

08-09 Pontiac G8 LSA 1.9L Supercharger Swap

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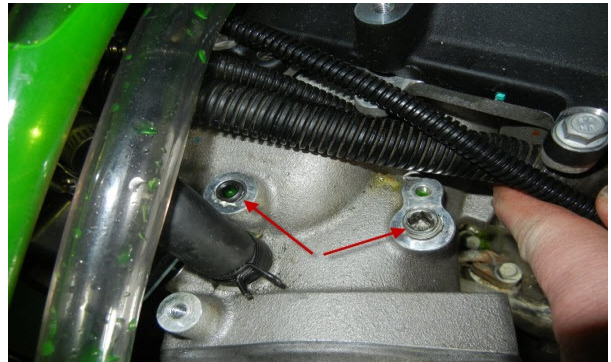
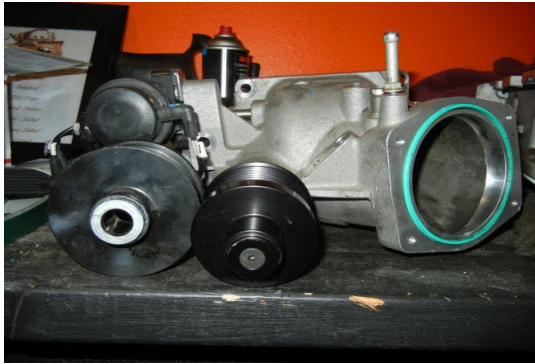
NOTES:

- Pinning the crank pulley is necessary when swapping & pressing on the new CTS-V/ZL1 balancer.
- Intake tube modification will need to be made depending on the intake you plan to use.
- Injectors & fuel pump will more than likely be needed.
- The factory AFM/DOD does have to be removed prior to install

If buying a used LSA blower inspect everything. Replace the Isolator with a solid one.



Since the snout will be removed you just as well upgrade to a smaller pulley to push more boost! Heat & a Hydraulic press will be needed to remove & install the new pulley. I also plugged these ports as I was not using them while the snout was off.



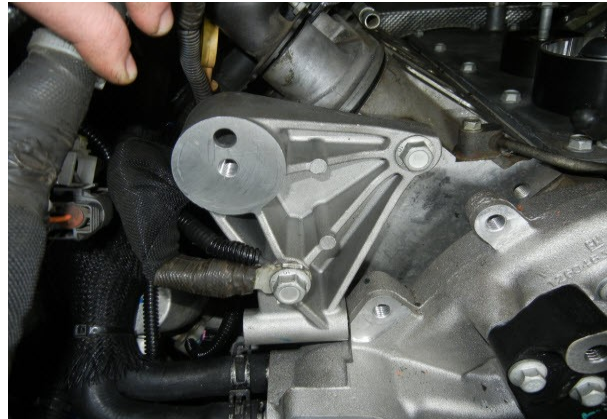
Time to remove all the NA parts. Remove the intake manifold, TB, Coil brackets.



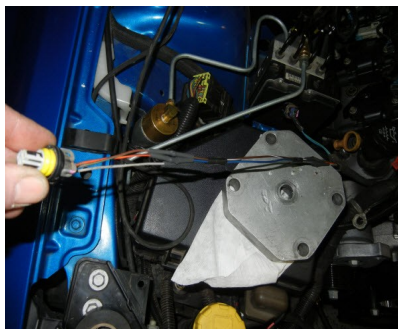
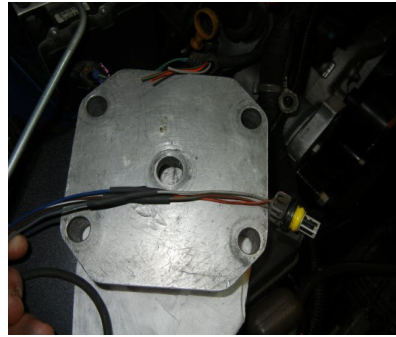
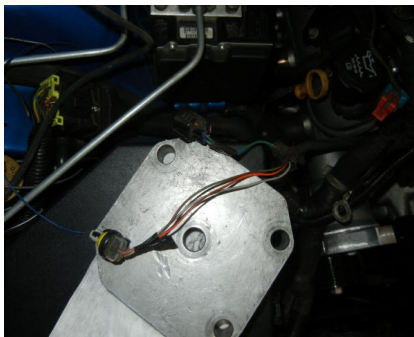
The waterpump does need to be replaced with a LS3 pump. Because the inlet needs to be on the other side of the pump pulley.



