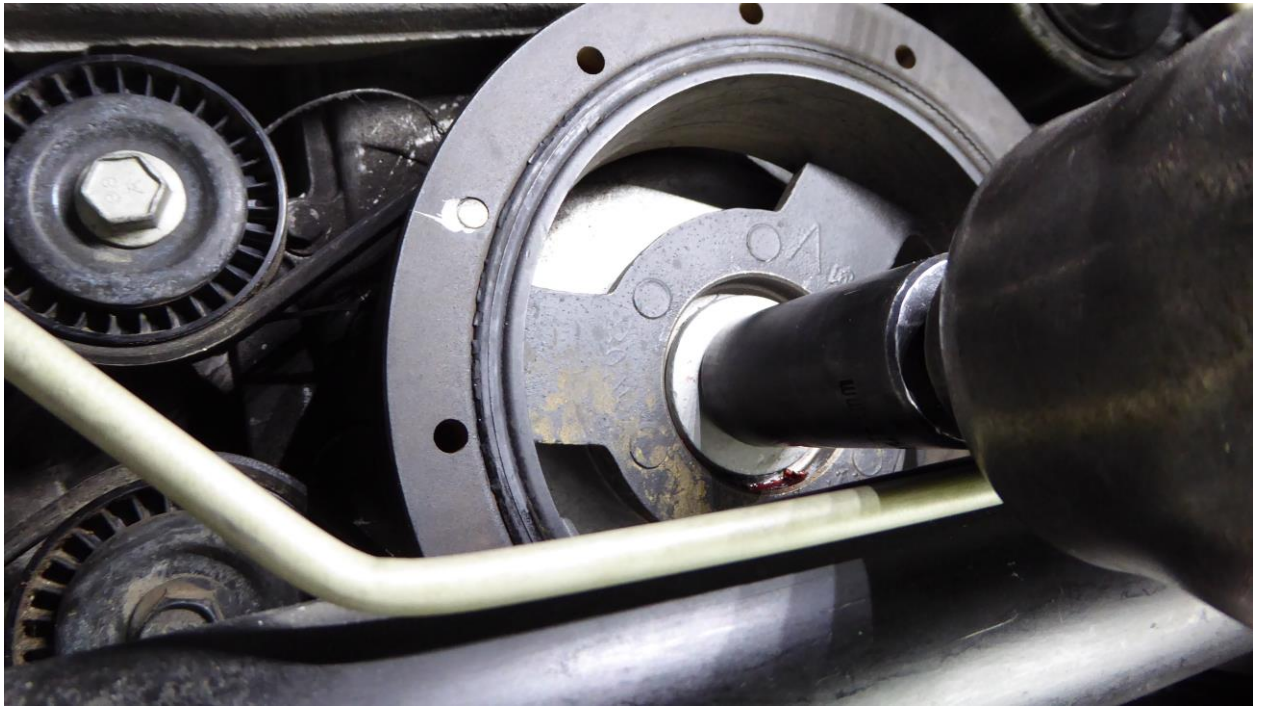
(ABS MODULE – MOUNTING STUDS)



(ABS MODULE MOUNTING STUD)

Remove the two long 18 MM bolts that hold the steering rack to the frame. There are 18MM nuts on the back side, so you'll need to hold them with a wrench to remove the bolts. Pry the rack up and over to the driver's side to release it from its mounts. An inch or two will suffice. The rack will sit slightly lower once it's out of the mounts. Remove the two 18MM engine mount nuts facing downwards through the cradle.

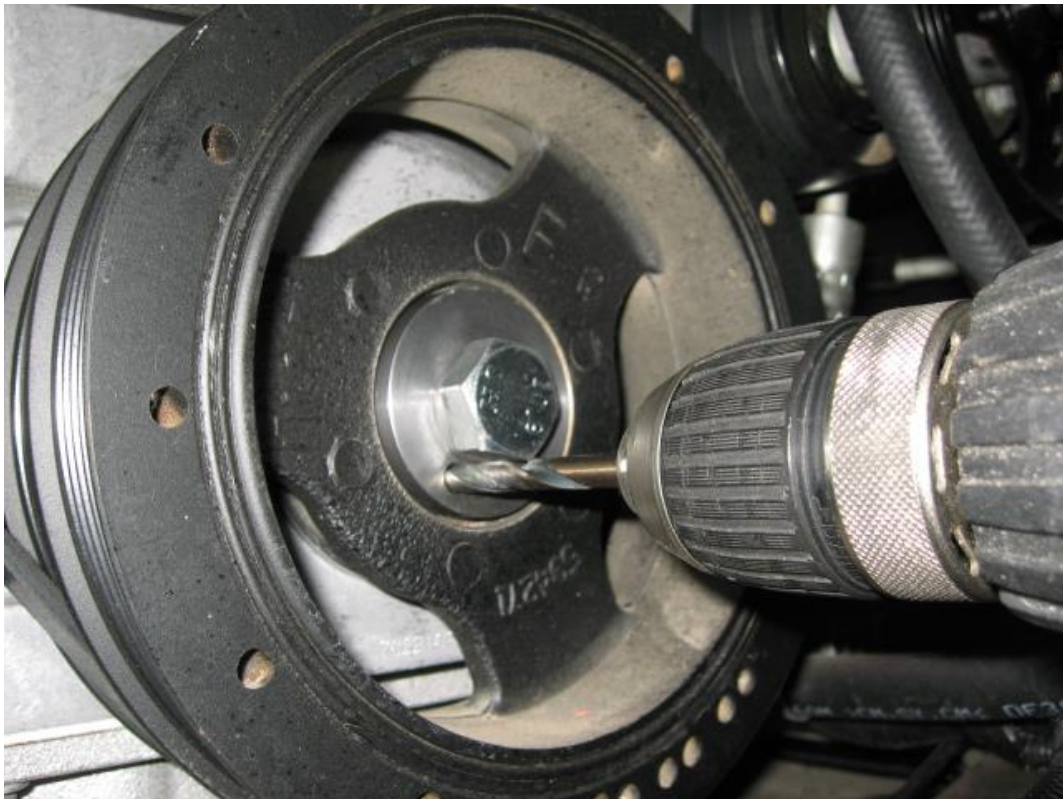
Using a post jack (or similar) lift the engine under the rear of the oil pan using a piece of 2 X 4 to spread the load, just until there is clearance for a socket and impact gun above the rack. Don't lift the engine any higher than necessary.



Remove the factory balancer bolt with a 24MM socket. A powerful impact gun works best. Insert the provided 24MM bolt through the pinning fixture and bolt it on in place of the factory bolt. Tighten it enough to ensure it won't move around when drilling through it. The provided pin is $\frac{3}{4}$ " long. Make sure you drill the crankshaft itself no deeper than $\frac{3}{4}$ ". Use a $\frac{1}{4}$ " drill bit and drill through the fixture, using the small hole in the fixture as a guide. It's very important that the pin doesn't protrude out beyond the edge of the balancer. The bolt will not seat and will get damaged if the pin sticks out beyond the lip on the balancer. Notice that the crankshaft is recessed into the balancer by about $\frac{1}{4}$ ". You do not have to have the pin flush with the end of the crankshaft. It's the flat face on the balancer that is of concern. Remove the fixture, blow out any shavings and insert the pin in the hole you have just drilled. (Double check your depth first) If the pin is a bit loose, add a dab of silicone to hold it in place. Once you drive the car, the balancer will slip just enough to tighten up on the pin. After all, that's what the pin is for.



(PIN FIXTURE WITH BOLT AND PIN)



(DRILLING CRANK AND BALANCER THROUGH PIN FIXTURE)



(PIN INSTALLED IN CRANKSHAFT AND BALANCER)

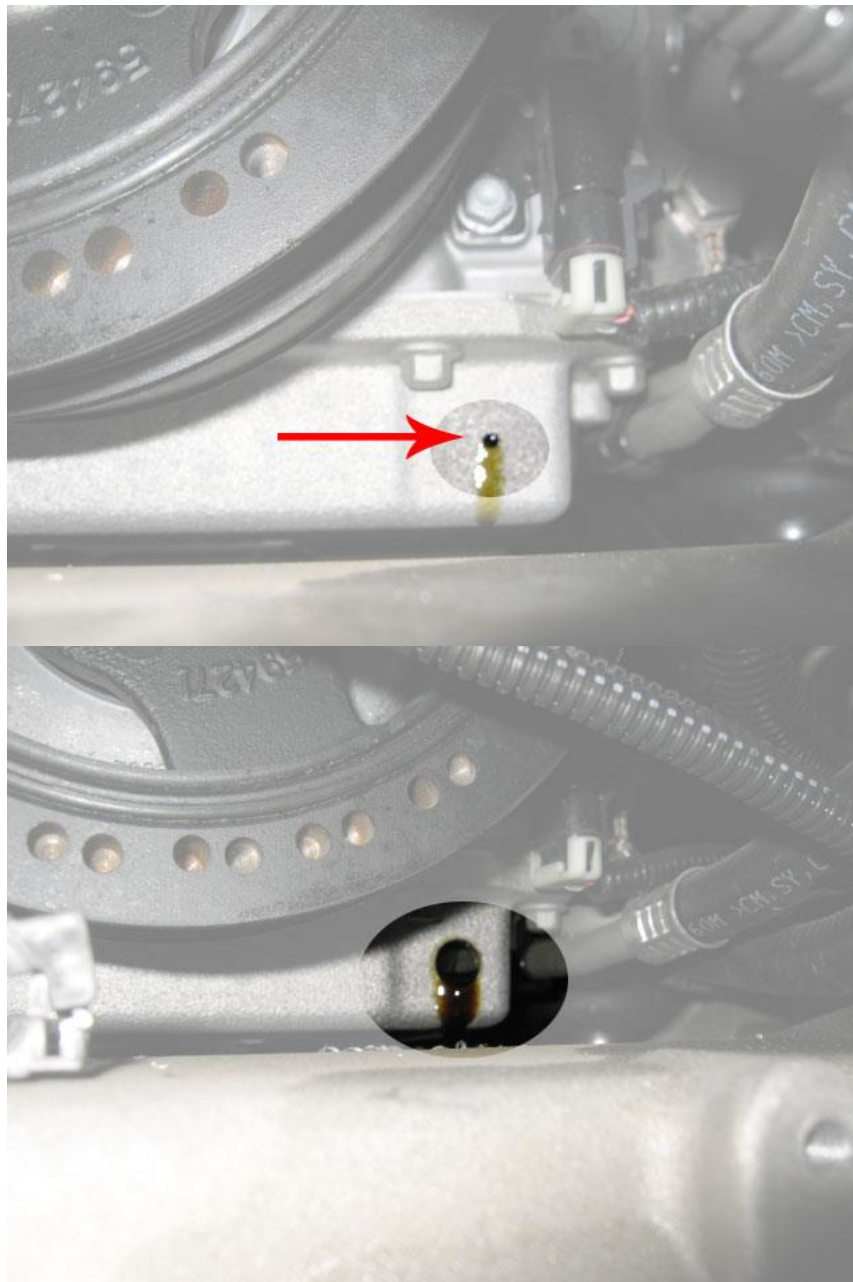
Take the NEW provided factory balancer bolt, heat the threaded area with a heat gun, or propane torch. Put a small amount of red Loctite on the first 1/2" of threads and insert it in the crank. Tighten it to manufacturers' specs. Heating it up expands the bolt slightly and helps with its retention once it cools down. Just get it hot. You do not want it to get red. A good impact gun works best. When you think it's completely tight, get a marker and mark both the balancer and the bolt with a line. Hit it again with the gun and make sure it's not moving any more.

