A&A CORVETTE C6 SUPERCHARGER SYSTEM

INSTALLATION INSTRUCTIONS FOR THE C6 CORVETTE

A&A CORVETTE PERFORMANCE C6 SUPERCHARGER
INSTALLATION INSTRUCTIONS

GETTING STARTED

Proper installation of this supercharger kit requires general automotive mechanic knowledge and experience. Please browse through each step of this instruction manual prior to beginning the installation to determine if you should refer the job to a professional installer/technician. Please contact A&A Corvette if you need assistance.

Keep in mind that many of these steps do not necessarily need to be completed in the order they are shown in this manual.

- Raise the car on a suitable lift or jack stands. While not completely necessary, it will be easier with the wheels removed.

- Disconnect the battery.

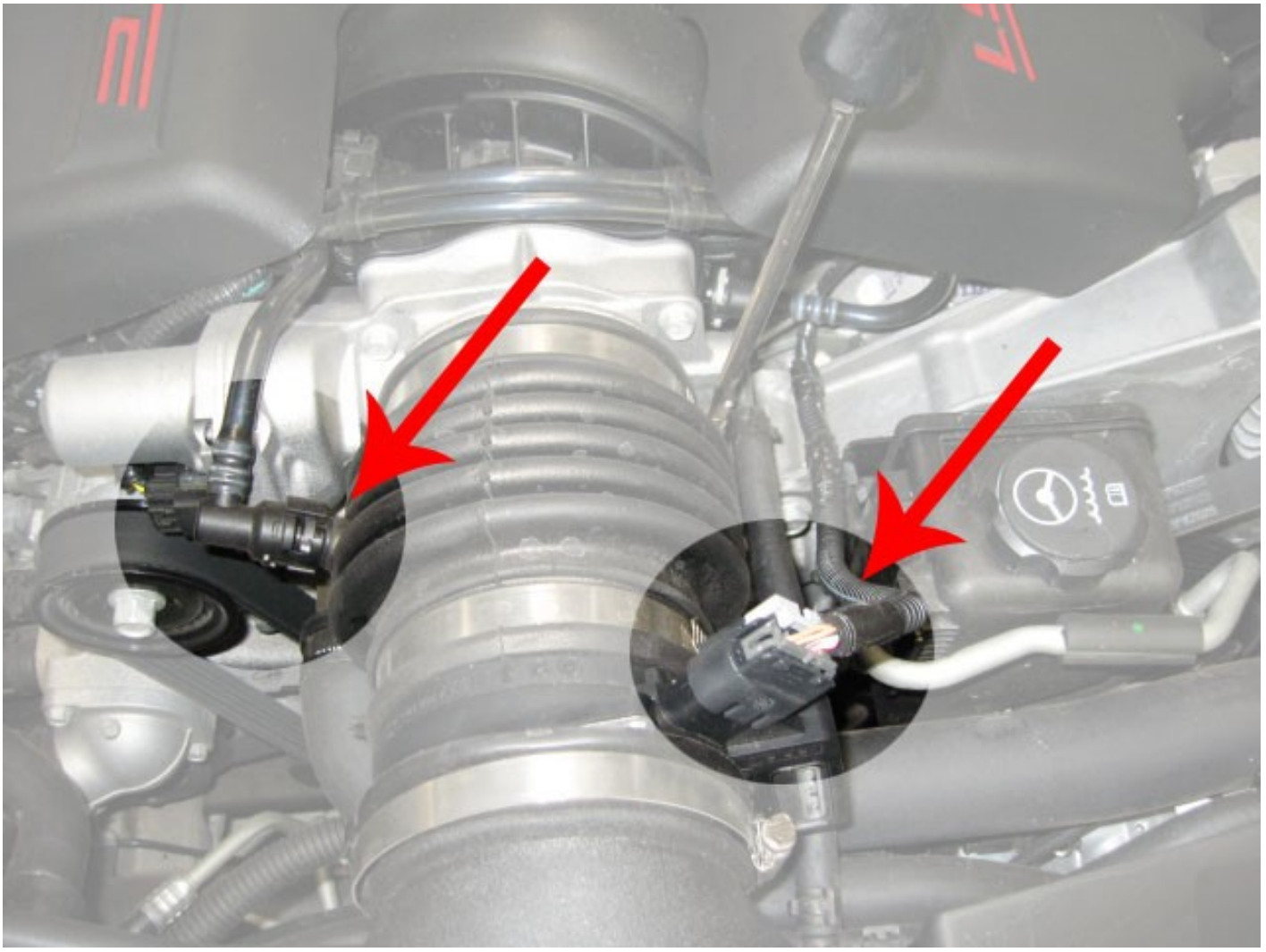
- Remove plastic ignition coil covers

- Remove factory spark plugs. Gap the provided TR6 plugs to .035" and install with anti- seize on the threads.

NOTE: The car will require PCM reprogramming after the installation. The car may be driven AT LIGHT THROTTLE ONLY with the stock injectors prior to tuning in order to check for leaks, belt alignment or even to drive it to the tuning shop. Any application of too much throttle will throw the car into "reduced power" mode. You will have pull over, shut the car off for 10 seconds and restart in order to proceed.

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.

- Loosen 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.



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

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

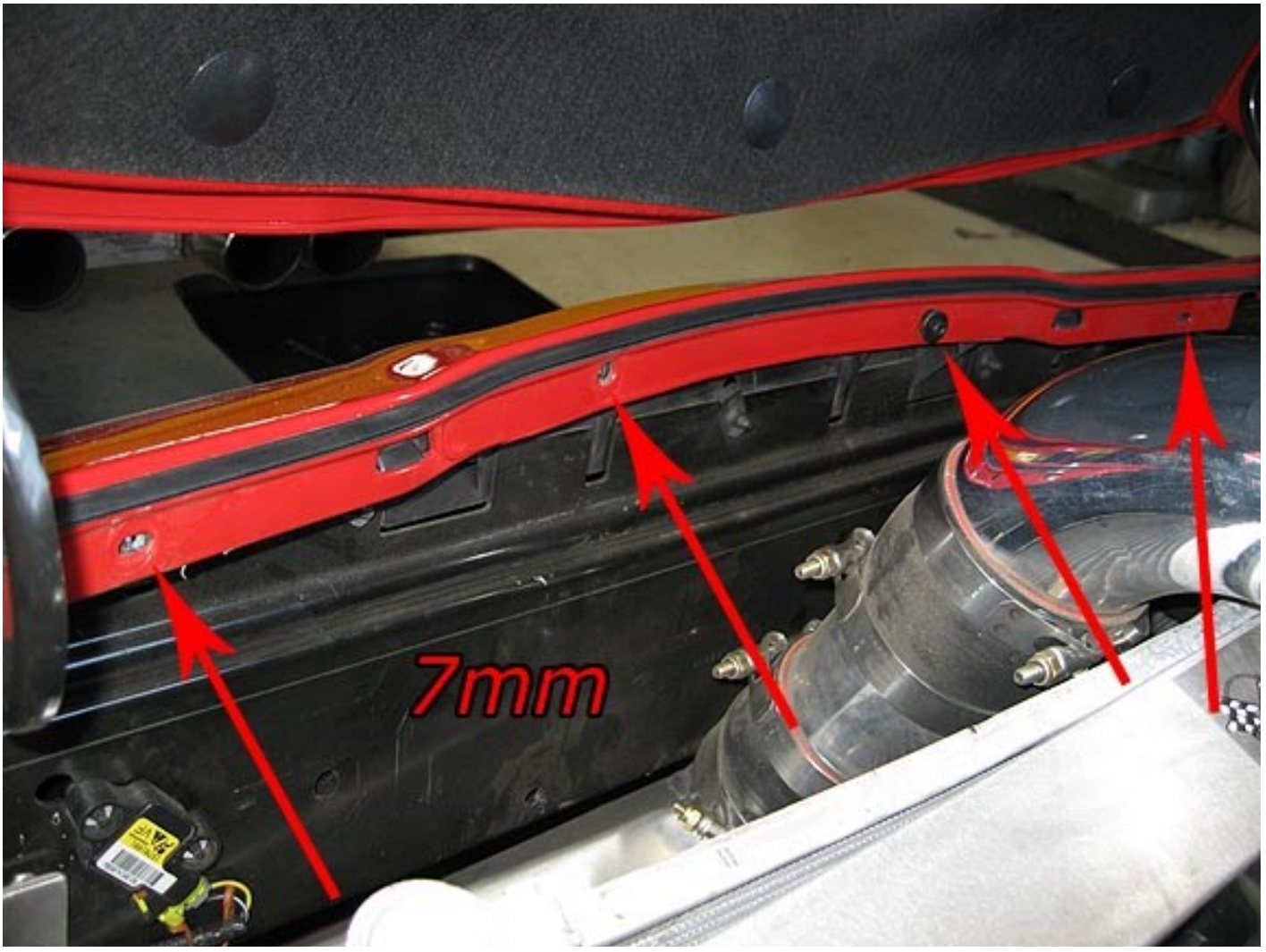
(TOP RADIATOR COVER)

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

- Remove the front wheels.

- Remove (4) 7mm screws from the top of the fascia.



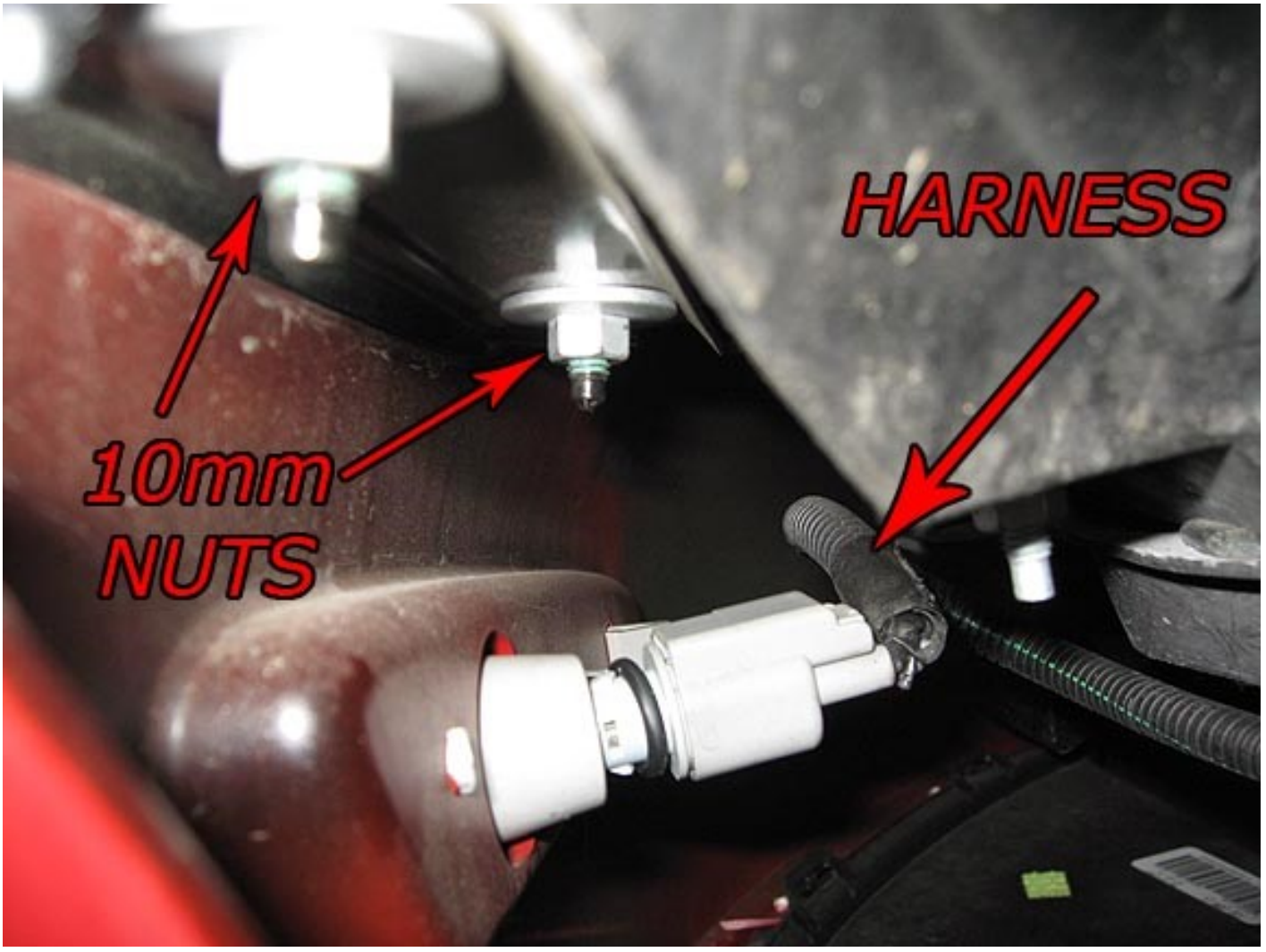
(REMOVE THESE FOUR 7mm SCREWS)

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

(REMOVE THESE 5 SCREWS OR PLASTIC PUSH PINS)

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

- Remove the (2) 10mm nuts.



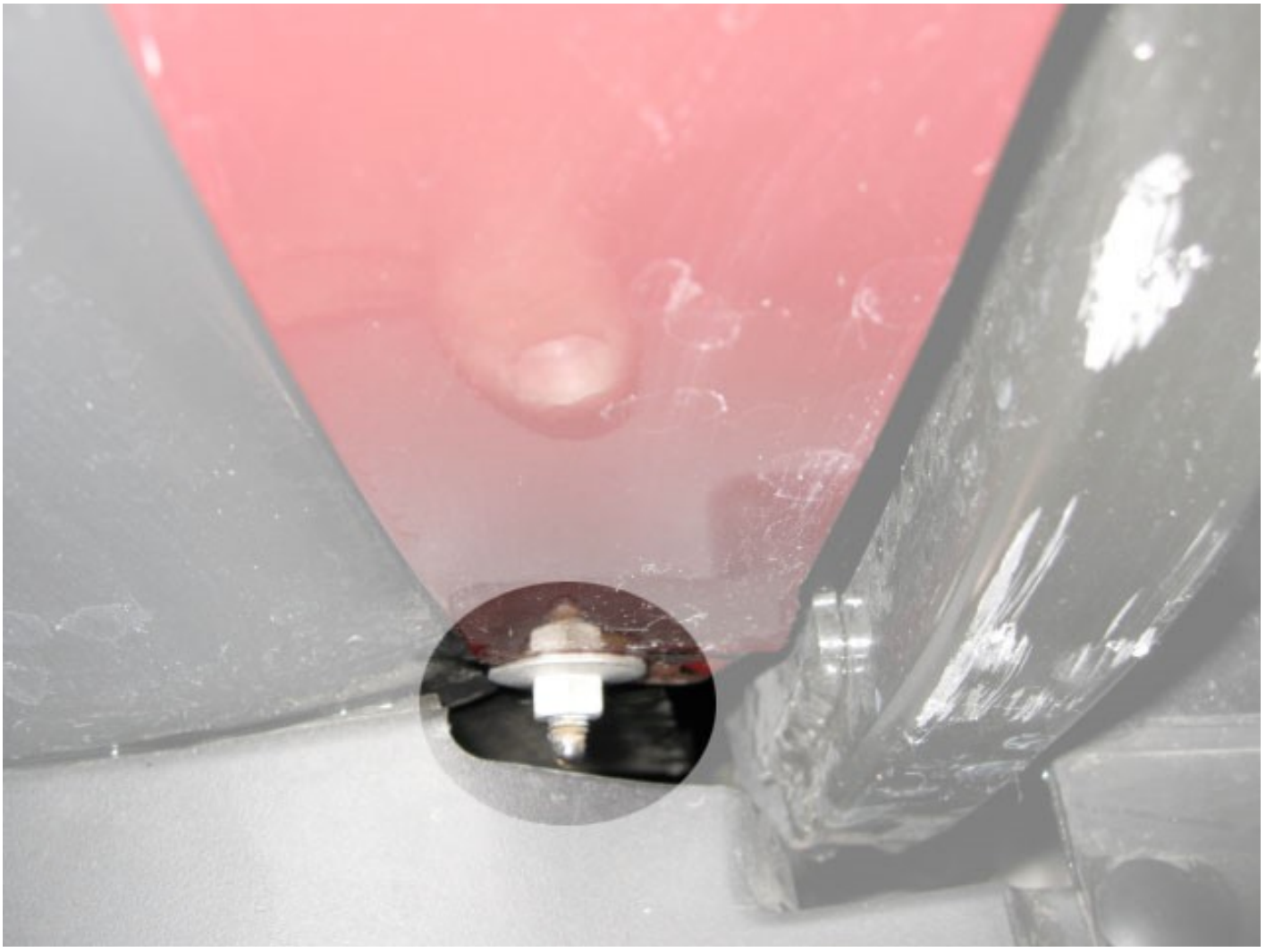
(UNDO SIDE MARKER HARNESS AND REMOVE TWO 10mm BOLTS)

PINNING THE CRANKSHAFT PULLEY: THE STEERING RACK DOES NOT NEED TO BE REMOVED TO PIN THE CRANKSHAFT

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

(UNDO FOG LIGHT HARESS)

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



(ONE OF TWO 10mm BOLTS)

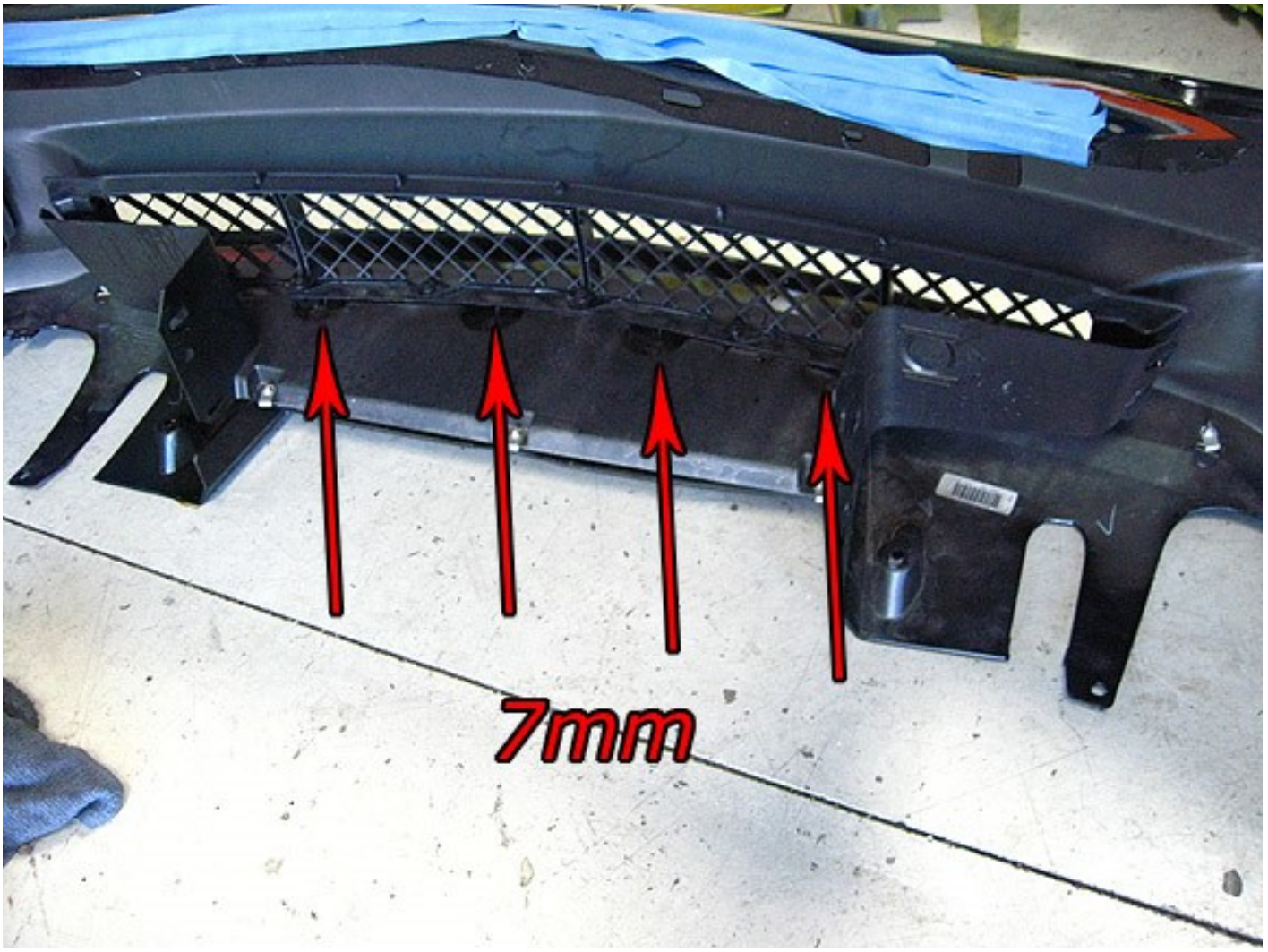
(7mm SCREWS IN BOTTOM OF FASCIA)

- 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. See picture on next page.



(REMOVE 7mm SCREWS)

(TRIM OFF TABS CIRCLED IN RED)

REMOVE 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)

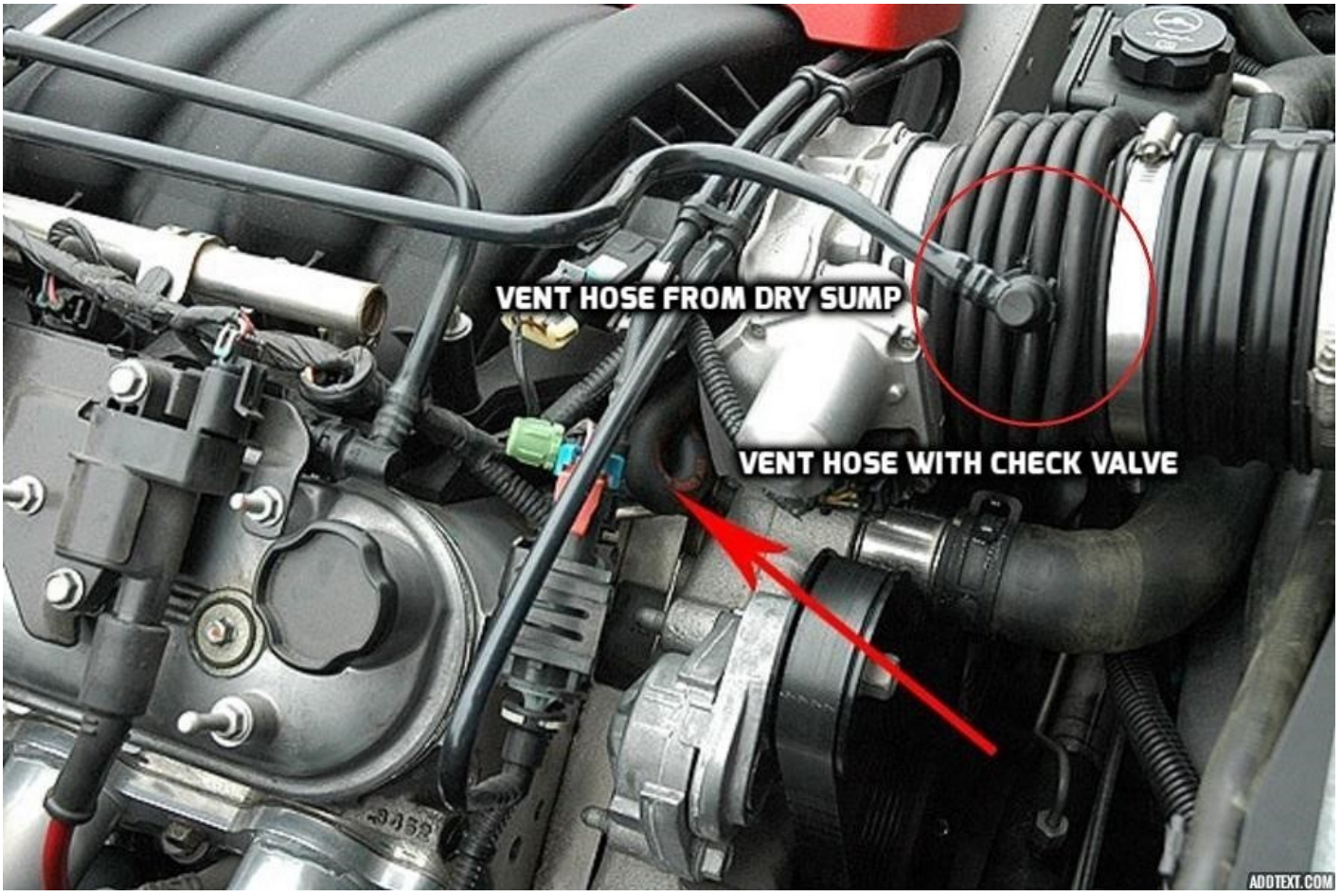
(TOP: EVAP. BRACKET – BOTTOM: TENSIONER)

CRANKCASE VENTILATION HOSES

- Locate the small, U shaped hose going from the intake manifold to the engine cover located under the manifold. Remove this hose, remove it and replace it with the hose containing the small plastic check valve. Orient the valve so that airflow is allowed to flow from the engine cover TO the intake manifold and is blocked from traveling the other way.

- This vent hose is common to sta[illegible]6 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 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.