After the pump is installed you will be relocated the grounds that are on the head to the bracket for the supercharger tensioner.



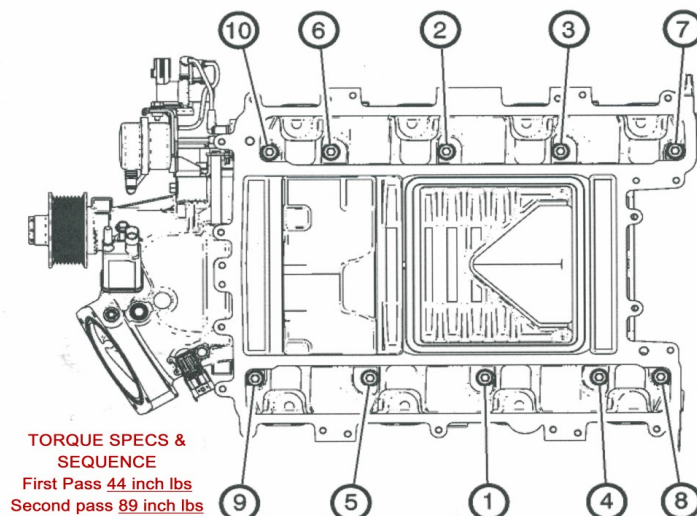
I did solder and extend the 1 ground harness and the 2 a/c pressure sensor harnesses



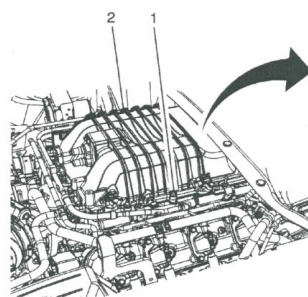
You will need to extend the MAP sensor harness from the passenger side over to the drivers side. Dont worry about the other sensors on the snout or front of s/c.



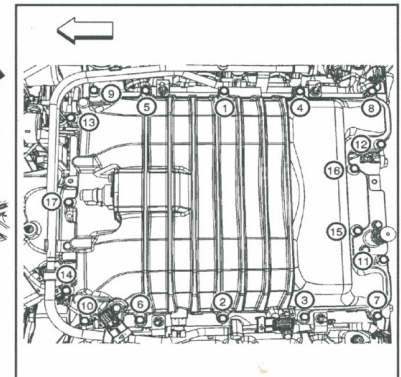
After all the soldering is done you can put the supercharger on. You do need to shave the position tube smooth or just below the intake gaskets to mount the supercharger.



Once the supercharger is on and bolted down you can throw on the intercooler lid, make sure to put the square gasket between the core & lid. The plastic cowl needs to be removed to get to the rear bolts of the intercooler lid.



TORQUE SPECS & SQUENCE
Supercharger Lid 89 inch lbs
Fuel Rail 89 inch lbs



Once the intercooler lid is bolted on put the fuel rail on. I put mine on backwards because it gives it a lot cleaner look. But keep in mind you cant use the IAT sensor that post S/C.



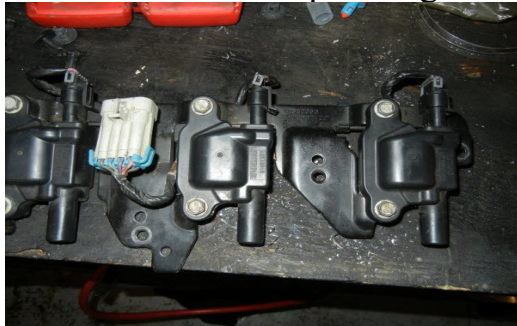
You can also put it on the standard way.