INSTALLING THE OIL RETURN FITTING (V1, V2 and V7 MODELS ONLY)

(NOTE: This entire section applies ONLY to the High Performance "engine oiled" units. For V3 "self-contained" units, please go to step 9.)

The preferred method of draining the oil from the supercharger to the sump is by cutting and tapping a 3/8" NPT (tapered pipe) fitting directly into the front of the oil pan. **A Rotabroach and tap kit is available from A&A, if you don't have one.**

Locate and center punch the hole approximately .400" from the top of the pan and as far over to the right as possible. Drill a 1/8" pilot hole. Use the 9/16" Rotabroach (very small hole saw) to cut through the pan. Be very careful as you break through the pan. You may even be able to drill until there is just a paper-thin amount of aluminum left and be able to pop the disc of aluminum out. The Rotabroach will allow you to cut the hole with little or no aluminum chips. We leave draining the oil pan until you have finished cutting the hole, but it can be done either way.



(OIL PAN HOLE)

Take a 3/8" NPT tap (available from us or any hardware store) and fill the flutes with heavy grease to catch any chips. Tap the hole a little, then remove and clean the tap of shavings. Put more grease on the tap and do it again. Most 3/8" NPT taps use a 9/16" square drive. A square socket on an extension will make the tapping process very easy. Tap the hole approximately 1/2" deep or until the fitting will just start. Be careful not to go too deep. The oil pickup screen is very close to this location and can be damaged if you are not careful. Clean up any stray chips. (Dabbing a bent Q Tip with grease through the hole works well) Clean the threads and fitting with carburetor cleaner or something similar on a Q Tip and apply a small amount of sealer to the pan threads as well as the threads on the 3/8" NPT fitting. Make sure there is a seal formed all around the fitting. There is plenty of aluminum to form threads in the pan. Oil leakage at the fitting is a non- issue.

NOTE: On dry sump cars, the oil drain will have to be drilled in the side of the pan and a 90° fitting will be used. The hole will be drilled behind the frame and about 1" down from the pan rail. You don't want it to be too high where the fitting will not be able to be screwed into the pan. Do NOT attach the drain hose to the fitting yet, as it will be attached to the supercharger unit first and

then routed down to the oil pan fitting.

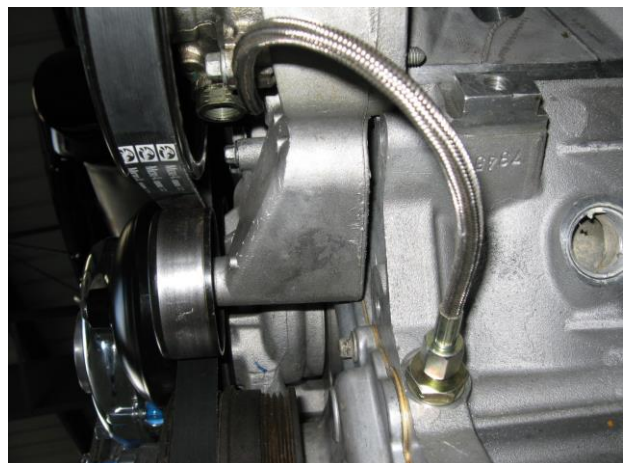


(OIL DRAIN FITTING INSTALLED IN DRY SUMP OIL PAN)

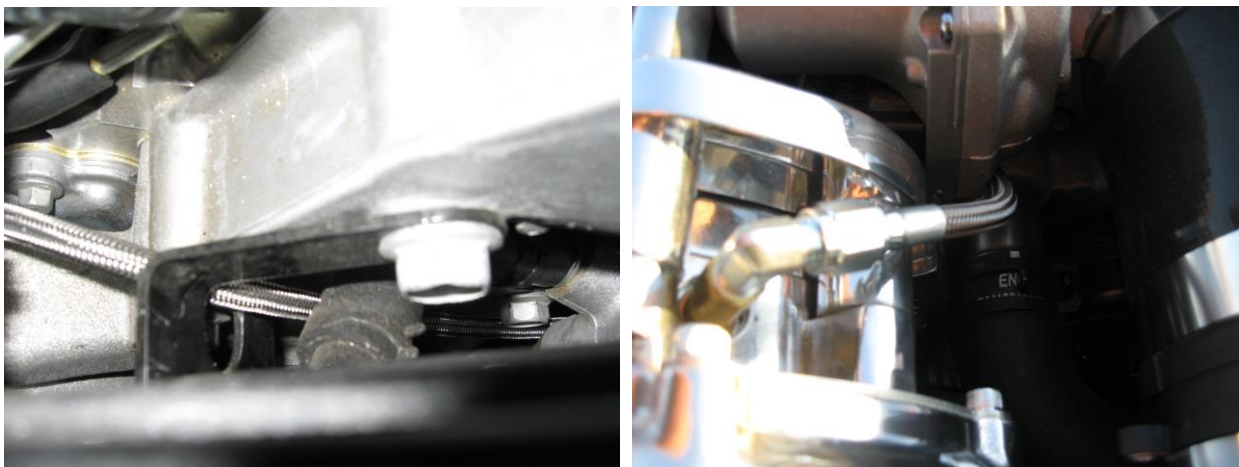
INSTALLING THE OIL FEED LINE (V1, V2 and V7 OIL FED MODELS ONLY)

Skip this step for V3 self-contained units. The oil feed line is attached at the lower driver's side of the block. Remove the galley plug with a 5/16" Allen wrench and replace it with the provided fitting AND sealing washer.

Screw the line onto the fitting and route it up to the supercharger at the other end. Route it behind the steel hose that comes out of the bottom of the power steering pump, over the rubber hose on the power steering reservoir and through the hole in the reservoir bracket. This will ensure the line won't interfere with the belt. Run the line under the throttle body to the passenger side of the car where it will be later attached to the supercharger unit.



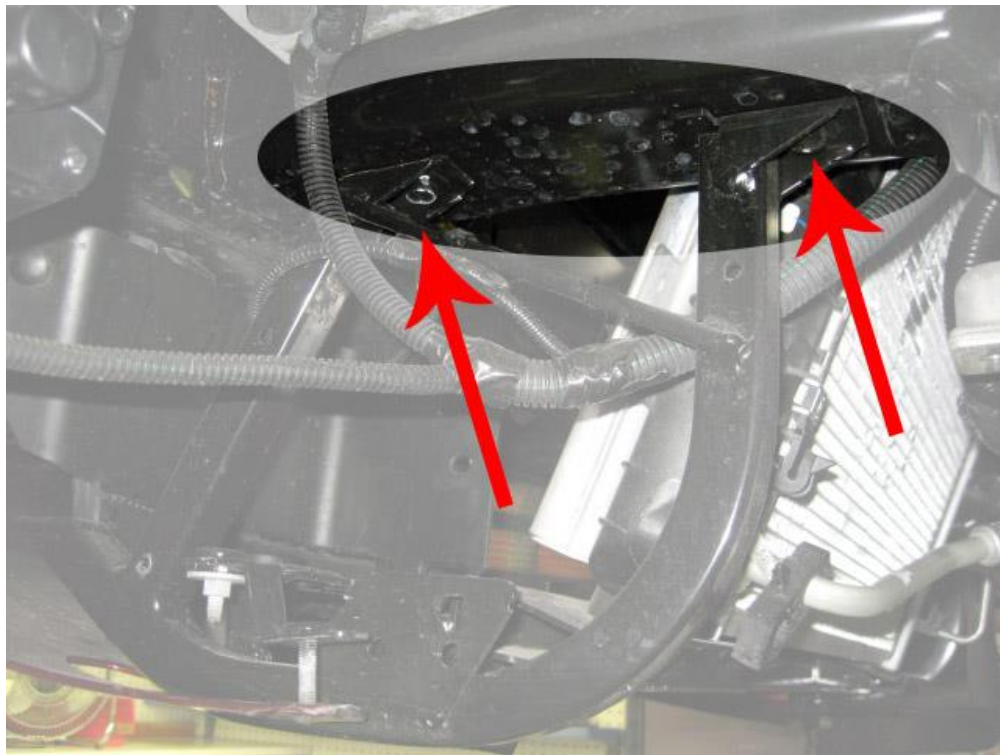
(OIL FEED LINE AND FITTING LOCATION AND OIL LINE ROUTING)



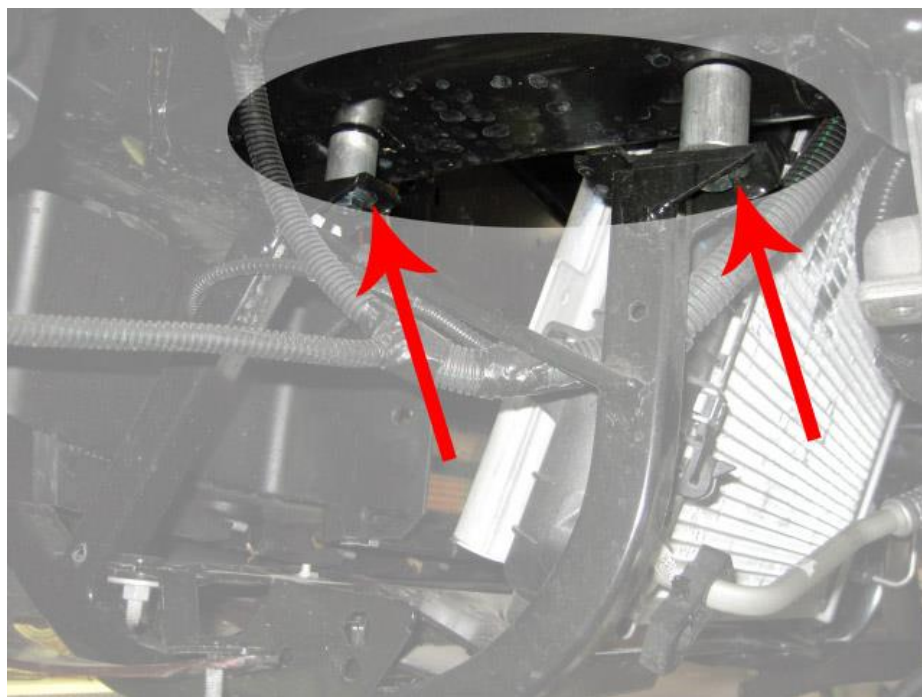
(LINE RUNS THROUGH P/S RESERVOIR BRACKET AND UNDER THROTTLE BODY)

RELOCATING THE LOWER RADIATOR SUPPORT/ SKIDBAR ASSEMBLY AND HORNS

Remove the nuts attaching the front fascia to the skid bar assembly. Locate the skid bar spacers and bolts in the hardware kit. Remove the 13mm bolts that hold the skid bar to the frame on one side but just loosen them on the opposite side. Insert the short spacer between the assembly and the frame at the front attachment point and insert the 8 x 50mm bolt. Insert the long spacer at the rear attachment point with the 8 x 50mm bolt. Leave the bolts loose for now. Do the same on the opposite side. Remove the horn assembly. You will have to remove the horns and switch mounting holes so the horns will be facing the opposite direction. If there are any 90-degree mounting tabs on the horn bracket, they will need to be flattened. You will need to open up the mounting hole in the horn bracket to fit the #8 bolt. Then put the horn bracket on the front bolt of the radiator support between the supplied spacer and the frame of the car. Tighten all 4 radiator support bolts.