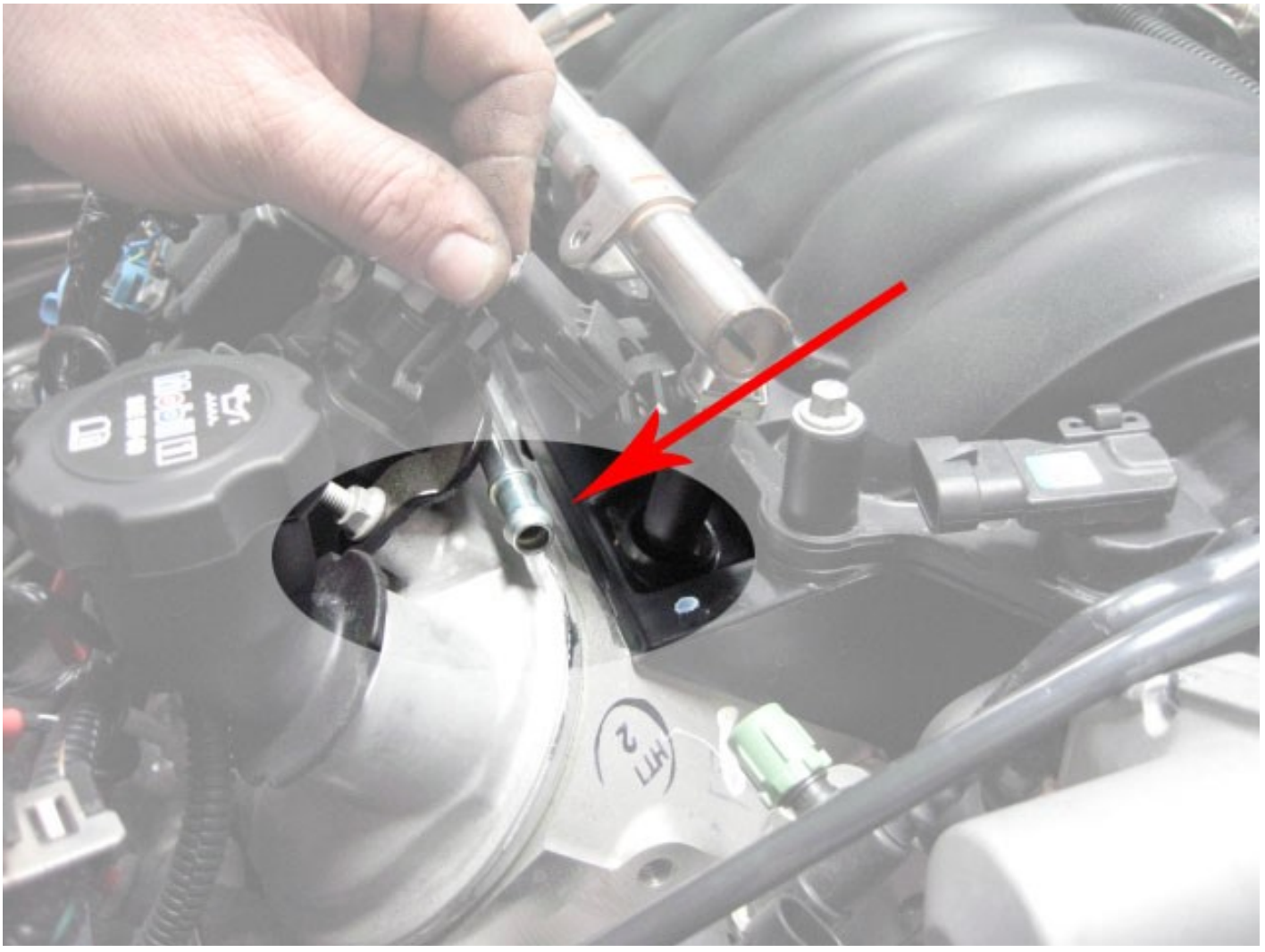
(VENT TUBE- Z06 SHOWN)

(CHECK VALVE INSTALLED IN VENT TUBE)

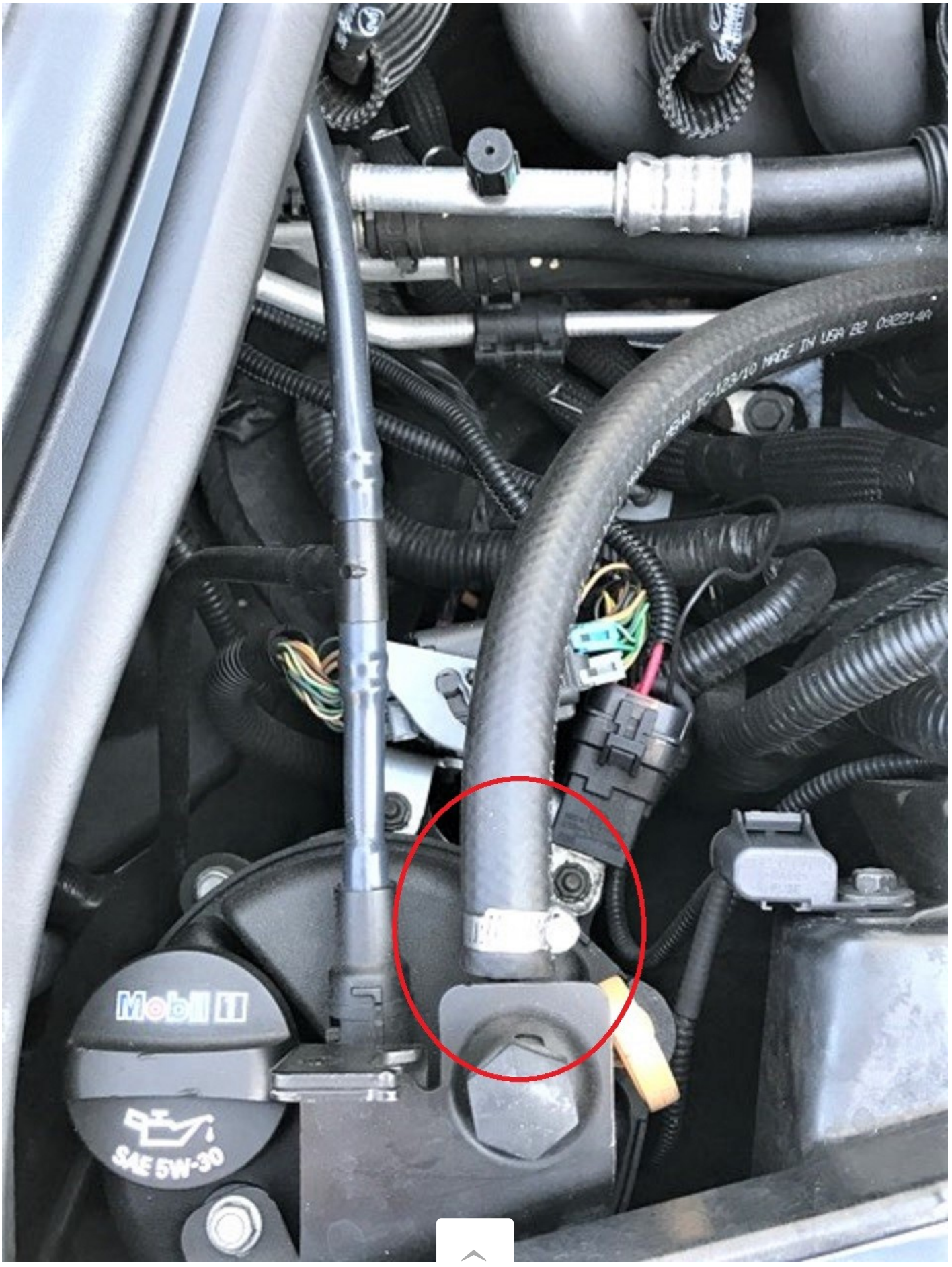
(VENT TUBE WITH CHECK VALVE INSTALLED, AIRFLOW DIRECTION INDICATED)

- On standard C6, cap the nipple on the passenger side valve cover that originally had the vent hose runn[illegible] fr[illegible]m the valve cover to the factory inlet coupler. Drill the oil filler cap,u s [illegible] /16” drill or Rota-broach. Tap hole to

3/8” NPT. Thread the supplied 90-degree fitting into the cap. The supplied 5/8” hose runs directly from the cap to the air filter. Venting from the cap raises the fitting above most of the oil spraying around and eliminates the need for a catch can.

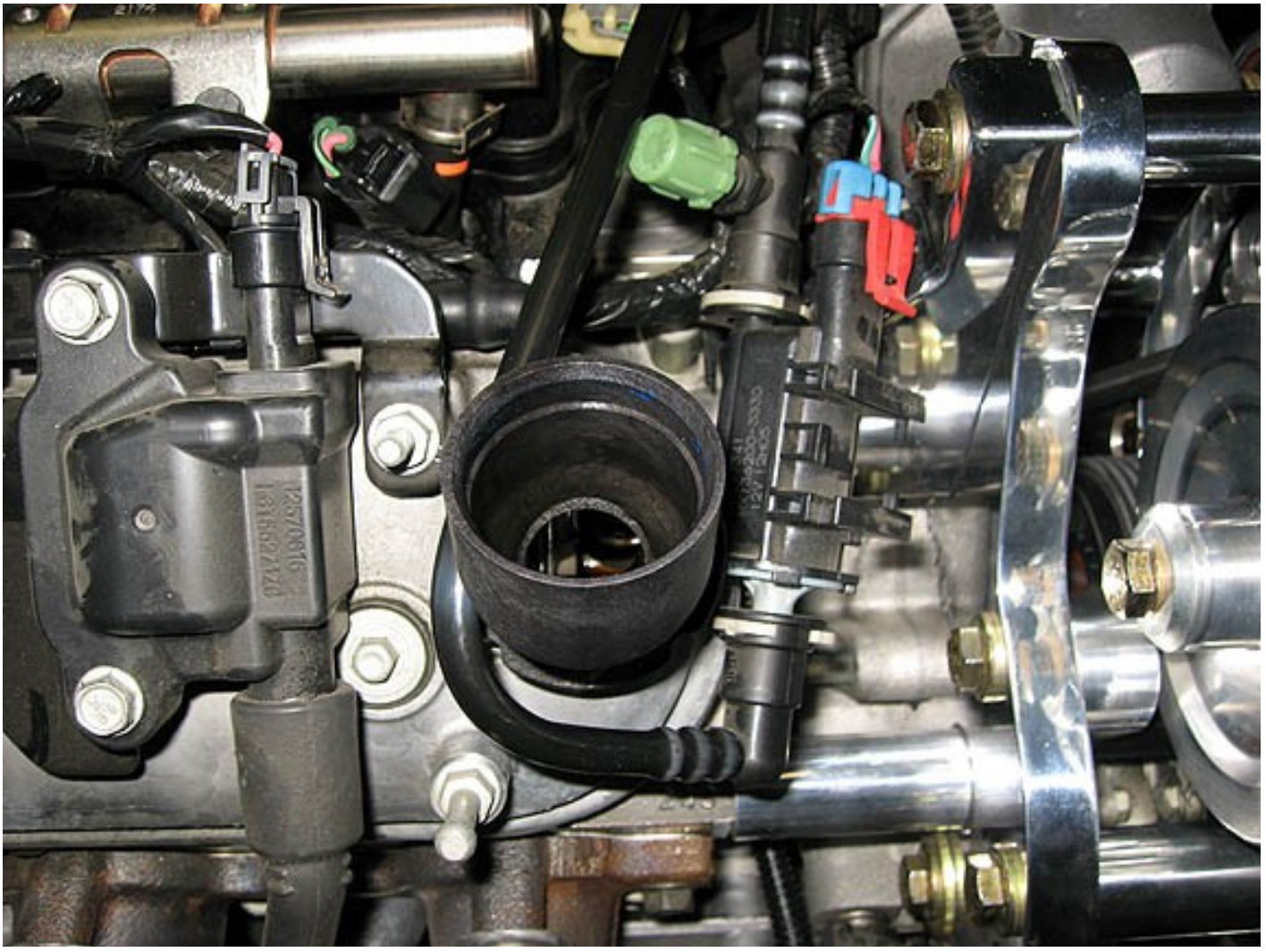


(ATTACH SUPPLIED RUBBER VACUUM CAP TO NIPPLE)


Mobil 1
SAE 5W-30

(VENT HOSE ON Z06 DRY SUMP)

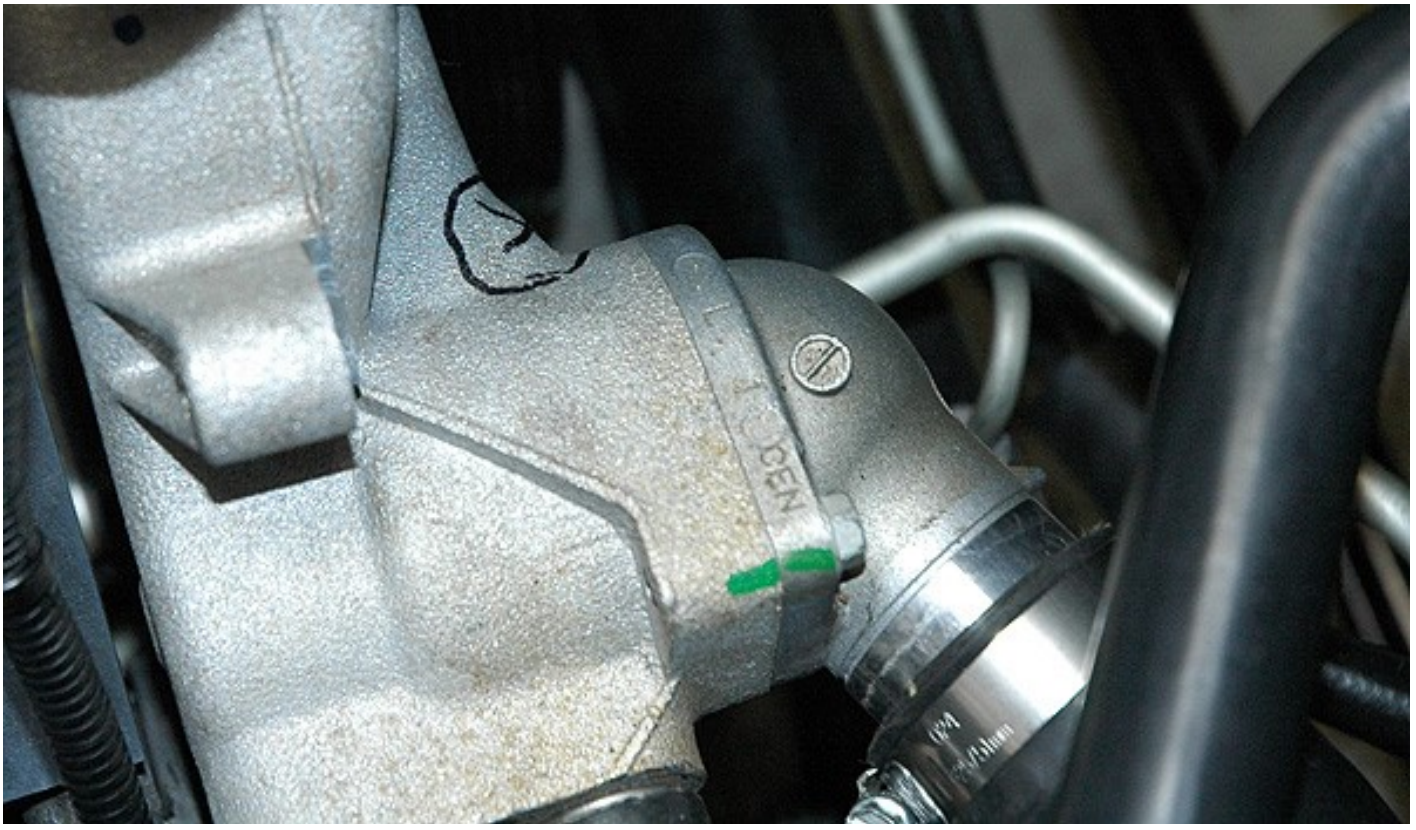
OIL CAP VENT HOSE INSTALLED ON STANDARD C6



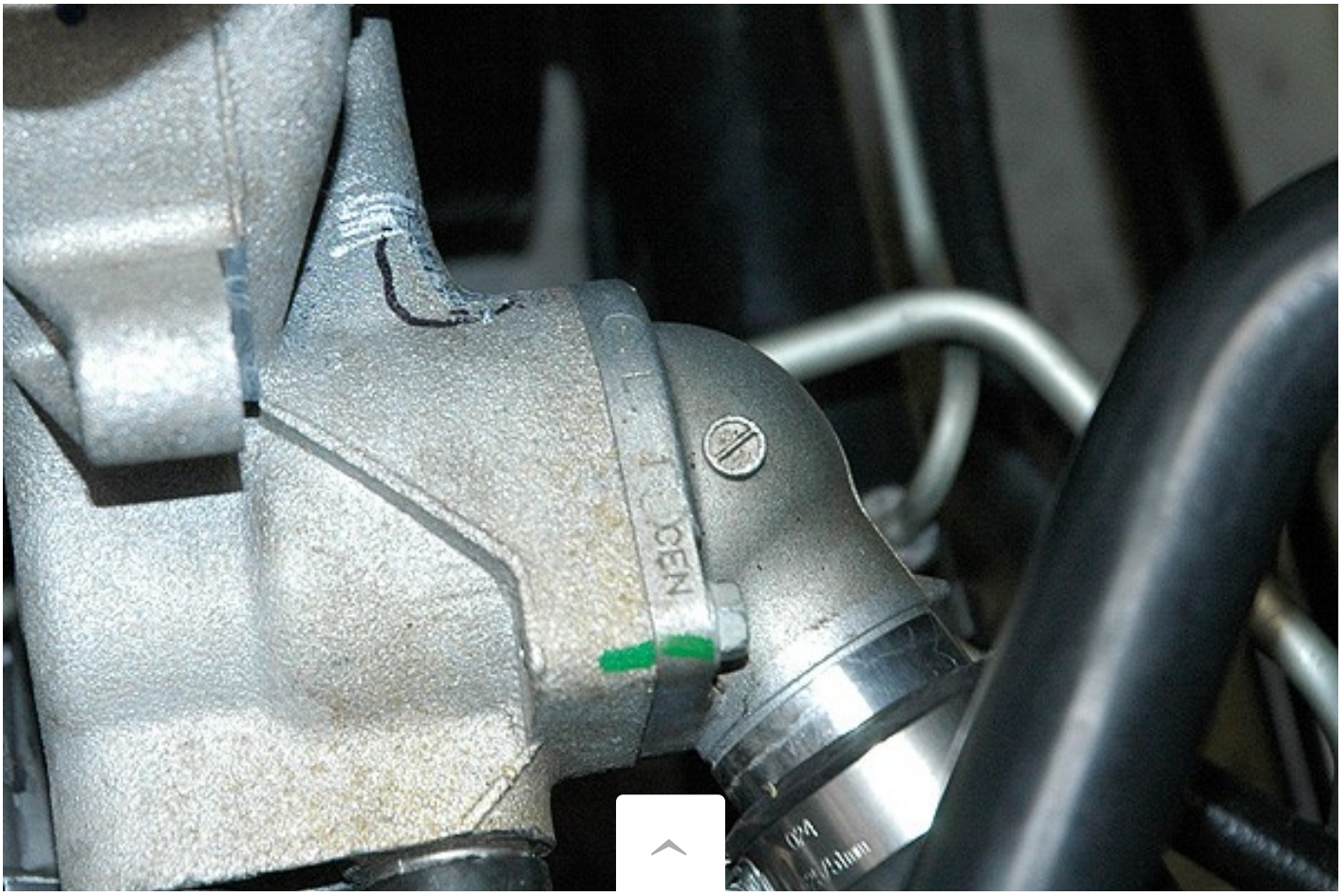
(MOVE THE EVAP SOLONOID TUBE OVER THE FILL TUBE AS SHOW)

WATER PUMP PREPARATION

- The water pump may need to be ground down near the thermostat. This is for added belt clearance. Some 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.

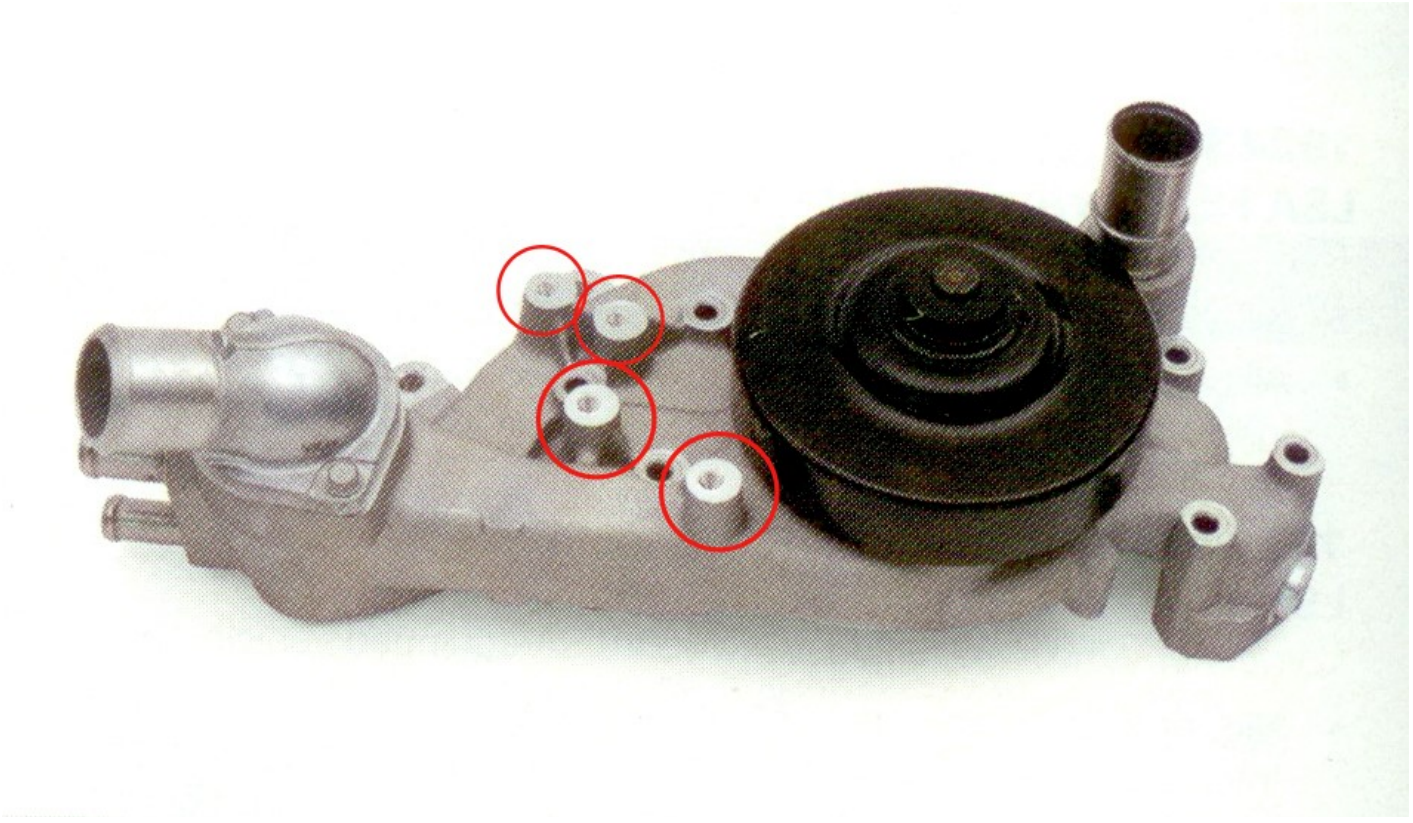


(WATER PUMP/THERMOSTAT)

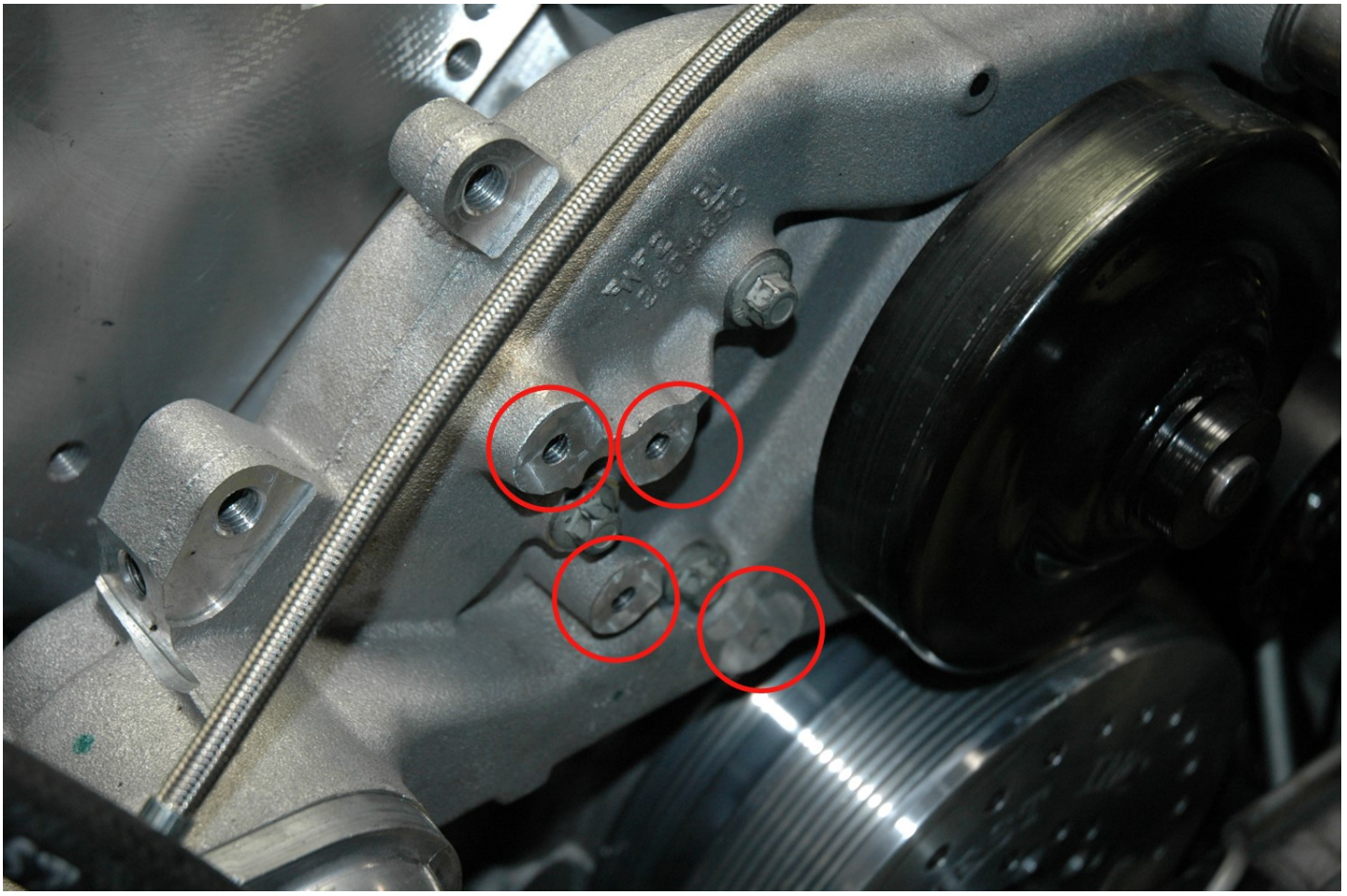


(WATER PUMP/THERMOSTAT AFTER GRINDING)