Another option is using a ZR1 fuel rail that gives you the inlet on the drivers side.



When everything is bolted down tight you will have to drill a hole in the stock coil bracket to clear the supercharger OR I sell a all aluminum bracket for 70shipped.



After that is all done you will have to relocate the powersteering reservoir.



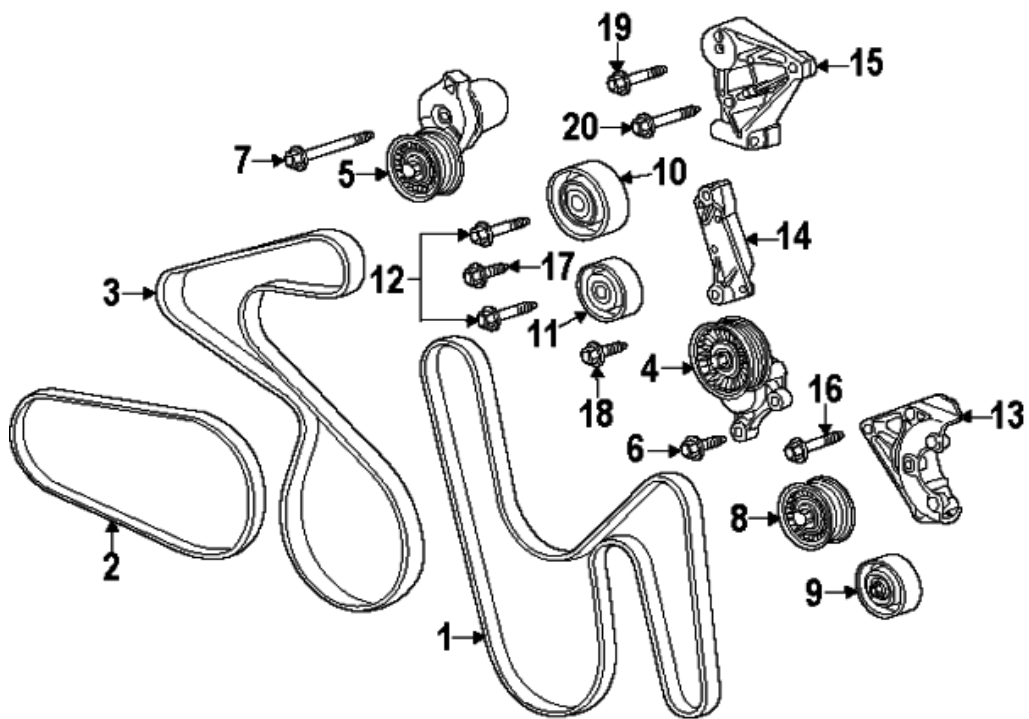
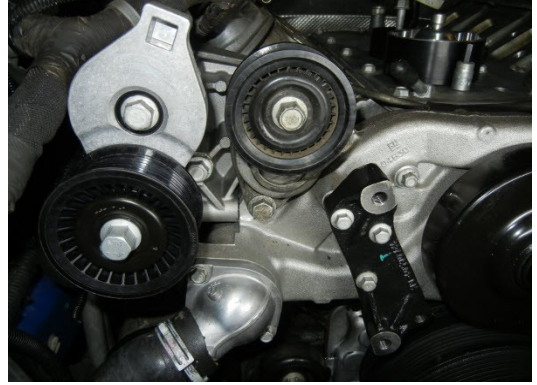
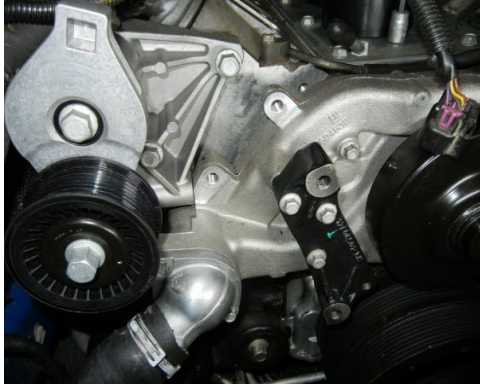
With the appropriate bracket you can place it beside the brake fluid reservoir.