(RADIATOR SUPPORT MOUNTING POINTS)



(RADIATOR SUPPORT WITH SPACERS INSTALLED)



(HORN ASSEMBLY INSTALLED ON PASSENGER SIDE)

Reconnect the outside air temperature probe to its connector and zip tie it to one of the side blinker light wire looms, or drill a 1/4" hole in the vertical radiator support brace and use the factory push pin connector to secure it to the brace.

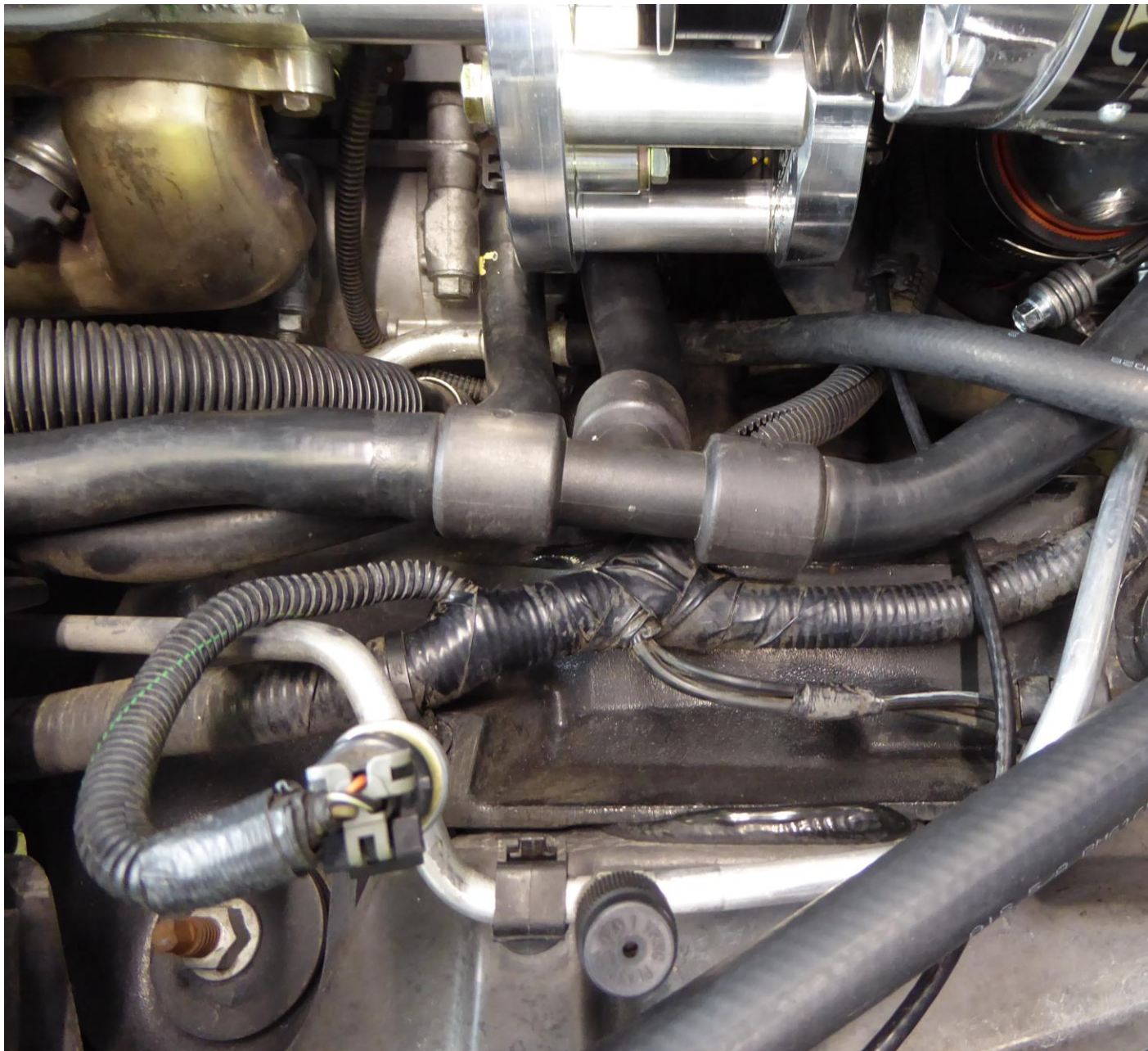
MODIFY COOLANT HOSE

The C6 Heater Hose Extension Kit is used to relocate the "T" fitting toward the passenger side frame rail away from the supercharger inlet. This modification will allow for easier supercharger installation and removal. This heater hose has 3 connections. One near the firewall, one at the water pump and one at the coolant reservoir. You will need to trim some hose at each of these locations. We will also be adding some hose at the reservoir end.

Drain the coolant into a clean container. Remove clamps and remove hose.

Cut the hose 12" from the firewall end. Cut the hose 6" from the water pump end. Cut the hose 11" from reservoir end. (Just past the bends)

We can now add the 21" extension to the reservoir end. Use the provided hose coupler and heat-shrink clamps. The clamps will shrink and seal by using a heat gun or mini torch. Use the provided SAE #16 hose clamps at the other ends.



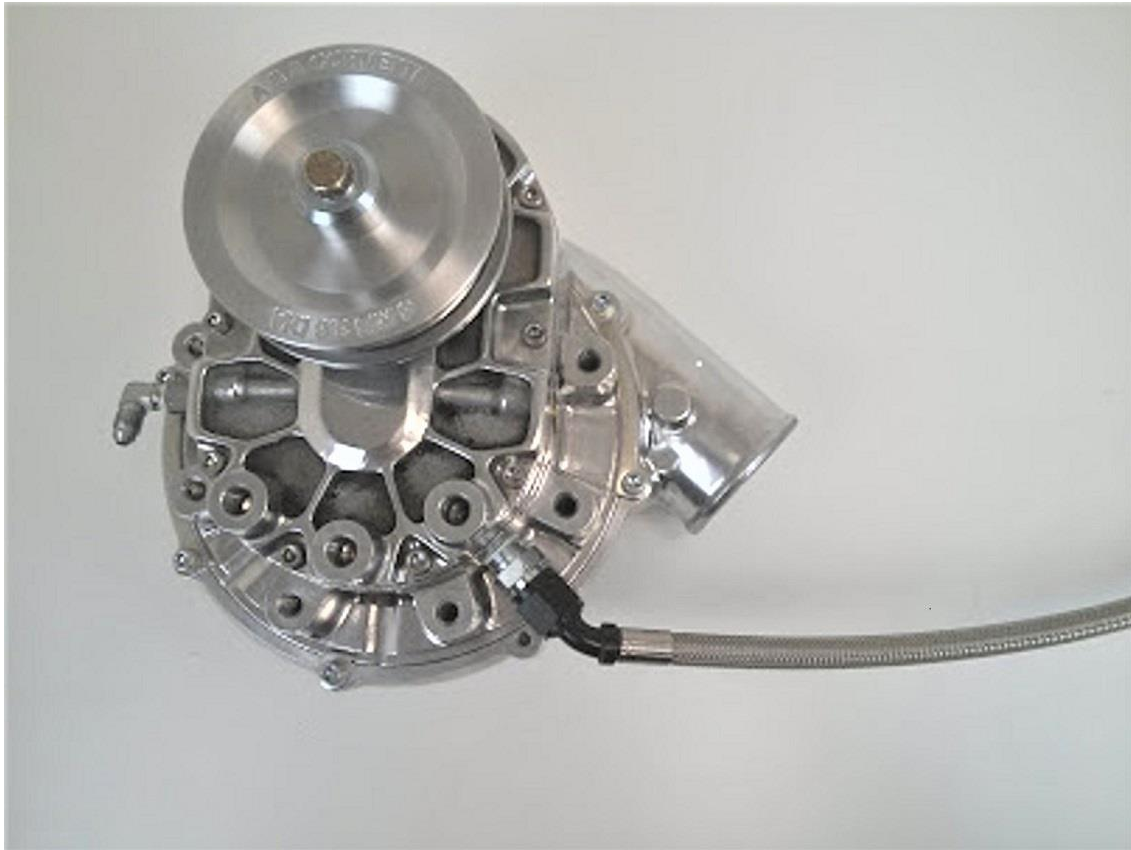
HEATER HOSE "T" MOVED TO THE SIDE OF THE SUPERCHARGER

INSTALL THE MAIN BRACKET ON THE SUPERCHARGER

On V3 self-contained models, remove the black cap and install the supplied drain line in its place before mounting to the main bracket. This line is added for easy oil changes. **While doing this, check to make sure the unit is EMPTY. When adding oil later we want to make sure the unit is NOT OVERFILLED. Overfilling is as bad as, if not worse than underfilling. An overfilled blower will froth the oil and overheat the bearings.**

