



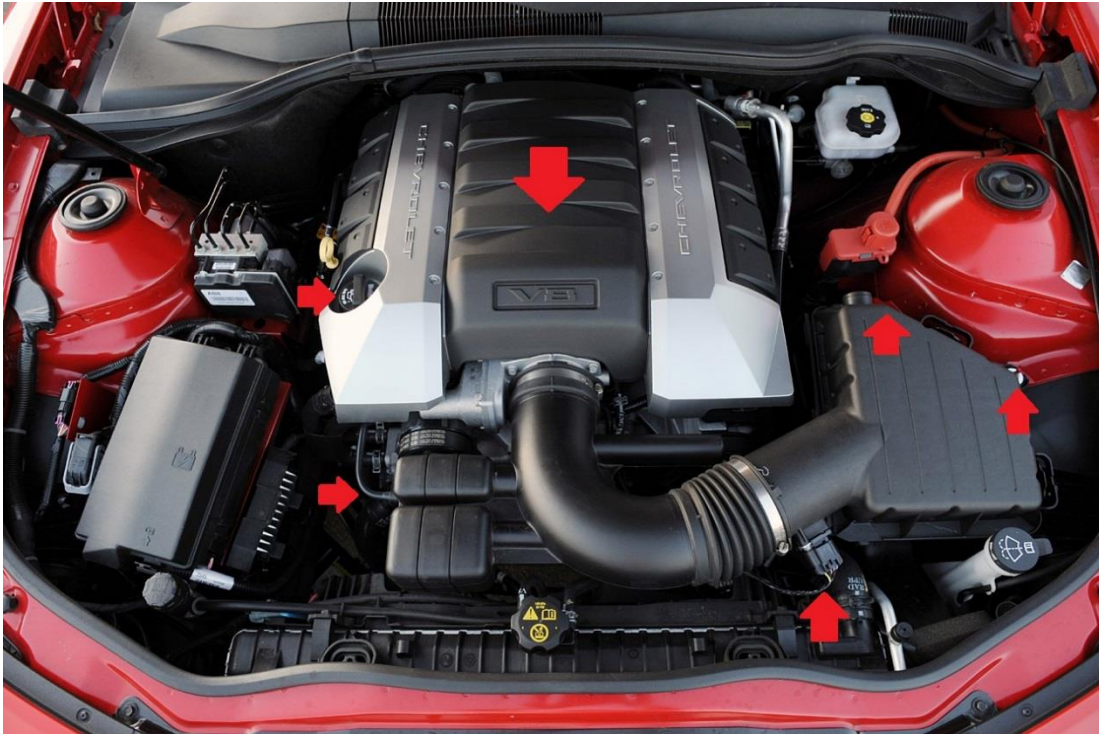
ECS 2010-2015 Camaro SS/1LE Install Guide

Congratulations on the purchase of your new ECS Novi 1500/2200 Camaro kit for 2010 to 2015 LS3 and L99 Camaro. Please read through entire installation guide before you begin and make sure you understand all the steps, if you have any questions please contact ECS @ 609-752-0321.

Installation should be done on stock compression or lower, well maintained engines for best results, if your engine has been modified please consult with East Coast Supercharging before install. East Coast Supercharging will not be held responsible for any damage occurred due to improper installation or installation on poor damaged drivetrain components.

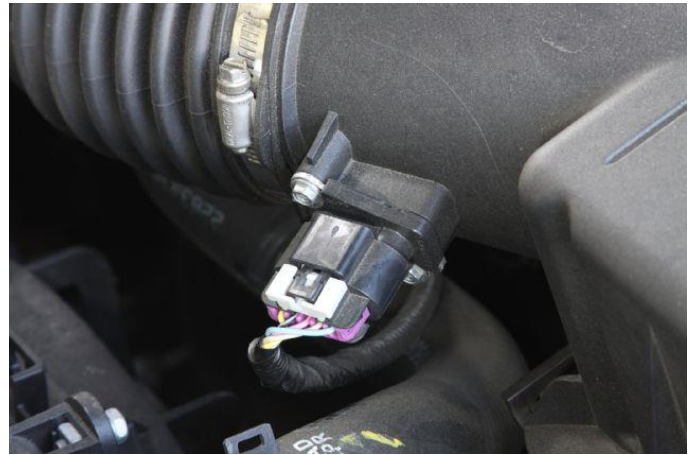
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Vehicle Prep



- You will need to support and raise the front of the vehicle, either on a lift or properly setup using a jack and jack-stands. **Always use caution when lifting a vehicle and working underneath.**
- Start by disconnecting the negative battery terminal located in the trunk of the vehicle with a 10mm wrench.
- Next you will need to remove the factory engine cover by removing the oil cap and firmly pulling upwards and towards the front of the car on the cover to release it from the snap clips. Set aside as it can be re-installed with the kit with some slight modifications.
- Next unclip and remove factory PCV line running into the air box inlet tube and disconnect it from the passenger side valve cover. This will not be used.

- Followed by disconnecting the MAF sensor harness by pressing the tab together and pulling outwards.
- Remove MAF Sensor using a T20 Torx wrench and set aside for later install in the ECS charge pipe.



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- Lastly remove the 10mm nuts with a deep socket that secure the air box to the fender and loosen the 5/16" clamps to remove the air box assembly and inlet tube going to the throttle body. This will not be used.

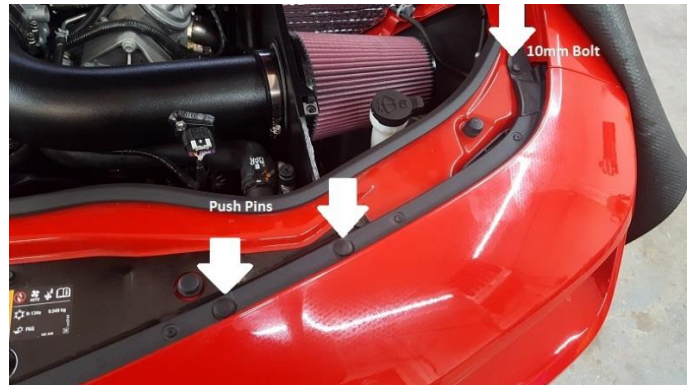


- These parts will not be re-used.



Front Fascia Removal

- Start by removing the upper fascia fasteners 6 push pins removed with a pin tool or flat bade screwdriver and the 2 outer 10mm bolts.



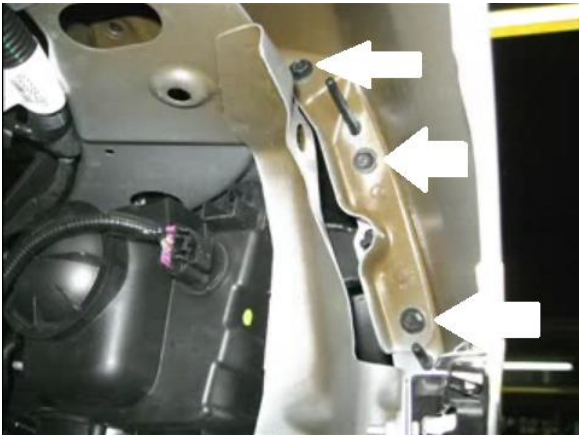
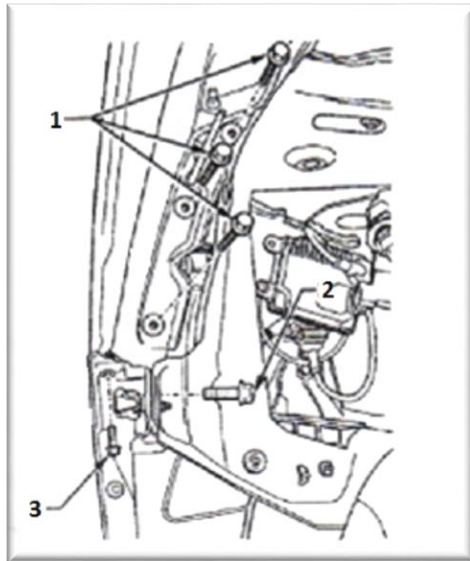
- Next remove the two lower 10mm bolts.



- With the front of the vehicle supported, remove the front wheels to gain access to the remaining fasteners.
- Using a T20 Torx bit remove the 3 splash panel screws on each side of the inner fender well.



- Pull back the inner fender and 4 x 10mm bolts 3 forward facing (1) and one facing outwards (2), next remove the smaller 7mm bolt that holds the fascia vertically (3). Repeat on opposite side.



- Next gently pull on each side of the fascia to unclip it from the vehicle. Pull fascia forward and locate the main wiring harness on the passenger side and disconnect. Set fascia aside in a safe place where it will not be damaged while you are working on the vehicle.



Factory Washer Tank and Thermostat Removal

- **Washer Tank:** Locate the factory washer tank and drain fluid by removing the fluid line or removing the pump from the tank. Now remove the factory washer pump and set aside to be used later with ECS washer tank relocation kit. Using a 13mm socket and an extension remove the 3 fastener bolts and remove tank from vehicle.



- **Coolant:** Now with the front fascia removed it is time to drain the coolant, using a catch pan place it under the radiator drain and turn the drain counter clockwise to begin draining, you can remove the radiator cap to drain quicker. Once coolant has been drained close drain valve. Coolant can be re-used or depending on your mileage now would be a perfect time to replace your coolant with some quality Dexcool.
- **Thermostat:** Next replace the factory thermostat with the new ECS provided LPE 160* thermostat by removing the two 10mm bolts that hold the housing to the waterpump and replacing the thermostat and seal. Re-install housing and 10mm bolts.



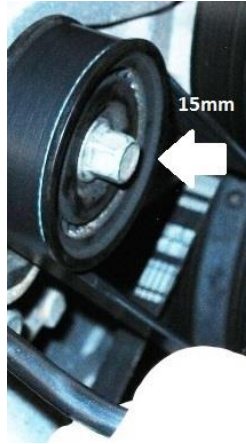
- **Spark Plugs:** At this point it is a good idea to replace the spark plugs before you begin assembling the supercharger brackets. Install the ECS supplied NGK TR6 spark plugs, gapped at .035" using a small amount of anti-seize on the threads only.
- **Upper Radiator Hose:** Using a pair of pliers or coolant hose clamps, depress the upper radiator coolant hose clamps and remove the hose from vehicle. *(2010-2012 vehicles will need too also disconnect the power steering cooler hose coming from the T junction on the radiator hose)* The upper radiator hose assembly will be replaced by an ECS supplied on later.



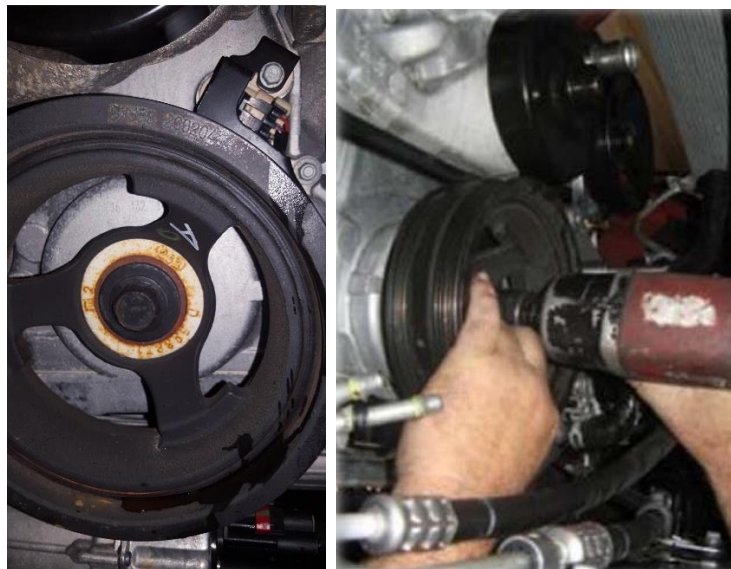
- **Radiator Fan Removal:** Unplug wiring harness on the passenger side of the fan shroud and remove the two top 13mm bolts that secure the fan assembly to the radiator and remove from vehicle and set aside for later install. The fans are removed to allow for additional clearance in pinning the crank.
- **Power Steering Lines '10-'12 Cars:** If you have a 2010-2012 car you will have to use the supplied zip ties to tie them together and away from the harmonic balancer to get added clearance when installing the ECS balancer hub and later on when routing the charge ducting.

Balancer Hub Install- Factory Balancer

- Using a 15mm socket release the main belt tensioner clockwise to loosen and remove the factory 6 rib belt.

