

# C6 Corvette 2005-2007 High Output Intercooled System **Installation Guide**



The Intercooled Supercharging Experts!®

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## INTRODUCTION

Congratulations on purchasing your ProCharger® C6 Corvette 2005-2007 High Output Intercooled System. Read this entire manual before you attempt to install your ProCharger kit. It is imperative that you follow all of the instructions in the order they appear in this installation guide. If you have any questions regarding any aspect of this installation, call us at (913) 338-3086.

For best results, we recommend reviewing the installation instructions beforehand, and following the installation instructions closely and in sequence. A detailed packing list has been provided to assist you in identifying the components of your ProCharger system.

### Required Tools and Supplies

- 3/8" Socket Set (standard & metric)
- 1/2" Impact Gun
- 1/2" Socket Set (standard & metric)
- 1/2" Breaker Bar
- #20 Torx Wrench
- Open End Wrench Set (standard & metric)
- Dex-Cool Coolant
- 3/8" Hex Bit Set (allen head)
- Flat Screwdrivers
- Phillips Screwdrivers
- Plier Set
- Propane torch



**Warning:** Your supercharged Corvette must always be run on 91 octane or higher gas.

You should also have the following gauges available to properly check the finished installation and monitor your vehicle's performance (especially for testing):

- Manifold Boost Pressure Gauge
- Fuel Pressure Gauge
- Wide Band Oxygen Sensor and Gauge

Gauges should be of a type that can be read from the cockpit while performing a wide-open throttle road test. Cockpit or hood-mounted gauges are preferable. In order to obtain usable readings, the gauges should measure pressure at the intake manifold and fuel rail. IF VEHICLE DOES NOT MAINTAIN PROPER FUEL PRESSURE, DECREASE THROTTLE APPLICATION IMMEDIATELY. In some cases, extra vehicle modifications can strain the stock fuel pump. If your vehicle has difficulty retaining adequate fuel pressure, contact ATI ProCharger about the availability of an upgraded fuel system.

The engine on which the ProCharger® is to be installed should retain the factory compression ratio. If it has been modified in any way, please consult ProCharger staff before proceeding with the installation. This supercharger system is intended for use on STOCK, strong, well-maintained engines/transmissions. Installation on a worn or troublesome powertrain should be reconsidered. ATI PROCHARGER WILL NOT BE HELD RESPONSIBLE FOR DAMAGE TO A VEHICLE'S POWERTRAIN. ATI ProCharger is not responsible for ECM tuning/programming on non-stock vehicles. ATI PROCHARGER recommends verifying that your vehicle has current ECM updates from the vehicle manufacturer before installation.

For best performance and reliability, always use premium grade fuel (91 octane or higher) and listen closely for signs of detonation, which might sound like ball bearings rolling around in a tin can. IF DETONATION SHOULD OCCUR, OR IF YOU ARE UNSURE WHETHER WHAT YOU'RE HEARING IS DETONATION, DECREASE THROTTLE APPLICATION IMMEDIATELY and please consult ATI ProCharger staff. Detonation should not be an issue with a properly installed intercooled supercharger system, though OEM factory-shipped engine and parts inconsistencies are possible on any vehicle.

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**TUNING THESE VEHICLES IS A MULTI-STEP PROCESS THAT SHOULD BE INITIATED BEFORE SYSTEM INSTALLATION BEGINS. PLEASE ALLOW 1 COMPLETE BUSINESS DAY TO RECEIVE YOUR MODIFIED TUNE FILE. CONTACT ATI WITH ANY QUESTIONS REGARDING TUNING FOR THESE VEHICLES.**

# TUNING



**Note:** This section only applies to full systems, which include a hand-held tuner. If you do not have a full system, additional tuning will be required before starting the vehicle.

## inTune Programmer



**Warning:** Voltage fluctuations are a common cause of reflashing failure. Be sure your battery is fully charged, remove the cooling fan and fuel pump fuses, keep the stereo off, and do not open or close any doors or windows while reflashing.



**Warning:** During a reflashing, either stay in the vehicle or open a window prior to reflashing to prevent getting locked out.