The parts you will need to move the reservoir are.

- Relocate Bracket
- 3/8" barb X barb (mender) brass
- 6 inches of 3/8" hose
- 2 3/8" hose clamps
- 19 inches of 5/8" hose
- 2 5/8" or 3/4" hose clamps.



Now that everything is lengthen and moved out of the way you can put on all the pulleys



If using a oversized 100mm idler you will need to shim out the pulley to clear the tensioner bolt.



Pinning the stock balancer is important. You can buy these tools online or barrow/rent one from Ace Performance.



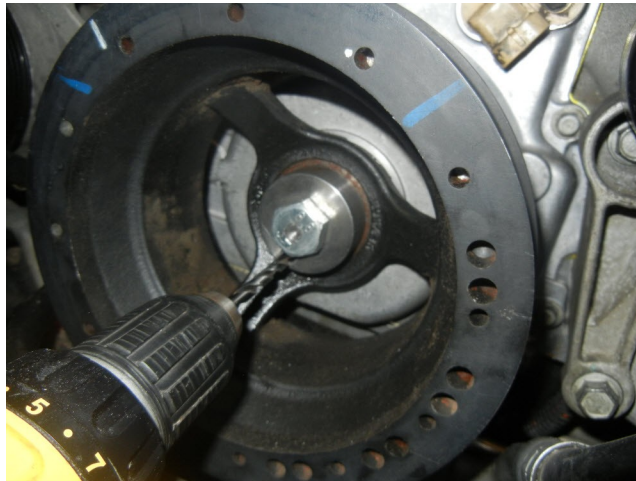
The stock balancer already has a keyway in it designed for the ZL1's & CTS-V's. You will NOT use this keyway. You are making a new one.



Placing the tool in the crank & getting the bolt tight is the important or the machined tool with walk on you.



After everything is tight and your ready to drill grab a 1/4" drill bit and drill in the depth of your pin.



After you the hole is drilled you are set to put in the pin and put the crank bolt back in.



Time to mount up the intercooler pump & front mount heat exchanger. This will vary because of the front mount & intercooler pump you use.

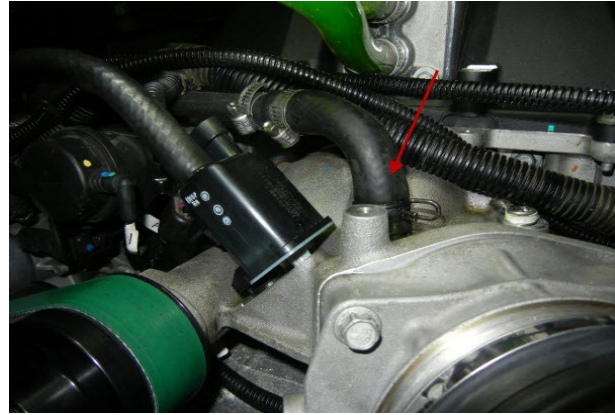


I used a cobalt reservoir to fill the intercooler lines.



Now that the Intercooler system is full & primed you can now route the Vacuum lines all lines I used were 3/8" hose.

Take the vacuum port from the drivers side rear valve cover and route it to the top of the supercharger snout. I used part of the NA vacuum line to create the elbow. Then used a 3/8" barb x barb (mender) to adapt to the elbow.



Take the port off the front the valve cover on the passenger side and put it either on the intake tube after the MAF or put it on the Evap solenoid (I never had any issues with it running either way)



Take the fitting that is on the brake boost and bring it over to the lower portion of the supercharger snout. You may have hose clamp it like it did.