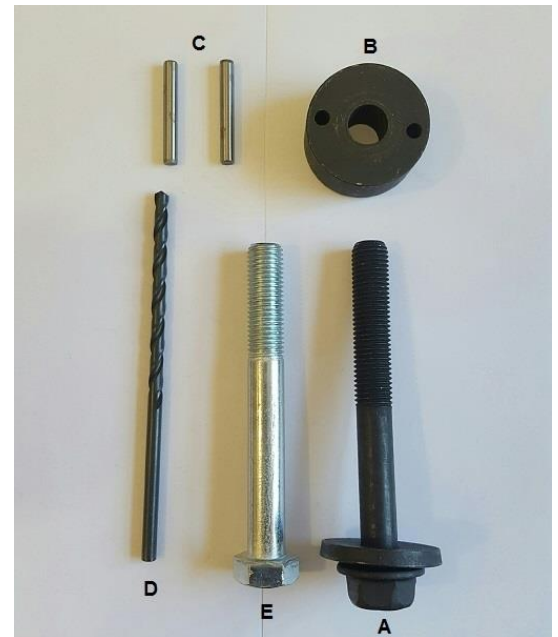


- **Removing factory balancer bolt:** First you will need to lock the motor, if you have a manual car simply put the car into gear and make sure the rear wheels are locked. If installing on a automatic transmission equipped car you will need to secure the flywheel, this can be done by accessing the access cover located under the vehicle in the front of the transmission and can be removed with a 10mm socket. Next using a flywheel holding tool or a large flathead screw driver lock the flywheel in place.



- Now you can remove the factory balancer bolt with a 24mm socket and a good impact wrench will usually get it loose, if needed a little heat can be applied to help it release.

- **Crank Pin Kit Factory Balancer:** Using the supplied ECS pin kit (PN: ECS-100-413) install the pin fixture (B) and pin bolt M16 x 130mm (E) making sure to align fixture flush to the crank pulley.
- Next mark out 1-1/4" on the supplied 1/4" drill bit (D) and place some tape to use as a stop when drilling the crank and balancer. Using a dab of oil on the drill bit drill two holes 1-1/4" deep using the fixture as guide. After you are done clean out holes and crank from metal shavings.



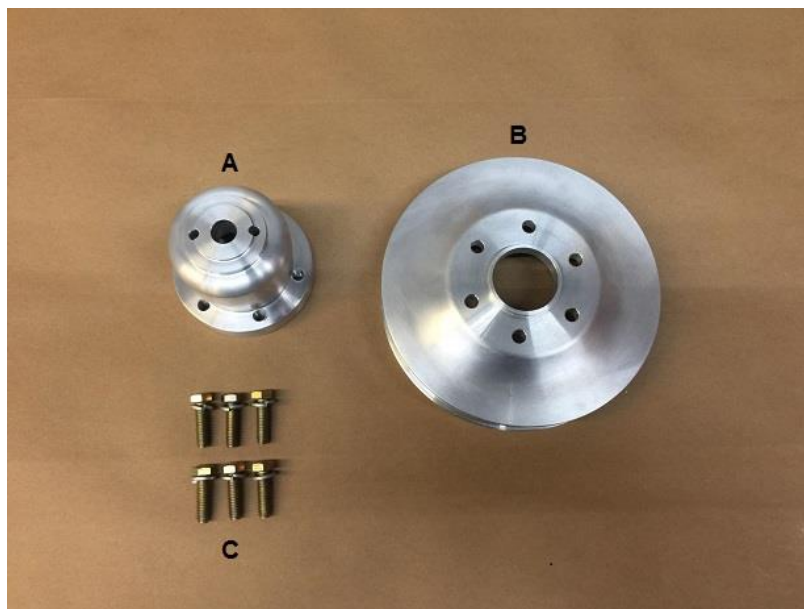
GM LS7 Balancer Bolt	1
Crank Pin Fixture	1
1/4" x 1.75" Dowel	2
1/4" x 6 1/8" Drill Bit	1
16mm x 130mm Bolt	1



- Next install the supplied 1-3/4" dowels (C) into the pin holes tapping into place if needed.



ECS Camaro Stock Balancer Hub and Pulley Kit 8-Rib PN: ECS-100-420



A	Camaro Factory Balancer Pulley Hub	1
B	Camaro Balancer Pulley 8-Rib	1
C	3/8"-16 x 1.25" Hex Bolts and Washers	6

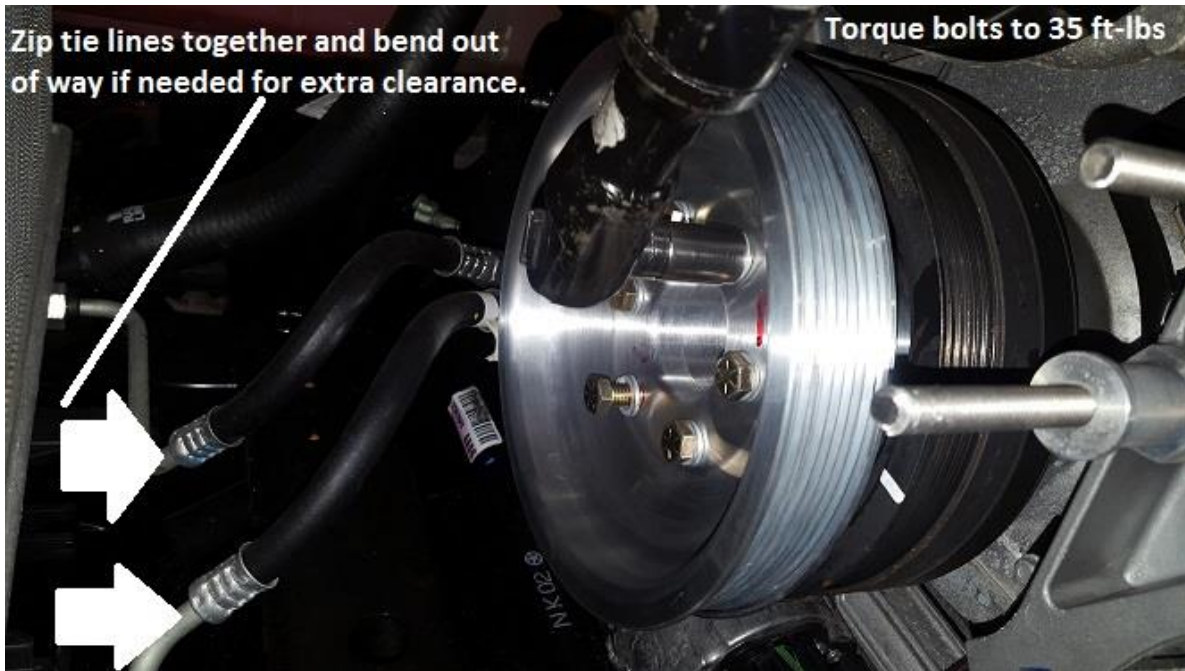
- Slide the ECS crank hub adapter (A), aligning the two holes with the dowels installed.



- With the pins lined up and the hub seated in position install the ECS supplied GM LS7 bolt and tighten to factory specs. Now you can release the flywheel and replace the dust cover if needed.
- **Using the GM Factory Bolt**
 Note! The GM factory bolt is a 1-time use bolt! Directions are for installing a new bolt only, part #951499 for wet sump LS or part #951500 for LS7 / LS9.
 1. Make sure balancer is installed and is seated completely.
 2. Install your new bolt and tighten to 37 ft/lbs. We recommend Blue or Red Loctite here if you are doing any high performance driving with this engine.
 3. This step is to get a reference on the front of the engine. With the torque wrench hanging at the spot where the 37 ft/lbs was achieved, reference 140° clockwise for another tightening cycle. Put a mark or a piece of tape where you need to tighten.
 4. Then go another 140° from the 37 ft/lbs starting point and you are now tight.
- If using an aftermarket ARP Bolt for any LS damper:
 1. Apply high temperature RTV to both sides of the washer prior to installation.
 2. Use 262 Red Loctite and tighten to 230 ft/lbs.



- Next using the 6 supplied 3/8-16 x 1-1/4 and 3/8 washers install the ECS 8 rib crank pulley and torque to 35 ft-lbs in a star pattern.



Balancer Hub Install- ATI Balancer PN: 918629

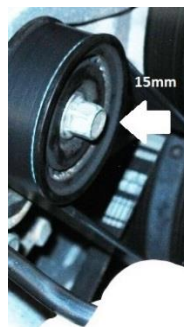
- ECS recommends upgrading to an ATI balancer above 750WHP or using our 10-Rib upgrade kit.

ECS ATI Balancer Pin Kit



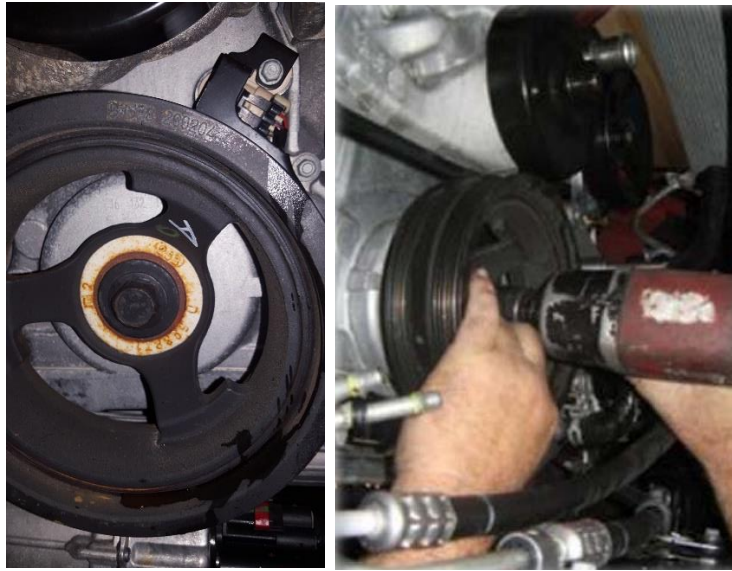
GM Balancer Bolt	1
Crank Pin Fixture	1
1/4" x .625" Dowel	1
1/4" x 6 1/8" Drill Bit	1
16mm x 120mm Bolt	1

- Using a 15mm socket release the main belt tensioner clockwise to loosen and remove the factory 6 rib belt.



- **Removing factory balancer bolt:** First you will need to lock the motor, if you have a manual car simply put the car into gear and make sure the rear wheels are locked. If installing on a automatic transmission equipped car you will need to secure the

flywheel, this can be done by accessing the access cover located under the vehicle in the front of the transmission and can be removed with a 10mm socket. Next using a flywheel holding tool or a large flathead screw driver lock the flywheel in place.



- Now you can remove the factory balancer bolt with a 24mm socket and a good impact wrench will usually get it loose, if needed a little heat can be applied to help it release. Next remove the factory balancer and prepare for new balancer install. **At this point it is a good idea to replace your front main seal if higher mileage or damaged**

ECS Camaro ATI Upgrade Kit PN: ECS-100-417



ECS Camaro Kit ATI Balancer Upgrade 8-Rib

-ATI '10+ Camaro 12% Underdrive Balancer: ATI-918629

-ECS Balancer Pulley 8-Rib or 10-Rib.

-ECS Balancer Pulley Hardware Bolts: 3/8-16" x 2.75" x 3pc

ECS Balancer Pulley Hardware Bolts: 3/8-16" x 1.25" x 3pc

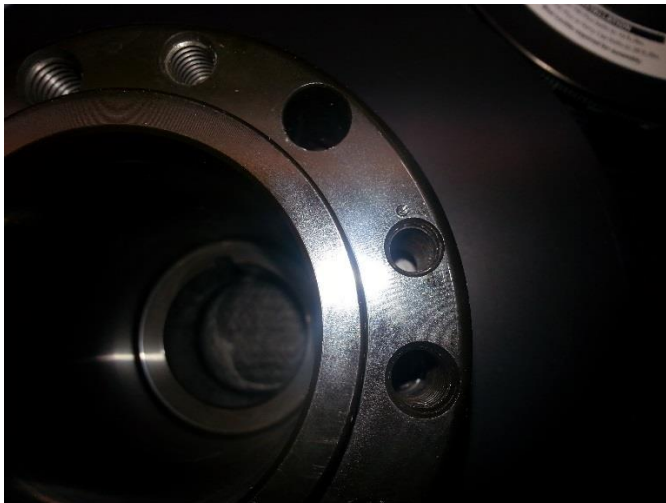
3/8 Washers x 6pc

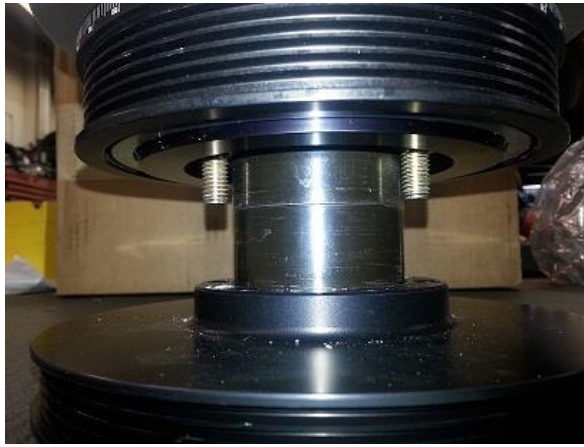
- To attach the ECS balancer pulley to the ATI hub. Simply remove the 3 inverted torx bolts and drill out the small holes marked in the picture to fit the 3/8 bolts.