- 1) Remove the inTune programmer from its box and review the included instructions for updating your device.
  - 1) Connect the inTune programmer to your PC with the provided USB cable. Allow the device to load drivers to the PC.
  - 2) Run the inTune updater software.
- 2) Connect the inTune programmer to the OBD-II port located below the steering column using the OBD-II cable included with your programmer.
- 3) Upload your stock tune from the ECM to the inTune programmer:
  - 1) Select **Tune Vehicle**
  - 2) When prompted turn the key to the on position without starting the engine
  - 3) Select Advanced Tune
  - 4) Select Install Standard Tune
  - 5) Select Modify Stock Tune
- 4) Follow the on screen prompts. Your original backup will be saved.
  - 1) Select Backup Only
- 5) Connect the inTune programmer to your PC with the provided USB cable. A window will appear showing the inTune as an additional storage device.
  - 1) Select Open Files
  - 2) Select Tunes
  - 3) Select VIN Folder
  - 4) Click and drag the Original Backup file to your PC's desktop or hard drive
- 6) Email the **Original Backup** file to [tuning@procharger.com](mailto:tuning@procharger.com) with the ProCharger serial number in the subject line.
- 7) You will receive the tune for your vehicle within 24 hours. Save the modified tune to your desktop or hard drive.

- 8 Connect the inTune programmer to your PC and open the inTune drive:
  - 1) Click and drag the ProCharger Tune file from your desktop or hard drive to the inTune drive.
  - 2) Allow the file time to load, do not disconnect before the file has finished loading
  
- 9 Connect the inTune programmer to the OBD-II port located below the steering column.
  
- 10 Download the modified tune from the inTune programmer to your vehicle:
  - 1) Select **Tune Vehicle**
  - 2) Select **Advanced Tune**
  - 3) **Install Custom Tune**
  - 4) **Select Procharger**
  - 5) **Select Apply Tune**
  
- 11 Follow the on-screen prompts:
  
- 12 The ProCharger tune will now be written to your vehicle. This process can take several minutes.



### **Troubleshooting:**

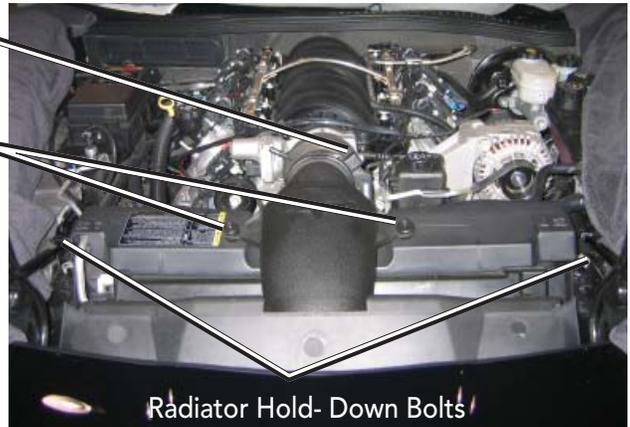
- *If the programmer fails to install the tune to your vehicle for any reason, it will enter into "VEHICLE RECOVERY MODE." Reprogram the vehicle with the "RESTORE VEHICLE" option before attempting to install the ProCharger Tune again.*

# GETTING STARTED

- 1 Disconnect the negative battery cable from the battery.
- 2 Remove the driver's and passenger's side plastic engine covers by pulling firmly upward. Set the covers aside.
- 3 Remove the wiring connector from the Mass Air Flow Meter (MAF).
- 4 Disconnect the PCV hose from the bellows connector.
- 5 Loosen the hose clamp that attaches the bellows to the throttle body. Remove the factory air-bridge and bellows from the vehicle using a firm upward motion to pull it off of the throttle body and free of the rubber retention grommets.
- 6 Remove the plastic radiator hold-down by removing the two bolts on each side using a 10mm socket.
- 7 Use a 15mm wrench on the center bolt of the factory rotary spring tensioner to rotate the tensioner clockwise until it bottoms out. Hold the tensioner in place and slide the factory serpentine drive belt off of the water pump pulley, making sure not to pinch your fingers. Remove the belt from the vehicle.