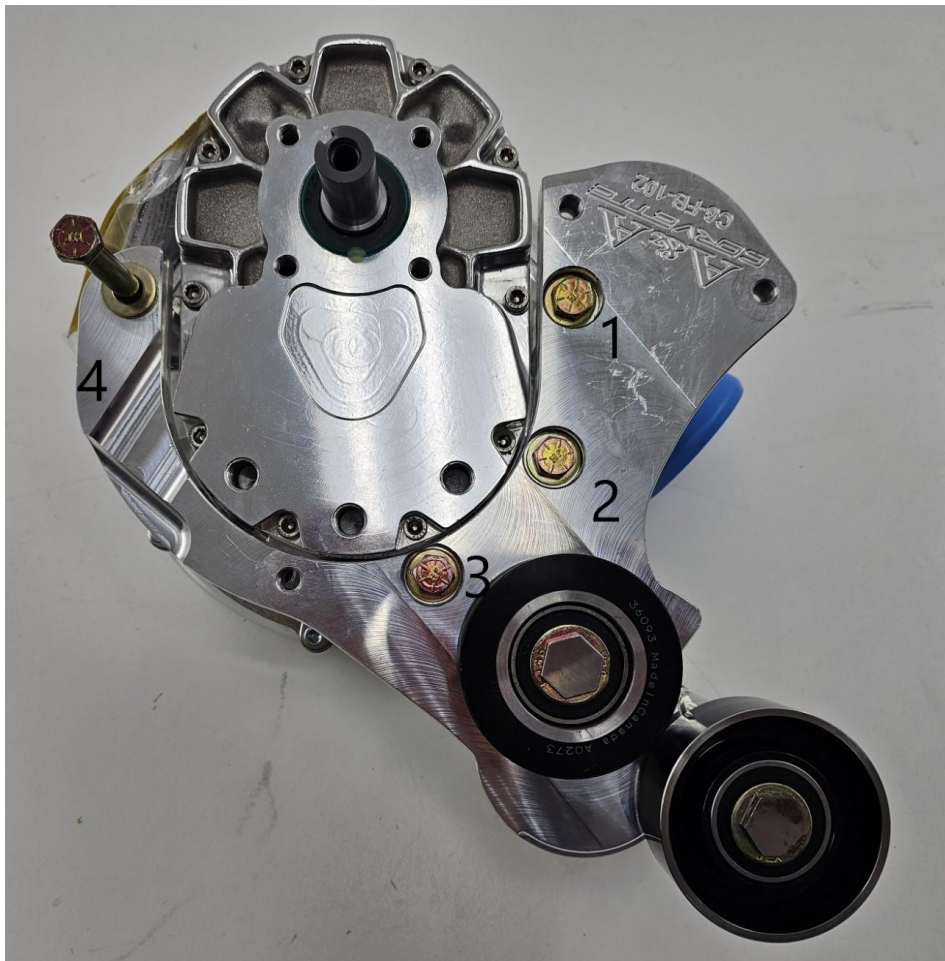
Check ALL plugs and fittings for tightness.

On V1, V2, and V7 oil-fed models ONLY, attach the oil drain line that will go to the oil pan. Angle it as shown on the below picture to clear the billet tensioner. Check the clearance after installing the blower on the main bracket.



DRAIN LINE ATTACHED TO BLOWER ON OIL-FED MODELS ONLY

Locate the 4 "D" spacers. Install them between the bracket and supercharger using the 2 ¼" bolts and washers in holes 1, 2 and 3. **(PICTURED BELOW)** The flat side should go towards the gearcase. The remaining hole (4) will use a longer bolt that comes all the way through the rear bracket. Put a "D" spacer under this hole and thread any of the long 3/8 bolts through them just to align the bracket and spacers. Tighten the 2 ¼" bolts, then remove the long bolt. The "D" spacer may or may not stay in place. If it falls out, don't worry about it. It can be slipped in later. The threaded hole does not get a "D" spacer.



BRACKET MOUNTED TO BLOWER

SET THE BILLET TENSIONER: Lay the assembly on a bench with the bracket facing vertically and the tensioner facing you. Get a long ratchet and a $\frac{3}{4}$ " socket. Insert the $\frac{5}{16}$ " lock pin (or any $\frac{5}{16}$ " bolt) in the open hole in the face of the tensioner. Rotate the tensioner clockwise, using the $\frac{3}{4}$ " bolt on the face of the tensioner, until you get to the point where the pin drops in about $\frac{3}{8}$ ". This locks the tensioner in the open (slack) position and makes installation easier.

Notice the two slots and $\frac{9}{16}$ " bolts on the outer perimeter of the tensioner. These are used to clock the tensioner for different sized balancers. To move the tensioner, loosen those two bolts as well as the $\frac{9}{16}$ " bolt in the center. Rotate the tensioner all the way counterclockwise (moving the pulley closer to the balancer) if you are using a stock sized balancer. Rotate it all the way clockwise (moving the pulley away) if you are using an 8" overdrive balancer. Tighten the bolts back up again. **DON'T TOUCH THE BLACK ALLEN BOLT. It is a travel limiter. If you take it out, the tensioner will unwind violently.**



LOCK PIN INSTALLED

Route the belt over the top of the blower pulley. Thread the right side of the belt (when looking at it from the pulley side) between the ribbed idler and the smooth tensioner pulley. Refer to the picture below. Set the whole assembly to the side for now.



BELT ROUTING

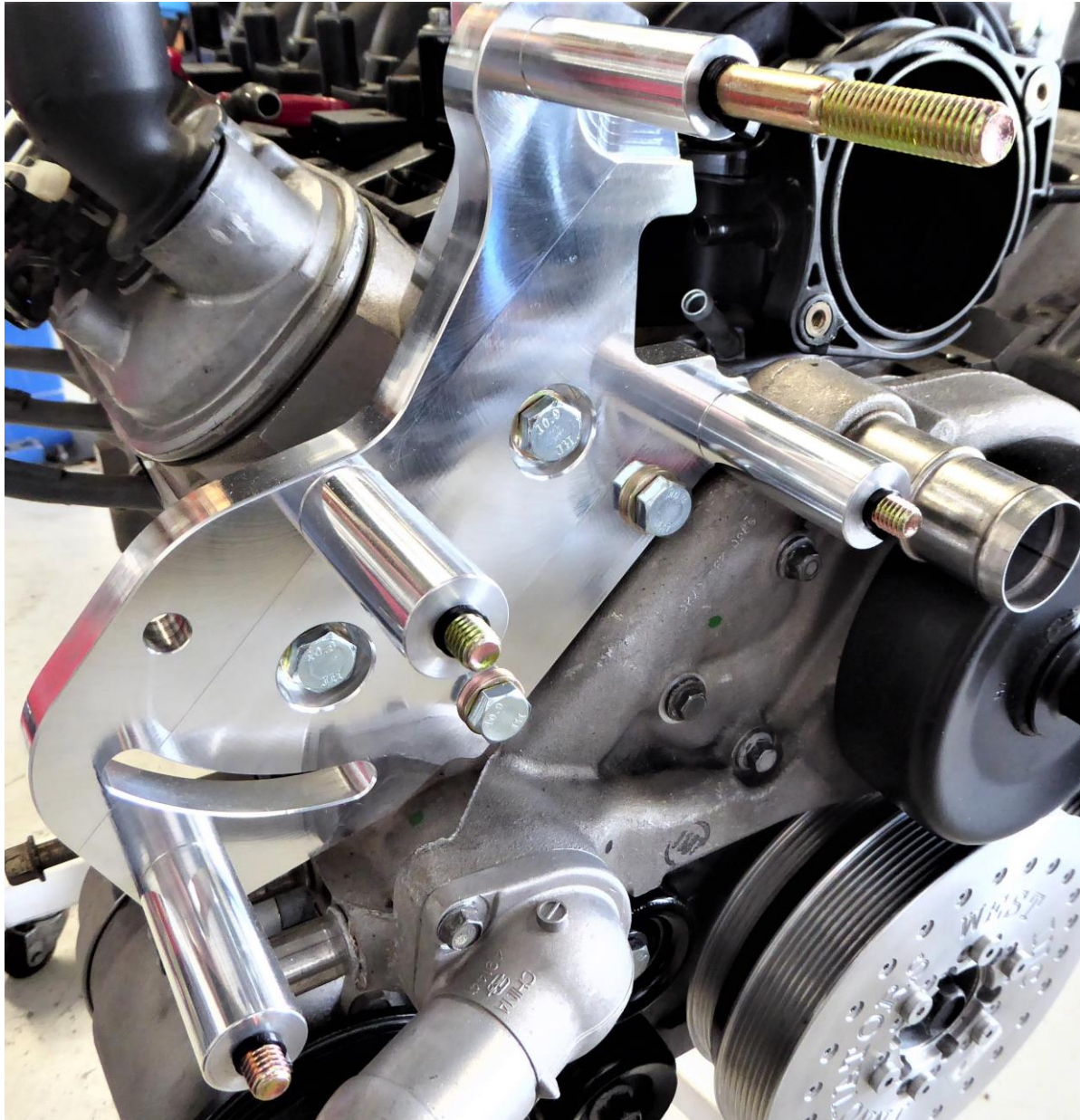
MOUNT THE REAR SUPPORT BRACKET

The rear bracket comes with the adjustable idler attached. This makes it much easier for the installer to understand how the bracket assembly works. However, the idler must be removed for now. You will reinstall the idler after the main supercharger bracket is installed.

The rear bracket bolts to the water pump, using the stock tensioner bolts and holes. It also bolts to the cylinder head with the M10 x 90mm bolts, 2.260" spacer and the thick angle brace. It's important to install all but the lower left bolt that attaches the supercharger/main bracket assembly to the rear bracket before mounting it to the engine. The intake manifold and cylinder head will not allow some of them to be installed afterwards. The smallest diameter spacer (3/4") goes on the 6" bolt by the throttle body.

Loosely mount the rear bracket to the water pump, using the stock tensioner bolts.

Install the triangular brace in its slot and loosely install a 10MM X 90 MM bolt and washer through the rear bracket and brace into the cylinder head hole. Do the same with the 2.285" spacer. Now you can tighten the two water pump bolts ONLY. There is "fudge room" built into the bracket holes so that the bolts will line up with milled heads etc. We want all four bolts installed before tightening the two water pump bolts to make sure they line up correctly.



REAR BRACKET WITH SPACERS - ATTACHED TO ENGINE

IMPORTANT ALIGNMENT CHECK: Temporarily remove the two bolts going through the rear bracket, spacers and into the cylinder head. Check how the spacer and rear brace fit between the head and bracket. Try to slide the brace in and out and do the same with the spacer. Ideally, they should be snug, but you should be able to move them with some effort. If there is a big gap, (like the spacer will fall out) tightening the head bolts will pull the top of the bracket towards the engine and push the bottom forward, pulling the whole assembly out of parallel with the engine. Conversely, if it is too tight, (like you can't even get them in) it will push the top of the bracket out and pull the bottom in, pushing the whole assembly out of parallel. If the spacers don't appear to be pulling or pushing the rear bracket out of parallel, tighten the head bolts. **The rear bracket being out of parallel is the cause of 99% of all belt issues.** Everything

starts with this rear bracket.

INSTALLING THE SUPERCHARGER ASSEMBLY IN THE CAR

We find it easier to install the coupler on the discharge end of the blower and the 6" aluminum extension tube before installing it in the car. Keep the angle of the clamps in mind so they will be accessible in the car, should you need to take them off in the future.