- On 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)



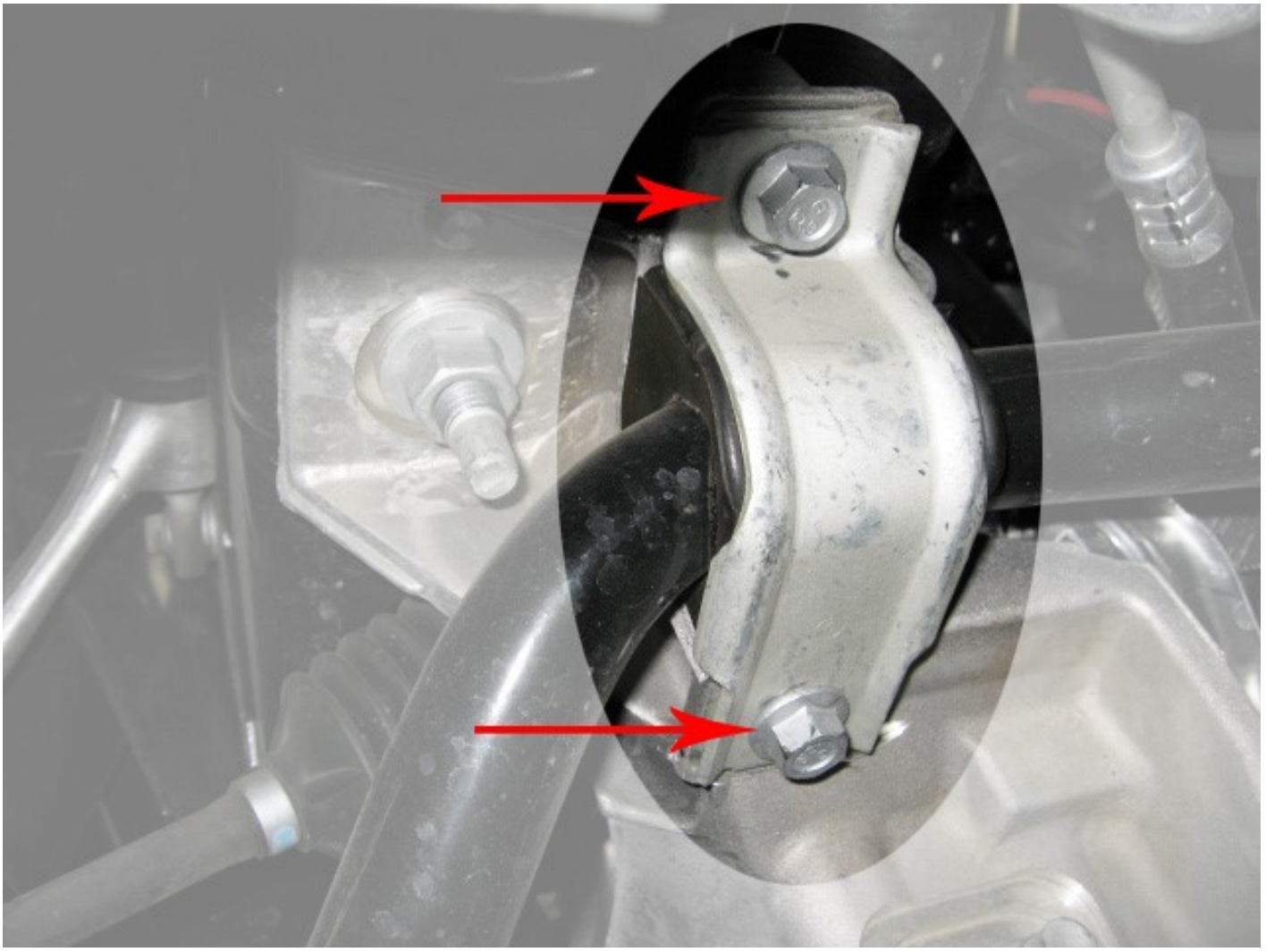
(2009+ WATER PUMP AFTER REMOVING BOSSES)

PINNING THE CRANKSHAFT PULLEY

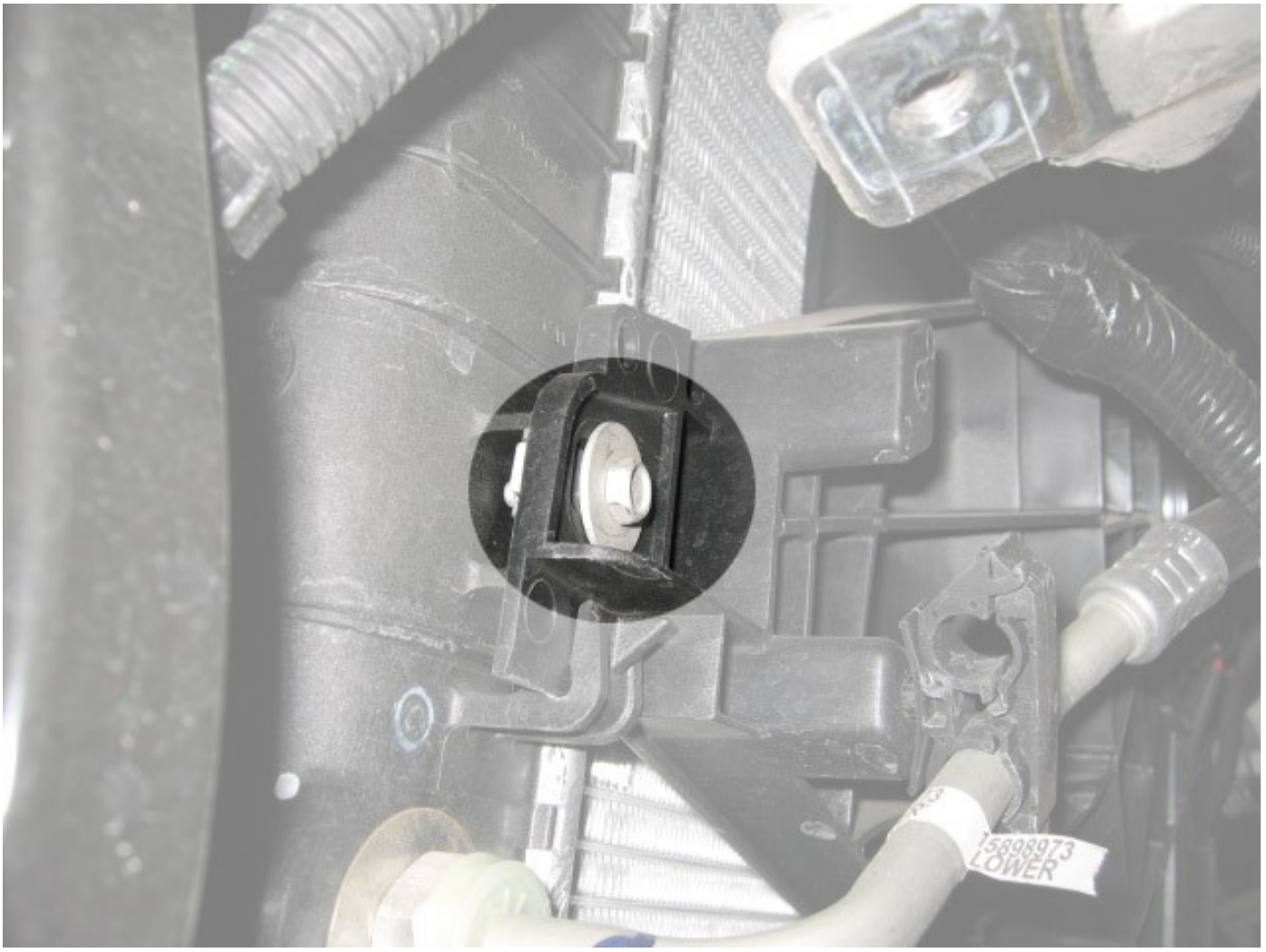
- The STEERING RACK DOES NOT NEED TO BE REMOVED IN ORDER TO PIN THE CRANKSHAFT PULLEY

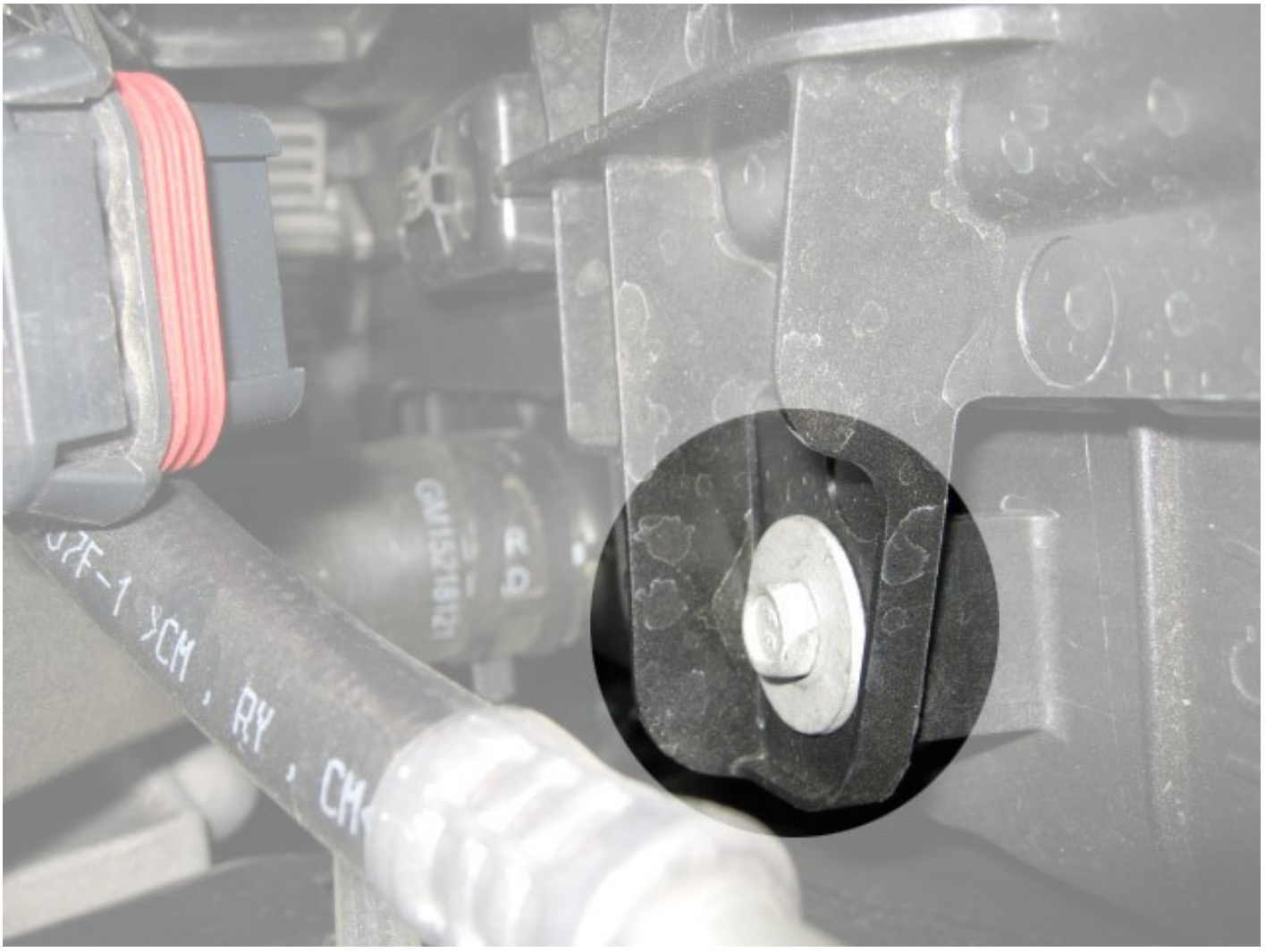
- The front sway bar needs to be dropped out of the way and the radiator fan, and power steering cooler (if equipped) will have to be removed in order to "pin" the crank pulley to the crankshaft.

- Remove the 4 (13mm) sway bar [illegible]t the sub frame and let the bar drop down out of the way.



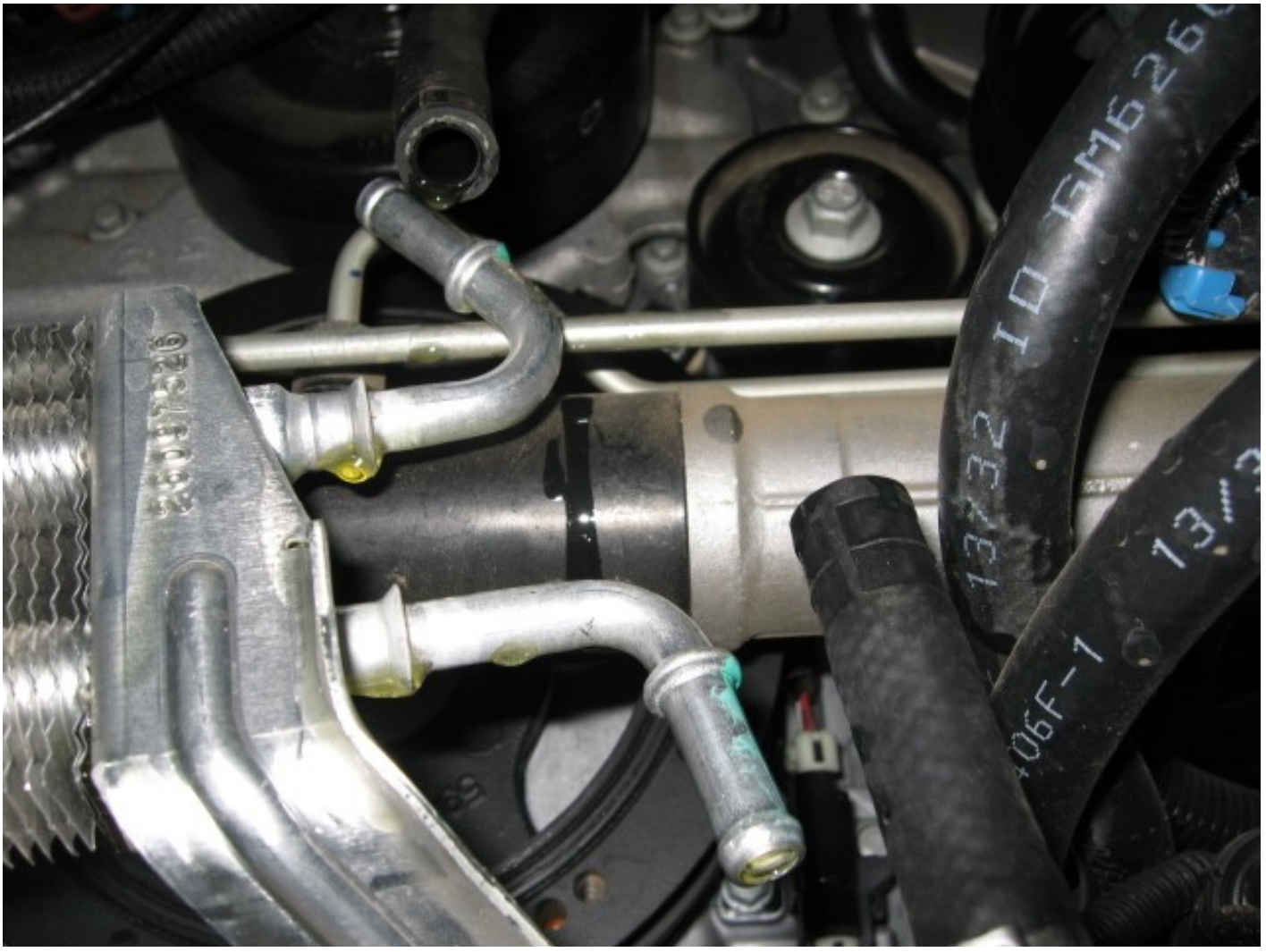
(PASSENGER SIDE SWAY BAR BOLTS)


15898973
LOWER



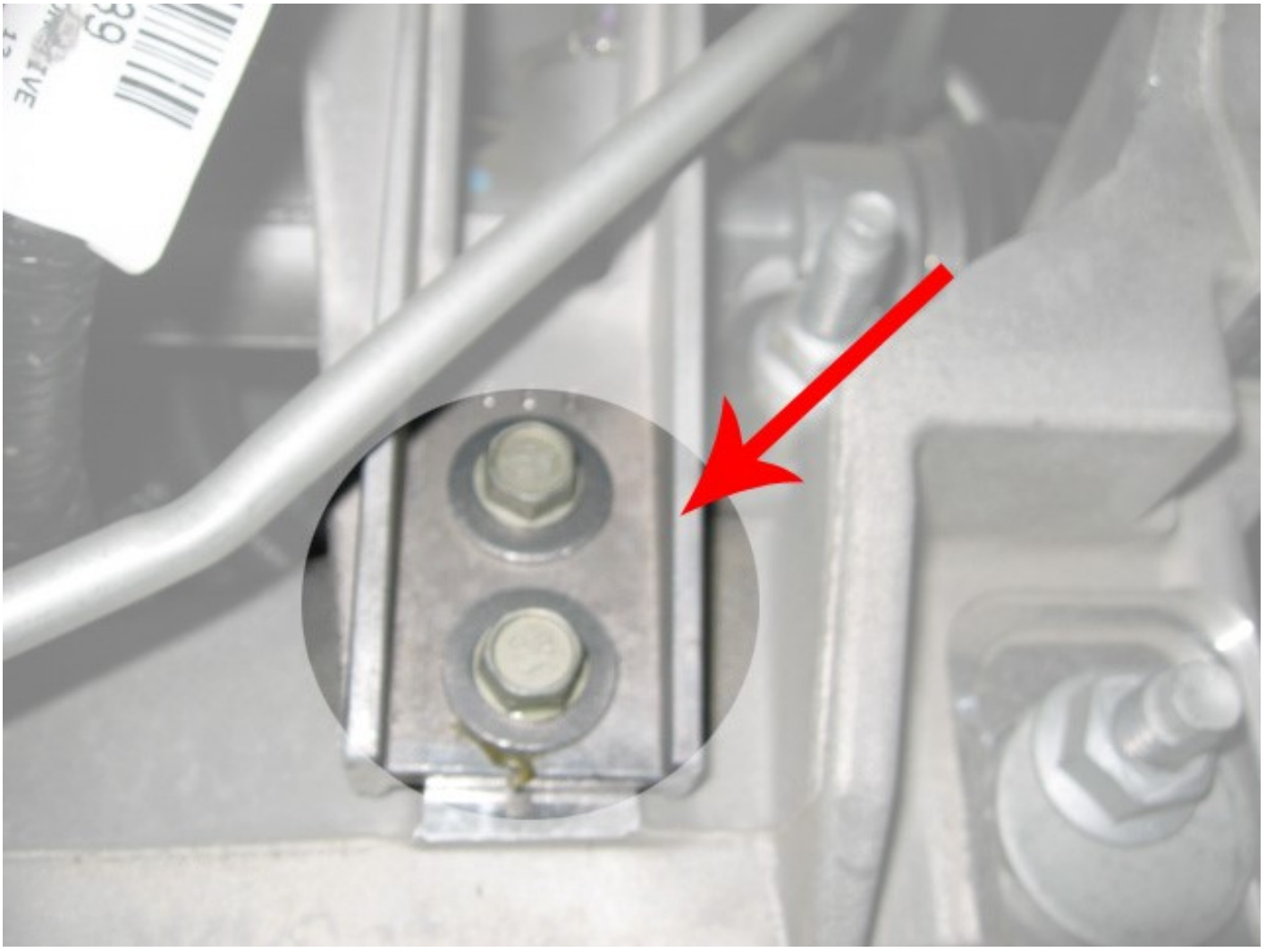
(DRIVER SIDE AND PASSENGER SIDE RADIATOR FAN BOLTS)

- If the vehicle is NOT equipped with a power steering cooler, skip this step. 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.



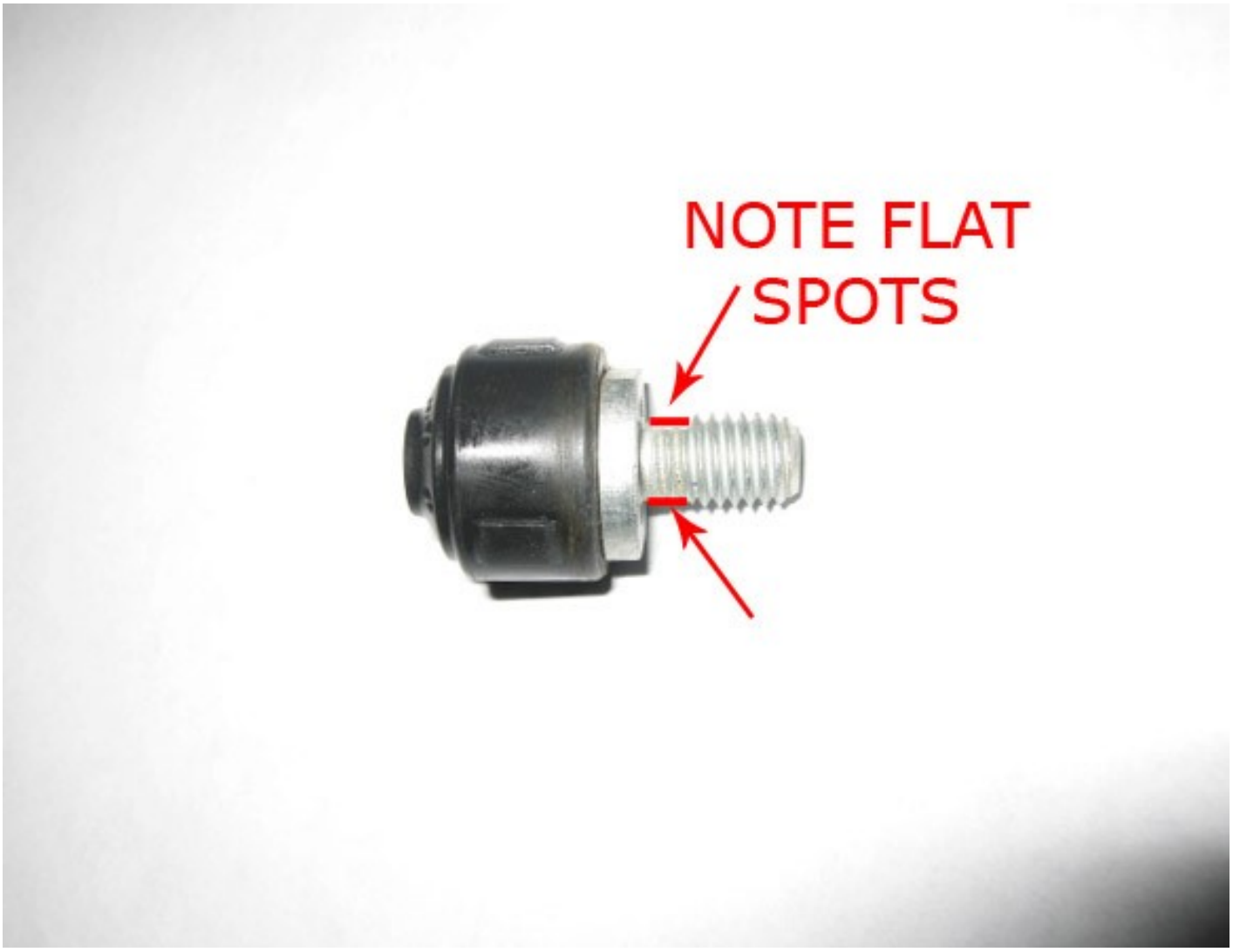
(POWER STEERING COOLER AND HOSES)

- 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 t teering rack.