Mass Air Flow  
Sensor

Rubber  
Retaining  
Grommet

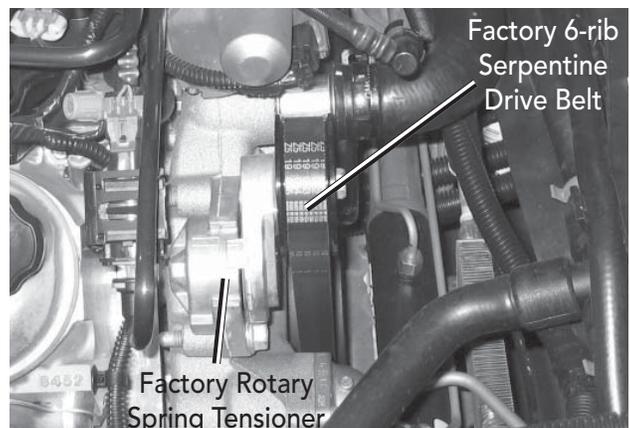


Radiator Hold-Down Bolts

Engine View without Hood



Stock Parts Removed



Factory 6-rib  
Serpentine  
Drive Belt

Factory Rotary  
Spring Tensioner

Stock Rotary Spring Tensioner

## Getting Started

- 8 Remove the factory tensioner from the vehicle using a 15mm socket.
- 9 Remove the air solenoid bracket from the passenger's side (it will not be reused). Flip the air solenoid over and wrap it around the oil filler neck, as shown.
- 10 Detach the coolant hose from the two brackets holding it to the fan shroud.
- 11 Detach the three wiring harness clips from the fan shroud.
- 12 Remove the 10mm bolt from the passenger's side fan shroud.
- 13 Unplug the fan wiring harness.
- 14 Rotate the steering wheel hard left, extending the tie rod ends fully toward the driver's side.
- 15 Raise the front of the vehicle using jack stands or a vehicle lift.
- 16 Remove both front wheels.
- 17 Remove the 10mm bolt from the driver's side fan shroud.



Air Solenoid and Bracket



Air Solenoid Relocated

# FRONT FASCIA

- 1 Remove both the driver's side and passenger's side splash panels and put aside.
- 2 Using a 10mm socket, remove the two nuts which retain the fascia to the front fenders on both sides of the vehicle.
- 3 Unplug both turn signals and fog lights.
- 4 Remove all of the air dam screws from the underside of the front fascia.
- 5 Remove the four 6mm screws located at the front of the engine bay which retain the fascia to the body.
- 6 Carefully unclip the fascia from the body and set aside. Slide a cloth in between the fascia and the center of the hood to prevent scratching.
- 7 Remove the front fascia from the vehicle.



Front Fascia Inside Engine Bay



Front Fascia Removed

## HARMONIC BALANCER

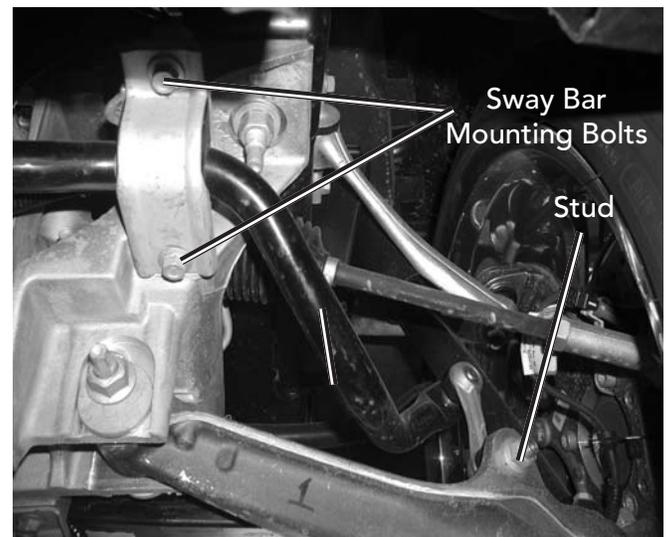
- 1 Using a 13mm socket or wrench, remove the two bolts that attach the traction control module bracket to the aluminum front cross member.
- 2 Remove the bolts which attach the sway bar to the aluminum K member. Remove the sway bar end links from the lower control arms and set the sway bar aside. Hold the stud with a Torx bit (T40).



Traction Control Module Bolts

✓ **Tech Tip:** The crank pulley can be pinned without removing the fan shroud. However, you have more room to maneuver if you remove it.

- 3 Remove the power steering cooler using a 10mm socket and disconnect the oil lines. These can be plugged or joined together temporarily to eliminate leakage.
- 4 Remove the two bolts that attach the steering rack to the front cross member using an 18mm socket on the front and an 18mm wrench on the rear nut. Note clips and their orientation for re-installation.



Sway Bar Mount (Driver's Side)



Power Steering Cooler

✓ **Tech Tip:** Lift the traction control module up and to the driver's side and secure with a wire tie to keep it out of the way.

5 Disconnect the tie rod ends from the steering arms.

6 Using a jack stand to support the aluminum K member, loosen BUT DO NOT REMOVE, the four K member attachment nuts. This will lower the engine slightly allowing access to the harmonic balancer bolt.