COUPLER AND EXTENSION TUBE INSTALLED

Push all the bolts going through the rear bracket and spacers back so no threads are showing, except the long one at the top. Temporarily remove the lower left bolt and spacer altogether. Just hang the assembly from the top bolt to take the weight. Install the "D" spacer, if not installed already, and thread the bolt into the blower a few threads. This makes the rest of it much easier, as the blower assembly is supported.

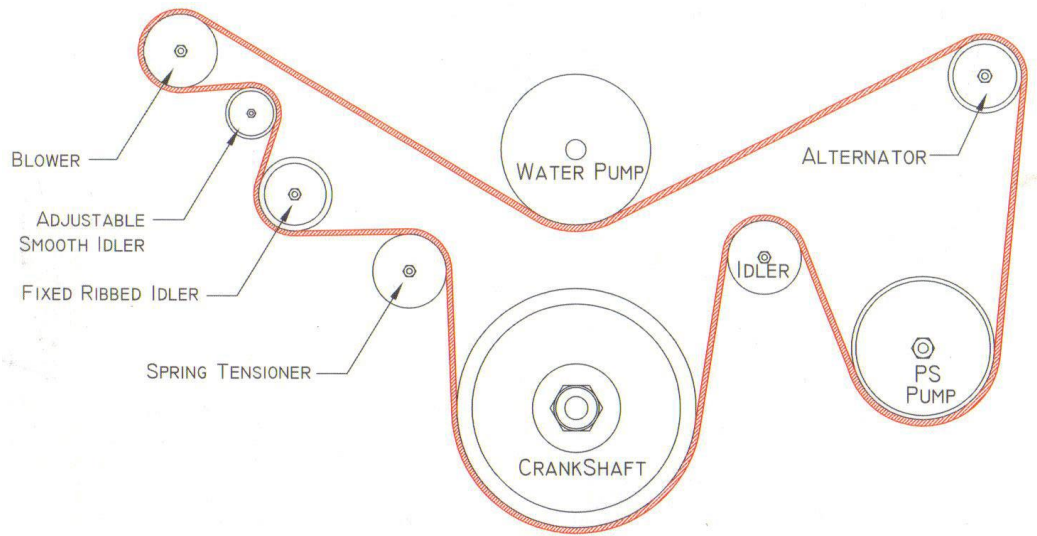


HANG THE ASSEMBLY FROM THE TOP BOLT

Double check the belt as it comes off the spring tensioner. It should go down and under the balancer. If not, thread it though now. If the belt is routed correctly, try to align the front and rear brackets and get the remainder of the 3/8" bolts started. Once the bolts are in, just snug them up to make sure the blower is in its final position. You can now pop the belt over the alternator pulley.

Reinstall the sliding idler bracket as it was when you received it. Once the idler is in, install the remaining outboard spacer and bolt. Tighten all 4 spacer bolts going to the supercharger bracket. Push the idler bracket down and over to the inboard side with a 9/16 wrench on the exposed bolt. (Or a ratchet in the square hole on some newer brackets) This is a left-handed thread so the bolt will not loosen while pulling down. Remember that the spring tensioner is still locked in the open position. Push down on the wrench (or ratchet) to preload the belt. Ideally, you want to get the belt tight enough so you can move the locking pin by hand. This is the correct tension setting. Tighten the two bolts on the idler bracket. Now you can go to the spring tensioner and remove the lock pin. You'll need to rotate the tensioner slightly to take the load off the pin. The belt is now properly tensioned. Remember to reset the tensioner after driving to take up any initial stretch.

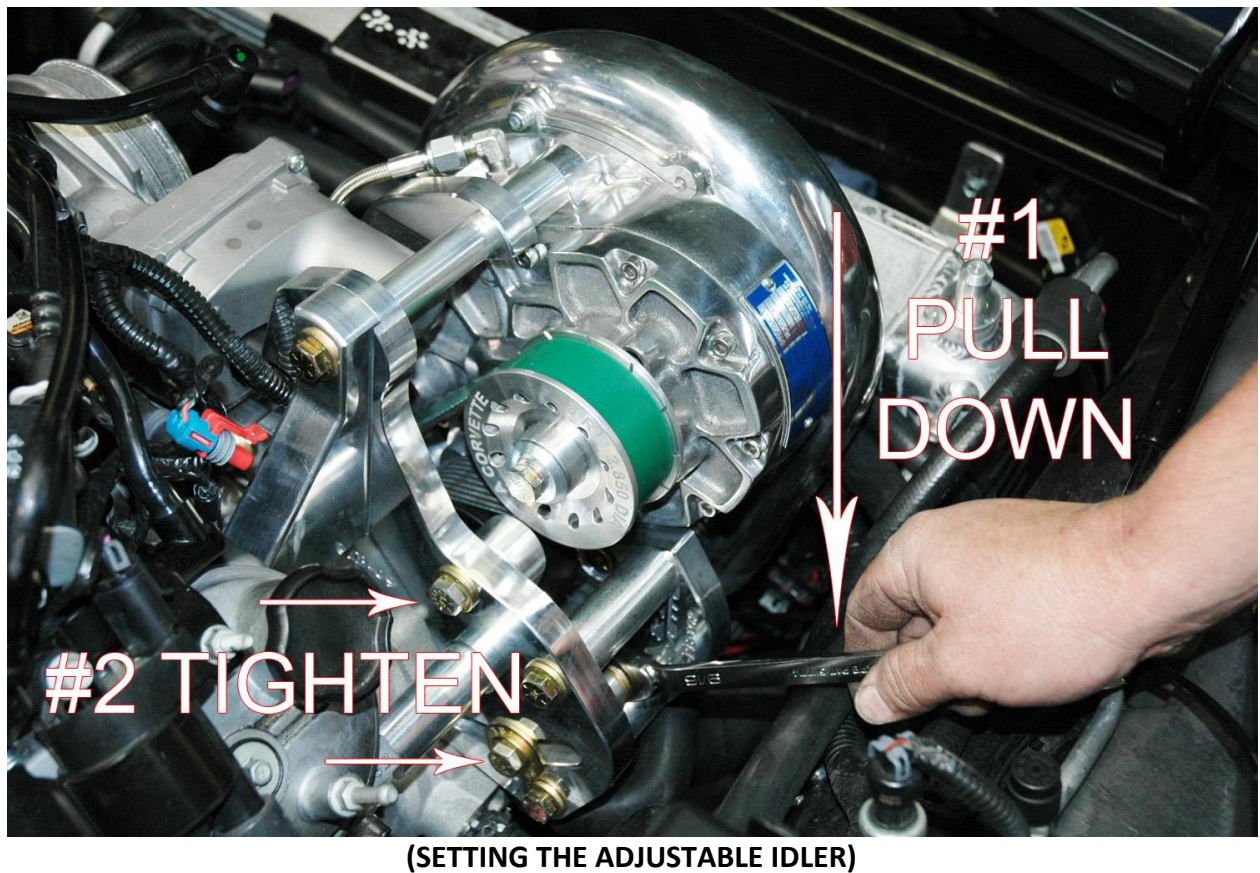
V3 superchargers have a shipping plug installed in the top of the blower case. Remove it and, after making sure it's empty, PUT **ONE 4 OZ. BOTTLE OF OIL IN THE UNIT!** Replace the shipping plug with the provided vent plug.



SCALE: 1/1	NEXT ASSY: N/A	NAME:
DRAWN BY: AG	USED ON: N/A	BELT ROUTING DIAGRAM
DATE: 11/21/05	UNIT:	PROJECTION:
MAT'L: NOTED		
TOL: .XX± XXX± ANGLES±	REV: -	DRAWING NUMBER: 09-001
A&A CORVETTE PERFORMANCE <small>ORLANDO, FL 32836</small>		

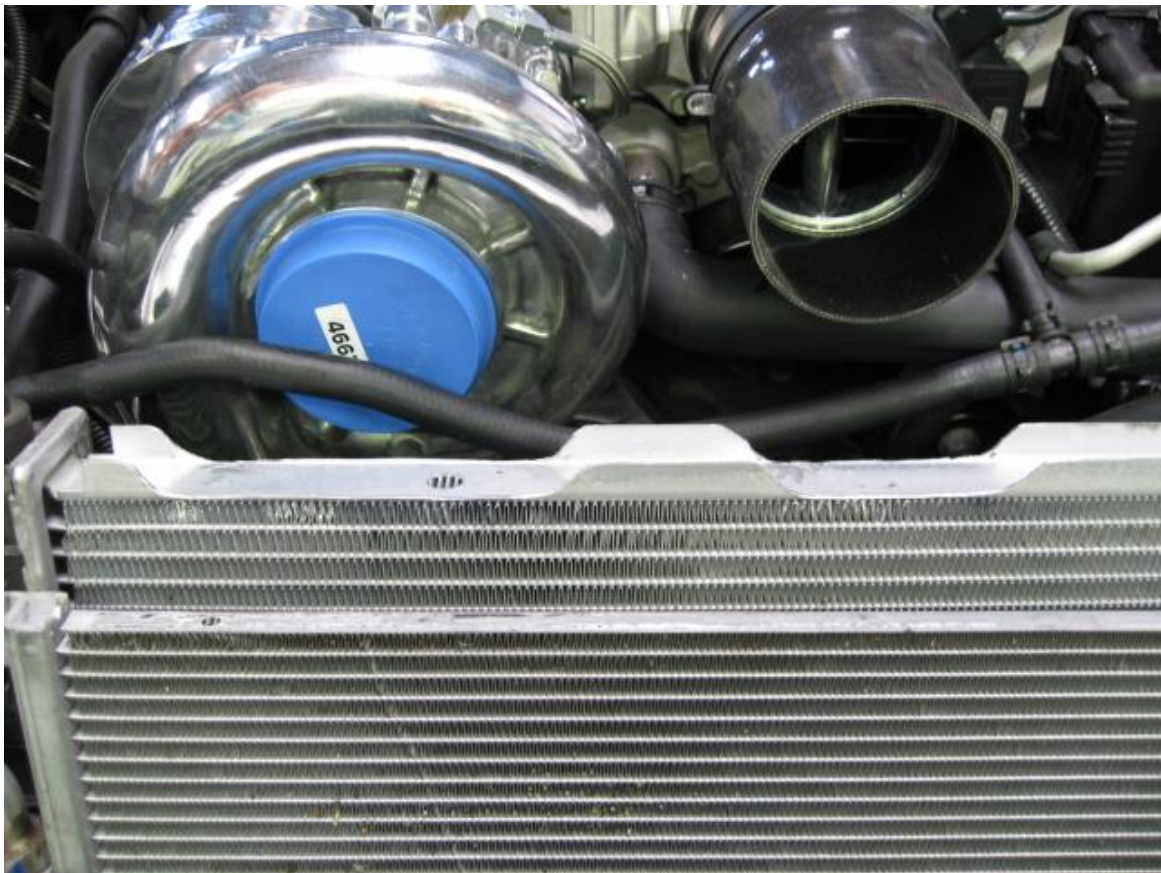
(BELT ROUTING DIAGRAM)

PROPERLY TENSION THE BELT



TRIMMING THE RADIATOR AND FAN HOUSING

The upper “fins” on the radiator will need to be trimmed for clearance. The easiest and cleanest way is to get a GOOD pair of dykes and snip two diagonal lines all the way through the fins where shown below. Take a razor knife and score the fin on the inside at the bottom. Score it four or five times. Take a pair of pliers and bend the cut section back and forth a few times until it breaks off. Do the same in the center of the radiator to make clearance for the new MAF tube. When you trial fit the inlet airbridge later, you may need to trim a little off the upper corner of the fan housing.