- Next install the ATI PN: 918629 per ATI's instructions and pin using the supplied pin kit.

- Now you can release the flywheel and replace the dust cover if needed.
- Next line up the ECS crank pulley with the 6 open holes on the ATI balancer and insert the long 3/8-16 x 2 3/4" bolts through the drilled out holes and bolt up to the AC pulley that is already tapped for 3/8-16 thread and bolt up the remaining 3 x 3/8-16 bolts and washers to the front of the ATI balancer through the pulley and torque to 35 ft-lbs. ****If you already have a ATI balancer installed this can be done on the vehicle but be careful not to drill into the AC pulley threads, the AC pulley can be un-bolted and moved back to allow room for drilling out the holes****





- Camaro hub attached to the ATI balancer assembly shown below.



Injectors, EVAP and Vac Tee

- Install supplied 60lb direct drop in LS3/L99 injectors and re install fuel rail.
- Disconnect the EVAP breather line by pressing down the while retaining clip with one hand and pulling the line away from the intake port. Flip line over and reverse its direction as shown below, use a heat gun in low setting to make line flexible enough to straighten the turn if desired.



- Next you will need to route the injector harness behind the cross over coolant tube and re-clip the harness as shown below.



- Now is a good time to install the ECS vaccum manifold in line with your brake booster hose, this will supply vaccum for the TiAL BOV and ECS Fuel Pump Booster hobbs switch.
- Measure out 2" on the booster hose away from the booster check valve and cut the hose so you can splice in the ECS vaccum manifold and secure with supplied clamps.

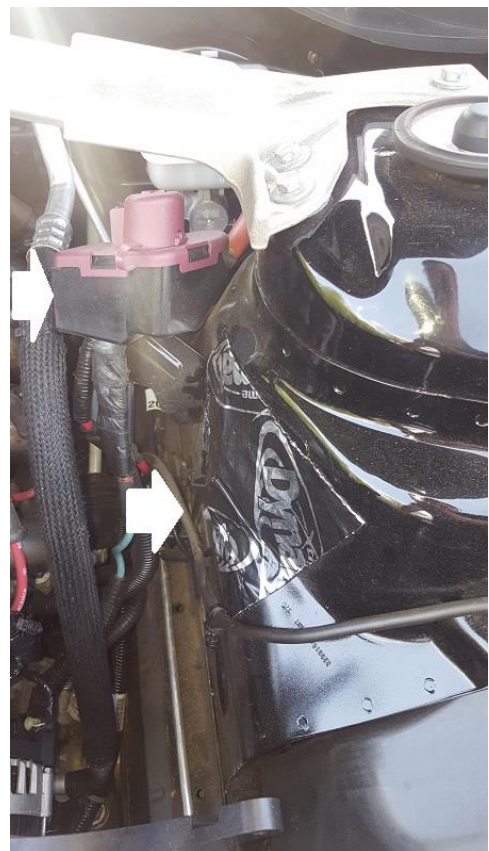


Air Box Stud Mount Removal and Battery Stud Relo

- You will need to remove the stock air filter mounting tab on the driver side shock tower.



- Using a cutoff wheel or similar, cut the tab as close to the shock tower as possible then sand down smooth. Using some cardboard or a blanket to protect your windshield and paint if needed. Cover bare metal with color matching paint or supplied 6x6 square of Dynamat. Finally, gently push the battery post and mount towards the firewall to allow for more clearance once the air filter is installed.



Washer Tank Relo and Rivet Nut Install



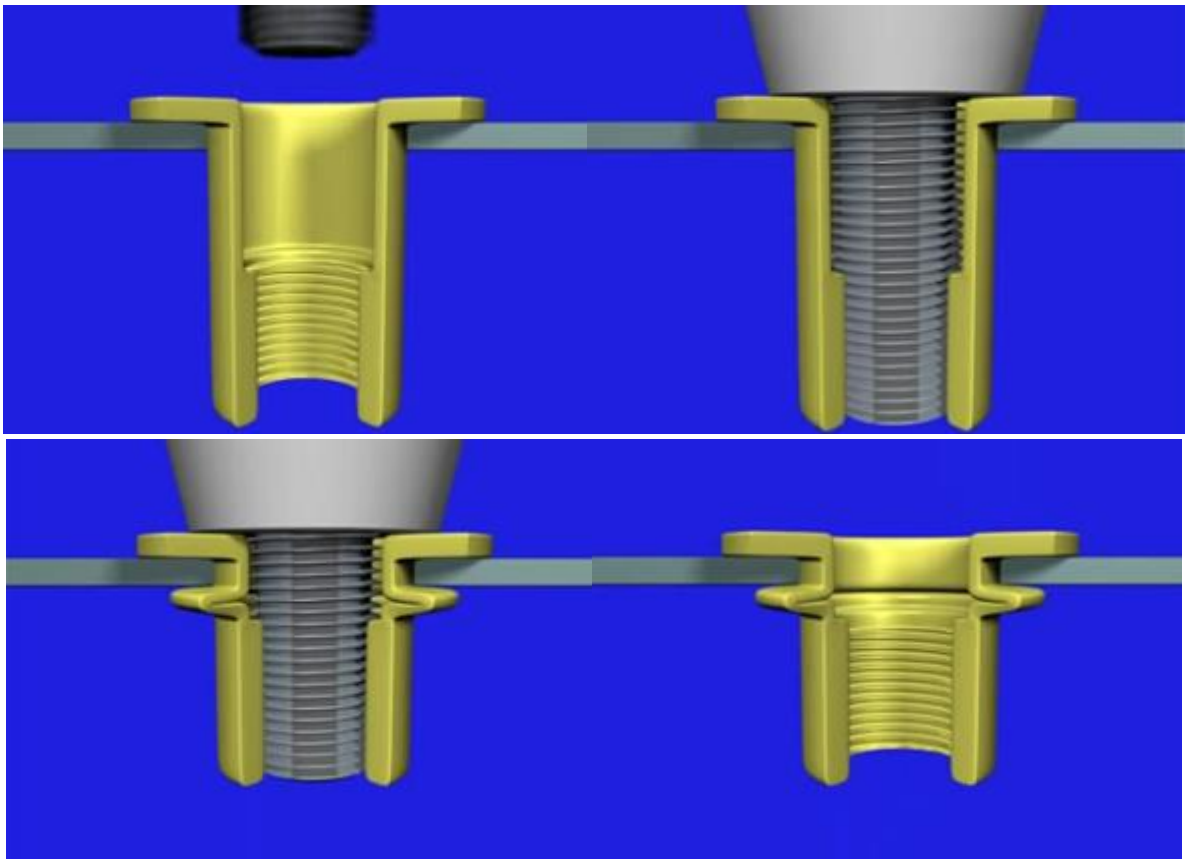
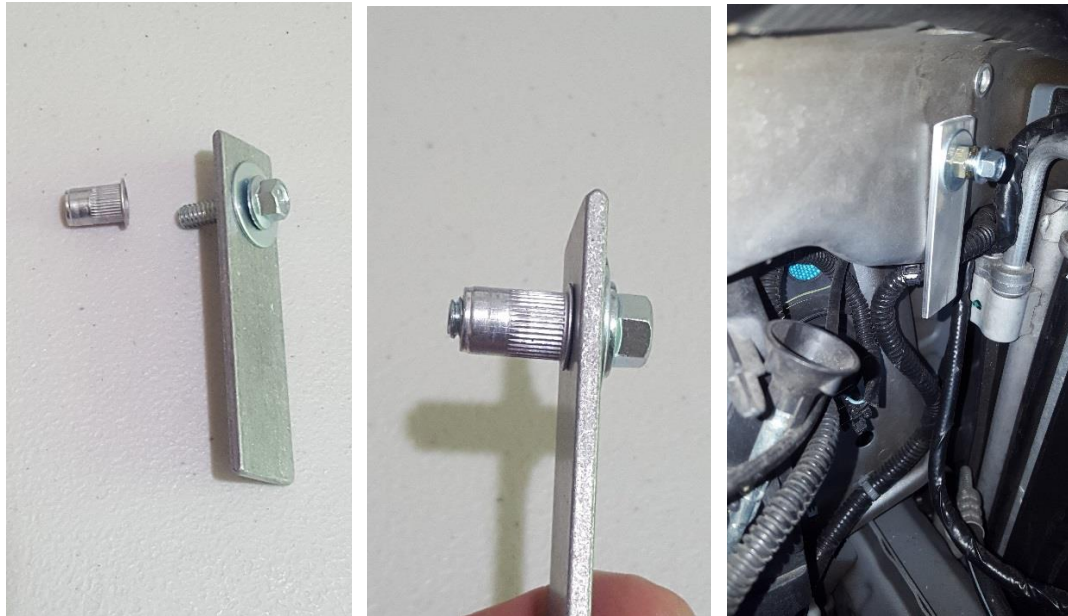
- Since the factory washer tank has been removed we supply an auxiliary washer tank and mount to be tapped into the factory washer pump assembly.
- Begin by placing the supplied washer tank mount up against the inside of the front bumper support as shown in the pictures. Mark the location of the holes with a black marker so similar.



- Use a centerpunch to help locate the drill bit and using the supplied 25/64 drill bit and drill the two holes and clean out and burs so the rivet nuts can be installed with a rivet nut tool or the ECS supplied install tab and bolt.



- If using the supplied rivet nut install tool simply install the rivet nut into the flared install bolt as shown in the pictures and insert assembly into the 25/64 hole previously drilled. To secure the rivet nut simply hold the tab in place and tighten the bolt until you feel it stop and the rivet nut is secure as shown in the illustration below. Then simply loosen the bolt and repeat with the other hole. Save install tool as it will be used for the intercooler install as well.



- With the rivet nuts installed you are now ready to mount the washer tank bracket with the supplied 1/4-20 bolts and lock washers. ***Note: The washer tank can be installed at the end once the supercharger brackets are done to allow for some more room to work under the hood***



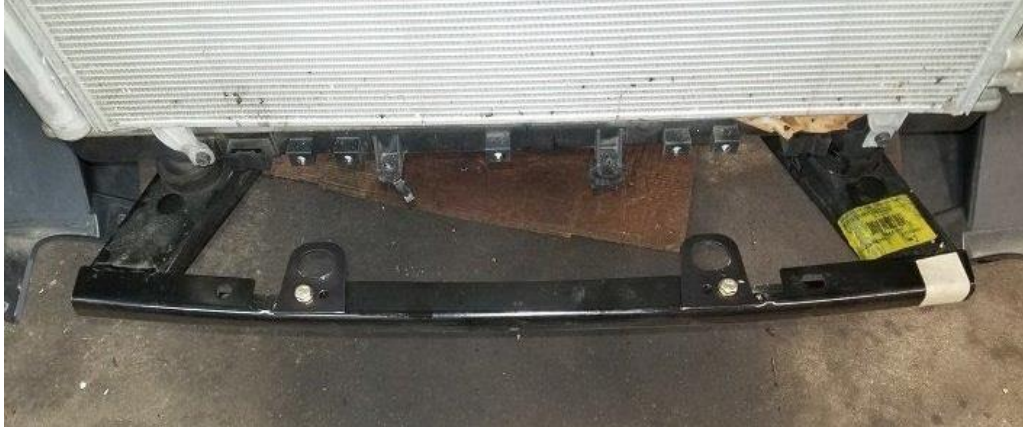
- Washer pump relocation: Using the supplied clamp and hardware, mount the factory washer pump as shown below and route the supplied washer fluid hose up into the engine bay to later be hooked up to aux washer tank.