✓ **Tech Tip:** If you need more room to maneuver, place a wedge between the K member and the frame.

7 Using a pry bar, pry upwards to free the steering rack and bushings from the front cross member. Be careful not to damage the rack or any of the lines. Lift the rack up and towards the driver's side of the vehicle.

8 You should now have room to remove the harmonic dampener center bolt using a 24mm socket and an impact wrench. DO NOT REMOVE THE HARMONIC BALANCER. It may be necessary to heat the head of the bolt with a small propane torch to allow the bolt to be broken loose.



Passenger's Side Rack Mount



Driver's Side Front K Member Nut



Harmonic Balancer Bolt Removal

## Harmonic Balancer

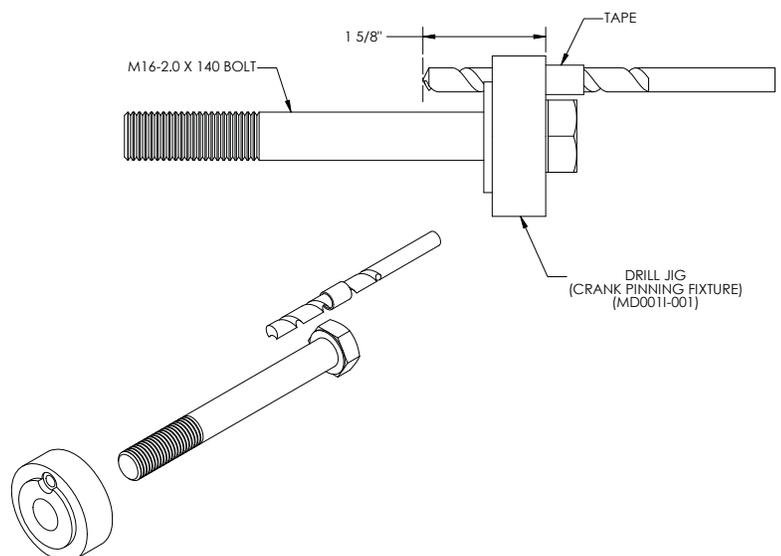
- 9 Install the supplied harmonic balancer pinning tool (drill jig) using the supplied M16 hex bolt. Tighten the bolt to hold the tool in place and prevent spinning during the drilling process.
- 10 Tape the supplied  $\frac{1}{4}$ " HSS drill bit  $1\frac{5}{8}$ " from the tip. Using this taped bit, drill a hole in the crankshaft and harmonic balancer, stopping at the tape edge of the drill bit. The hole will be centered on the OD of the crankshaft. Do not drill deeper than 0.800" into the face of the crankshaft.
- 11 Remove the pinning tool and set aside. Clean the chips from inside the drilled hole and the surrounding area thoroughly.
- 12 Install the supplied  $\frac{1}{4}$ " OD x 0.75" long stainless steel dowel pin in the hole and then install the supplied new factory center bolt (ATI Part # BO16MI-125, GM Part # 11589178) and torque to the factory specification of 37 ft-lbs plus an additional  $140^\circ$  of rotation.
- 13 Re-install the steering rack bolts, the traction control module, and the tie rod ends and tighten the carrier bolts. Re-install the sway bar.