(ABS MOUNTING BRACKET)

(ABS MODULE – MOUNTING STUDS)

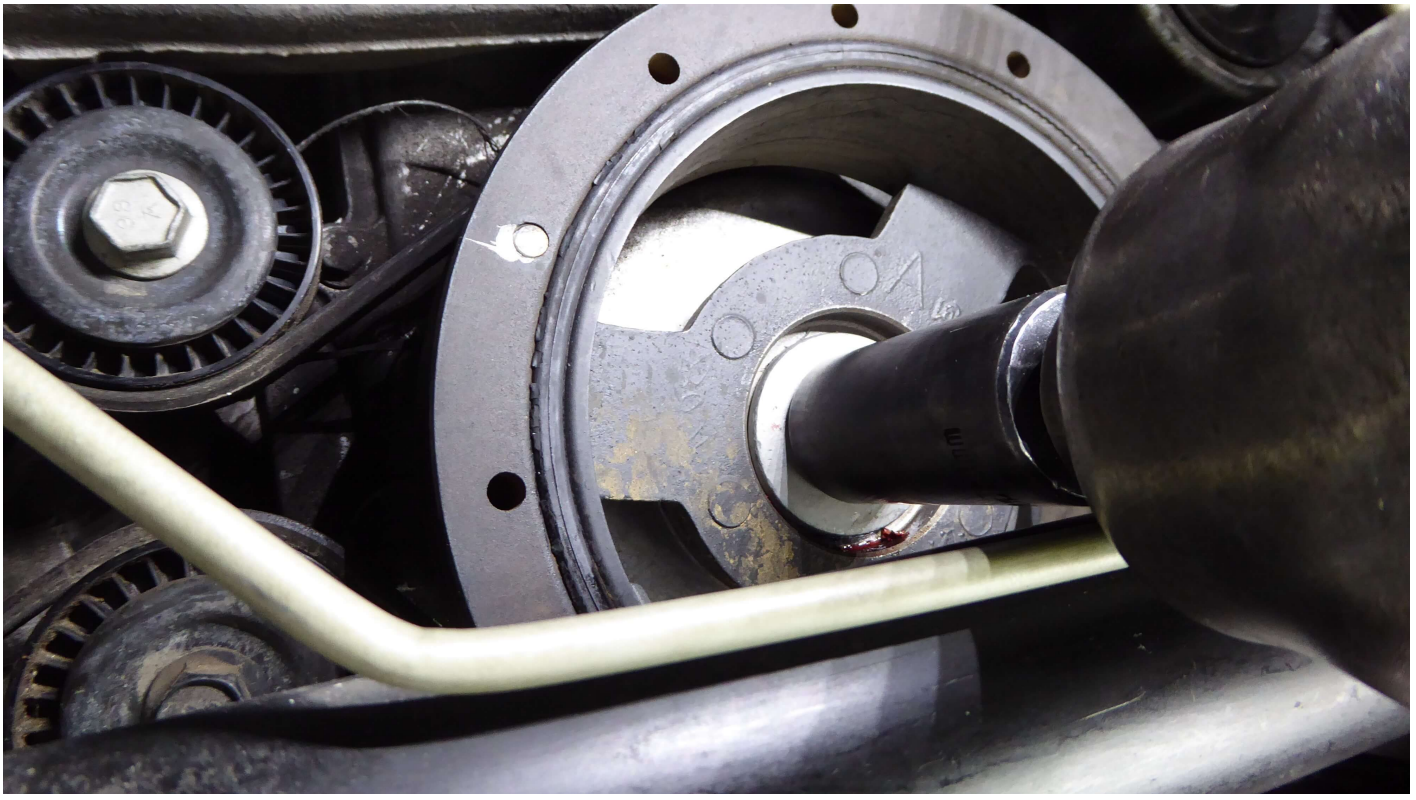


(ABS MODULE MOUNTING STUD)

- 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 side to release it from its mounts. An inch or two will suffice.

- Remove the two 18MM engine mount nuts facing downwards through the cradle.

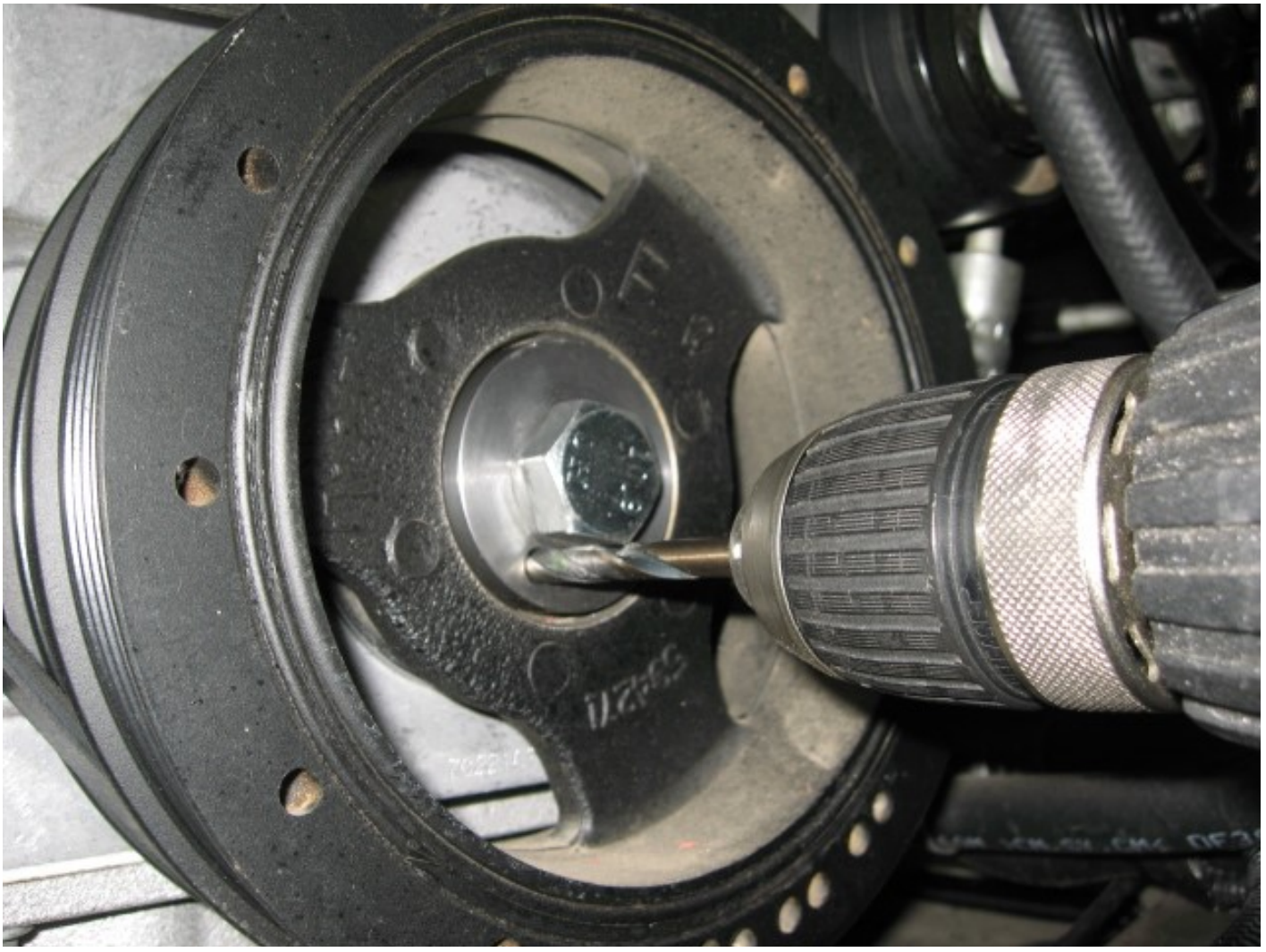
- Using a post jack (or similar) lift the engine under the rear of the oil pan using a piece of 2 X 4 to spread the load. There is now ample clearance for a socket and impact gun above the rack



- 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. Measure the provided pin and make sure you drill to a depth just slightly deeper than the length of the pin. Use a 1/4" drill bit (not included) 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 actually recessed into the bala y about ¼". You do not have to have the pin flush with the end of the c haft. 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)

(PIN FIXTURE WITH BOLT AND PIN)



(DRILLING CRANK AND BALANCER THROUGH PIN FIXTURE)

(PIN INSTALLED IN CRANKSHAFT AND BALANCER)

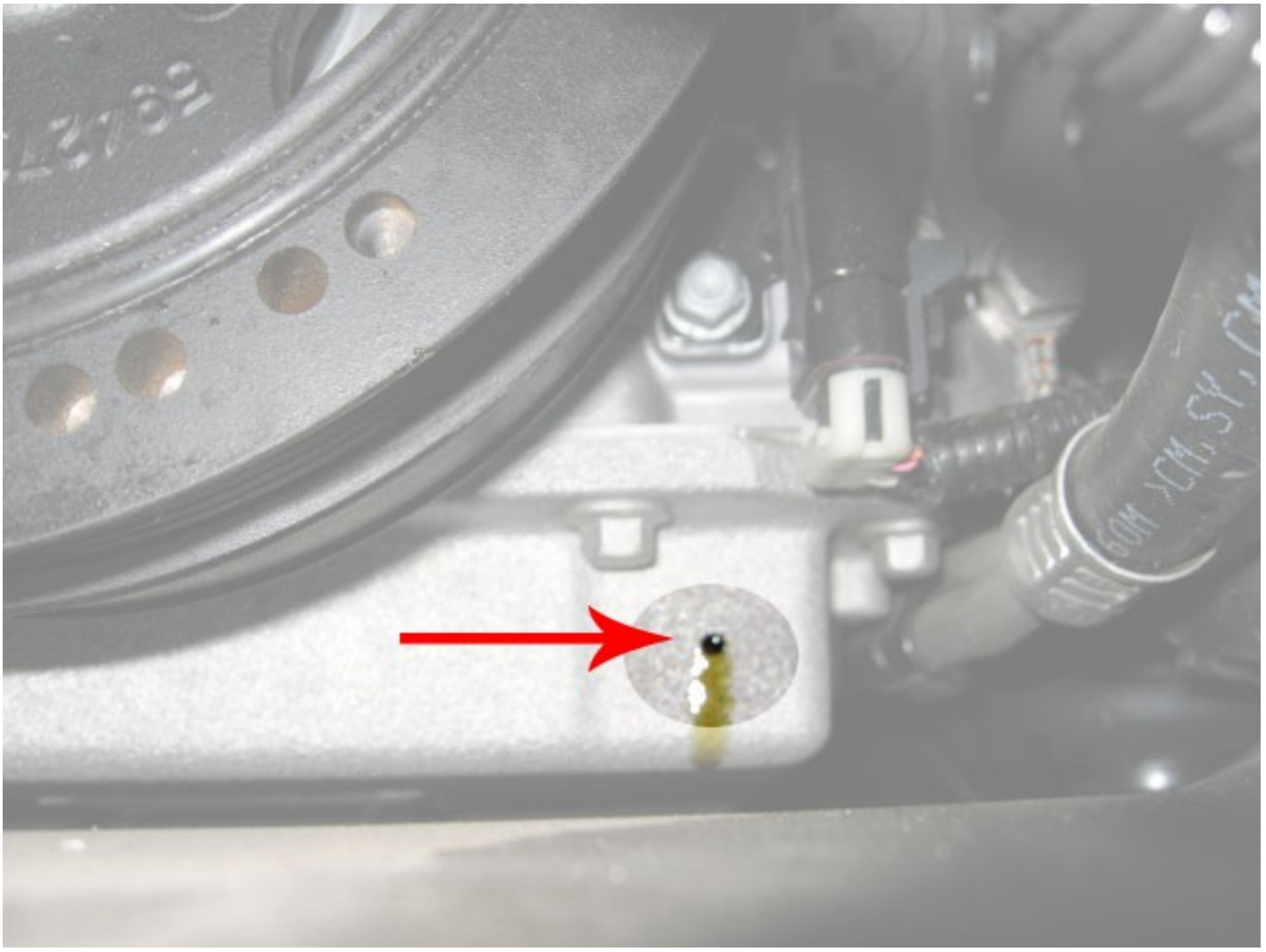
- Take the NEW provided factory balancer bolt, heat the threaded area with a hair dryer or heat gun, put red Loctite on the first 1/2" of threads and insert it in the crank. Tighten it to manufacturers' specs. If using an impact gun, heating it up expands the bolt slightly and helps with its retention once it cools down.

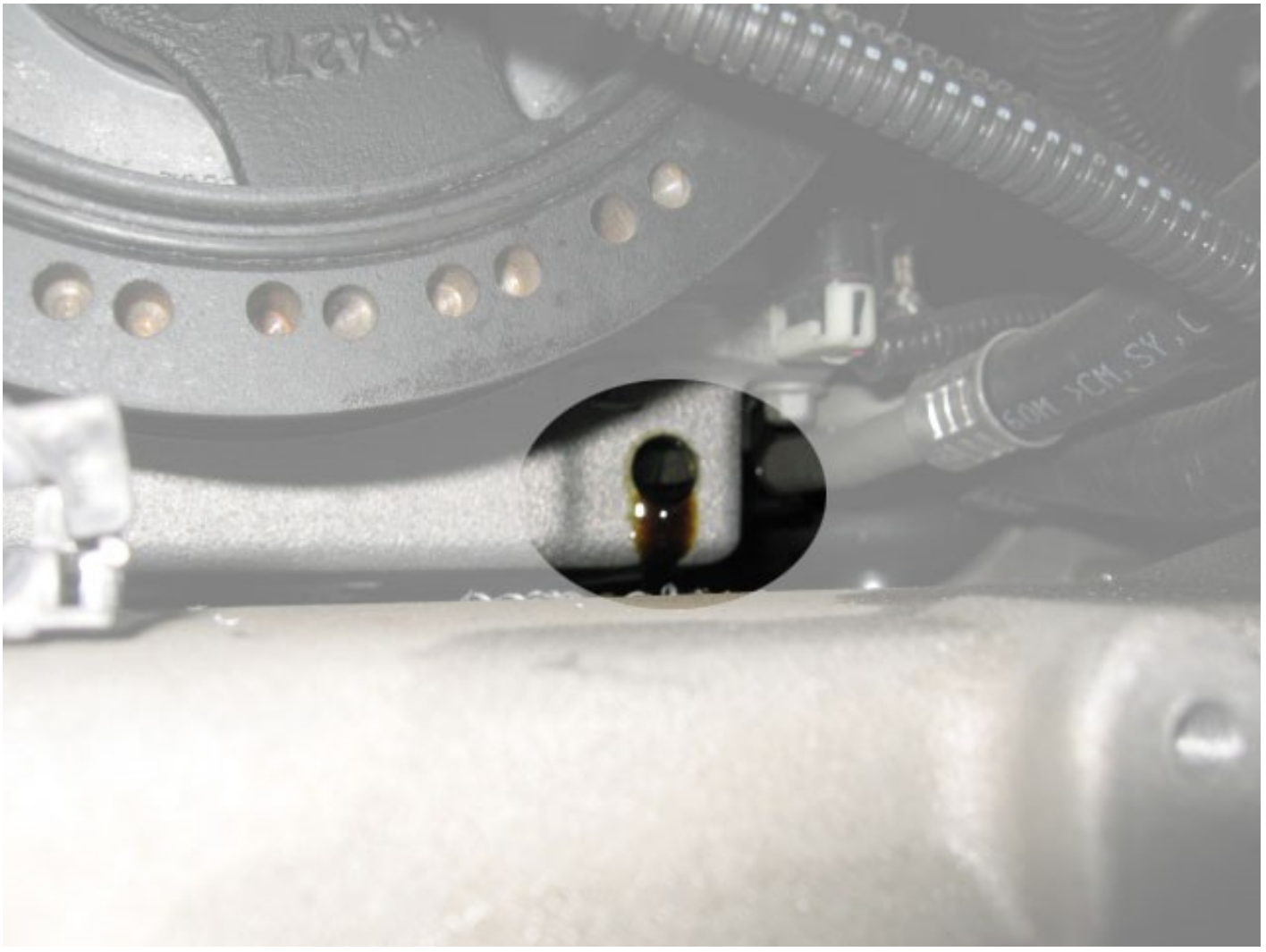
INSTALLING THE OIL RETURN FITTING

- (NOTE: This entire section applies ONLY to the standard “engine oiled” units. For V3 “self- contained” units, please go to RELOCATING THE LOWER RADIATOR SUPPORT/ SKIDBAR ASSEMBLY AND HORNS.)

- The preferred method of draining the oil from the supercharger to the sump is by cutting and tapping a 3/8” pipe fitting directly into the front of the oil pan.

- 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 supplied 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 actually 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.





(OIL PAN PILOT HOLE AFTER CUTTING WITH ROTOBROACH)

- Take a 3/8" NPT tap (not included) 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. (Measure yours to be sure) 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. C p any stray chips. (Dabbing a bent Q Tip with grease through the hole well) Clean the threads and fitting

with carburetor cleaner or something similar and apply a small amount of silicone sealer to the pan threads as well as the threads on the 3/8" NPT to -8 AN 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 the C6 Z06, 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 too high where the fitting will not be able to be screwed in to 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.

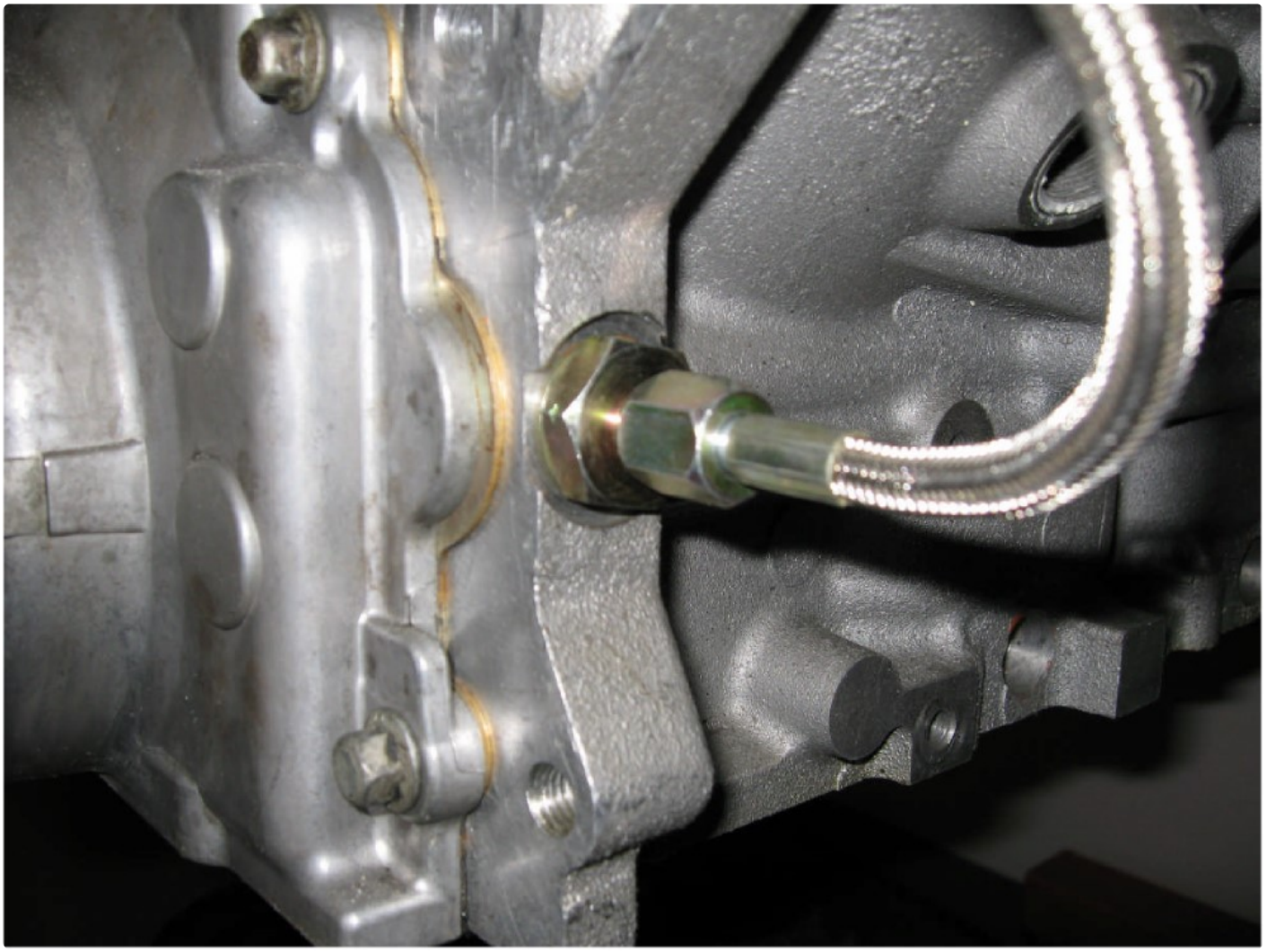
(OIL DRAIN FITTING INSTALLED IN OIL PAN – C6 Z06)

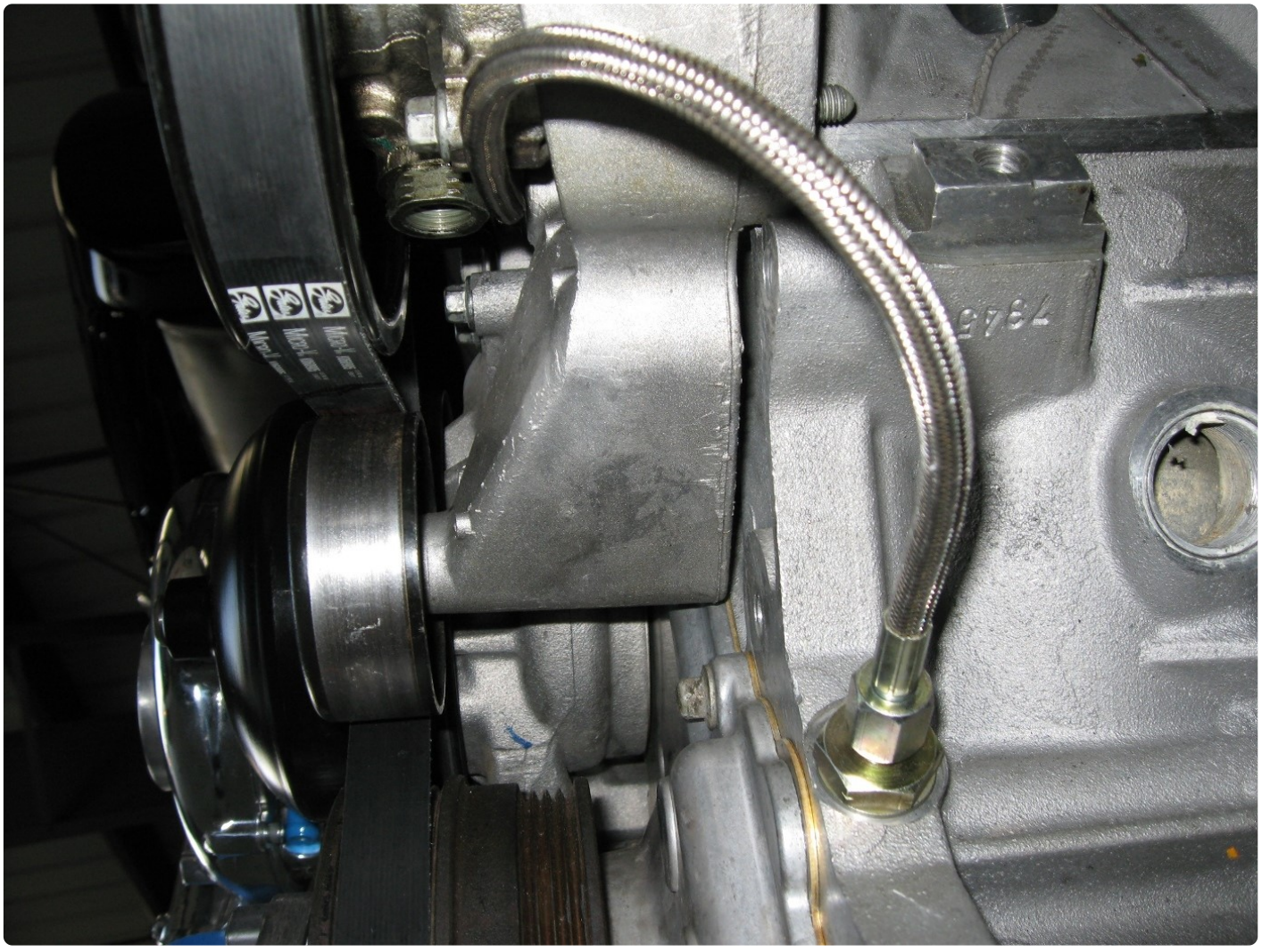
INSTALLING THE OIL FEED LINE

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

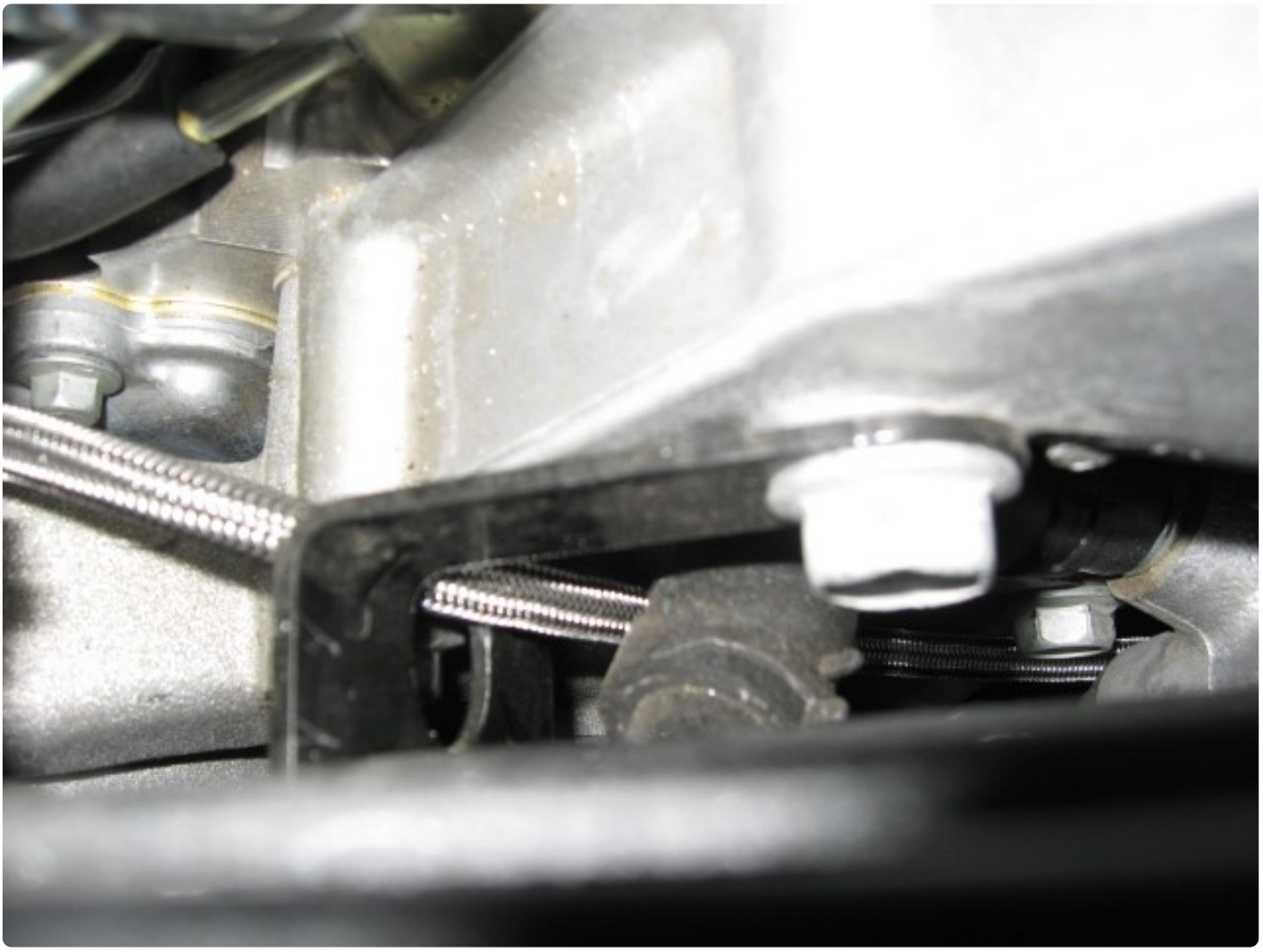
- Screw the line onto the fitting and route it up to the supercharger at the other end. Route it behind the st e that comes out of the bottom of the power steering pump, over the r ose on the power steering reservoir