(RADIATOR TRIMMED FOR INLET DUCT and MAF TUBE CLEARANCE).

The fan housing must also be trimmed in the upper corner just under the supercharger inlet to allow the airbridge to attach to the supercharger.



FAN SHROUD TRIM LINE

Reinstall the radiator and fan assembly. You may have to tweak the A/C lines to get the condenser to drop down into the radiator brackets. Temporarily install the powder coated top shroud just to get the radiator in the correct position. Take the bushings off the top radiator tank and insert them in the holes in the shroud. Install two 7MM screws in the holes where the front fascia originally mounted. Slip the top shroud over the bushings. This is where the radiator will stay.

The side air panels will go in next. The bracket with the circular cut out will go on the passenger side. There is already a hole on both sides of the support frame that will be used to attach the panels. Line up the aluminum brackets with the radiator support frame. Holding the panel in place, drill a hole through the panel using a 1/4" drill bit. Bolt the panel in place using the two aluminum washers between the panel and the frame and the 1/4" hardware as shown. Repeat for the opposite side. Be careful that the panel will not be in a position where it can rub through the condenser fins.



(PASSENGER SIDE PANEL INSTALLED)

INTERCOOLER INSTALLATION

The intercooler will go in next. Make sure the intercooler is horizontal and centered with the exit tube lined up with the throttle body. The weld between the top tank and the core is to be oriented so that it is even with the bottom of the frame. The inlet will go IN FRONT of the upright skid bar support. Once the intercooler is positioned, mark the frame, drill a small pilot hole and mount the intercooler with the supplied self-tapping screws.



SHEET METAL SCREWS

INTERCOOLER MOUNTED

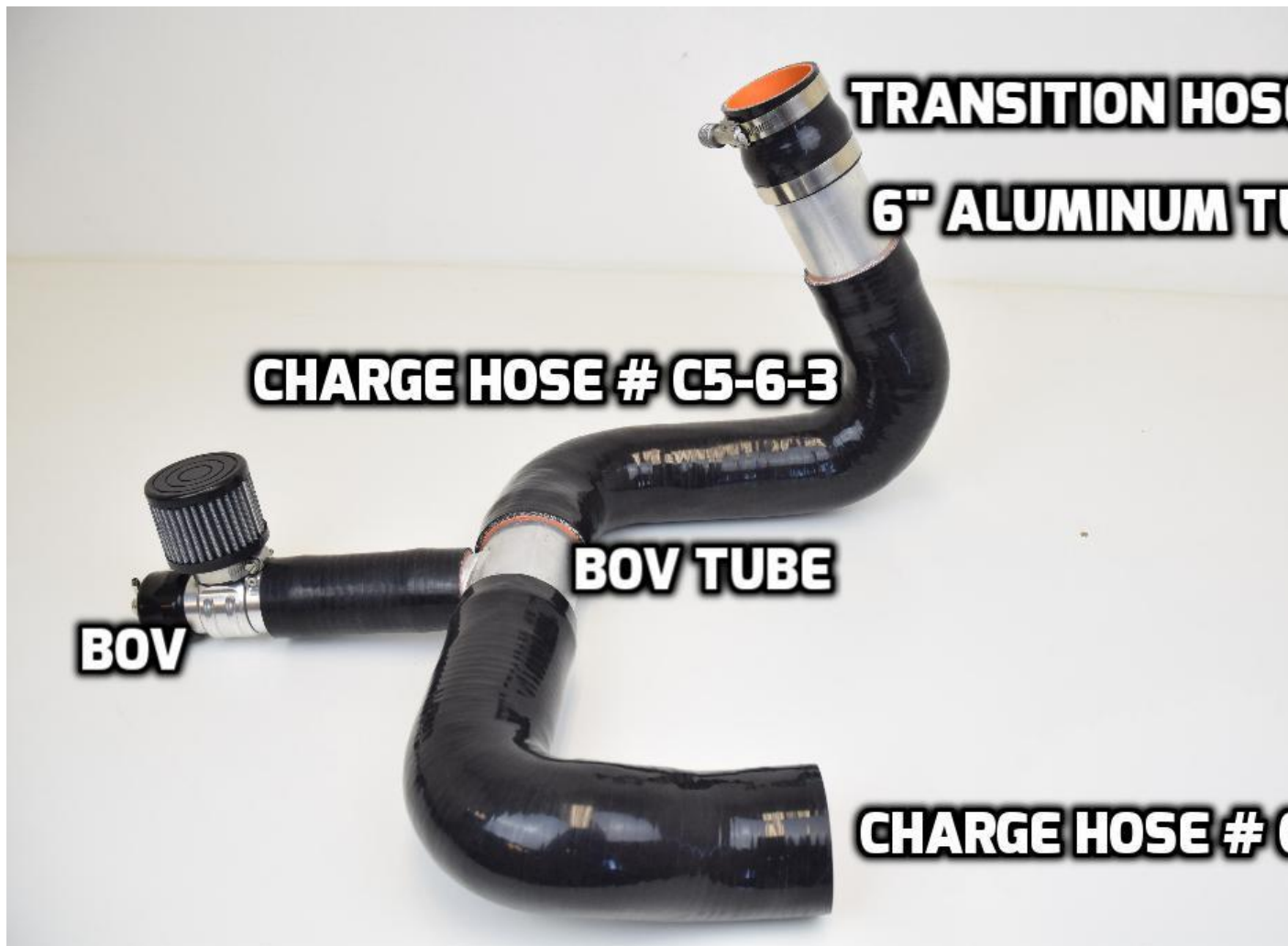
Attach the duck bill to the front of the intercooler with the 4 stainless button head bolts, nuts and washers provided. Be sure to use anti-seize on these so they do not lock up.



DUCKBILL INSTALLED

SILICONE CHARGE HOSES

The following is a picture of the charge hose layout from the supercharger outlet to the intercooler inlet. Use this for a visual reference when installing your hoses.



Connect hose # C6-2 going up and over the skid bar to the intercooler. Attach the blowoff valve (BOV) and silicone coupler to the BOV TUBE then connect the tube to the previously installed hose. Generally, the BOV is aligned so that the hose is horizontal, and the filter points up as shown below. There are different BOV options and vehicle options with and without brake ducts. You may need to angle the BOV differently for your application. If there is a plastic brake duct (Z51 and Z06) you may have to heat it with a heat gun or mini torch to make a dimple in it for clearance.

Silicone hose # C5-6-3 will clamp to the tube you previously installed on the blower outlet and the BOV tube located in the right front fender. The hose goes behind the sway bar. You may need to tweak the transmission cooler and AC lines for clearance. This completes the connection from supercharger to intercooler.



(INTERCOOLER INLET HOSE AND BOV PLACEMENT)

Attach the long vacuum hose to the nipple on the BOV and run it up between the spacers added to the radiator support bracket, over to the power brake booster area. The exact routing is not important. What is important is to make sure the hose is not kinked in any way and is securely fitted onto the nipples at either end. It will be “teed” into the power brake booster hose in a later step. Make sure the hose is tied up and away from any moving parts.

Trim the plastic air dam. Now that the cradle is lowered, you may want to trim the bottom of the air dam for ground clearance. We draw a straight line across the bottom with a silver marker, using a yardstick or something similar. A razor knife will cut it quite easily.

REINSTALL THE FRONT FASCIA

Remove the top shroud. Reinstall the front fascia in the reverse order used in step 1. The following picture shows how the duckbill is meant to interface with the front fascia. The grill is not installed for clarity. The grill will be installed in the fascia during actual installation.



INTERCOOLER DUCKBILL SHOWN INTERFACING WITH FRONT FASCIA

You will have to trim the bottom of the fascia and two of the mounting locations will no longer be used due to the intercooler's interference.



(TRIMMED DRIVER SIDE)



(TRIMMED PASSENGER SIDE)

INSTALLING THE MAF TUBE AND HOSES

(LS2) Install the 3 ½" to 4" angled silicone reducer on the intercooler outlet as shown. The 60° mandrel bent tube, a silicone coupler, the MAF and then another silicone coupler to complete the connection between the intercooler and throttle body. The diameters of the couplers are slightly different so watch for that.

(LS7 and LS3) Install the 3 ½" to 4" angled silicone reducer over the intercooler outlet as shown. The 60° mandrel bent MAF tube, and remaining silicone coupler will complete the connection between the intercooler and throttle body. You may have to play with the depth the tube is pushed into each coupler to get the proper clearances over the radiator.



ANGLED COUPLER BETWEEN INTERCOOLER AND MAF TUBE



(INLET TRACT ASSEMBLED LS7 AND LS3)

SUPERCHARGER INTAKE AIR BRIDGE

Install the supplied air filter onto the plastic air bridge.

The radiator will naturally want to rest too close to the supercharger. You will need to move the top of the radiator forward in order to install the air bridge. There will be resistance from the AC lines and hoses. You may need to tweak those slightly.

The proper distance from the screw hole where the top shroud mounts to the center of the locating pin on the radiator is approximately 9 1/8". This is the location where the aluminum top shroud will locate the radiator later in the installation process. Refer to the picture below for clarification.

A little silicone spray and a hose hook will be helpful for this step. Actually, a hose hook is almost mandatory. Clamp the 4 1/2" silicone reducer onto the supercharger inlet. Push the air bridge down from the top until the bottom is resting in the bottom of the coupler. Use the hose hook to pop the upper half of the coupler over the airbridge. Install the clamp and tighten. (Again, you will really benefit from the use of a hose hook in this extremely tight area)

There is a short video to show you how easy this is. [YOUTUBE.COM/@AACORVETTE](https://www.youtube.com/@AACORVETTE) Look under "SHORTS" or "TUTORIALS".