Harmonic Balancer Pinning Tool



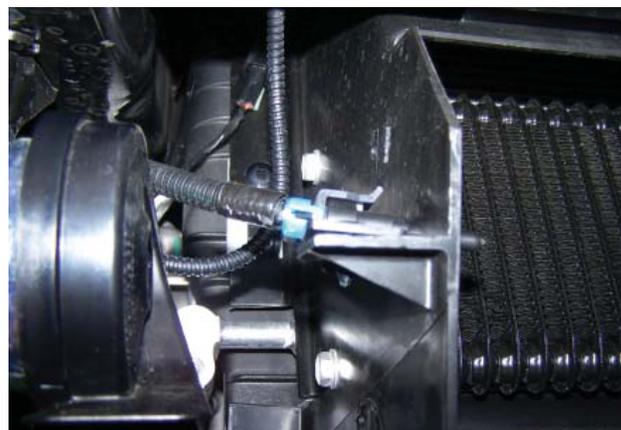
Drilling the Harmonic Balancer



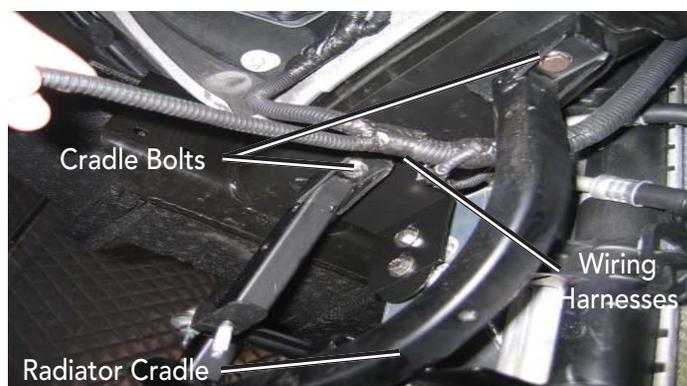
CRANKSHAFT AND HARMONIC BALANCER DRILL JIG

# RADIATOR

- 1 Unclip the ambient air temperature sensor from it's stock location.
- 2 Remove the plastic bracket holding the sensor.
- 3 Disconnect the horn assembly and remove it with a 10mm socket. Remove the horns from the bracket. Remove the ambient air temp. sensor from the factory cradle.
- 4 Remove the baffle (shroud) from the car and set aside. There are four clips that hold this shroud in place.
- 5 Remove the factory front air dam; retain the hardware for later use.
- 6 Drain the engine coolant into a clean container by turning the drain cock at the bottom passenger's side of the radiator approximately  $\frac{1}{2}$  turn. The coolant will drain out of the nipple. When the coolant stops draining, return the drain cock to its closed position.
- 7 Disconnect and separate the wiring harnesses that are routed through each side of the radiator cradle. Unbolt the (4) cradle bolts with a 13mm socket and extension and remove the cradle. Remove the driver's side fascia mounting hardware and install onto the new cradle bracket. Install the new air dam onto the cradle using the factory hardware.



Air Temperature Sensor



Factory Cradle Removal



Fascia Mounting Hardware

- 8 Install the supplied intercooler brackets (passenger's side AIGO21-001 & driver's side AIGO21-002). The intercooler brackets fit against the frame, followed by the cradle. Install the cradle utilizing the factory hardware. Reconnect all of the wiring harnesses previously disconnected in order to drop the cradle and route the lines back through the new cradle. Refer to the intercooler schematic for correct orientation of the brackets.
- 9 Cut the lower radiator hose and insert the provided 1.25" tube using the supplied #24 clamps. Re-install the modified hose and insert the radiator back into the cradle.
- 10 Install the horns onto the new cradle utilizing the factory nuts. Plug in the wiring harness.
- 11 Zip tie the ambient air temperature sensor to the new cradle.