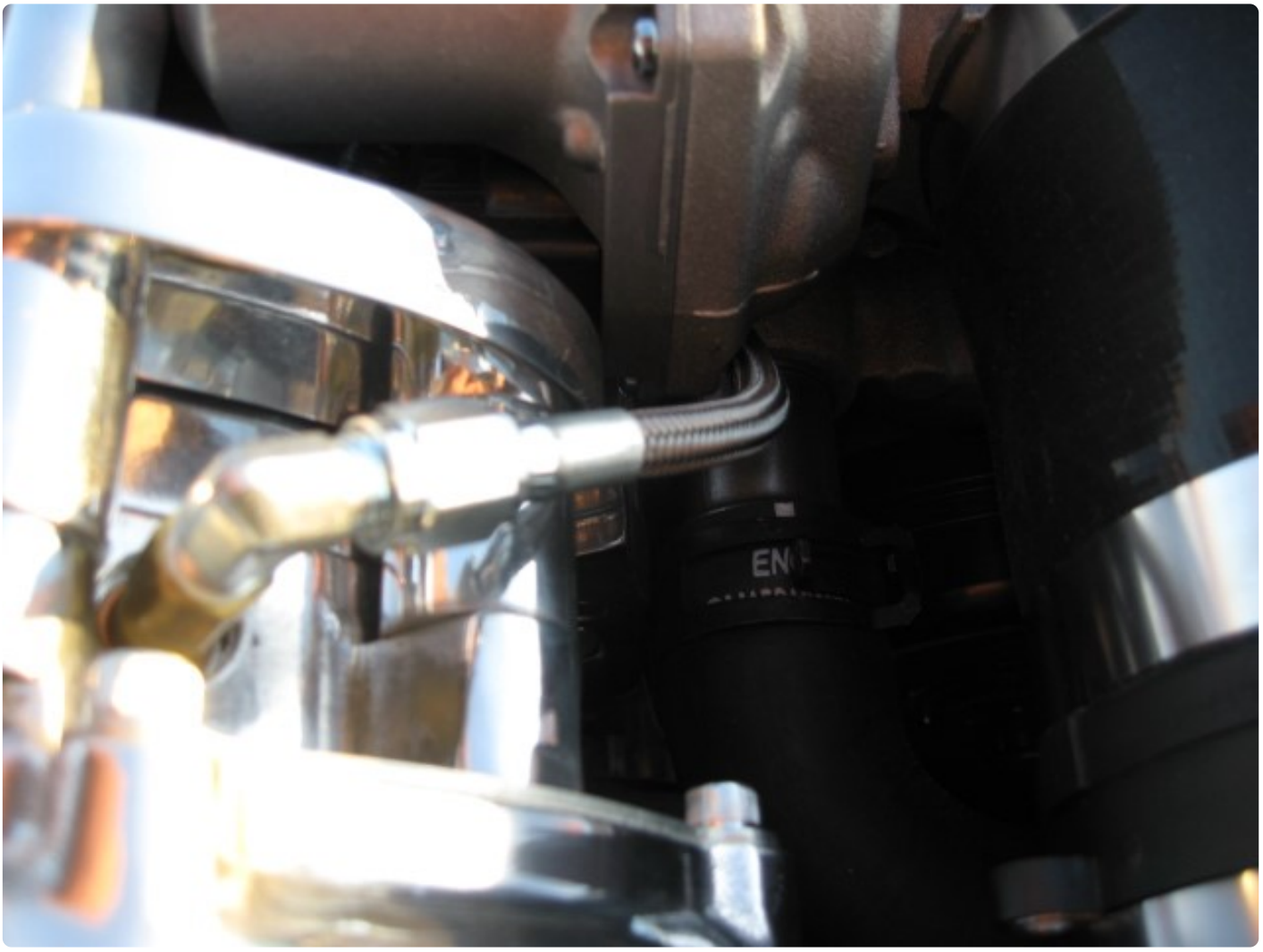
and through the hole in the reservoir bracket. This will assure the line won't interfere with the belt. Run the line under the throttle body to the passenger side of the car where it will be later attached to the supercharger unit.





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





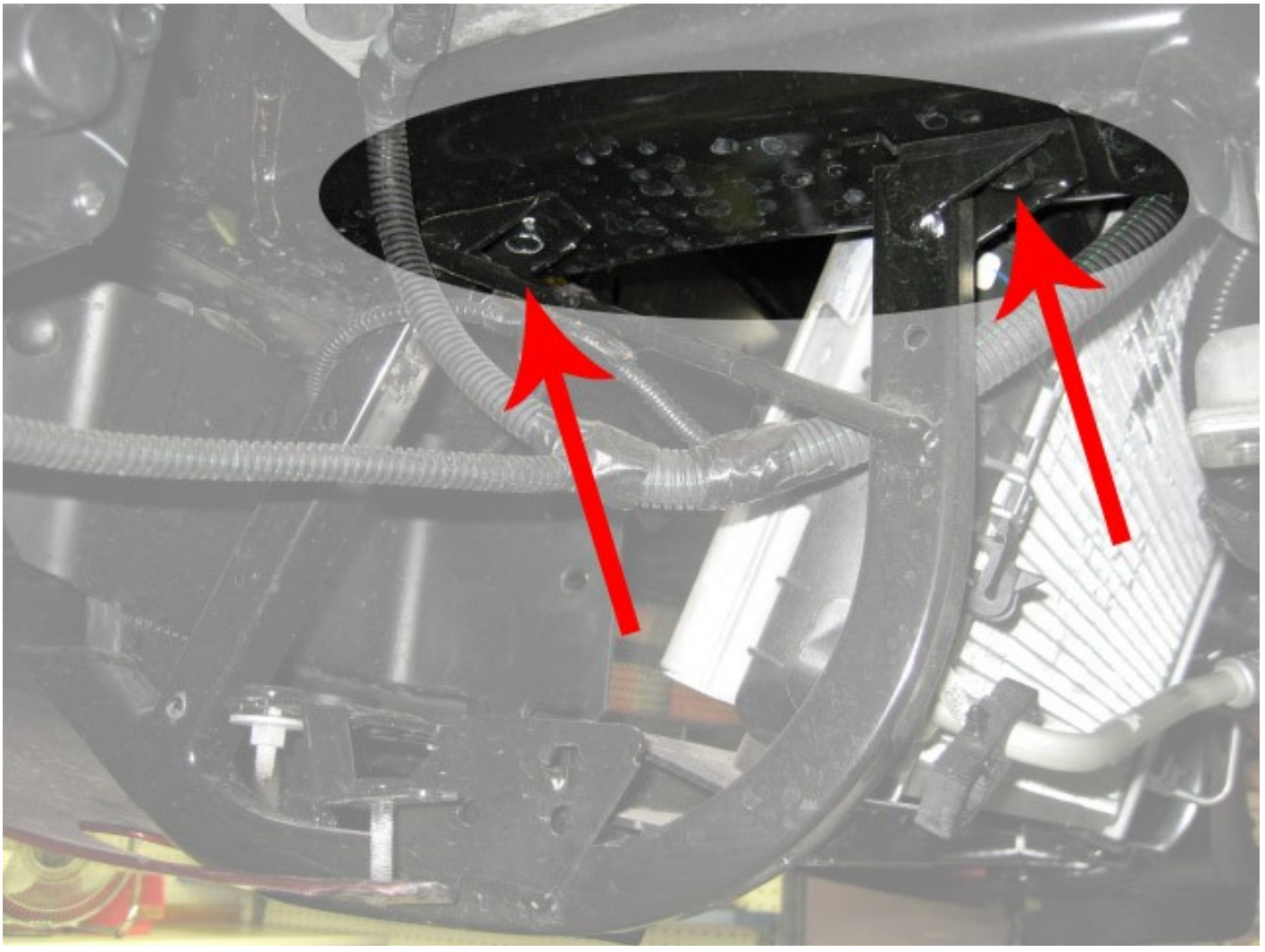
(LINE RUNS THROUGH P/S RESERVOIR BRACKET AND UNDER THROTTLE BODY)

(RADIATOR FAN SHROUD TRIMMED)

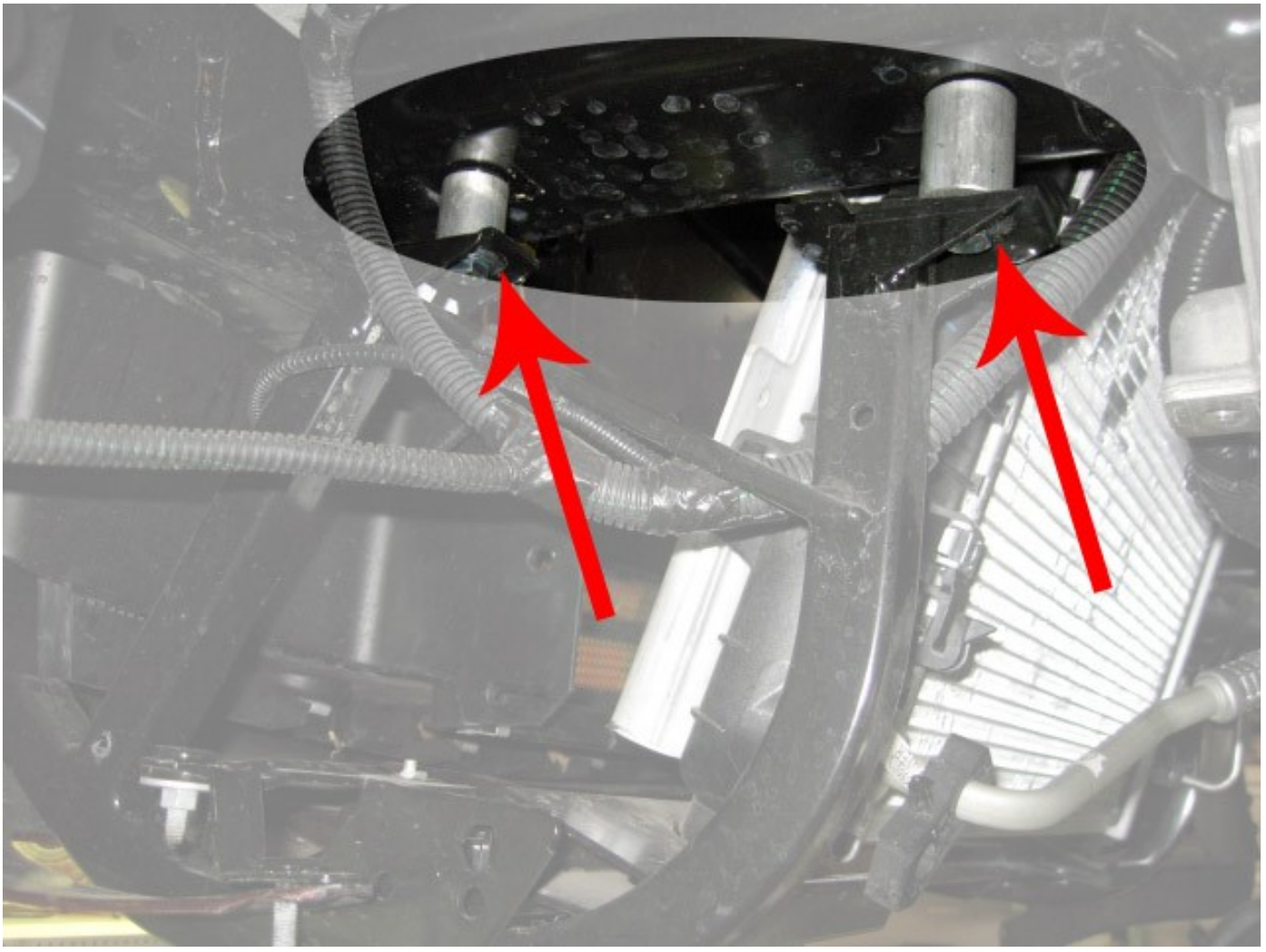
RELOCATING THE LOWER RADIATOR SUPPORT/ SKIDBAR ASSEMBLY AND HORNS

- 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 horn switch mounting holes so the horns will be facing the opposite direction. If there are any 90 degree mounting tabs on

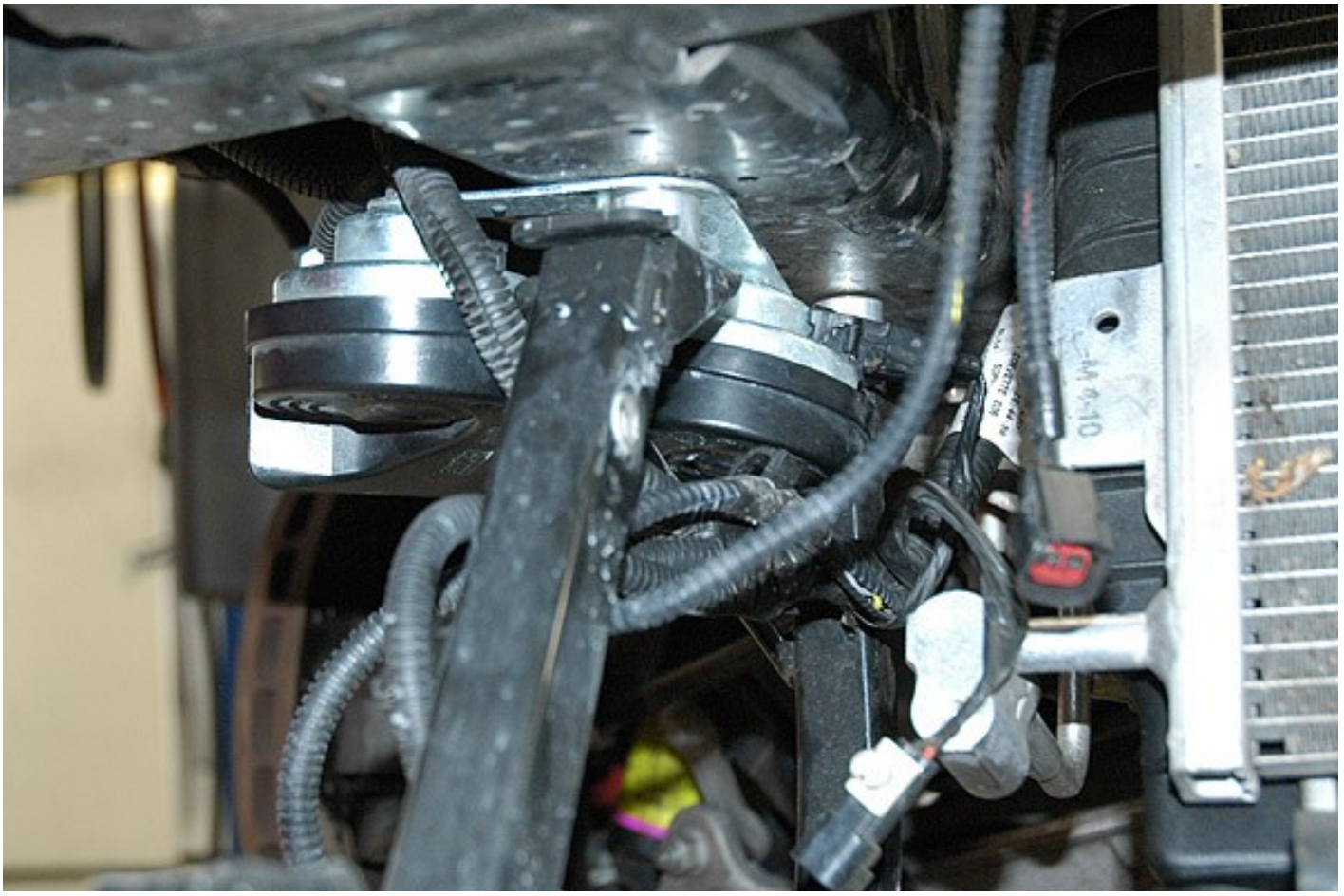
the horn bracket, they will need to be flattened. You will need to open up the mounting hole on the horn bracket to fit the #8 bolt. Then put the horn bracket on the front bolt of the radiator support between the supplied spacer and the frame of the car. Tighten all 4 radiator support bolts.



(RADIATOR SUPPORT MOUNTING POINTS)



(RADIATOR SUPPORT WITH SPACERS INSTALLED)



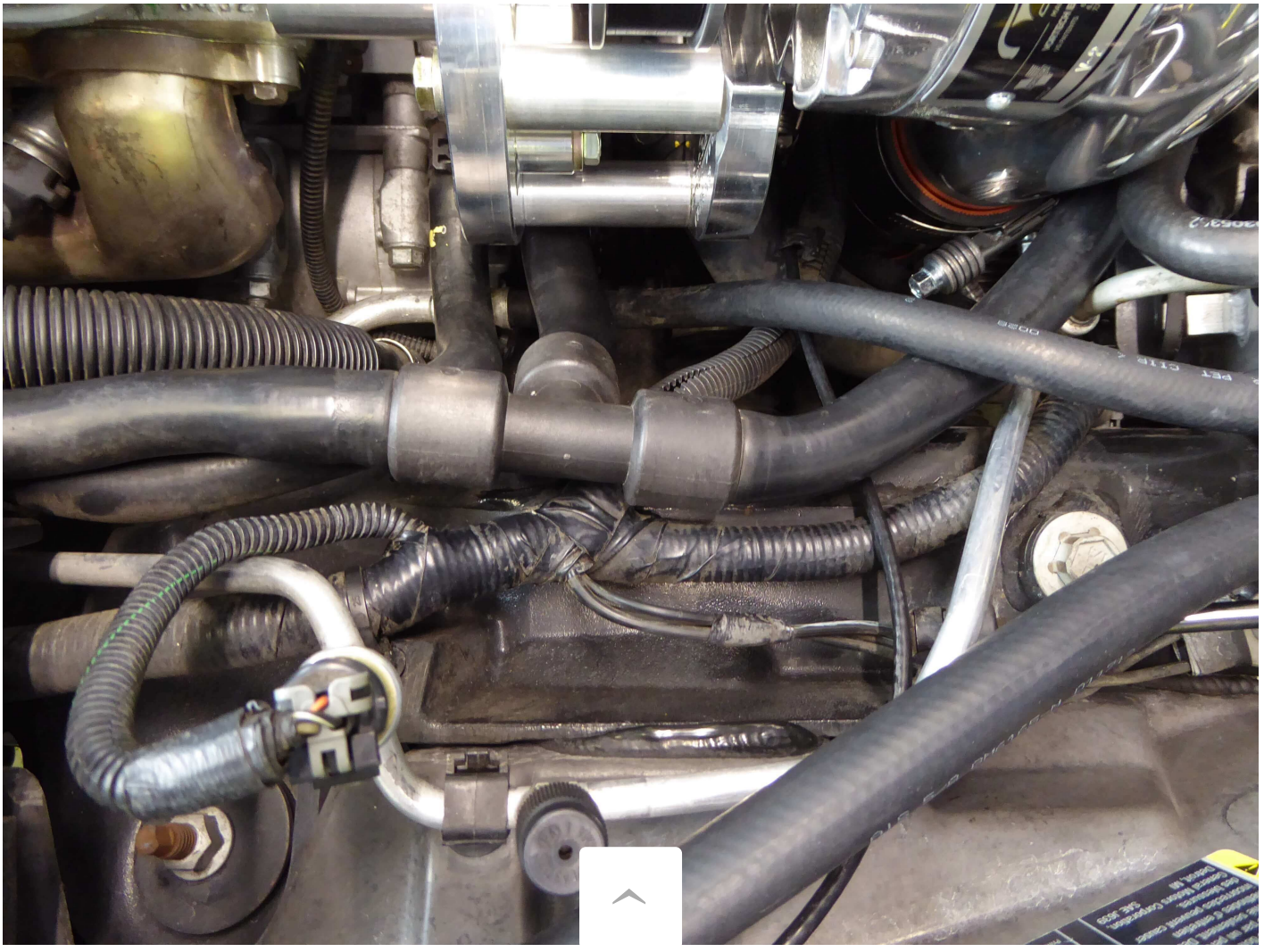
(HORN ASSEMBLY INSTALLED ON PASSENGER SIDE)

MODIFY COOLANT HOSE

- 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 install and removal. This heater hose has 3 connections. One near the firewall, one at the water pump and one at the reservoir. You will need to trim some hose at each one of these locations. We will also be adding some hose at the reservoir end
- Remove clamps and remove hose.

- Mark hose 12" from the firewall end of hose. Mark hose 6.75" from the water pump end of hose. Mark hose 11" from reservoir end of hose. Lay it out for a visual reference and cut in those locations.

- Once the hose is cut it can be connected at both firewall and water pump locations. We can now add the 21" extension at the reservoir end. Use the provided hose coupler and heat-shrink clamps where the 21" hose will be connected to the trimmed factory hose. The clamps will shrink and seal by using a heat gun or mini torch. Use the provided SAE#16 hose clamps at the reservoir and firewall locations. Reuse factory spring clamp at water pump location.



(HEATER HOSE “T” MOVED TO THE SIDE OF THE SUPERCHARGER)

MOUNT THE REAR SUPPORT BRACKET

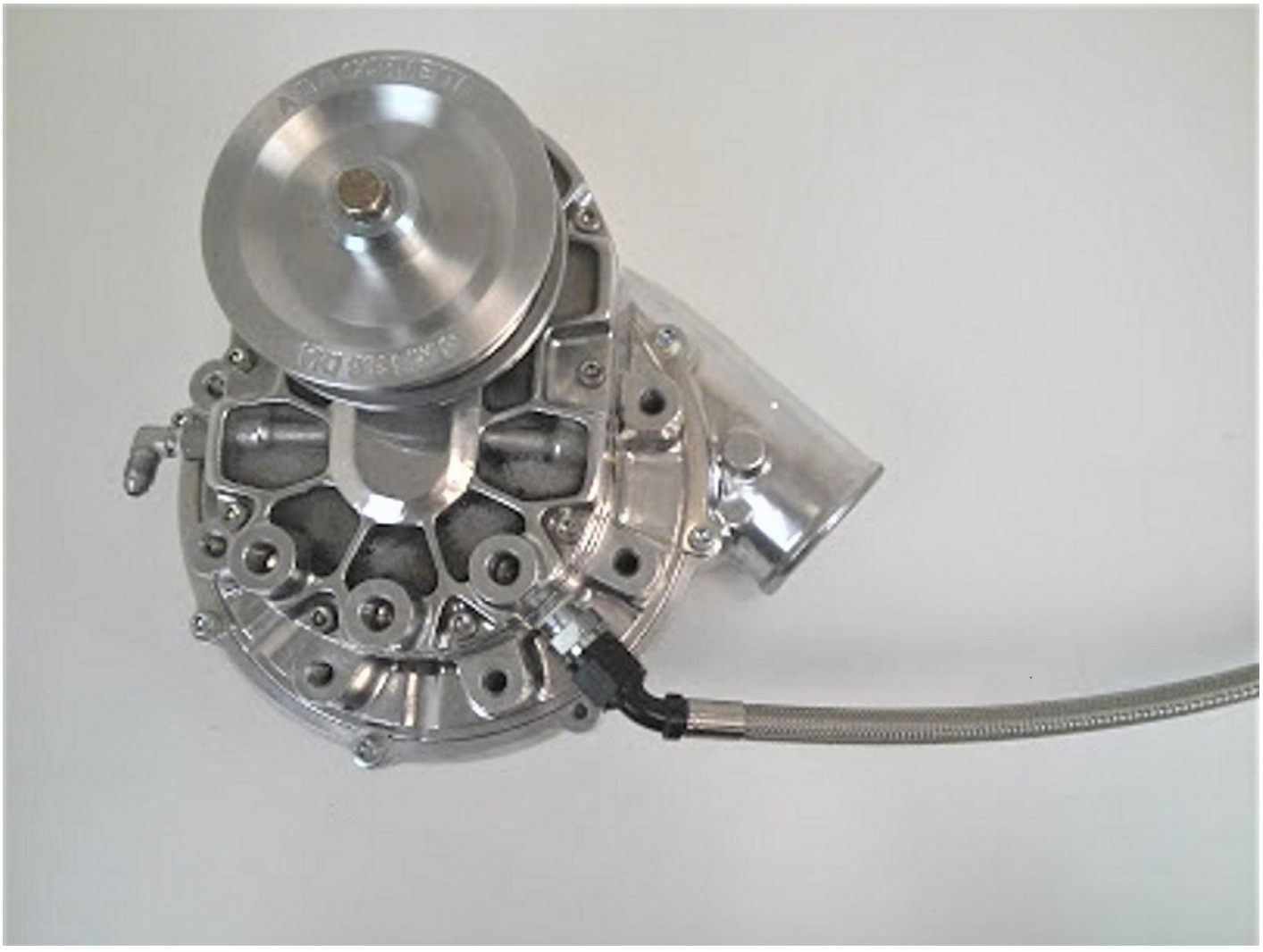
- The rear bracket comes with the adjustable idler attached. This makes it much easier for the installer to understand how the bracket assembly works. However, the idler must be removed for now. You will reinstall the idler after the main supercharger bracket is installed.