PROPER RADIATOR LOCATION FOR AIR BRIDGE AND TOP SHROUD INSTALLATION



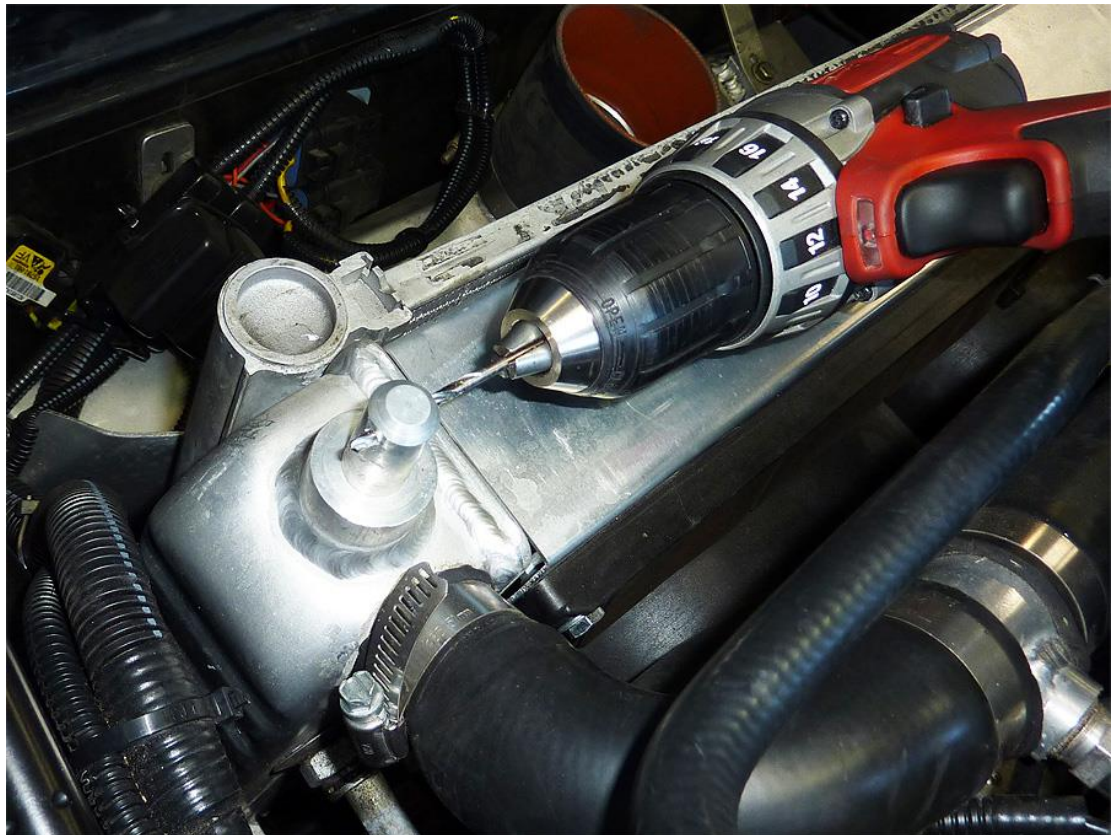
AIR BRIDGE INSTALLED OVER RADIATOR (aftermarket oversized radiator shown- stock radiator

fitment is the same)

Install the fitting with the nipple into the hole in the air filter. Attach the supplied 5/8" vent hose to the nipple. Route the hose up towards the valve cover. You will be attaching this hose to the oil fill cap later.

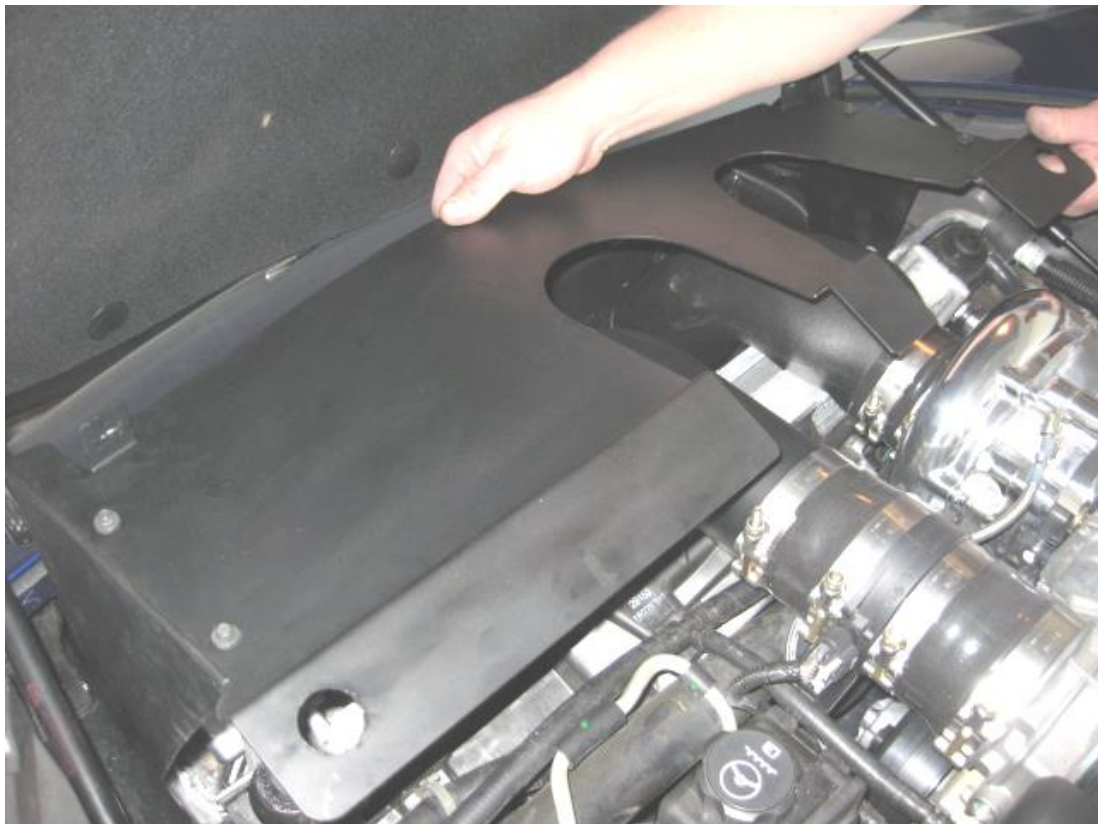
ALUMINUM TOP SHROUD

Remove the rubber bushings from the top posts on the radiator. If you have the stock radiator, you will need to shave/cut off approximately 1/4". If you have an aftermarket radiator, it will need to be approximately 1/8". Drill a 1/8" hole through the top of the support post as shown in the image below.



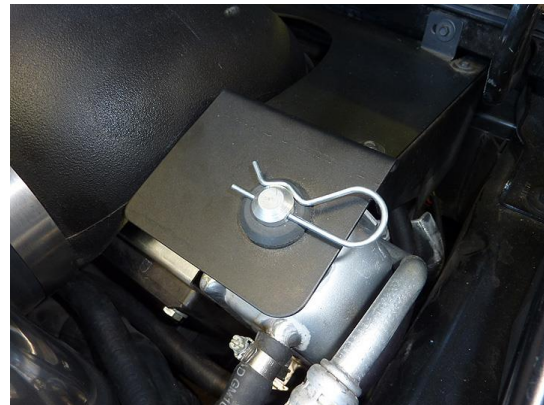
(DRILL 1/8" HOLE THROUGH POST)

Assemble the top cover by attaching both side panels with the black 7mm screws. Notice the two tabs in the front of the panel. They will line up with two of the front bumper attachment screws. Remove those screws. Remove the rubber bushings from the radiator and put them into the holes in the new cover. Install the cover assembly over the inlet piping and radiator. (HINT: You may find it easier to tip the passenger side down first and install it that way.)



(TOP COVER INSTALLATION)

Slide the cotter pins through the holes previously drilled.



(LEFT AND RIGHT COTTER PINS INSTALLED)

Find the power brake booster vacuum hose and cut it in the middle. This is where the provided stainless vacuum "T" will be installed. Run a short piece of vacuum hose over the power brake booster to get your vacuum fittings away from the heat. We have provided a couple of nylon "Y" fittings to hook up the BOV, boost gauge, Fuel Pump Booster and any other accessories that are vacuum or boost operated.



(STAINLESS "T" INSTALLED IN BRAKE BOOSTER HOSE)

(Note vacuum hose routed over the booster, away from the heat)

REPLACE THE INJECTORS

If you do not have a means to install a tune in the PCM, leave the stock injectors in for now. You will be able to start and drive the car moderately without fear of damaging the engine. If you get too happy with the throttle, the PCM will put the car into reduced power mode. You will need to shut the car off for 10 seconds to reset it. You can drive again after that. If you have one of those code reader boxes, you can delete the codes on the fly and keep driving. Have someone else in the car do this if you're driving! You can change the injectors once you get to the tuning shop or get it on a trailer.

Bleed any remaining fuel pressure into a suitable container by depressing the Schrader valve at the end of the fuel rail. Make sure you catch or clean up any fuel that may escape. Blow compressed air on the manifold around the fuel injectors to clean out any debris in the area. Remove safety lock on fuel line at fuel rail side and remove fuel feed line at the fuel rail side using a disconnect tool. (Place a rag under the fuel line to help absorb leaking gas.) Disconnect the injector harnesses by pushing "in" the release tabs and pulling on the connector. There is a positive wire going to the alternator that goes over the driver side fuel rail. Lift this wire by pulling up on the plastic connectors. Remove the four 10mm bolts holding the fuel rail and gently pull up on the fuel rail and remove from the vehicle. Some cars have a bracket at the back of the intake manifold that will also need to be removed. Remove the injector retaining clips from the top of the injectors and remove injectors. Lightly grease the O rings on the new injectors and replace them in the reverse order as they were removed. Reinstall the clips. Reinstall the fuel rail. Make sure the injectors fit snugly into the intake manifold before tightening the fuel rail. Install a base tune for the injectors before starting the engine.

INSTRUCTIONS FOR THE FUEL PUMP BOOSTER ARE BELOW

FINAL ASSEMBLY AND CHECK

Refill engine with fresh factory specified oil.

Refill coolant.

Check all fittings, nuts, bolts, and clamps for tightness.

Reconnect the battery.

“Key on” and off a couple of times (DO NOT START), to cycle the fuel pump. Check for obvious leaks at the fuel rail and injectors.

Start vehicle and immediately re-check for fuel leaks.

Recheck all fluid levels and verify that no hoses, wires, etc. are near exhaust headers or moving parts and that there is no fluid leakage.

The passenger side coil cover will need to be trimmed to clear part of the supercharger mounting bracket. Trim as shown in photos and reinstall both plastic coil covers.