Lower Radiator Hose Modified



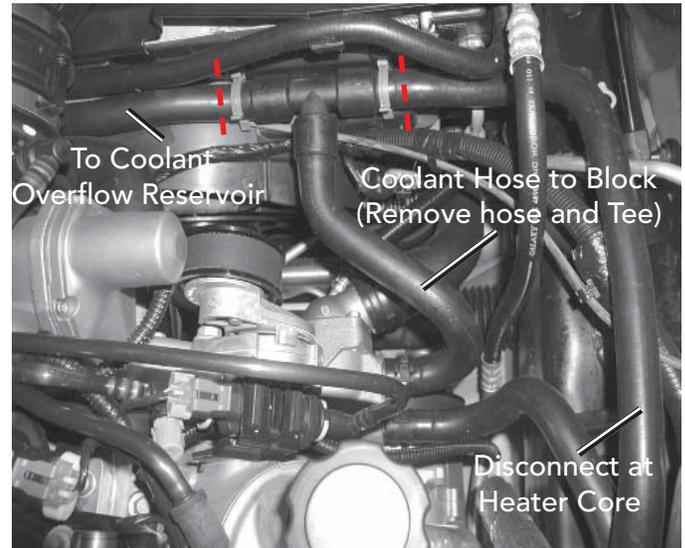
Horn Relocation



Temperature Sensor Relocation

# COOLANT HOSE

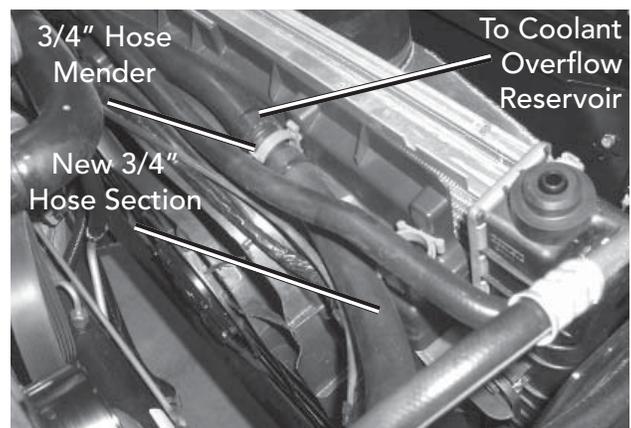
- 1 Locate the coolant hose that connects the coolant overflow reservoir to the engine block. Cut the factory tee after each connection.
- 2 Remove the factory hose section between the heater core and the cut made at the tee. Install the supplied  $\frac{3}{4}$ " hose mender and  $\frac{3}{4}$ " hose section. Connect one end of the  $\frac{3}{4}$ " hose to the hose mender and the other to the heater core. Splice the supplied  $\frac{3}{4}$ " tee into the now installed  $\frac{3}{4}$ " hose. Connect the factory hose from the block to the open end of the tee. Secure all connections with the supplied #10 hose clamps and refill the coolant.



Coolant Hose Modification



Supplied Tee Installed



New Coolant Hose

# PROCHARGER HEAD UNIT

✓ **Tech Tip:** A portion of the exhaust manifold gasket may be bent over the edge of the passenger's side cylinder head. If this is present, it will need to be trimmed for proper bracket to cylinder head mounting.

✓ **Tech Tip:** If you removed the throttle body, replace it at this time as well. If you have not already done so, refill the cooling system with acceptable Dexcool coolant at this time.



Sub-Bracket Mounting Locations

3 Insert the (1) 10mm x 1.5 x 50mm SHCS through the bottom hole of the sub-bracket, and then thread it into the cylinder head.

4 Insert the (2) supplied 10mm x 1.5 x 60mm hex head bolts with flat washers into the sub-bracket, then thread them into the passenger's side cylinder head.



Sub-Bracket Mounting

✓ **Tech Tip:** In order to get to the hex bolt behind the tensioner. Actuate the tensioner and start the bolt by hand.



Sub-Bracket Mounting

- 5 Install the oil drain line onto the supercharger.
- 6 Install the 4" long 3" rubber coupler on the discharge of the supercharger.
- 8 Slide the supplied 3.435" aluminum tube spacer over the 3/8" bolt in the main bracket.
- 9 Insert (1) 3/8"-16 X 6-1/2" (longest) HHCS with flat washer into the bottom outer hole of the sub-bracket and (1) 3/8"-16 X 6" (medium length) HHCS with flat washer through the main bracket. Slide the supplied 3.435" billet spacer block over the bolts.
- 10 Install the supercharger main bracket (with supercharger attached) to the sub-bracket as shown, using the supplied 3/8" brass lock nuts and flat washers. You may need to slightly bend the cooling lines out of the way to make room for the supercharger and tubing.
- 11 Tighten the (3) 9/16 bolts securing the supercharger to the vehicle.



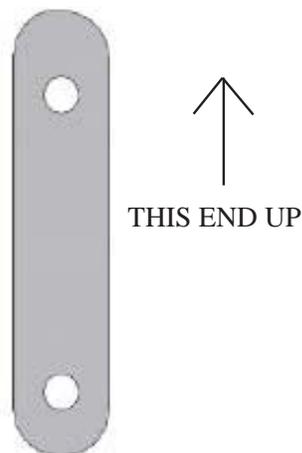
Main Bracket Assembly



Bolting Supercharger to the Sub Bracket



**Tech Tip:** When installing the main bracket assembly, note the orientation of the 2 hole block spacer. The spacer has different distances from the thru holes to the ends of the spacer. The end with the longer distance must face upwards in the vehicle. See image at right.



2 Hole Block Spacer  
Installation Orientation

## ProCharger Head Unit

- 12 Install the supplied supercharger belt (refer to the belt schematic for routing). Using a 3/4" wrench on the protruding nut on the back of sub bracket as shown. Rotate the wrench counter clockwise and slide the belt over the supercharger pulley and release.
- 13 At this time, fill your ProCharger with the supplied oil (6 ounces for a P1SC-1 or D1SC).