- 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.

(REAR BRACKET WITH SPACERS - ATTACHED TO ENGINE)

ASSEMBLE AND INSTALL THE SUPERCHARGER AND MAIN BRACKET

- When using an engine oiled unit (V1, V2 or V7) the oil drain line must be installed before the bracket is bolted to the head unit. We use a stainless AN line and it is very tight in this area. The line must be oriented as shown in the picture to clear the billet tensioner. Double check that the line has adequate clearance after the blower in installed.



STAINLESS A-N OIL DRAIN LINE INST (NOT USED ON SELF-CONTAINED V3)

- The bracket assembly comes partially assembled. The main bracket comes with the tensioner and idler attached. This makes it much easier for the installer to understand how the bracket assembly works.

- Locate the 1.160" aluminum spacers with the flat sides. These will space the supercharger from the main bracket. Place the spacers on the supercharger with the flat sides facing the supercharger body and bolt the bracket to the supercharger with the 2 ½" bolts and spacers in the recessed holes. Install a long bolt through the last hole just to keep the spacer in place. (Marked in the photo below) The spacer should stay there once the other bolts are tightened. Remove the long bolt. The threaded hole does not get a spacer.

(MAIN BRACKET)

(MAIN BRACKET BOLTED TO SUPERCHARGER)

LOCK THE TENSIONER IN THE OPEN (SLACK) POSITION)

- The billet tensioner has an open 5/16” hole on the front. While having someone hold the bracket assembly, rotate the tensioner clockwise, using a ¾” socket, until you can push the lock pin (5/16” bolt) all the way in the hole. This locks the tensioner open and ready for belt installation. (NEVER take out the black socket head bolt).

- Install the drive belt in the vehicle. Wrap the belt around the crank pulley, up and over the idler, down to the power steering pump and up towards the

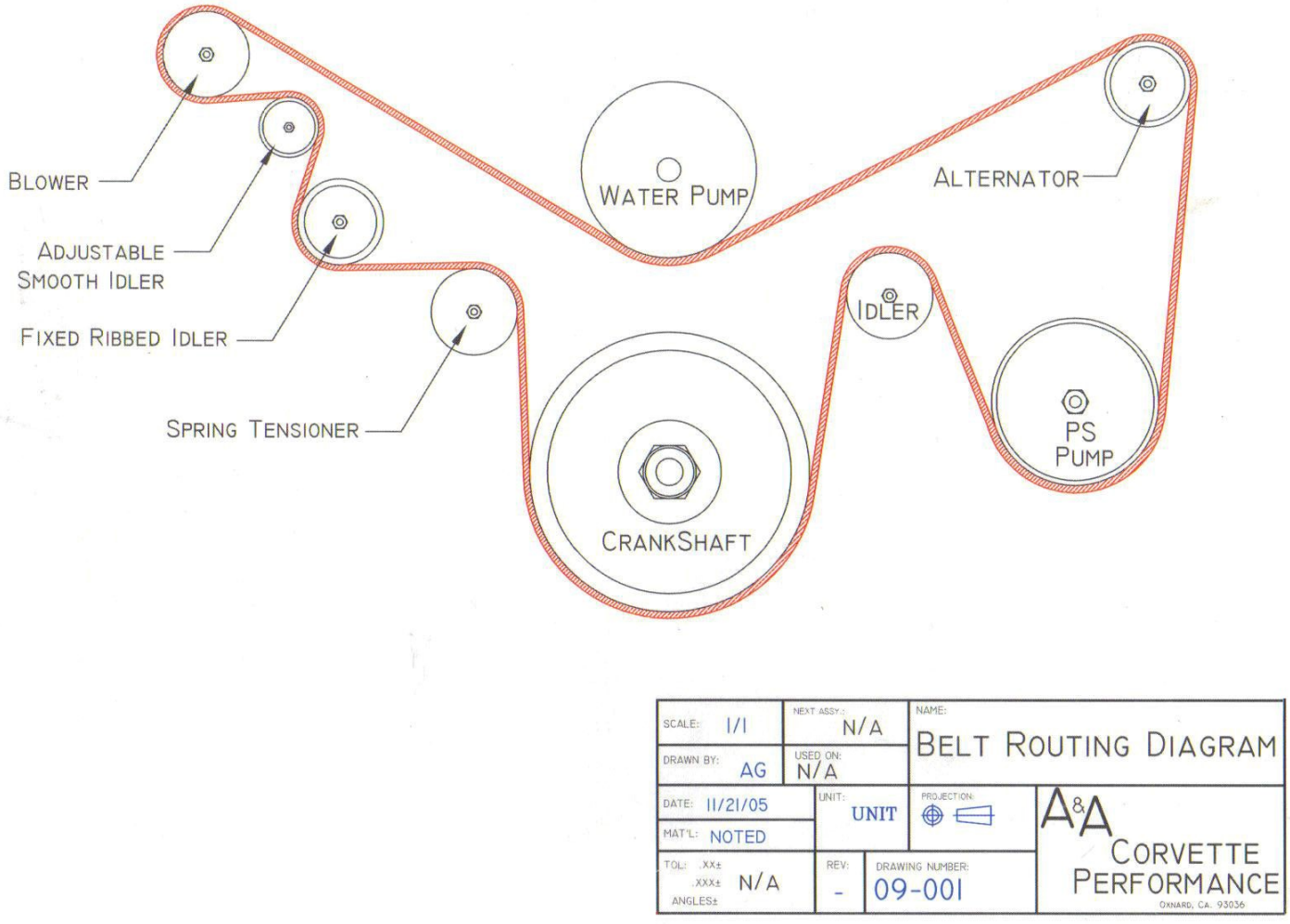
alternator, but do not wrap around the alternator pulley yet. This will leave you with a large loop on the passenger side. Loop the belt between the spring tensioner and the ribbed idler pulley and then around the supercharger pulley as in the previous picture. Lower the bracket into place. The long bolt coming through the rear bracket and spacer is probably the easiest to start. Thread this bolt into the supercharger a few turns to take the weight.

(BELT SHOULD BE ROUTED LIKE THIS AS YOU LOWER THE BRACKET INTO THE VEHICLE)

- Double check the belt as it comes off the spring tensioner. It should go down and under the balancer. If the be ^ ıted correctly, try to align the front

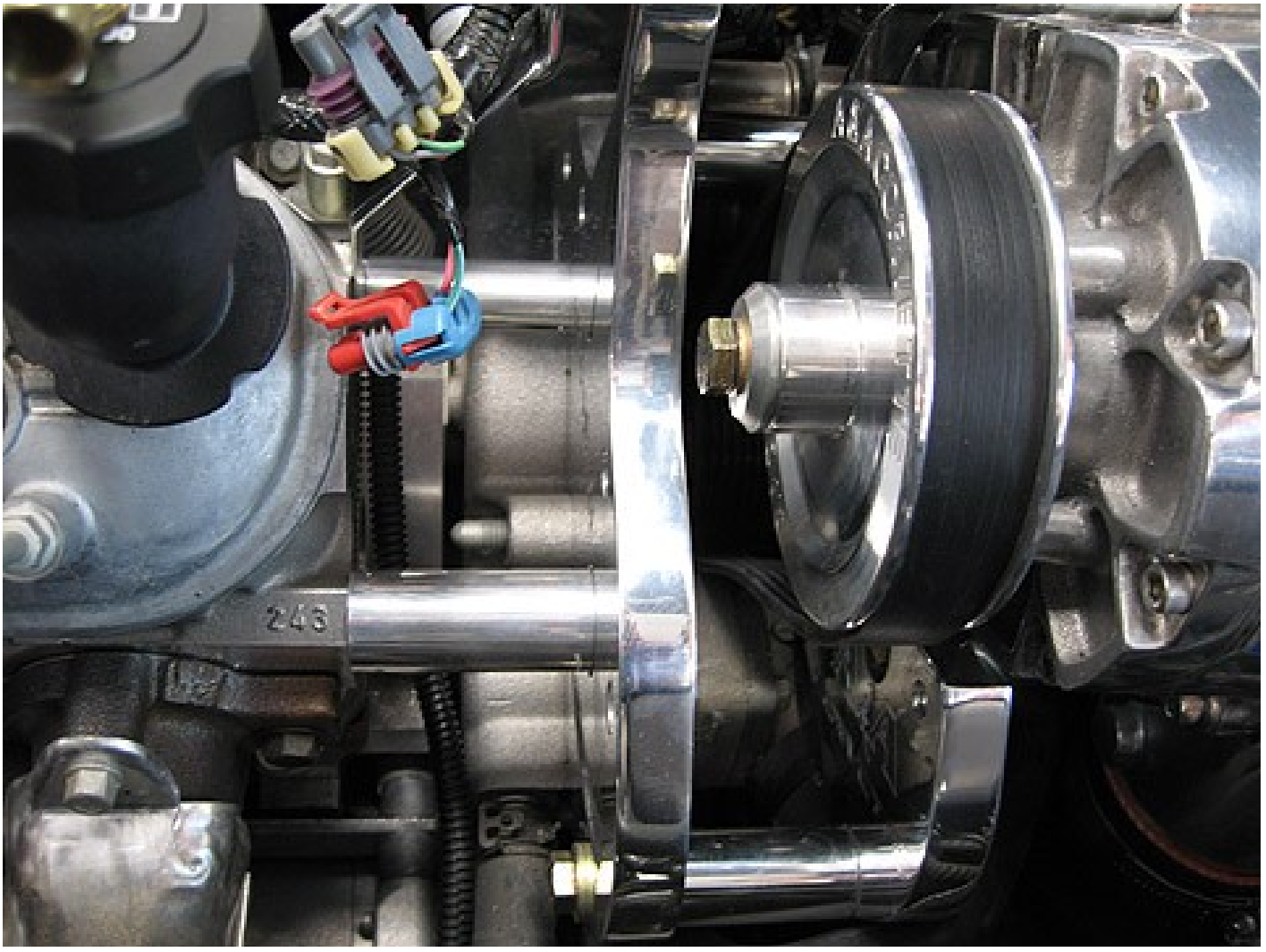
and rear brackets and get the remainder of the 3/8” bolts started. Once all 4 bolts are in, tighten them up just snug them up to make sure the blower is in its final position. You can now pop the belt over the alternator pulley.

- You’re actually going remove the outside spacer and bolt temporarily for this next step. Install he sliding idler on the “J” shaped bracket as it was when the unit was shipped. Push the idler bracket over to the inboard side with a 9/16 wrench on the exposed bolt. This is a left- handed thread so you will not loosen the bolt while pulling down. The belt does not need to be extremely tight. Remember that the spring tensioner is still in the open position. Pull down on the wrench and then tighten the two bolts on the idler bracket. Reinstall the outboard spacer and bolt that you just removed. Tighten all 4 bolts going to the supercharger bracket. Now you can go to the spring tensioner and remove the lock pin to properly tension the belt. You’ll need to rotate the tensioner slightly to take the load off the pin. The belt is now properly tensioned.



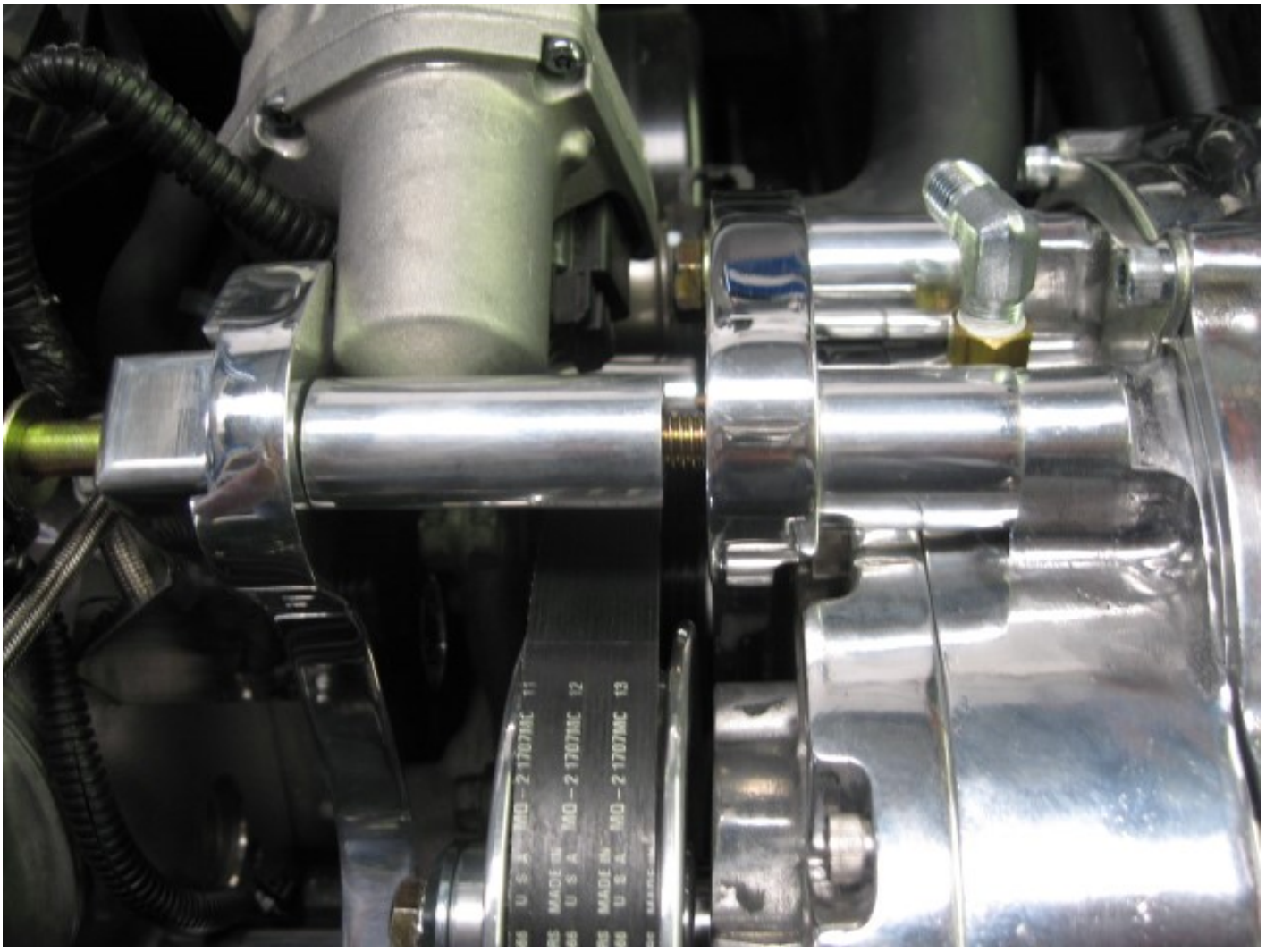
(BELT ROUTING DIAGRAM)

- As the supercharger/ bracket assembly is lowered into place, make sure the adjustable idler pulley and arm are not mounted to the rear bracket as shown in the photo.



(ADJUSTABLE IDLER REMOVED DURING SUPERCHARGER INSTALL)

- The long bolt coming through the rear bracket and spacer is probably the easiest to start. Thread this bolt through the front bracket and into the blower a few turns to take the weight.

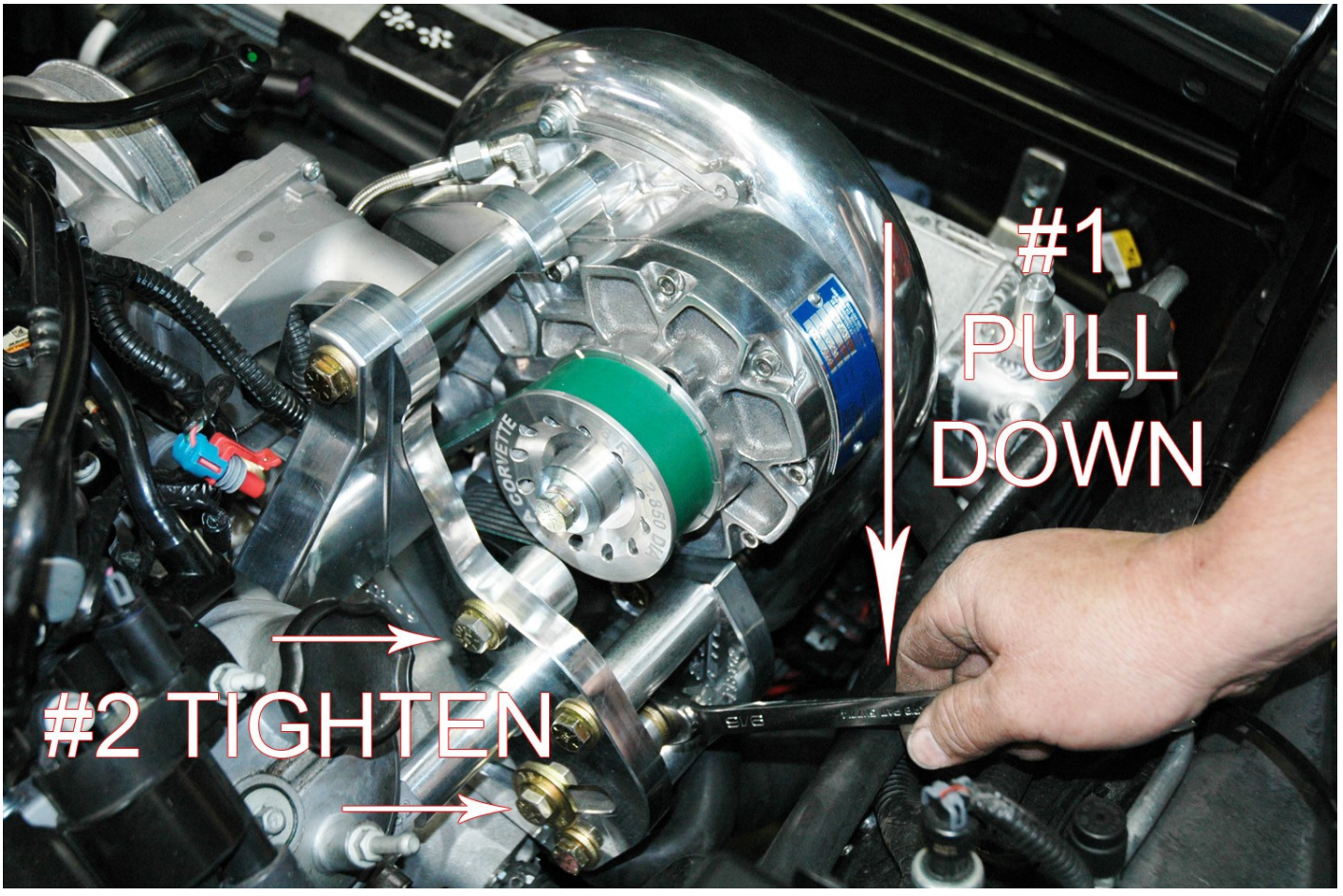


(START TOP BOLT FIRST TO SUPPORT THE WEIGHT)

- Double check the belt as it comes off the spring tensioner. It should go down and under the balancer. 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 all 4 bolts are in, snug them up.

PROPERLY TENSION THE BELT

- Reinstall the sliding idler on the “J” shaped bracket as it was when the kit was shipped to you. Push it over to the inboard side with a 9/16 wrench on the exposed bolt/nut. This is left handed thread so you will not loosen the bolt while pulling down. The belt does not need to be extremely tight. Pull down on the wrench and then tighten the two bolts on the bracket. Release the spring tensioner by rotating it slightly and pulling out the lock pin. The spring tensioner will add the necessary tension to the belt once it is released.



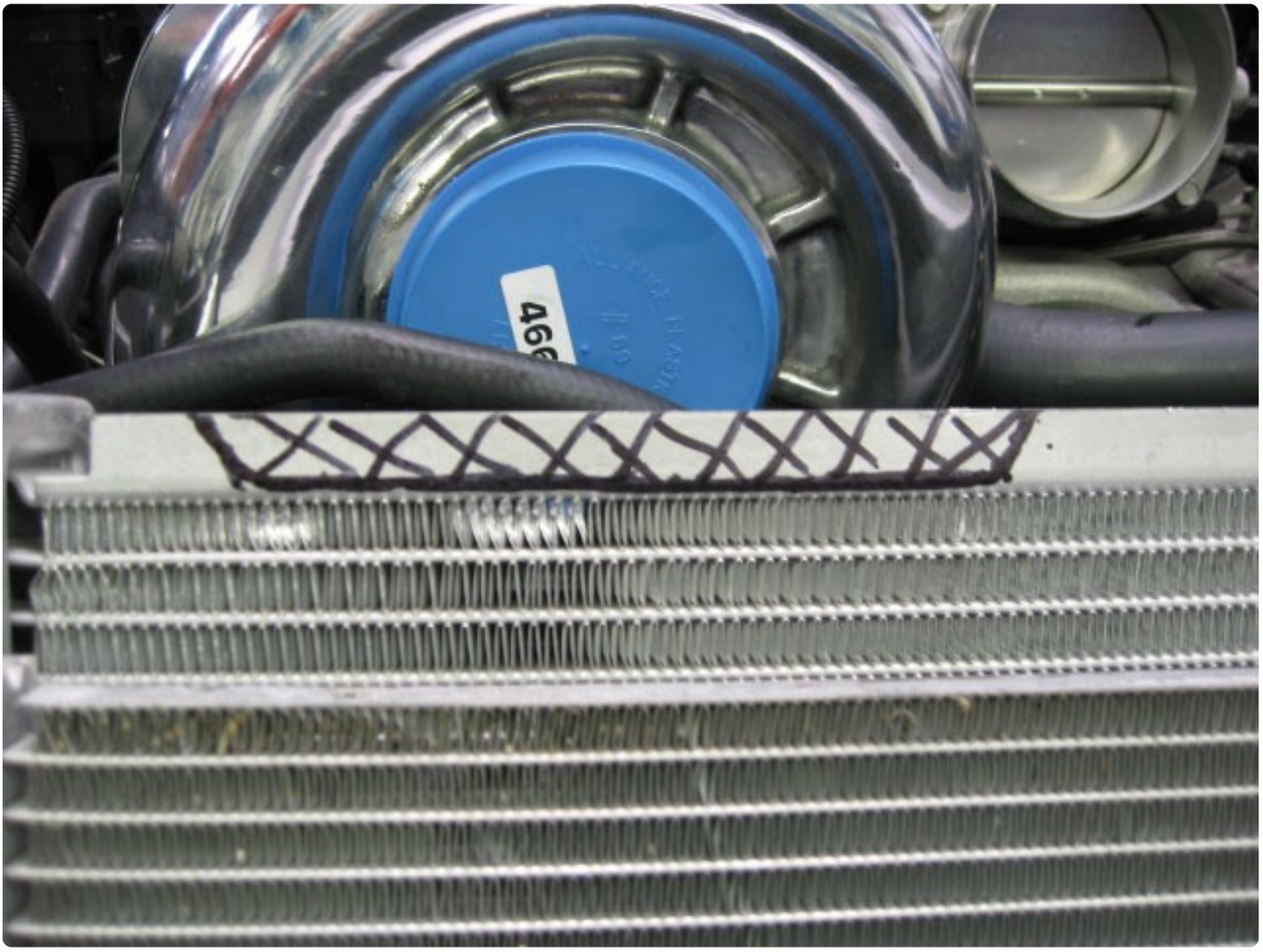
(ADJUSTING THE SLIDING IDLER)

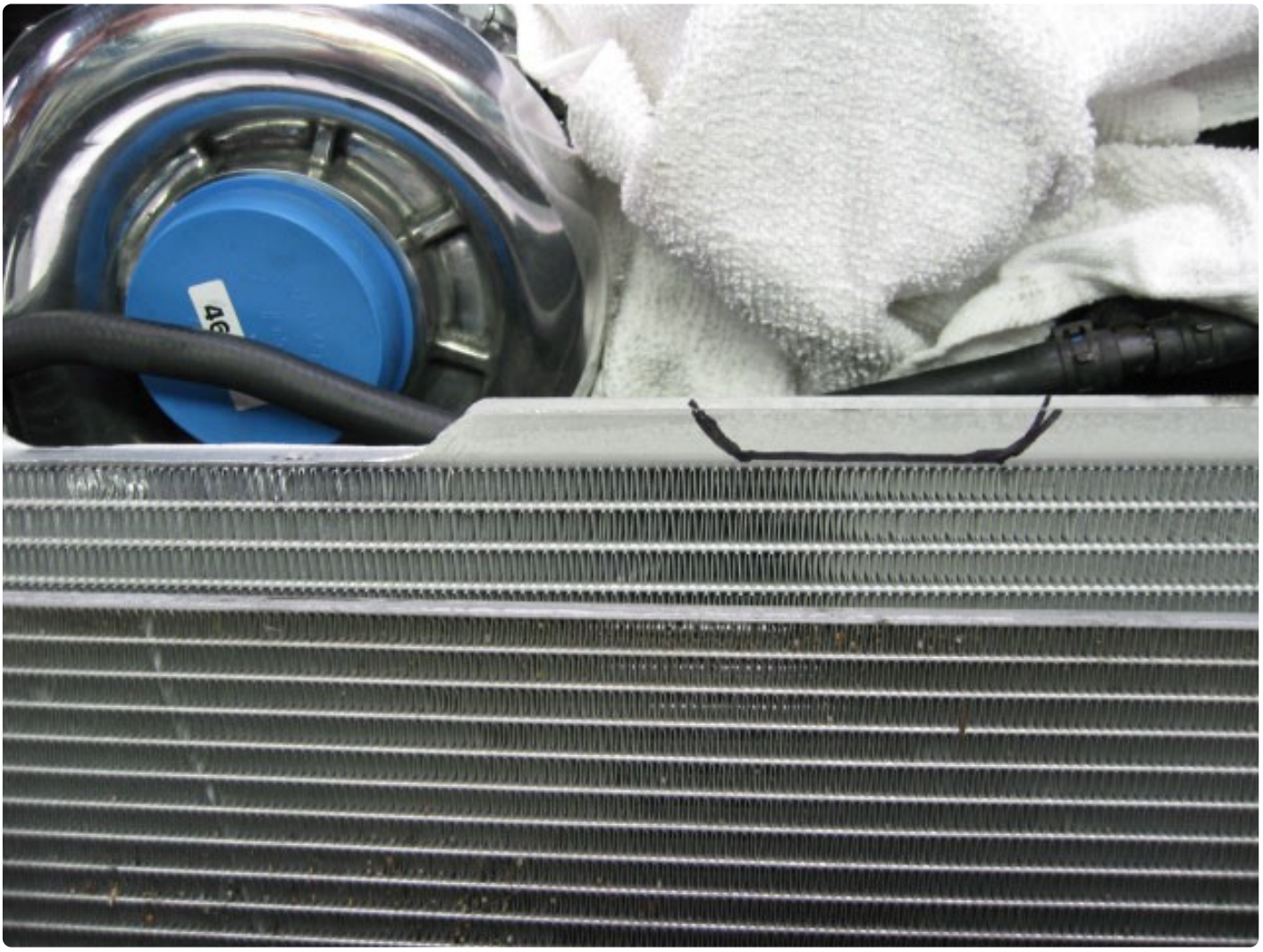
- Attach the oil feed line to the fitting on the top of the supercharger and tighten. The drain line should be [illegible]g straight down. Route it over to the oil pan drain fitting and clamp in [illegible]. Make sure the line is on a downhill

slant from the supercharger to the oil pan. Trim if necessary. (This is applicable only to the engine oiled systems).