Intercooler and BOV Installation

- Lower intercooler mounts:

Install the intercooler mounting tabs on to the lower fascia support locating the outer holes into the existing ¼" holes and install with supplied hardware keeping tabs perpendicular to the radiator, next mark the location of the inner holes and drill out with ¼" drill bit and install remaining ¼" hardware.



- With the lower tabs installed you can place the intercooler down into the tabs making sure the installed rubber grommets are in the tab as shown below. **The intercooler will slide in place with the front bumper support in place NO need to remove it.**





- With the intercooler installed on the lower mounts place the upper brackets on the top insulators making sure to keep them even and perpendicular to the bumper support and mark the hole locations with a visible marker on both of the upper intercooler mounts. Next drill the holes with the supplied 25/64" drill bit and install the supplied 1/4-20 rivet nuts with a rivet nut install tool or the supplied install tab and bolt. *(refer to the washer tank relo for rivet nut instructions)*



- Secure the upper mounts with the supplied 4 x 1/4" bolts and lock washers.



- **TiAL BOV and Blower Discharge Ducting:** Begin by installing the top fitting on to the TiAL BOV making sure to use the copper washers to seal the top fitting. Next place the o-ring from the install kit on to the BOV flange, then place the TiAL Q or QR blow off valve on to the flange making sure the o-ring stays in place and is not pinched. Secure with the TiAL clamp and socket bolt.



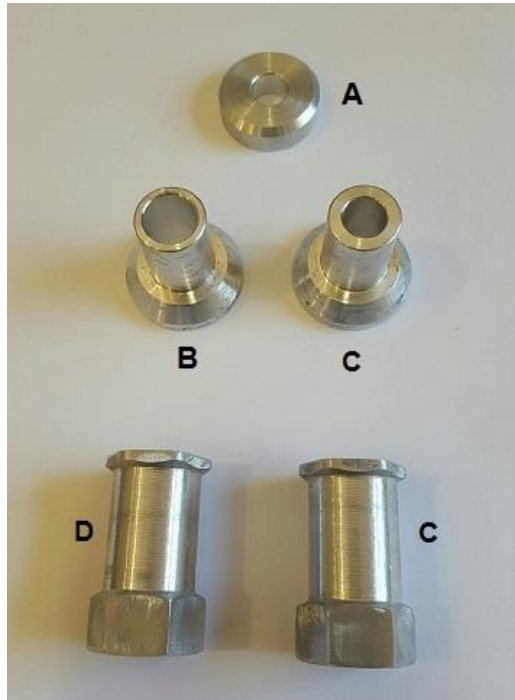
- Next install the supplied 3" coupler on to the driver side of the intercooler and use it to secure the BOV charge pipe assembly with two of the supplied TBC-338 clamps but leave loose until all ducting has been fitted. Now you can run the 1/4" vacuum hose that was installed earlier from the vacuum manifold installed on the brake booster line.



Main Supercharger Brackets Assembly 2010-2012

(Electronic steering cars see side notes)

ECS Camaro Spacer Bushing and Hex Spacers PN: ECS-100-414



C	Idler Spacer Bushing .350" with 10mm Bore	2
B	Idler Spacer Bushing .350" with 12mm Bore	1
A	Spacer Beveled L: .340" OD: 1.25" ID: 10MM	1
D,C	Spacer Hex and M10 Threaded	2

- **Alternator Mount:** Start by unplugging the alternator and removing the factory alternator out of the vehicle. Next remove the factory alternator mount but keep the one factory stud on the lower right bolt hole to be re-used as well as the factory idler and dust shield.



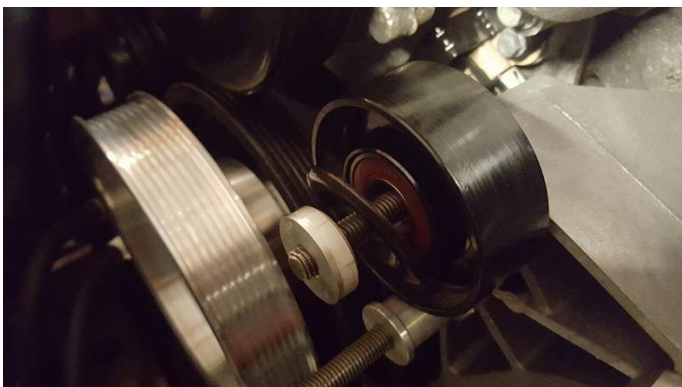
- Next install the ECS modified alternator mount and install the one factory stud back in the same lower right hole in the alternator and install the ECS supplied M10 studs in the remaining bolt holes, the longer M10 x 235mm one on the bottom and the M10 x 90mm on top. Followed by installing the M10 hex spacers on to the factory stud and the longer M10 stud and tighten with a 1" wrench.



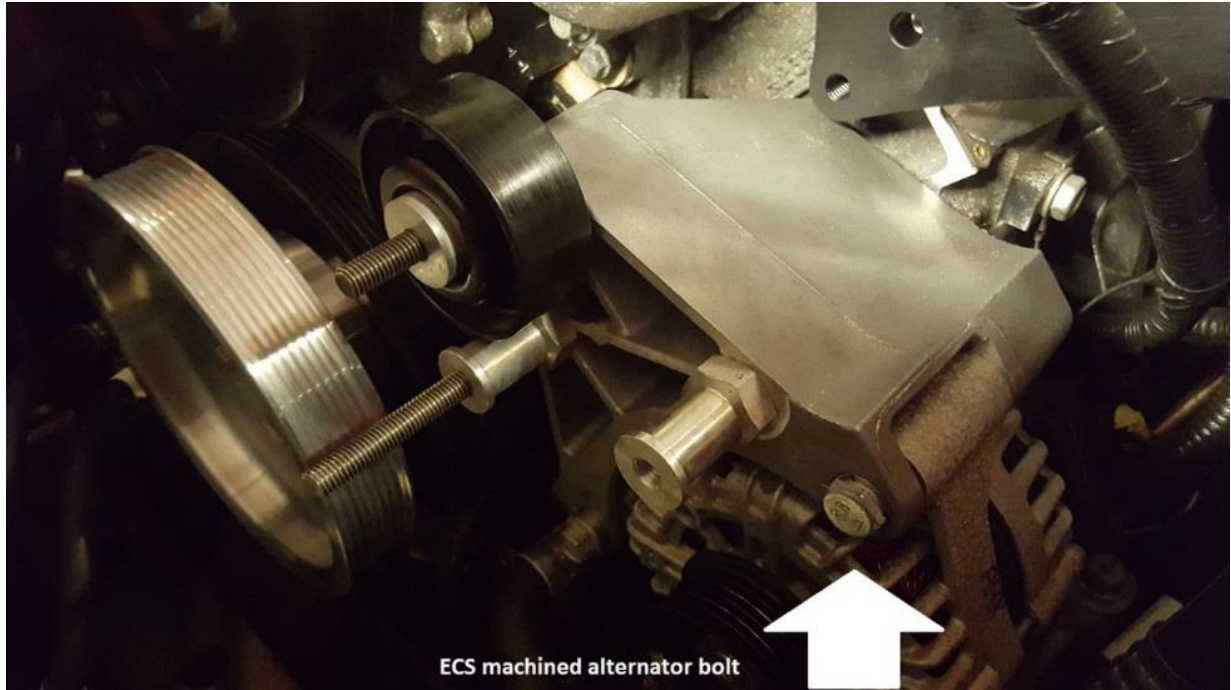
- Take the factory idler dust shield and grind the tabs flat as shown in the picture below.



- Install the factory idler, modified dust shield and ECS supplied beveled washer with the bevel facing the pulley.

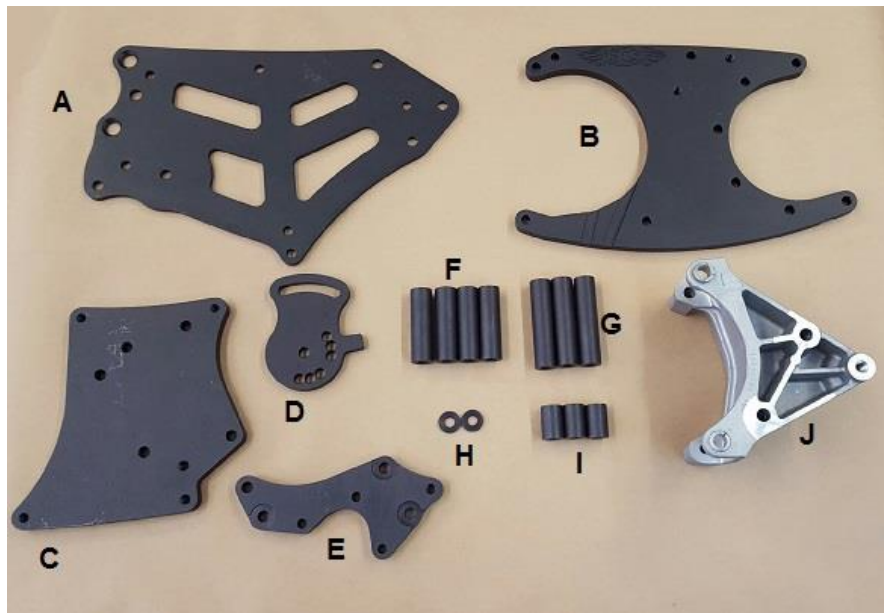


- Now you can re-install the alternator using the ECS supplied machined bolt on the top alternator mounting hole.

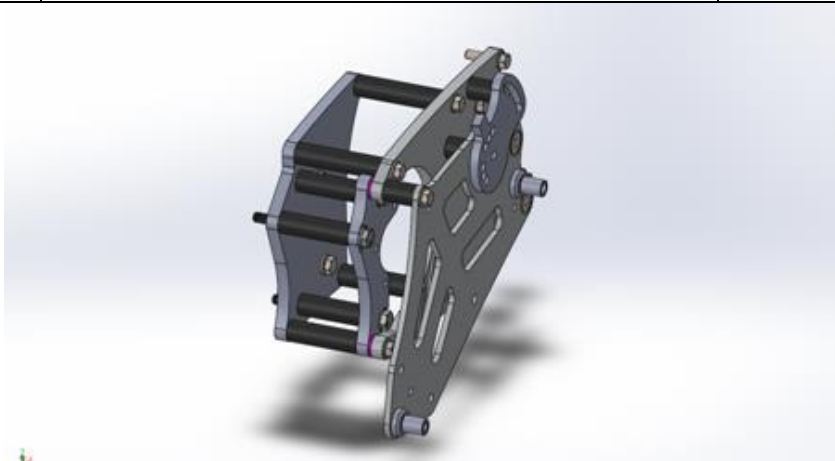


- Using a 13mm socket unbolt the power steering pump and with the lines still hooked up move out of the way temporarily to allow room to bolt up the brackets on the driver side head area of the engine.