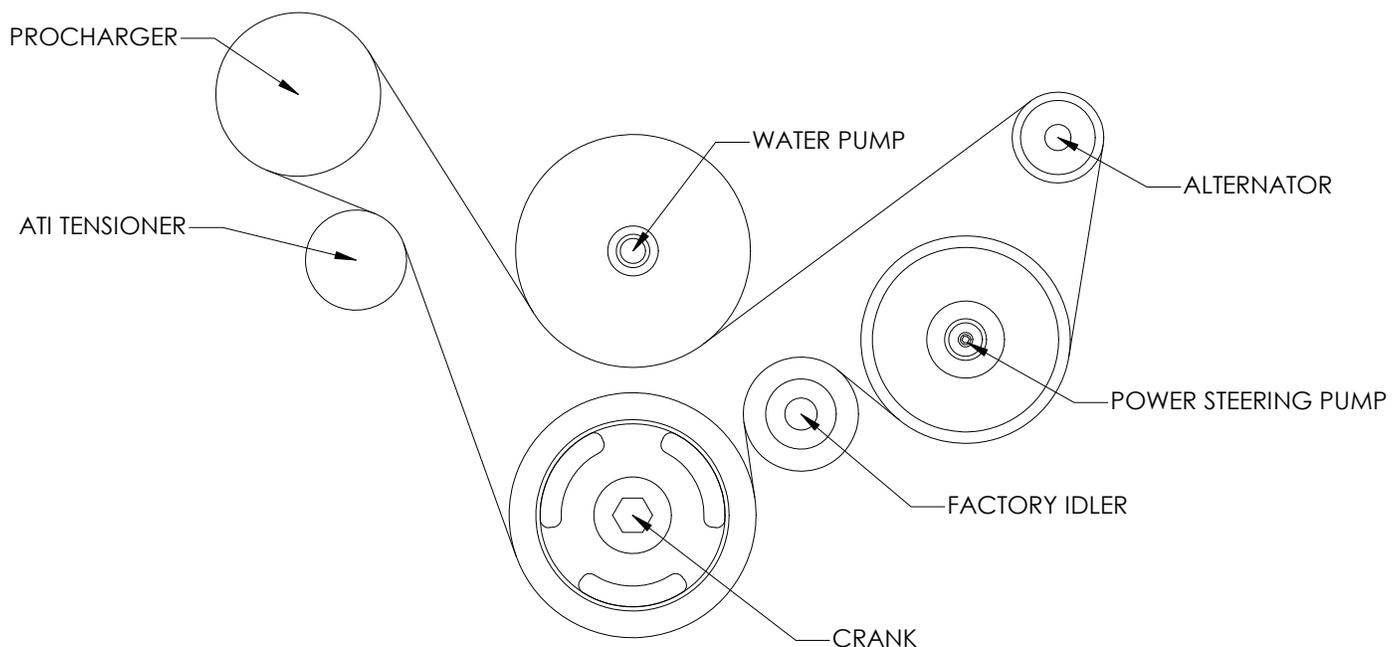
Install Belt

- 14 If equipped, install the supplied power steering cooler to the lower portion of the fan cage using zip ties, then route and attach the hoses to this cooler.