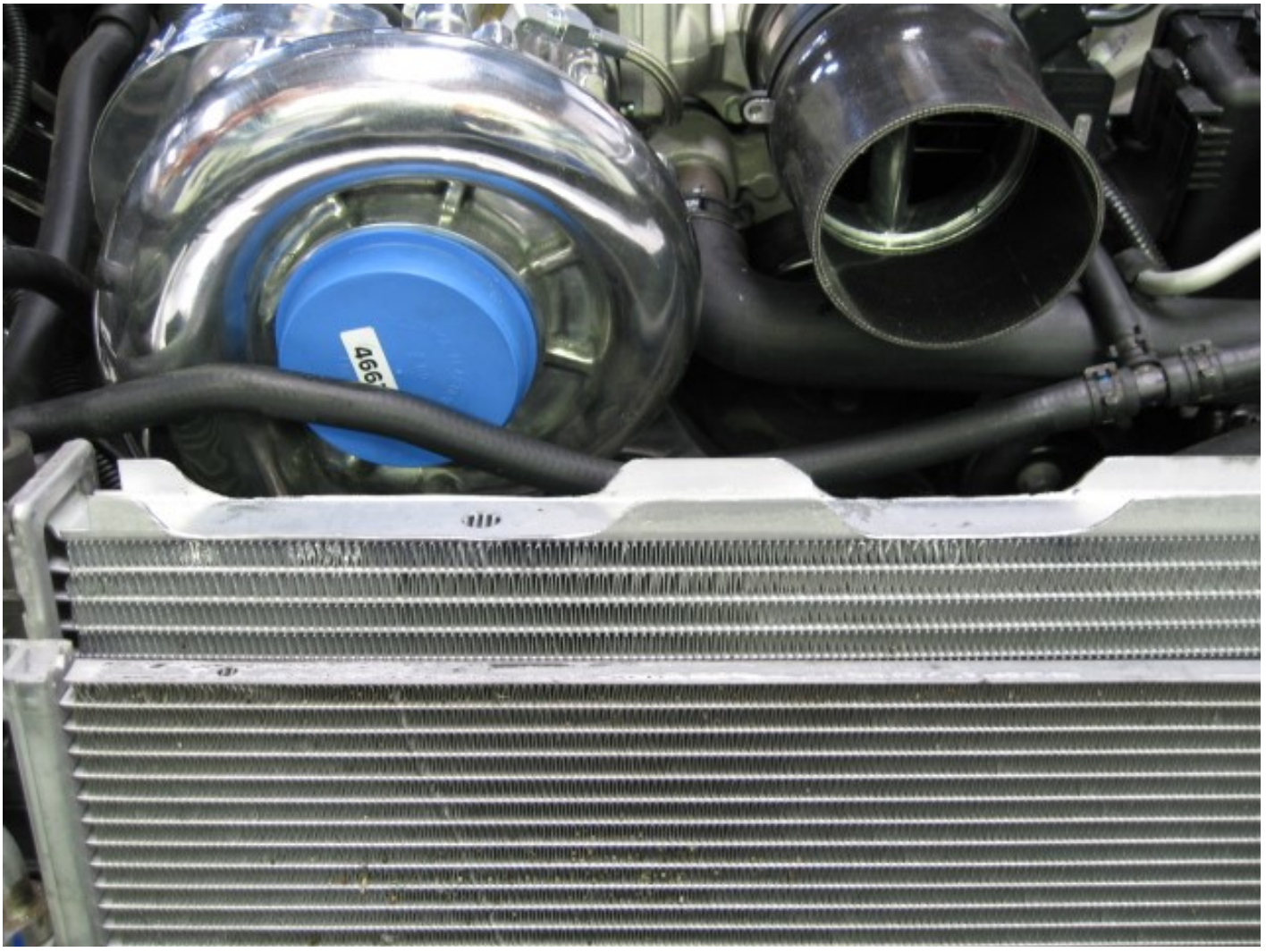
TRIMMING THE RADIATOR AND FAN SHROUD

- The upper “fins” on the radiator will need to be trimmed for clearance. This can be done in the vehicle. A jigsaw, die grinder or even a hacksaw can be used. The fan housing must also be trimmed in the upper corner just under the supercharger inlet to allow the inlet duct to attach to the supercharger. (If not already done.) Put the duct in place without the silicone coupler to determine how much trimming will be needed.





(RADIATOR MARKED FOR TRIMMING)



(RADIATOR TRIMMED FOR INLET DUCT CLEARANCE)

INTERCOOLER INSTALLATION

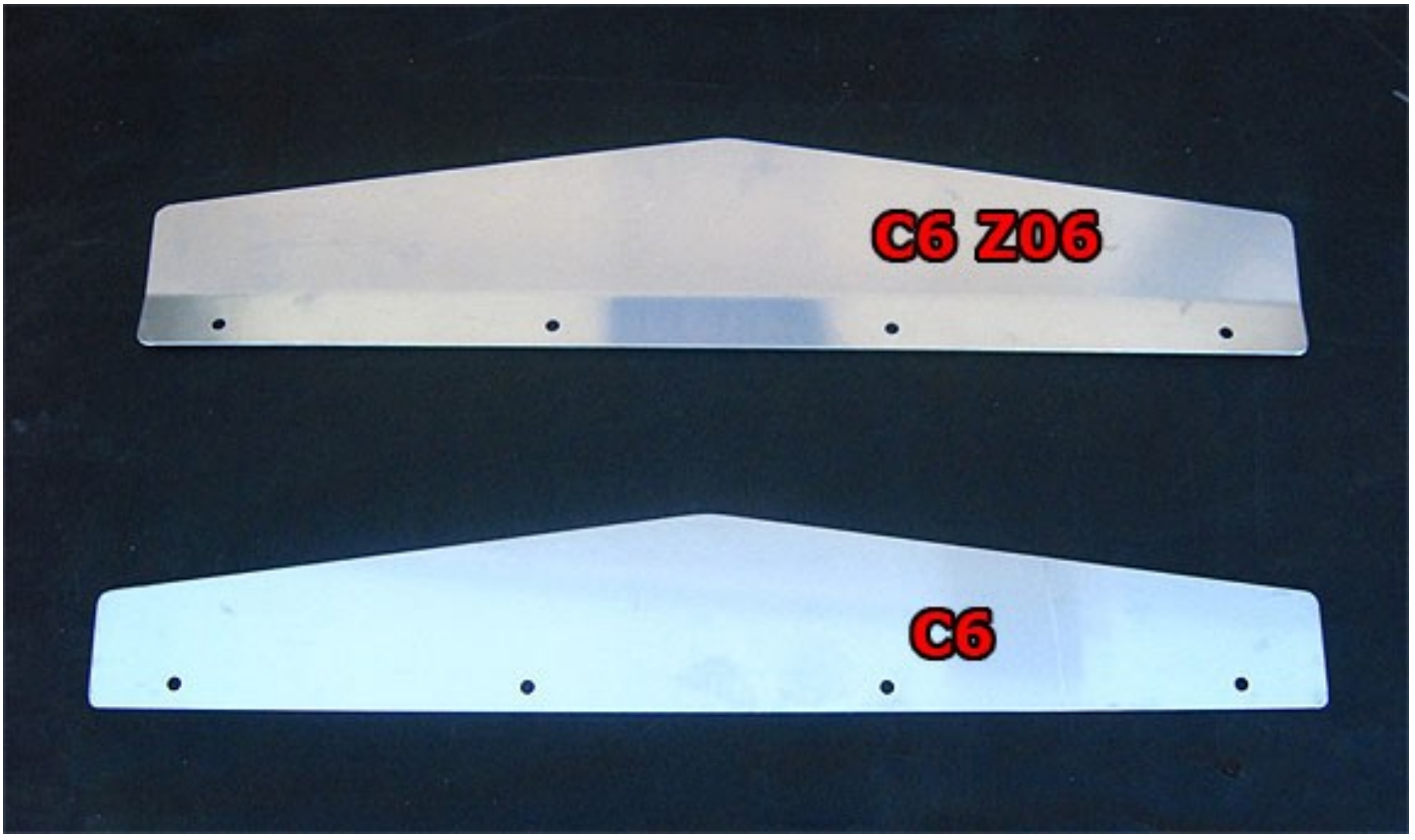
- The intercooler will go in next. Make sure the intercooler is horizontal and centered with the exit tube lined up with the throttle body. The weld between the top tank and the core is to be oriented so that it is even with the bottom of the frame. The inlet will go IN FRONT of the upright skid bar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

(INTERCOOLER ATTACHED)

- 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 ¼" drill bit. Bolt the panel in place using the two aluminum washers between the panel and the frame and the ¼" hardware as shown. Repeat for the opposite side.

(PASSENGER SIDE PANEL INSTALLED)

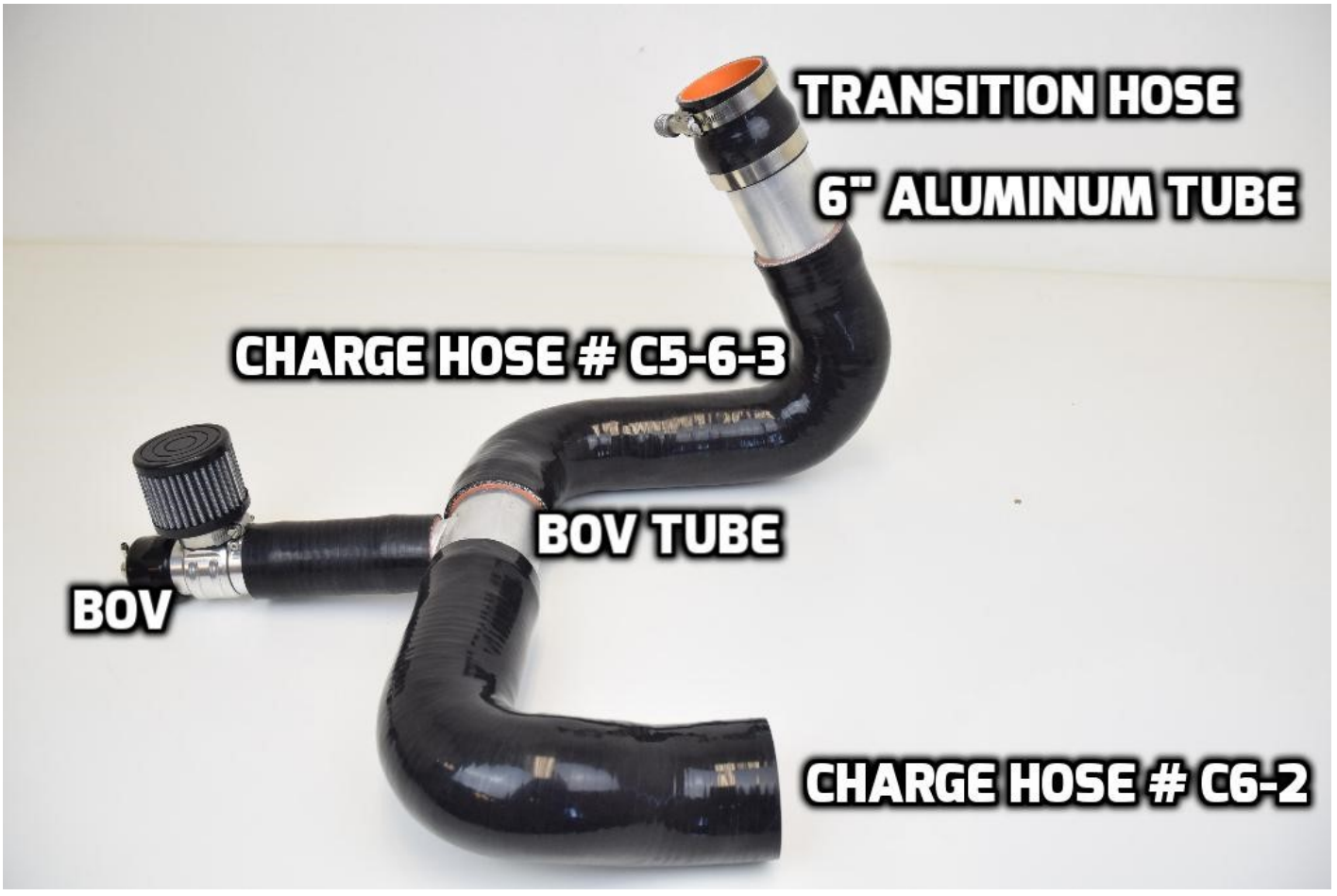
- Depending on the model of your C6, the kit will come with 1 of 2 duckbills for the Ram Air Intercooler. The standard C6 is flat and the Z06 and Grand Sport has a bend in it. Attach the duck bill to the front of the intercooler with the 4 stainless button head bolts, nuts and washers provided. Be sure to use anti-seize on these so they do not lock up.


C6 Z06
C6

(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 horizc ^ id 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.

- Clamp the transition hose (straight 3" coupler on YSi head unit) to the 3" X 6" aluminum tube. Slip a clamp loosely over the small end. Orient the clamp so it is facing towards the frame and slightly back so you can get a socket on it from above when standing next to the car. Slip the coupler over the supercharger outlet and clamp in place.

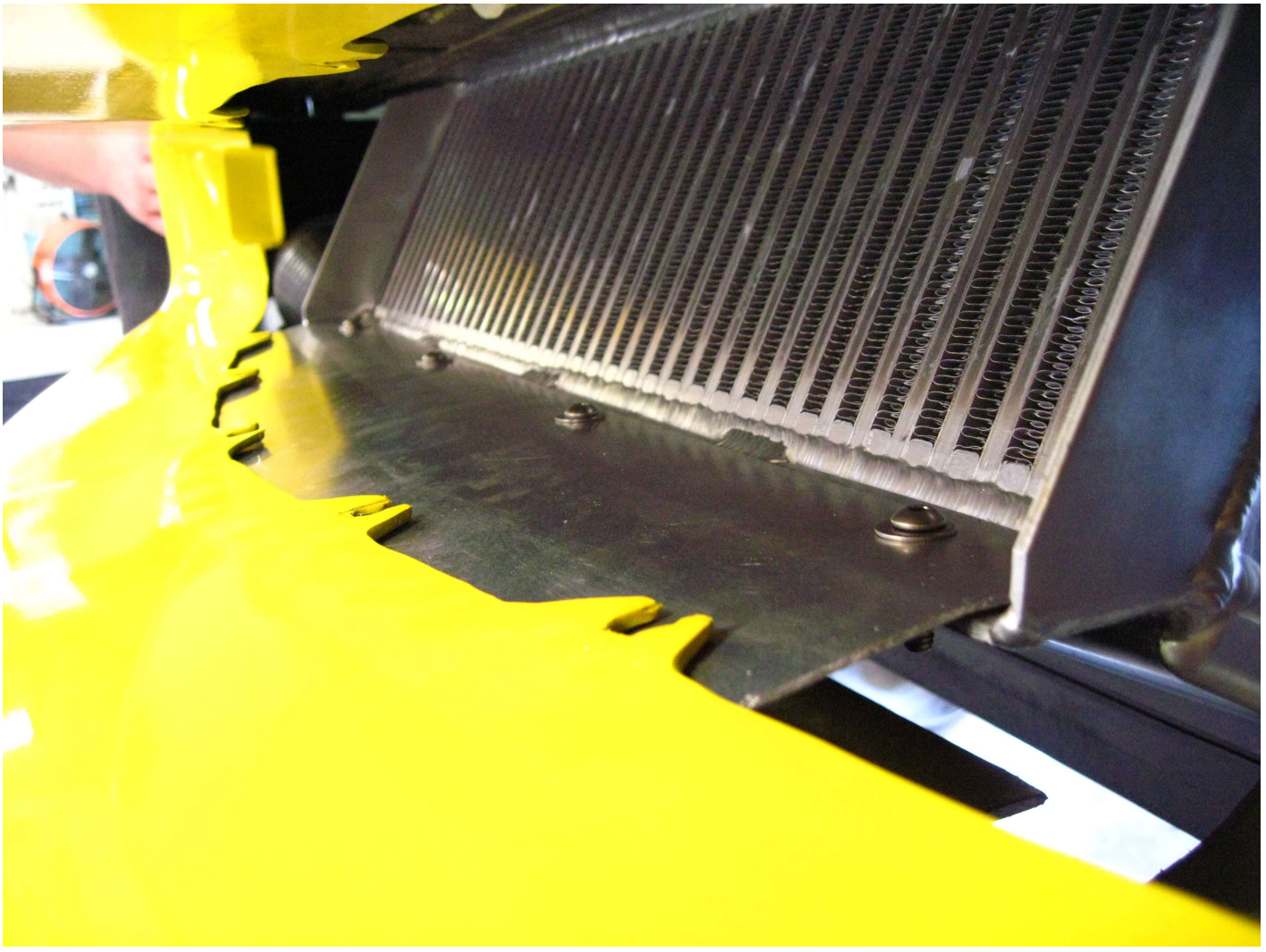
- Silicone hose # C5-6-3 will clamp to the tube you just installed and the BOV tube located in the right front fender. The hose goes behind the sway bar. You may need to tweak the transmission cooler and AC lines for clearance. This completes the connection from supercharger to intercooler.

(INTERCOOLER INLET HOSE AND BOV PLACEMENT)

- Attach the long vacuum hose to the BOV and run it up between the spacers added to the radiator support bracket, up and over the radiator shroud and over to the power brake booster area. It will be “teed” in to the power brake booster hose in a later step. Make sure the hose is tied up and away from any moving parts.

REINSTALL THE FRONT FASCIA

- 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.

- 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 and where it needs to be in order for the plastic air bridge to fit. Refer to the picture below for clarification.

- Clamp the 4 ½" silicone reducer onto the supercharger inlet. Slip the air bridge into the coupler. Install the clamp and tighten. (again, you will really benefit from the use of a hose hook in this extremely tight area) Check the area around the fan shroud where you trimmed earlier to make sure enough material was removed.

(PROPER RADIATOR LOCATION FOR AIR BRIDGE AND TOP SHROUD INSTALLATION)

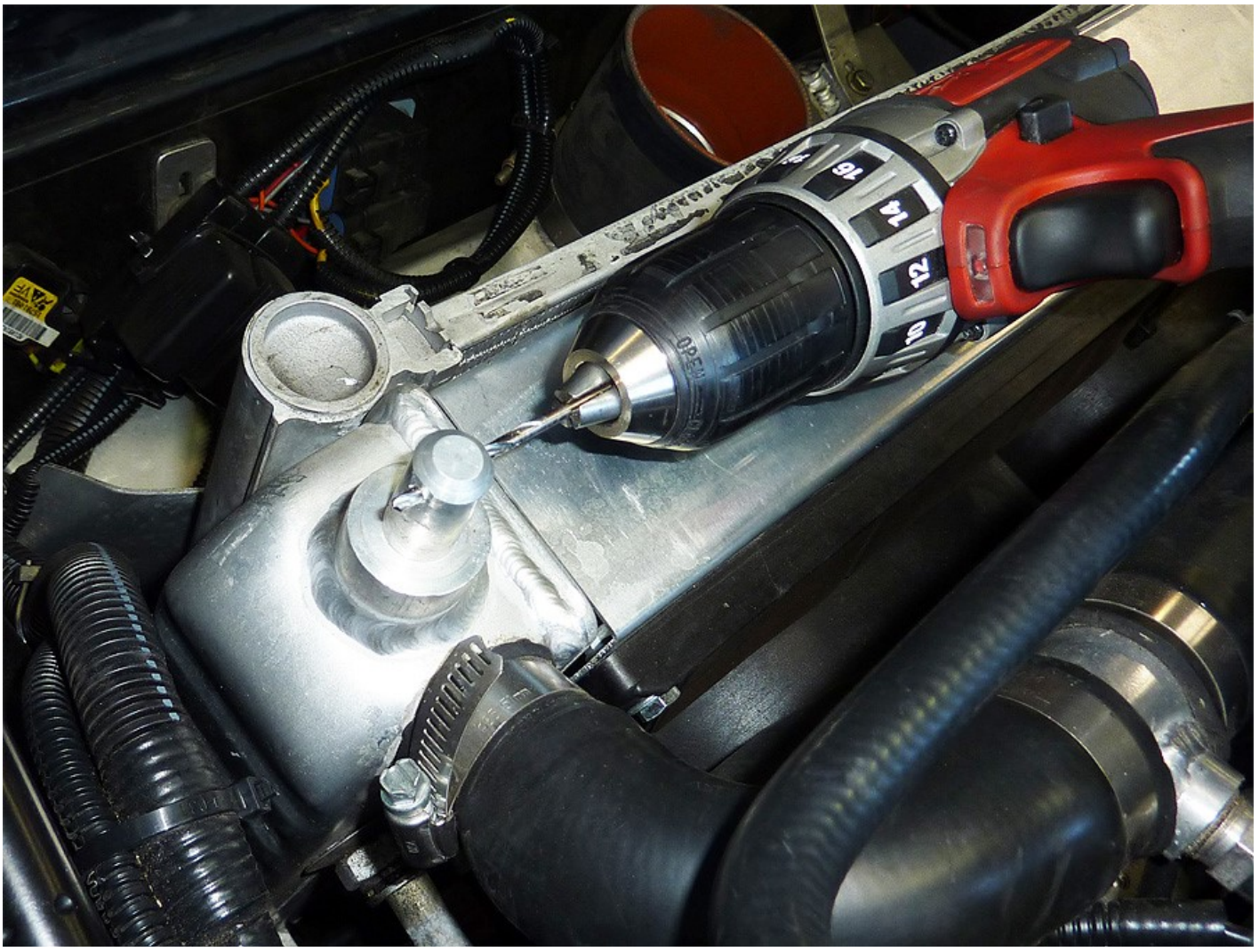
AIR BRIDGE INSTALLED OVER RADIATOR
(aftermarket oversized radiator shown- stock radiator fitment is the same)

- Install the threaded 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 fro op posts on the radiator. If you have the stock radiator, you will need to shave/cut off approximately ¼". If you

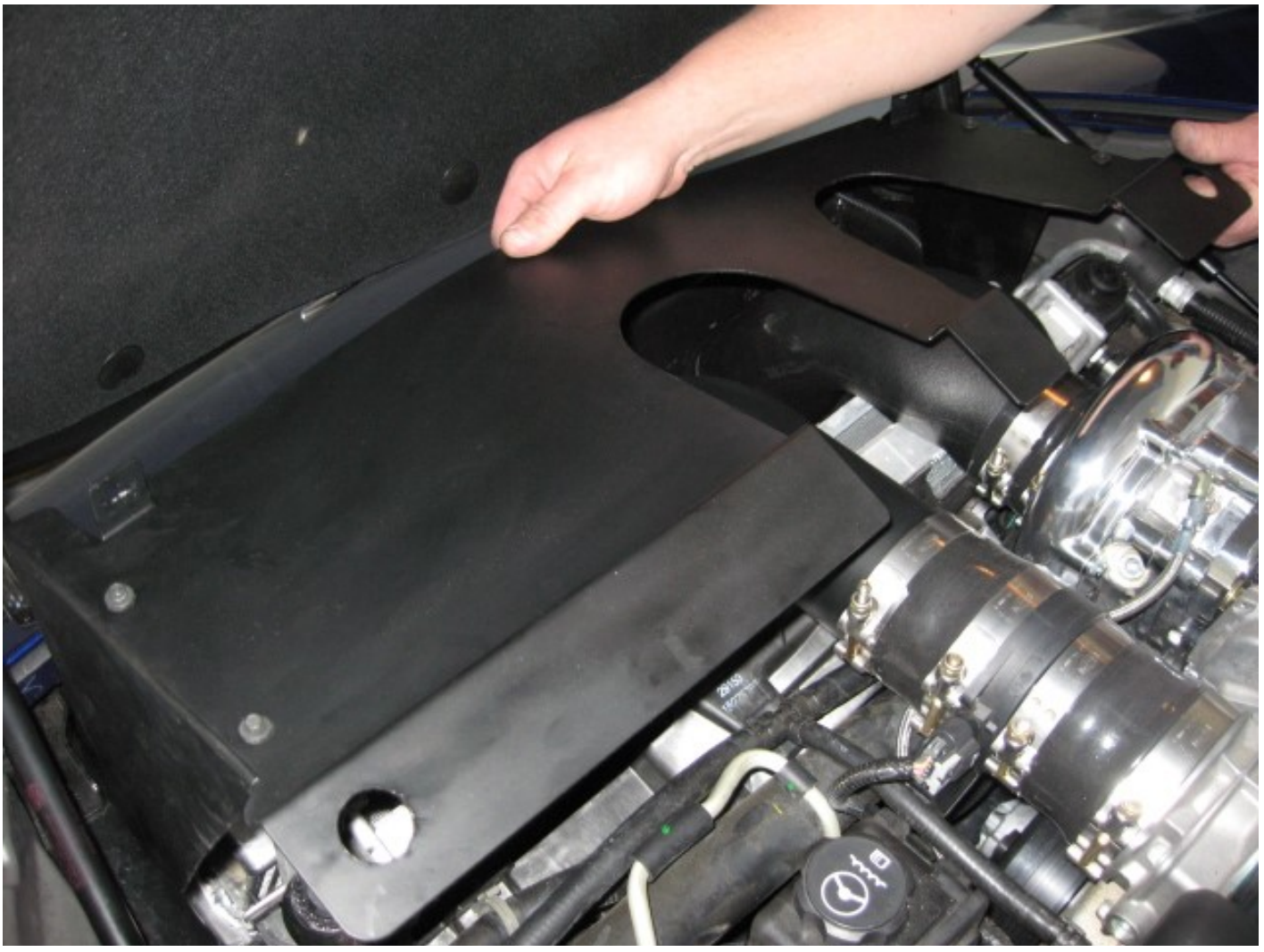
have an aftermarket radiator, it will need to be approximately 1/8". Drill a 1/8" hole through the top of the support as shown in the image below.