- **ECS Camaro Bracket Kit Standard Steering (No Hardware) PN: ECS-100-418**



A	Camaro Idler Mount Cover Bracket	1
B	Camaro Main Supercharger Bracket "H Bracket"	1
C	Camaro Main Cylinder Head Bracket	1
D	Camaro Adjustable Tensioner Bracket	1
E	Camaro Power Steering Bracket	1
F	Spacer L: 3.00" ID: 10MM Head Bracket to PS Bracket	4
G	Spacer L: 3.625" ID: 3/8" Head Bracket to SC Bracket	3
H	Spacer L: .125" ID: 3/8" Between PS Bracket and SC	2
I	Spacer L: 1.31" ID: 10MM SC Bracket to Cover Mount	3
J	ECS Modified Alternator Bracket	1

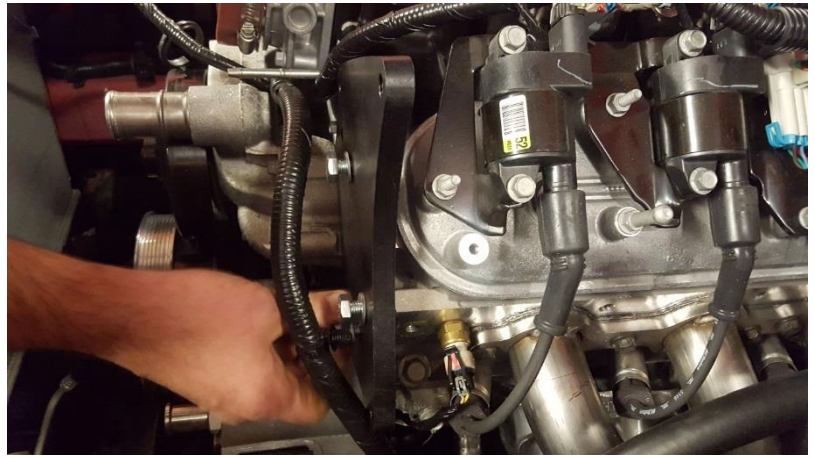


- **ECS Camaro Head Unit Hardware Pack PN: ECS-100-402**

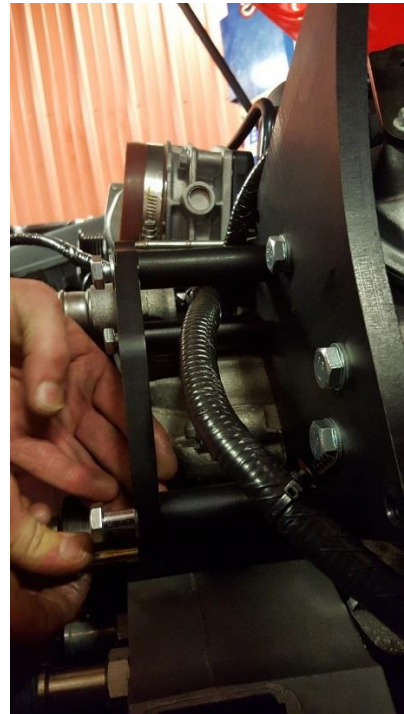


3/8" x 1.25" Hex Bolts	6
3/8 Washers	6
3/8-16 x 4-3/4" Hex Bolt	4
M10-1.50 X 120MM Hex Bolt	2
M10-1.50 X 110MM Hex Bolt	1
M10-1.50 X 65MM Hex Bolt	1
M12-1.50 X 60MM Hex Bolt	1
M10-1.50 X 20MM Button Head Bolt	2
M10 -1.50 X 90MM Stud	1
3/8-16 X 2.75" Hex Bolt for 1.31 Spacer	1
M10-1.50 X 235MM Stud	1
M10-1.50 X 80MM Machined Bolt	1
M12-1.50 Countersunk Allen Bolts	2
M10-1.50 X 100MM Hex Bolt	1
M10-1.50 X 30MM Hex Bolt	3
M10 Washer	14
M12 Washer	1
M10 Flanged Lock Nut	2

- **Cylinder head bracket plate:**
Using the 3 supplied M10 x 30mm, bolt up the plate to the driver side head as shown below and torque bolts to 37 ft/lbs.



- Using the supplied hardware from top to bottom: M10 x 100mm, M10 x 120mm and M10 x 110MM and use the four 3.00" long spacers (F) to bolt up the power steering pump bracket THROUGH the head plate and into the driver side head, make sure to route the wire harness as shown in the pictures between the spacers.



- For the bottom spacer will need to install the bottom most spacer and hold it in place with one of the long 3/8 bolts until you tighten up the three M10 bolts, once the bracket is tight you can remove the 3/8 bolt and the spacer will stay in place, otherwise you cannot access this spacer later.



- Now you can re-install the power steering pump and reservoir assembly on the ECS power steering bracket using the factory 13mm hardware. Torque to 18 ft-lbs.



*****2013+ E-Steer Cars ONLY Idler Bracket Install*****



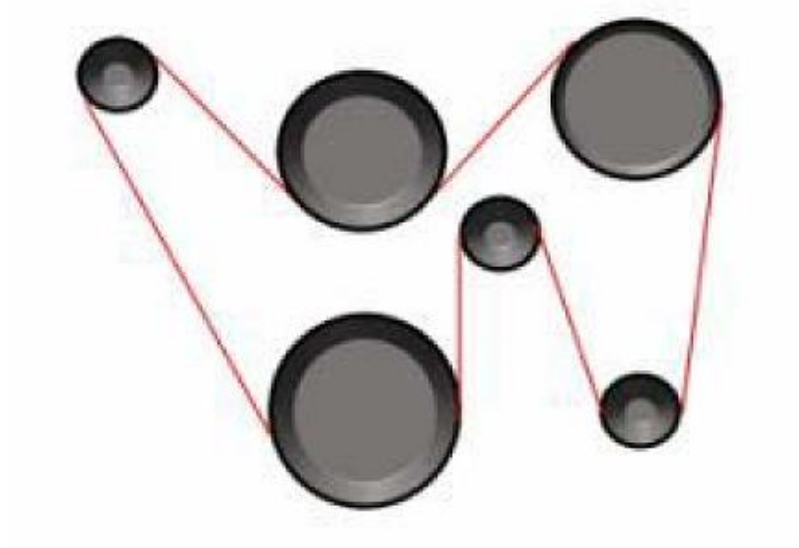
- Since 13+ cars do not have a power steering pump you will need to install one of the factory idlers on to our bracket instead of the power steering pump bracket. After removing the factory idler bracket, remove one of the idlers and save to be used. Next install the supplied idler bracket (E) the same way as the power steering pump bracket described in the previous step and as shown below.



- Use the supplied spacer (K) and install the factory idler and bushing on to the new ECS idler bracket and torque to spec.

- **6-Rib Belt Install:** With the power steering pump or idler in place you can install the accessory drive belt according to the chart and diagram below:

ECS Kit Accessory Belt '10-'12	25-060849
ECS Kit Accessory Belt '13+ E-Steer	25-060810 (Stock)
ECS Kit Accessory Belt ATI '10-'12	25-060840
ECS Kit Accessory Belt ATI '13+ E-Steer	25-060802
ECS Kit A/C Belt ATI UD Balancer	25-040373-SF



Standard Power Steering:

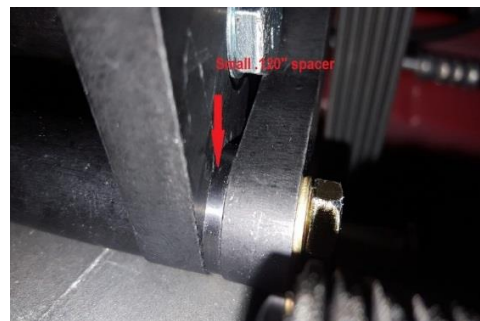
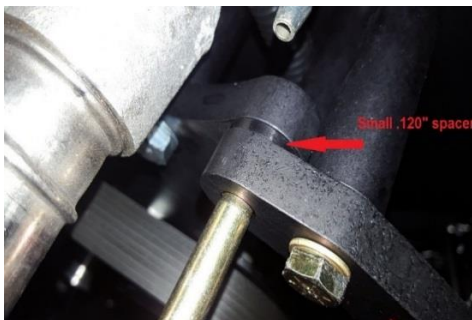


E-Steer:

- **Main supercharger bracket:** Use the 4 supplied 3/8-16 x 4-3/4-inch-long bolts and the three 3.625" spacers to install the main supercharger bracket by sliding the bracket and spacers over the power steering reservoir and installing the 4th bolt through that bottom spacer held in place by the power steering pump bracket and thread into the cylinder head bracket.



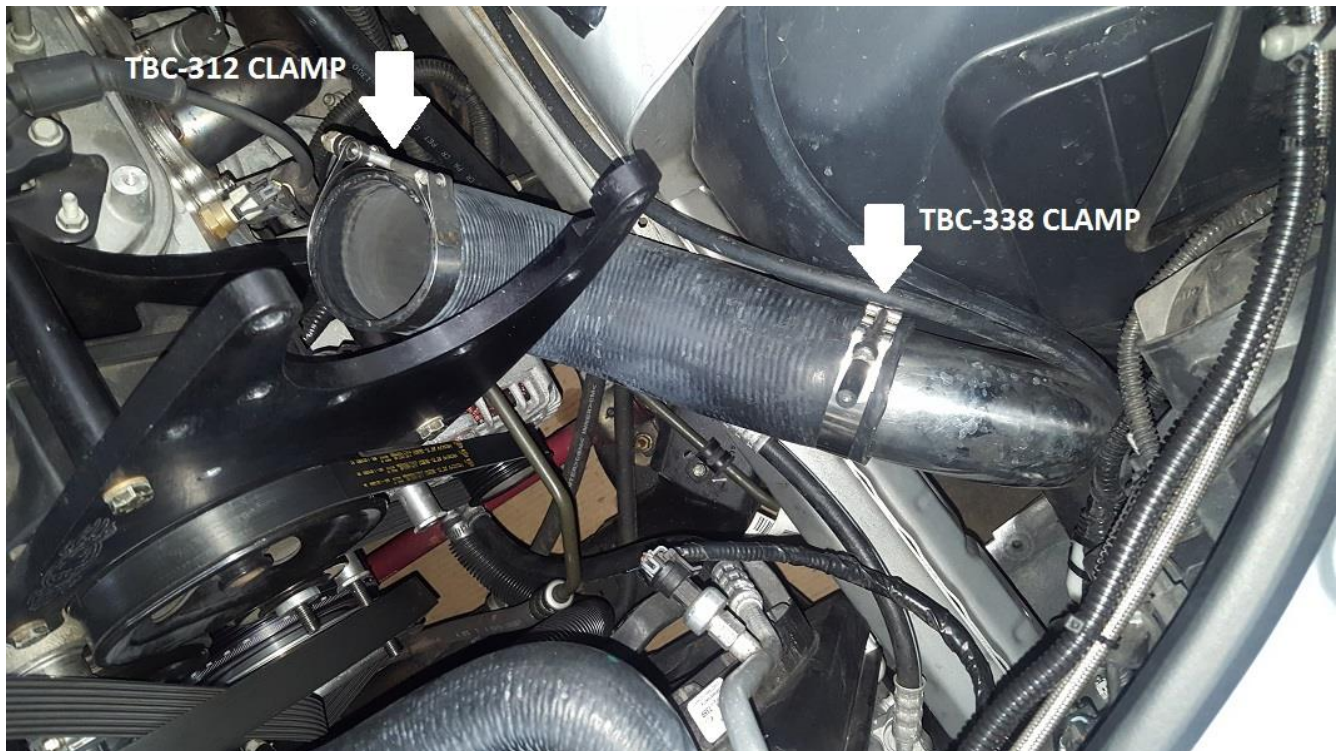
- ****Very Important**:** As you install the main supercharger bracket take care to install the two small .120" spacers (H) between the main supercharger bracket plate and the power steering pump bracket, see images below. You can use a 3/8 bolt to hold the washer in place while you tighten down the other 4 3/8 bolts leaving the top .120 washer pressed between the brackets and you can remove the 3/8 bolt holding it in place.



- **Radiator fans:** Now you can re-install the radiator fan assembly and secure with factory 13mm hardware and be sure to plug in wire harness on passenger side.



- Now is a good time to install one of the supplied 90 degree elbows on to the BOV charge pipe installing the long leg on the BOV pipe secured with a **TBC-338** clamp and place the **TBC-312** clamp for NOVI 1500 blowers in preparation for installing the supercharger unit in the next step. ****NOTE: USE A TBC-338 FOR NOVI 2200 SERIES BLOWERS****

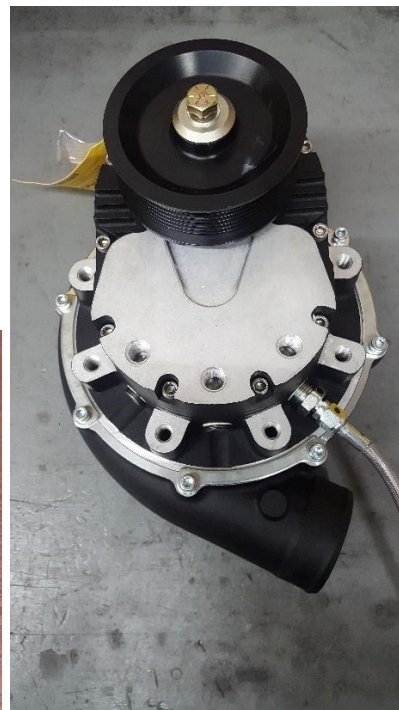


- **Supercharger unit clocking:** Reference the picture below to make sure your supercharger has been properly clocked and the drain line and discharge are in the correct position. If not, to properly clock the blower discharge simply loosen the allen head cap bolts and remove the retaining straps. Once loos you can rotate the housing to the desired location, and re-install bolts and straps.