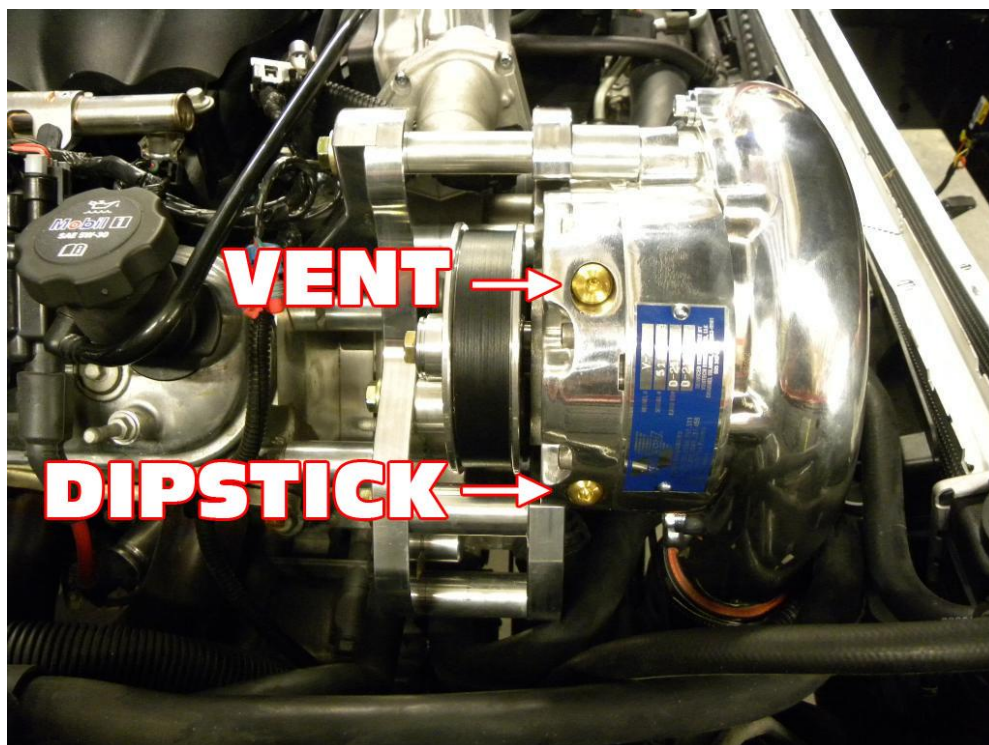
(PASSENGER SIDE COIL COVER TRIMMED)



(TRIMMED PASSENGER SIDE COIL COVER INSTALLED)

On V3 Self-contained units only, remove the shipping plug and install the vent plug included with the supercharger. Save the shipping plug in case you

ever need to send your unit in for service. Any unit to be considered for warranty repair **MUST INCLUDE THE OIL** to be analyzed.



VENT PLUG INSTALLED IN PLACE OF SHIPPING PLUG

FUEL PUMP BOOSTER INSTALLATION INSTRUCTIONS – LATE C5 and C6

This would be after VIN 114930 (last six digits) built November 25, 2002.

These instructions cover installation in late C5 and C6 Corvettes, using the optional (AND HIGHLY RECOMMENDED) Racetronix Plug & Play Hotwire Harness. If you ARE using the Hotwire Harness, NO cutting of wires will be necessary. Install the hotwire harness, as directed, and simply plug the Weatherpack style fittings directly into the harness.

If you choose not to use the harness, you will be required to cut and crimp the power wires to the pump. Those instructions will be at the end of this manual.



The vehicle should be on a chassis lift or jack and stable jack stands to complete the installation. The battery should be disconnected.

1 Remove the left rear wheel and plastic inner liner.

2 Mount the booster on the bulkhead as shown. Use the provided ¼” self-tapping screws to attach it to the bulkhead. The metal panel is slightly curved so you will only be able to install 3 screws. If there is a sticky mat sort of material glued to the panel Try to cut it away where the screws are going to go. For some reason, the self-tapping screws will get dull going through that stuff.



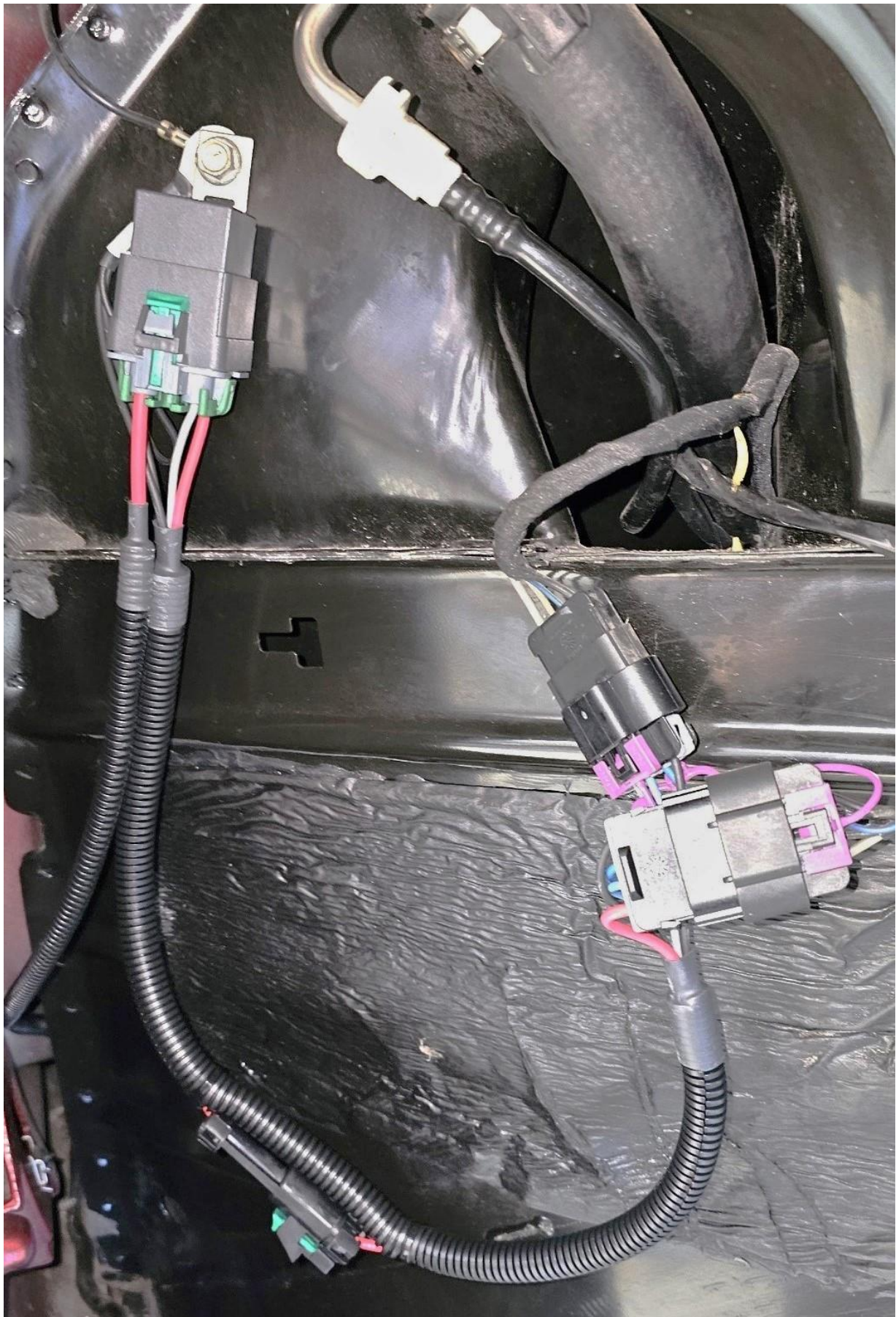
3 Grind a small section of the panel to attach the ground wire with the 3/8” self-tapping screw.

4 Remove the left front wheel and the panel behind it. Run the alternator hot wire AND the brown trigger wire from the booster through the rocker panel to the front fender area. Pushing a tape measure through from the front, taping the wires to it, and pulling them through works well.

5 Connect the power wire to the alternator stud. Bring the brown wire up near the brake booster where it will be accessible from the top. It will connect to the pressure switch later.

6 The hotwire harness relay can mount where the factory ground wire is located. Disconnect the plug in the middle of the factory fuel pump harness. The two 4-wire plugs are connected directly to the factory harness. This picture does not show the Booster installed yet for clarity.

Disconnect the single wire plug at the bottom of the picture below. The red and orange wires from the booster will plug right into them. Tie your wires up and you're done back here.



RELAY AND HARNESS CONNECTIONS

7. The brown wire will go to the pressure switch. There are two terminals on the switch. One goes to ground and the other connects to the brown booster wire. Slip a short piece of heat shrink over the end of the wire and crimp the provided eyelet onto the wire. Once the eyelet is screwed to the switch, slip the heat shrink over the connection and shrink it with a torch or lighter. If you

want to test the operation, go to step 9 before you heat shrink the terminal.



8 Attach the supplied piece of vacuum hose to the barb fitting on the pressure switch. This hose will “T” into the power brake hose along with the blowoff valve hose. The switch can be located anywhere around the fender opening, near the brake booster.

9 Test the operation by connecting a handheld pressure pump, such as a Mighty Vac, to the pressure switch. Jump the factory fuel pump relay so the pump is running and pump pressure to the switch. You should hear the pump speed up considerably when the switch is activated. You could also just ground the brown wire to test the booster and connections, but that wouldn’t actually test the pressure switch.

Put your panels and wheels back on and you’re done.

THE FOLLOWING IS FOR WIRING UP THE BOOSTER WITHOUT THE PLUG AND PLAY HARNESS

Cut the connectors off the red and orange booster wires. Strip approximately 3/8” from each.

Disconnect the plug in the middle of the factory fuel pump harness. On the male plug side, peel back the factory tape on the fuel pump harness approximately 6”. The tape is often very brittle. We’ve found that heating the tape with a heat gun helps soften it up.

The gray wire, at the end of the plug, is the power wire coming from the car to the pump. Cut this wire about 3” from the plug. Strip approximately 3/8” of insulation from each end. Crimp the small end of one of the provided butt connectors on each end of the wire. Slip a piece of the heat shrink over the wire.



MALE PLUG- CUT GRAY WIRE FROM THIS PLUG

The end furthest from the plug connects to the red (fused) booster wire. Slip the large end of the butt connector over it and crimp it.

The end of the wire closest to the plug connects to the orange booster wire. Install the connector and shrink tube as you did on the red wire. Shrink the tubing with a heat gun, micro torch or lighter.

You can connect the factory harness back together at this point. Tie up your wires, install the rear liner and wheel and you're done.

BELT SIZE REFERENCE CHART

PULLEY AND BELT SIZE CHART 6-RIB				
	K060900	K060905	K060910	K060915
3.40"	X			
3.60"		X		
3.80"			X	
4.00"				X

PULLEY AND BELT SIZE CHART 8-RIB & 8" BALANCER				
	K080903	K080910	K080922	K080939

3.125"	X	
3.33"		X
3.47"		X
3.60"		X
3.80"		X
4.00"		X

x= best fit

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