(DRILL 1/8" HOLE THROUGH POST)

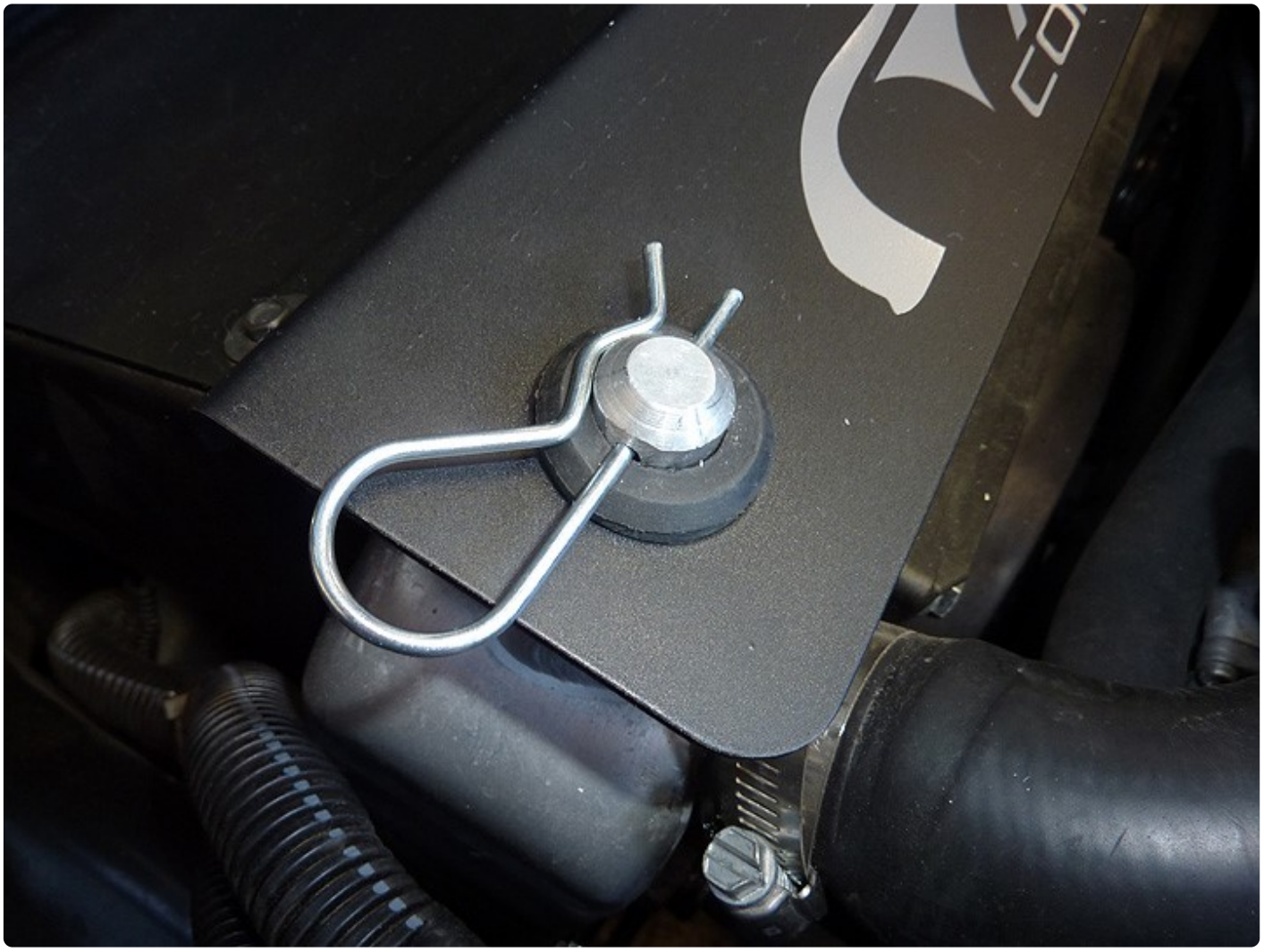
- Assemble the top cover by attaching both side panels with the black 7mm screws. Notice the two tabs in the front of the panel. They will line up with two of the front bumper attachment screws. Remove those screws. Remove the rubber bushings from the radiator and install them into the holes in the new cover. Install the cover assembly over the inlet piping and radiator.

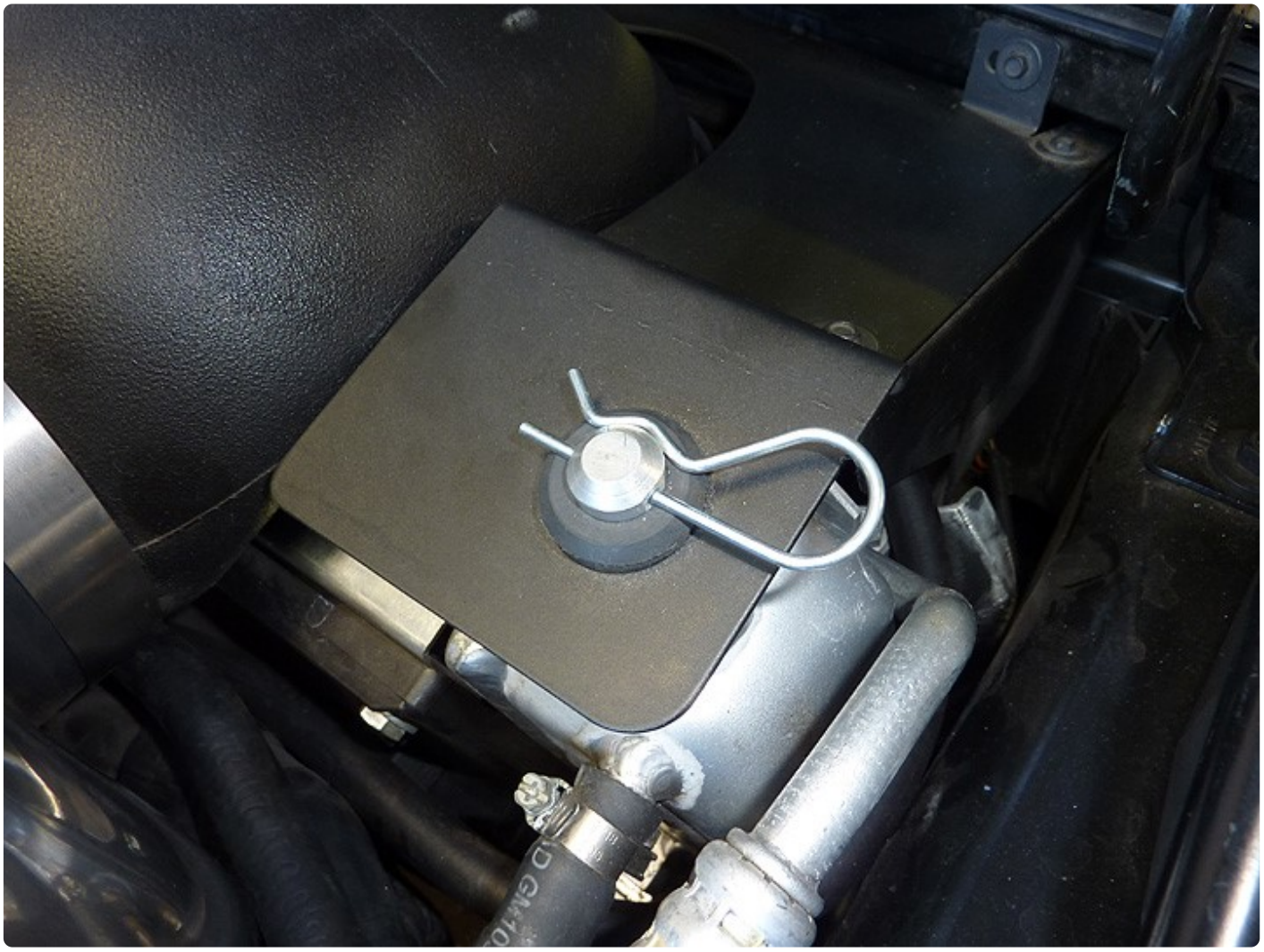
(HINT: You may find it easier to tip the passenger side down first and install it that way.)



(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, Boost a Pump 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)

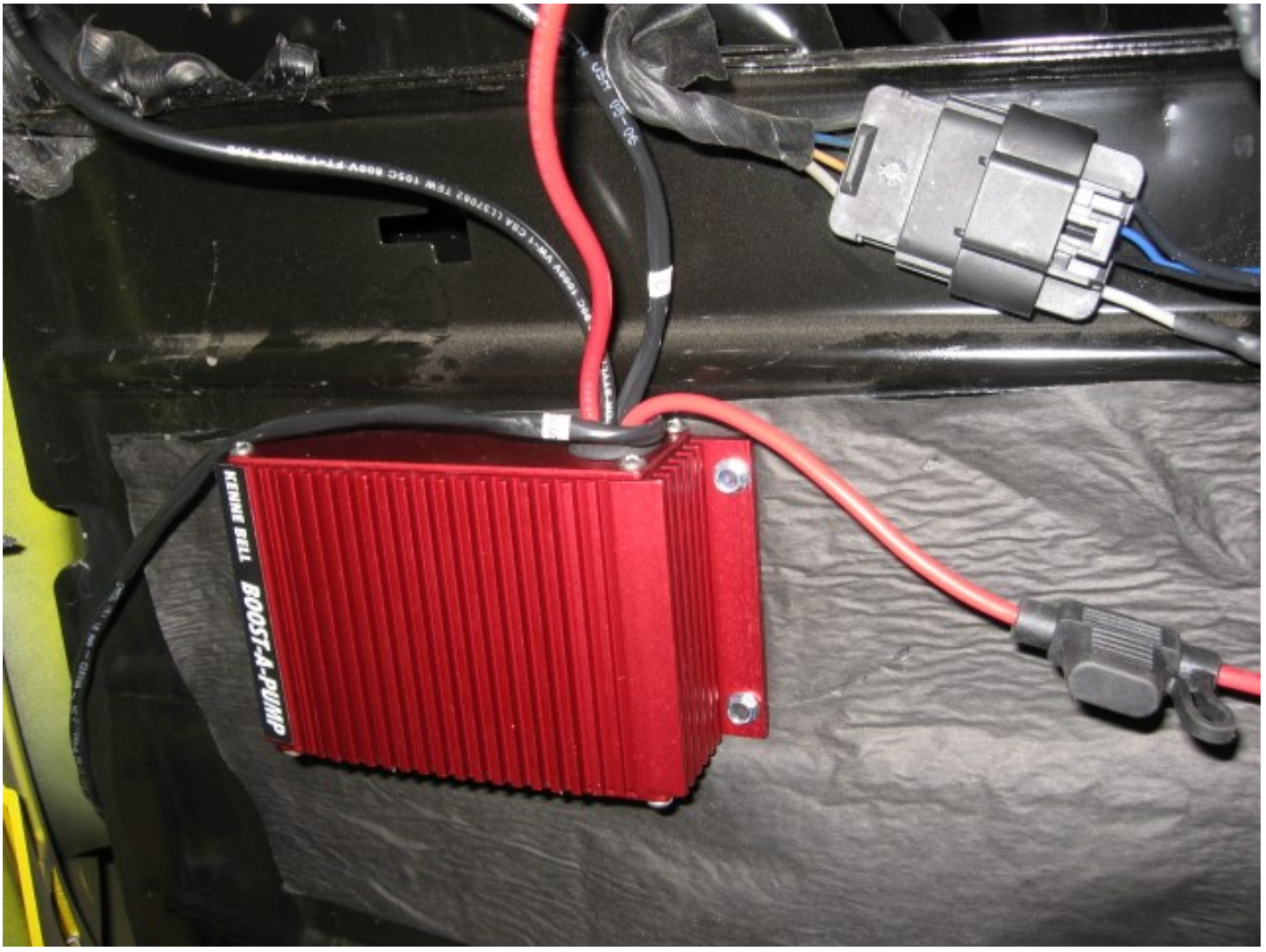
BOOST-A-PUMP INSTALLATION

- Remove the Boost A Pump (BAP) from the package and locate the long wire harness with the gold RCA plug on the end. Cut the harness close to the BAP, strip the two wires inside and twist them together. (if this has not already been done) Solder or use a butt connector and tape the ends up to prevent grounding. Throw the adjuster box away. The reason for doing this is to

assure that the BAP is not accidently turned down or the plug is not pulled from the rheostat while cleaning the car, etc.

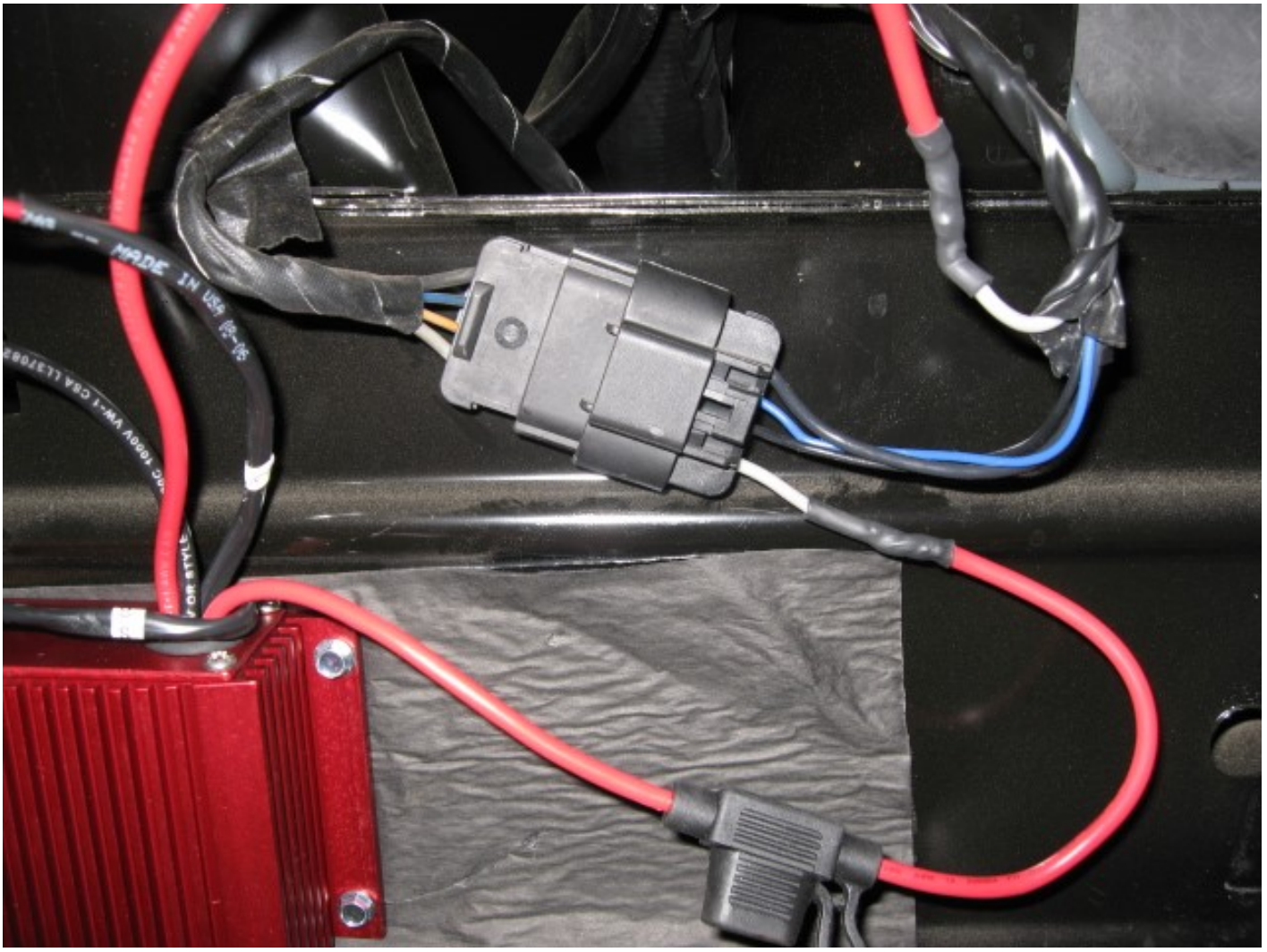
- Remove the driver side rear wheel and inner wheel well liner. The liner is attached with 7MM screw.

- The BAP will be bolted to the bulkhead in front of the wheel. Mount it as far to the left as possible to allow adequate clearance for the wheel well liner. You will find that the bulkhead is curved and only 3 screws will fit.



- Locate the wire harness for the fuel pump. The large gray wire is the fuel pump power lead. Cut that wire and strip both ends. The hot end of the wire

(the end that comes from the front of the car) is soldered (or butt connected) to the red wire with the fuse holder on the BAP. The other end (the end that goes to the fuel pump) is soldered (or butt connected) to the other red wire on the BAP. The BAP is basically just a pass through much like an inline fuse.



- The black wire is grounded to the frame near the BAP. Crimp or solder the ring connector to the wire, grind some paint off the metal and attach it with a screw.

- The remaining wire harness contains two wires. These wires will be attached to the boost switch and are fishe ^ igh the rocker panel up to the front of

the car. Remove the small access panel behind the front wheel, push a metal tape measure through the rocker panel until it comes out by the rear wheel. Tape the wires to the tape measure and pull it back and out through the front.

- Run the wire up to the power brake booster area. Install two female spade connectors to the wires. Find the boost switch in the package. Screw the barbed fitting onto the switch, using a small amount of sealer. Plug the two wires onto the boost switch. (Polarity does not matter) The barbed fitting is “teed” into the brake booster hose with a piece of vacuum hose. Boost pressure closes the switch and activates the BAP at approx. 3-4PSI.

REPLACE THE INJECTORS

- 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 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 they fit snuggly into the intake manifold.

FINAL ASSEMBLY AND CHECK

- Refill engine with fresh factory specified oil.
- 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.

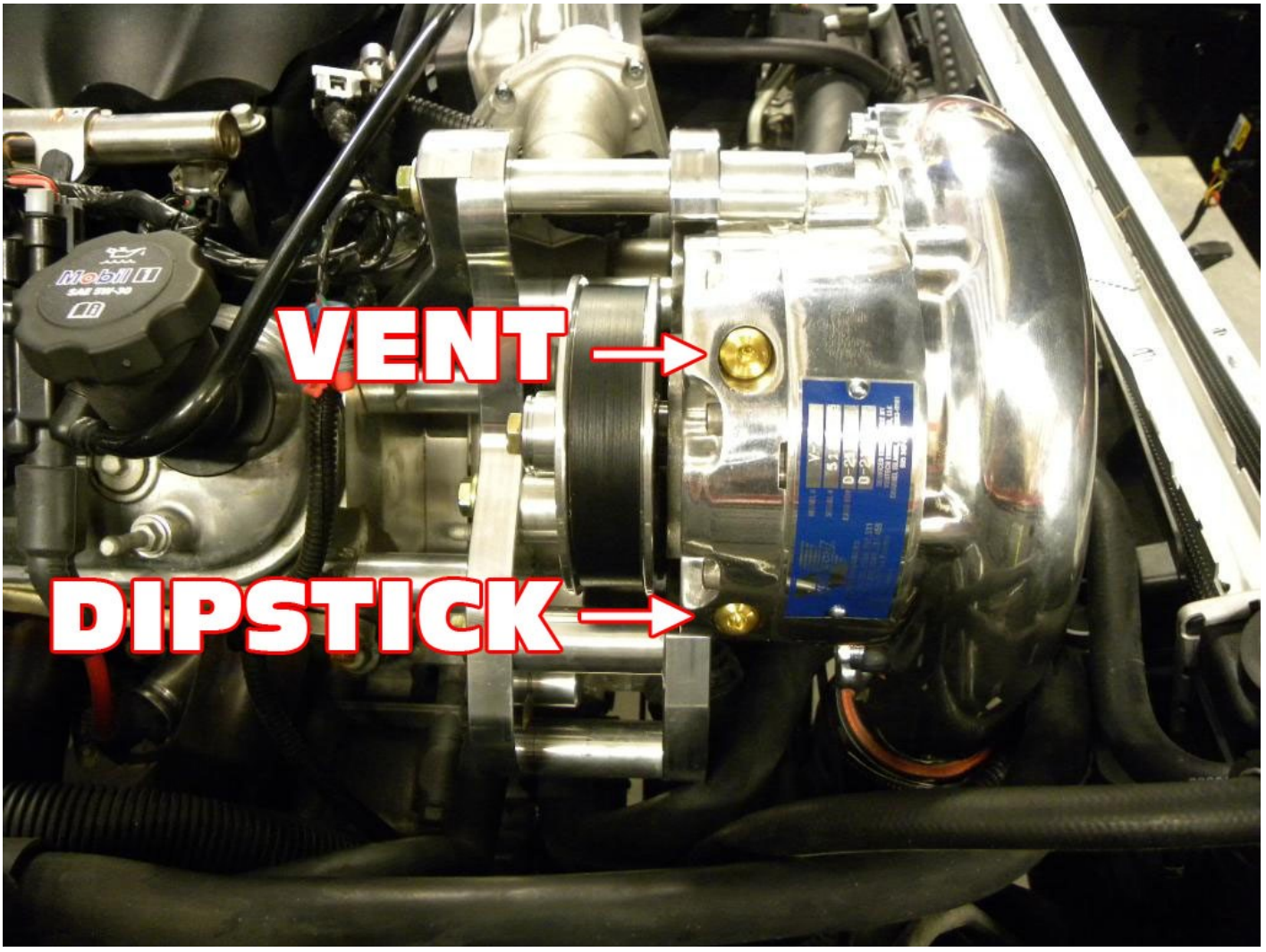
- Recheck all fluid levels and verify that no hoses, wires, etc. are near exhaust headers or moving parts and that there is no fluid leakage.

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

BELT SIZE REFERENCE CHART

PULLEY AND BELT SIZE CHART 6-RIB

	K060900	K060905
3.40”	BEST FIT	
3.60"		BEST FIT

3.80"	BEST FIT	
4.00"		BEST FIT

PULLEY AND BELT SIZE CHART 8-RIB & 8” BALANCER

	K080903	K0809010
3.125”	BEST FIT	
3.33"		BEST FIT
3.47"		BEST FIT
3.60"		BEST FIT
3.80"		BEST FIT
4.00"		BEST FIT

We want you to have the best experience possible when dealing with us both before and after the sale. You can always talk to a sales manager, the owner and head designer, or one of our techs who is infinitely knowledgeable on how the products operate and are installed. You won't get a minimum wage customer service rep that knows nothing outside his or her script. You'll get great advice based on many years of experience every time.

We're happy to help you with your DIY install questions or product inquiries even after hours. The phones forward to either a Manager or Owner to help with both. Remembering that we are on Pacific time, you can generally get help until 9PM on weekdays and weekends alike. It's something we started when the company was very young and have found it to be an invaluable resource to our customers.

TERMS & CONDITIONS

WARRANTY INFORMATION

PRIVACY POLICY

SHARE THIS PAGE!