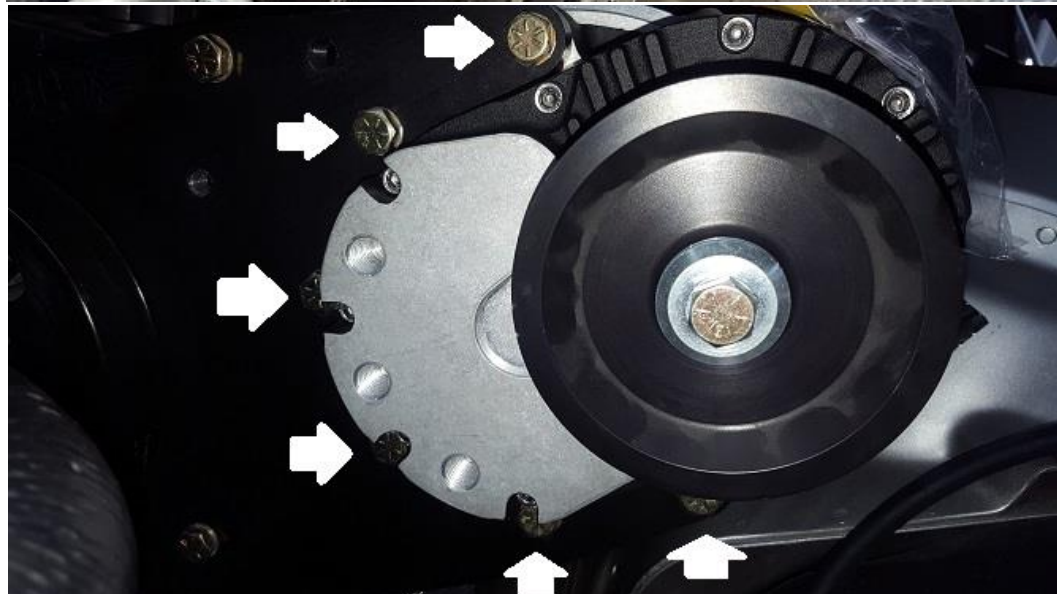


- **For internally lubricated SL units:** The supercharger has been pre-filled with special Paxton synthetic lubricant (included with your kit). Oil does not need to be added to a brand new unit, however a fluid check should be performed prior to installation to ensure its properly filled. Remove the factory installed flat head shipping plug (not the dipstick) from the top of the supercharger gear case. Replace the sealed shipping plug with the supplied vented plug. Do not operate supercharger without it. Check supercharger fluid level with the dipstick in the following procedure:
 - 1- **Ensure that the .06 in. cooper sealing washer is located on the dipstick base.**
 - 2- **Thread the clean dipstick into the unit until it seals.**
 - 3- **Once the dipstick has seated, remove the dipstick from the unit. Fluid should register in the crosshatched area on the dipstick.**

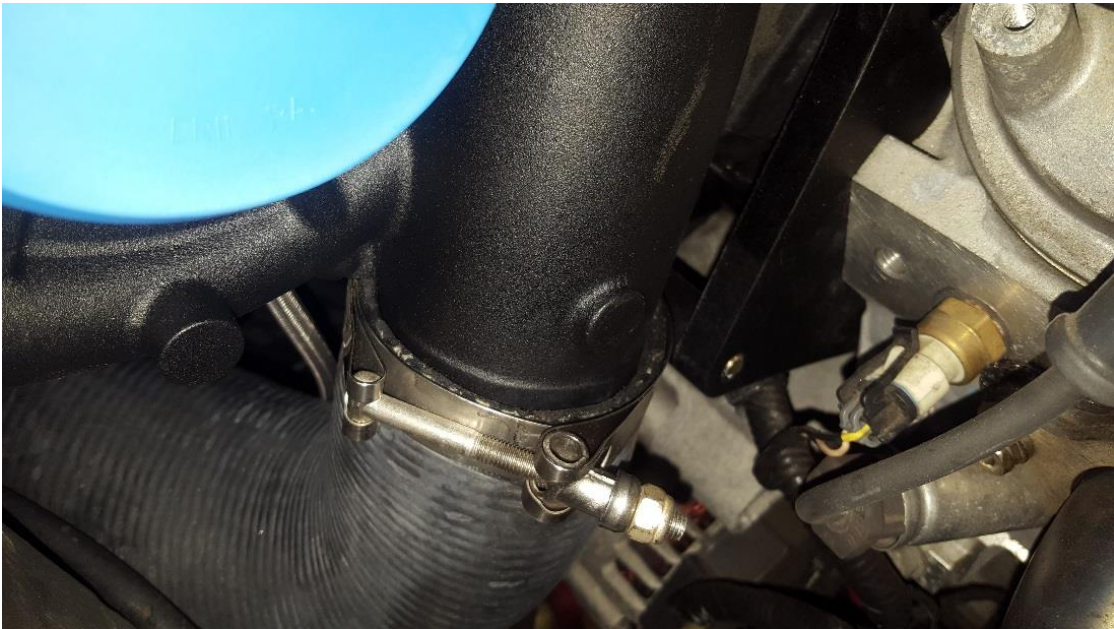
- 4- **DO NOT OVERFILL! Drain excess fluid from the unit if it is above the maximum level on the dipstick.**
- **Supercharger unit install:** Now that that supercharger is clocked it is time to install the head unit pulley, install the supplied ECS supercharger pulley paying attention to install it with the long and machined side facing down towards the blower.
 - Next line up the keyway slots and install the supplied 3/16 keyway, followed by the bolt and retainer assembly and tighten down to 35-40 ft-lbs of torque and use a small amount of blue loc-tite. (you will be able to final torque this bolt once the belt is installed)



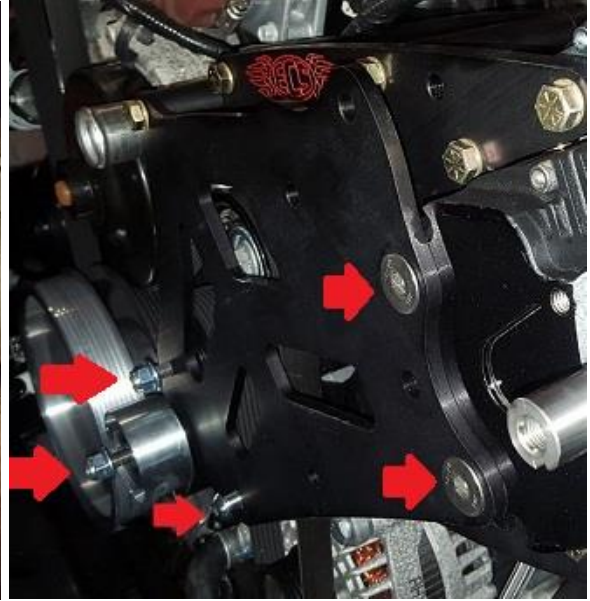
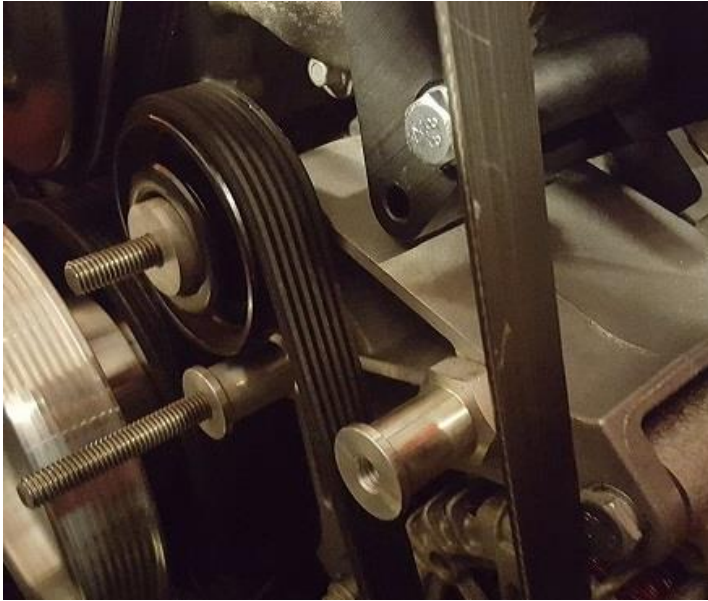
- Install the head unit assembly on to the supercharger bracket with the **SIX** supplied **3/8-16 x 1-1/4** bolts and washers with a 9/16" socket and torque down to 40 ft-lbs. As you install the head unit into the bracket slide the blower outlet into the 90° elbow and clamp already in place. Route the drain line to a location you can access it to drain and secure out of the way.



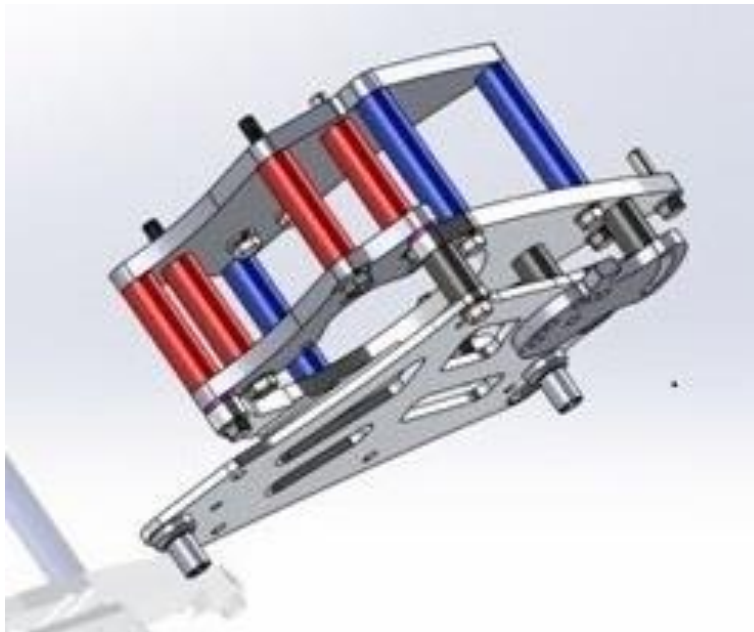
- Tighten down the blower discharge clamp at this time since it will be difficult to get to once the air filter is in place.



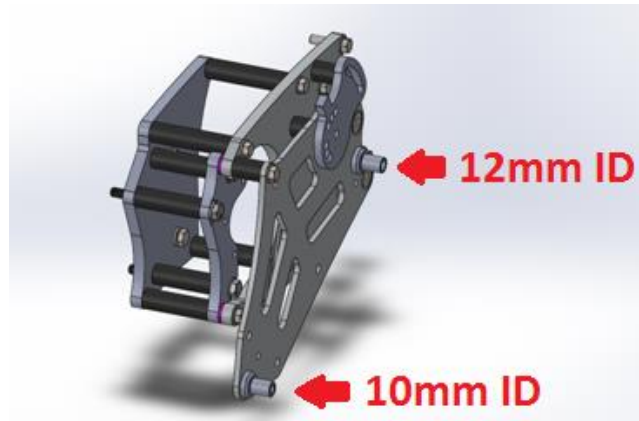
- Install the front idler plate by sliding it over the long and short studs coming out of the alternator bracket and securing it with the two countersunk cap screws into the supercharger case leave finger-tight for now.



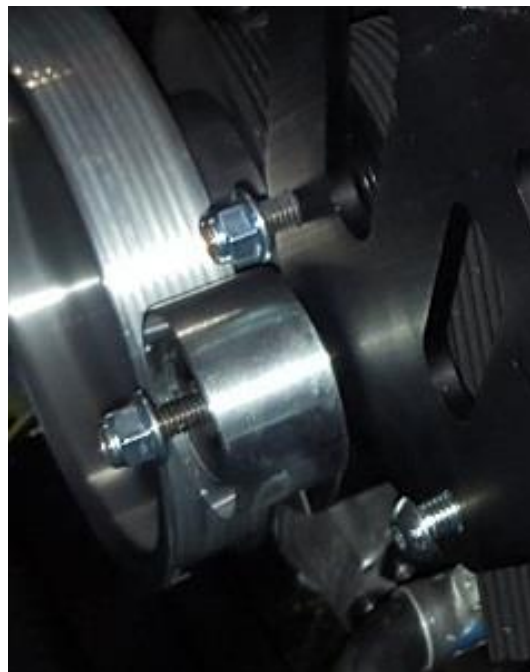
- You will need to install the 3 x spacers 1.31" long from the SC Bracket to Cover Mount (gray spacers below). Left most spacer is installed with a 3/8-16 x 2-3/4" bolt and washer. Do not tighten down hardware yet, you will need to slide the two other 1.31" spacers when installing the tensioner plate and tensioner.



- Note the location of the two idler bushings, the lower one is 10MM ID and the top one is 12MM ID.



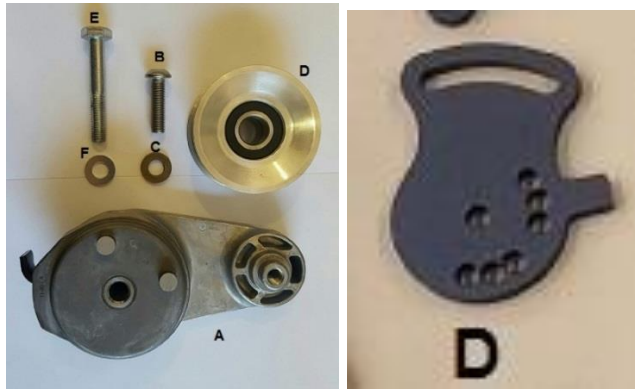
- Slide the 10MM idler bushing over the long stud along with one of the idler pulleys and secure both studs with flared M10 lock nut and the supplied M10 x 20mm button head bolt into the M10 stand off on the alternator mount.



- Next install the 12MM ID upper idler and bushing using the supplied M12 x 60MM bolt and washer, torque down to 37 ft-lbs.

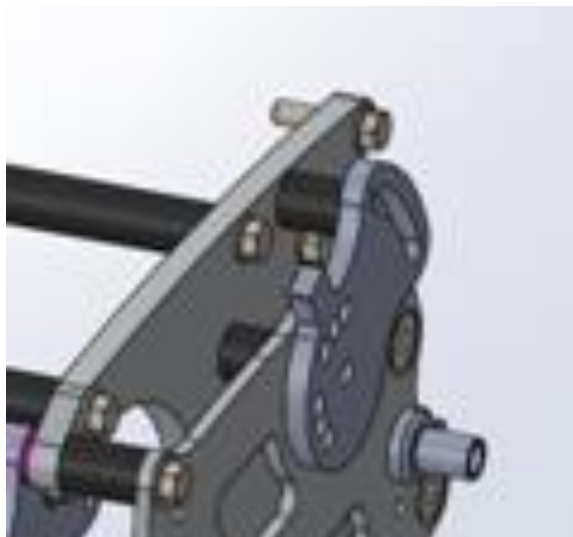


- **HD Tensioner Assembly and Install:**

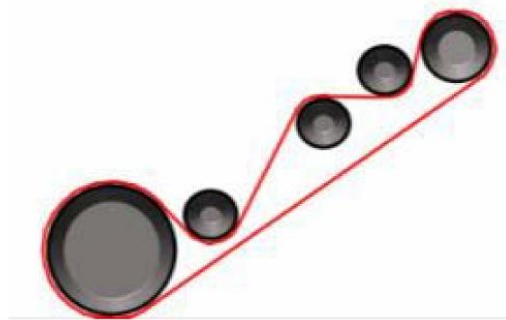


A	ECS Camaro 8-Rib Tensioner	1
B	Button Head Bolt M10-1.50 X 35MM	1
C	3/8 Thick Washer	1
D	Camaro Tensioner 8-Rib Grooved Idler	1
E	M10-1.50 X 65MM Hex Bolt	1
F	M10 Washer	1

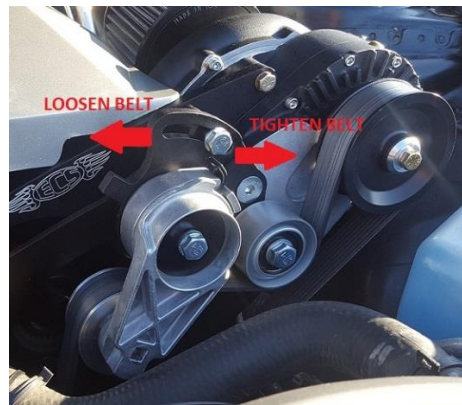
- Assemble the tensioner idler pulley on the HD tensioner with the supplied button head bolt M10 x 35MM and washer (B,C) using some blue loc-tite to secure it. You will use the supplied M10 x 65MM hex bolt and washer (E,F) to mount the tensioner to the tensioner plate (D) using the locating tabs to clock the tensioner in the desired location to allow for maximum adjustability.
- Next install the tensioner plate and the two 1.31" spacers and secure the top spacer with the supplied bolt and the bottom one will be secured when you slide the tensioner mounting bolt and thread it into to supercharger bracket.
- At this point you can tighten all the hardware on the front plate making sure all three 1.31" spacers are in place.



- With the tensioner plate in its fully open position route the ECS supplied supercharger belt 25-080720 for 8-rib or 25-100719 for 10-rib setups. Route belt as shown in the diagram and pictures below and get ready to pre-load the tensioner.



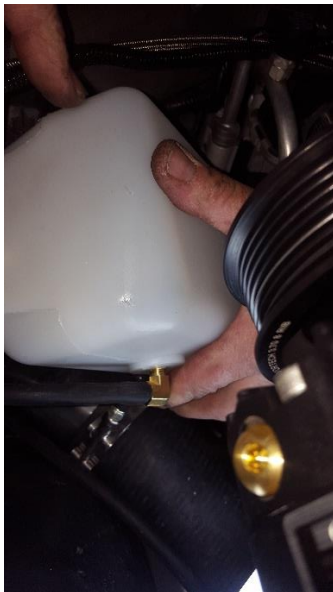
- Next loosen the two M10 bolts that secure the tensioner plate and tensioner enough to move the tensioner plate freely using a 17mm open end wrench on the adjustment tab on the tensioner plate. Use a 3/8" ratchet with a short extension and place it into the 3/8" slot in the tensioner, now pressing the ratchet clockwise from the top, swing the tensioner and tensioner plate until you feel the belt start to tension and secure the top plate bolt to hold the assembly in place before final tension is set.



*Next using an open-ended wrench on the tensioner plate tab apply pressure on the plate, loosen the 17mm plate bolt so you can swing the tensioner plate clockwise and setting the belt tension while making sure the tensioner tab (green) does not bottom out on the stops (red). Lock both M10 bolts down beginning with the top plate bolt, followed by the tensioner bolt.



- Now the belt tension is set you can final tighten the head unit pulley bolt with the belt keeping the pulley from spinning.
- **!!TIGHTEN AND CHECK ALL OF THE CLAMPS FROM THE BLOWER DISCHARGE TO THE INTERCOOLER AND SECURE AT THIS TIME!!**
- **Washer Tank Final Install:** You will need to route the new washer pump hose installed earlier and connect it to the barbed fitting on the bottom of the new aux washer tank.



- Using the supplied $\frac{1}{4}$ " hardware, mount the tank using the previously installed rivet nuts. Do not overtighten the rivet nut bolts as they could strip the rivet nut out.



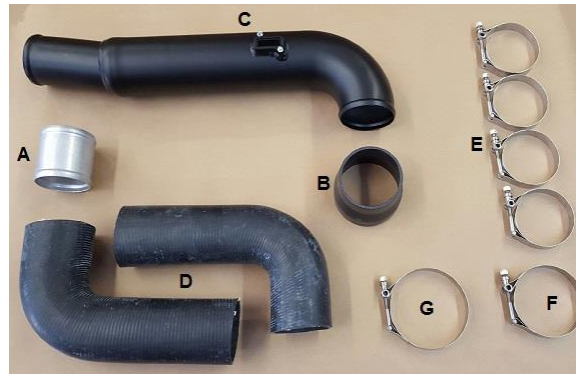
- **New upper radiator hose:** For additional belt clearance you will need to install the new ECS supplied radiator hose. 2010-2012 vehicles equipped with a power steering cooler you will need to measure about 4" from the radiator side elbow and cut the hose so you can splice the factory power steering adapter and install the hose and secure with supplied clamps.



- 2013-2015 electronic steering vehicles will install the supplied hose unmodified, paying attention to the engine/water pump side marked ENG and secure with two of the supplied clamps.

Intercooler to Throttle Body Ducting

ECS Camaro Charge System Ducting Kit (Intercooler to Throttle Body) PN: ECS-100-416



A	3" OD Aluminum Coupler 3" Long Bead Rolled	1
B	Silicone Reducer 3.5" to 4.0"	1
C	Camaro Charge Tube LS3 MAF	1
D	3" Black 90* Hose	2
E	3.38" T-Bolt Clamp	4
F	3.88" T-Bolt Clamp	1
G	4.38" T-Bolt Clamp	1

- Install factory Mass Airflow Sensor into the ECS MAF pipe (C) using the supplied screws.
- Install one of the 90 elbows (D) with the short side on the passenger side intercooler discharge and secure with a TBC-338 clamp (E).



- Next use the supplied 3" coupler (A) and two of the TBC-338 clamps (E) to join with the second 90 elbow (D) and angle upwards towards the throttle body/MAF pipe.



- Next secure the MAF pipe with a TBC-338 clamp (E) to the 90* elbow coming from the intercooler and using the silicone reducer 3.5" to 4.0" and the TBC-388 (F) and TBC-438 (G) couple the MAF pipe to the throttle body.



- **!!AT THIS TIME TIGHTEN AND CHECK ALL THE CLAMPS FROM THE INTERCOOLER TO THE THROTTLE BODY!!**

- Now you can CAREFULLY re-install the front fascia with the factory hardware saved after removal.



- **Air filter and restrictor plate:** Before you install the air filter on the supercharger you will need to install the supplied 2.55 ID restrictor plate, this will help regulate boost at higher RPM levels yet keep the boost coming on strong in the mid-range giving you an earlier torque curve, with the 2.55 ID restrictor on a stock car you will see right around 9 psi. Press the restrictor plate into the groove on the inside of the air filter. (If running a 2200HD, R or X or YSi head unit you will not use a restrictor plate).



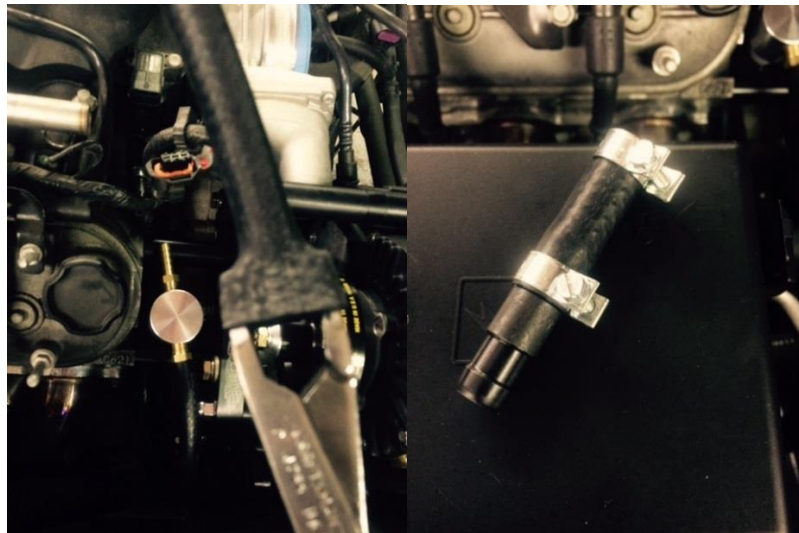
- We offer different side restrictor plates to help dial in your boost levels, we do not recommend taking out the restrictor plate unless you plan on running 17+psi and over 700whp.
- Install the air filter on to the front of the supercharger with the supplied 4" clamp, making sure it is secure on the blower inlet. If the air filter comes off you risk an over-boost situation.

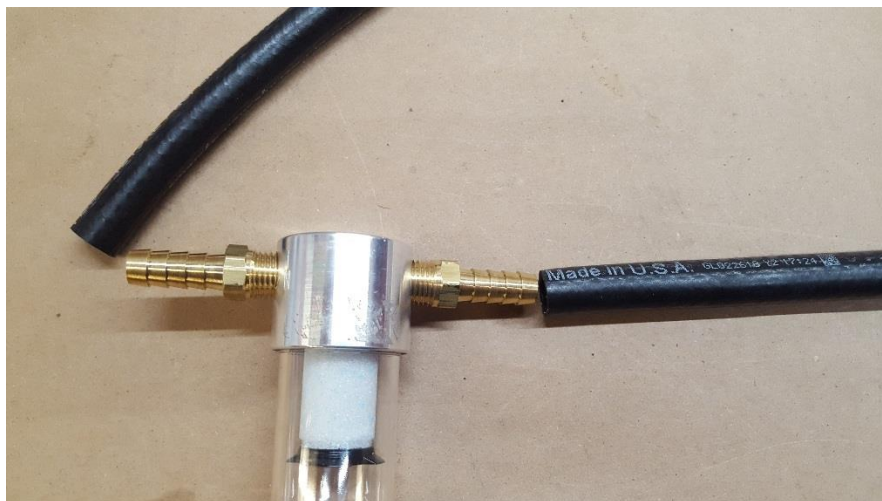


- **Catch can and PCV system:**

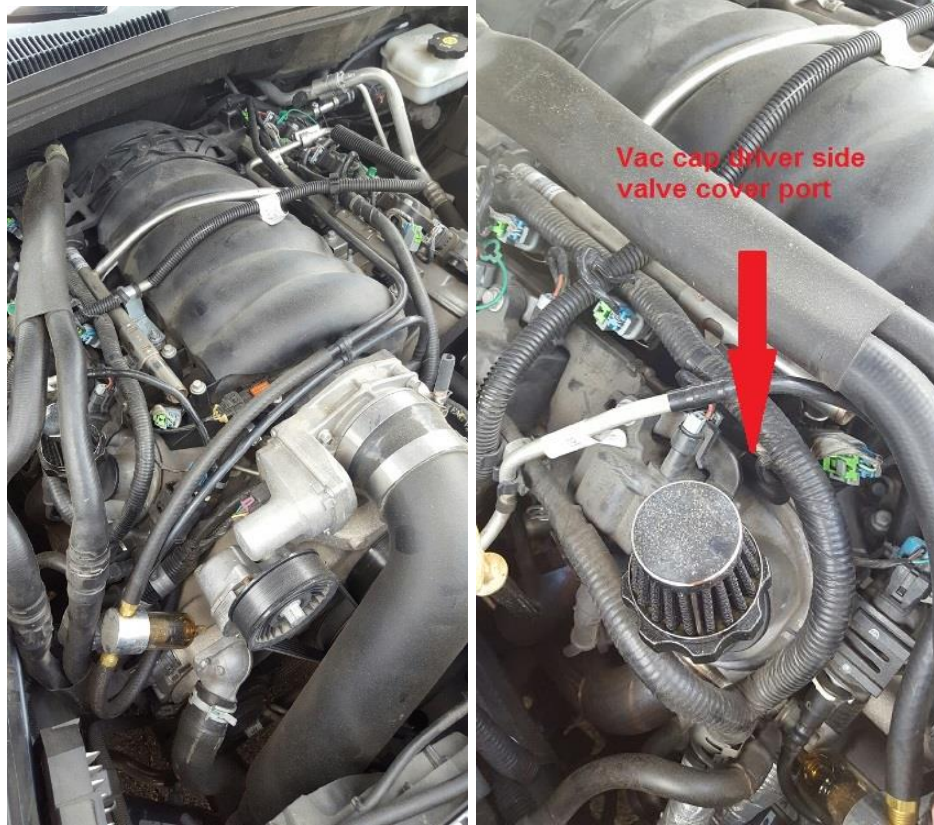


- **LS3 Car:** To install the ECS catch can kit you will need to first cut three sections of the 3/8 PCV hose supplied: 2.5", 6" and 17". Next place the large end of the PCV check valve into the 2.5" section and install that assembly into the intake manifold port as shown below.





- **L99 Cars:** For a Auto L99 car instead of routing to the valley cover you will route the long hose from the catch can inlet to the passenger side valve cover and cap the driver side valve cover port.



****Make sure to install ECS supplied oil cap breather****

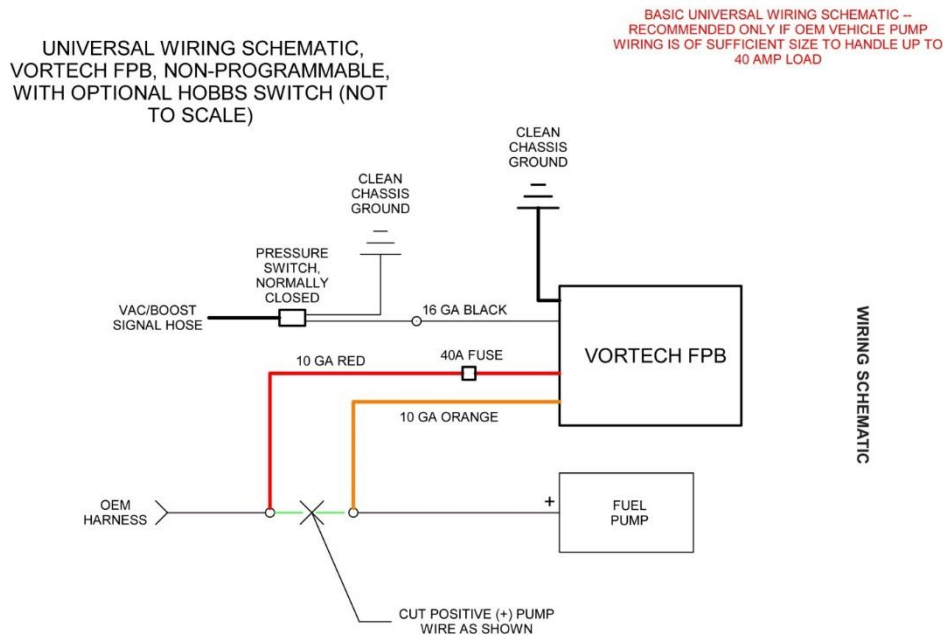
ECS Fuel Pump Voltage Booster Install

All information, Illustrations and specifications contained herein are based on the latest product information available at the time of this publication. Changes to the manual may be made at any time and without notice. Contact East Coast Supercharging for any additional information regarding this product and any of these modifications at 609-752-0321 or email Support@EastCoastSupercharging.com.

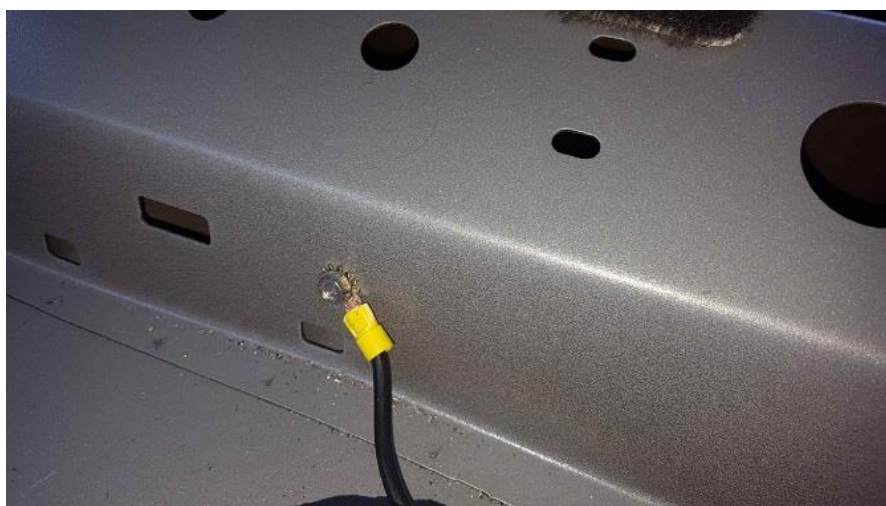
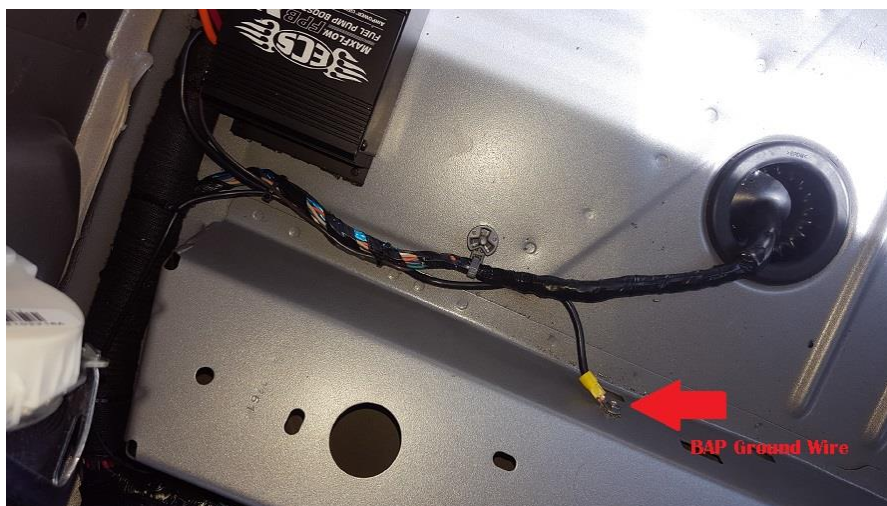
PLEASE TAKE NOTICE BEFORE PROCEEDING: Proper installation of this accessory requires general automotive mechanic and electrical knowledge and experience. Please browse through each step of this instruction manual prior to beginning the installation to determine if you should refer the job to a professional installer/technician. Please contact ECS for possible installers in your area.

****Before beginning this installation, please read through this entire instruction manual****

The ECS FPB was designed specifically for use on performance applications where there is a requirement to provide increased fuel pump performance beyond the vehicles stock fuel pump system. As with any power enhancing product, this unit is intended for use on healthy, well-maintained engines. East Coast Supercharging and Vortech Engineering are not responsible for engine or fuel components damage.



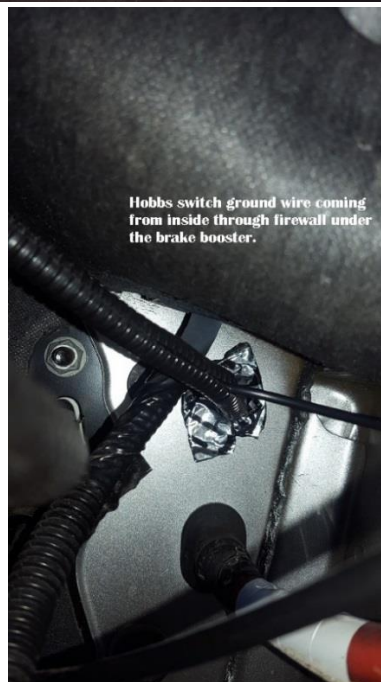
- Begin by removing the back seat backrest and bottom, the passenger side inner door sill cover and the inner quarter panel by pulling towards the center of the vehicle, exposing the fuel pump control module.
- Using the supplied hardware mount the Fuel Pump Booster to the floor below the FPCM and find a good spot for the ground wire, making sure to have a good grounding surface and make sure to grind away any paint when attaching the ground.



- Next locate the red wire with white tracer coming from the FPCM plug. Cut and splice the wire BEFORE the FPCM plug and wire in the red fused wire from the BAP towards the fuel pump and the orange wire towards the FPCM as shown in the pictures below.



- Next route the remaining hobbs switch brown wire along the factory harness underneath the carpet to the driver side of the vehicle and then up the driver side door sill and through the firewall or other suitable location to the hobbs switch mounted on the fuel rail as suggested earlier in the instructions. The brown wire from the BAP goes to one of the hobbs switch terminals, it does NOT matter which terminal as they are reverse polarity. Using the remaining wire run a ground to the other terminal and secure out of the way.





Final check and maintenance:

Prior to startup, make sure the PCM has been programmed with at least a start file. If you need a start file you can contact ECS and we can supply you with one but it will require a GM 2-Bar MAP sensor PN: GM-12592525. Once programmed you are ready to start the vehicle and check belt alignment and for leaks.

Final PCM calibration must be done before any kind of boosted driving. Start file is intended purely to get the car running and check the install.

Check all fittings, nuts, bolts and clamps for tightness. Check all fluid levels including engine oil, blower oil and coolant. Make sure all hoses and wires are away from moving parts and headers. Check the injectors and fuel rails for any fuel leaks.

Paxton SL 1500 Maintenance Schedule:

Check the fluid level using the dipstick at least every 2,500 miles. Initial supercharger fluid change must be performed at 2,500 miles. We recommend doing the blower oil change on the same schedule of your engine oil anywhere between 2,500-3,500 miles.

WARNING: Use of any fluid other than the specific Paxton supercharger oil will void the warranty and may cause unit failure.

Questions or comments to: sales@eastcoastsupercharging.com or 609-752-0321