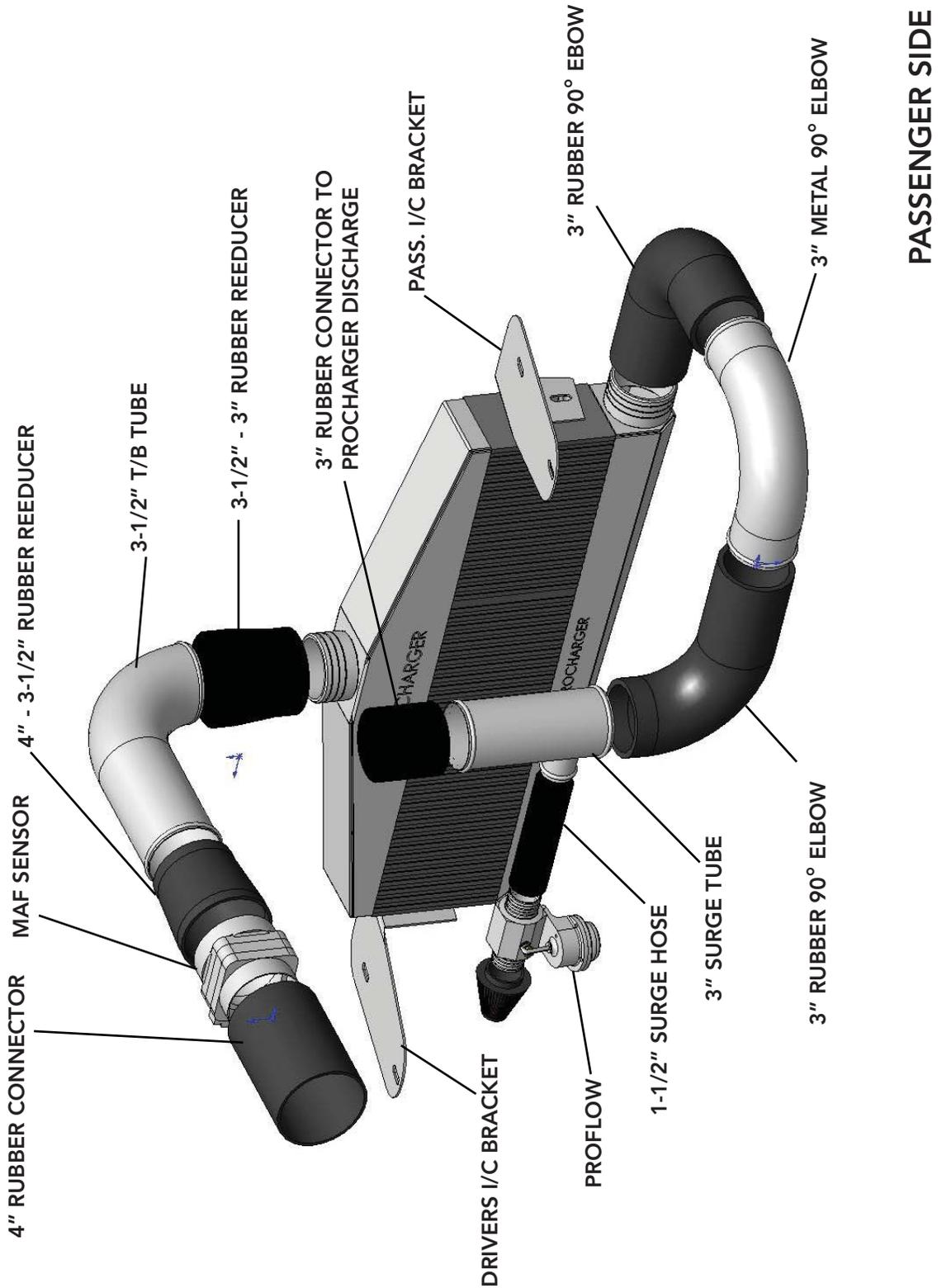
Power Steering Cooler, If Equipped

## C6 CORVETTE BELT ROUTING



# INTERCOOLER AND TUBING

## 2005-2007 C6 CORVETTE INTERCOOLER SCHEMATIC



## Intercooler and Tubing

- 1 Install the intercooler in front of the condenser using the supplied  $\frac{3}{8}$ " hardware.

✓ **Tech Tip:** Secure all connections with the supplied #52 hose clamps unless otherwise noted.

- 2 Install the 3" rubber elbow to the intercooler inlet on the passenger's side.

- 3 Insert the 3" metal 90° tube into the 3" rubber 90° elbow as shown in the intercooler schematic.

- 4 Install a 3" rubber connector onto the end of the 90° metal tube.

- 5 Install the 3" x 4" rubber connector to the supercharger discharge. Insert the 3" surge tube.

- 6 Insert the supplied 3" rubber 90° elbow onto the surge tube.

- 7 Install the Proflow anti-surge valve; refer to the intercooler schematic for positioning. The Proflow valve will be located between the cooling fan and the front of the engine.

- 8 Using an M6 x 25mm HHCS, two flat washers, and a jam nut, create a stud on the new cradle tab on the passenger's side for later mounting the fascia



Intercooler and 3" Elbow Installed



3" Metal 90° Tube Installed



Tubing Between Fan & Engine Cradle



Fascia Bracket

- 9 Trim the front fascia for clearance around the intercooler.



Fascia Trimming

## Intercooler and Tubing

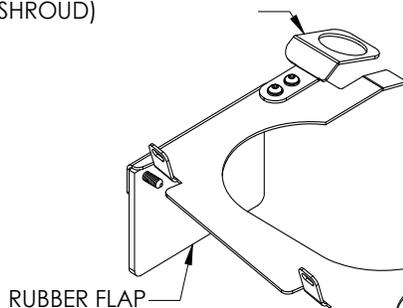
- 10 Re-install the front fascia and secure with the factory hardware. Do not fully tighten the four 6mm screws located at the front of the engine bay at this time. Install the supplied trimmed passenger's side splash panel as well as the original driver's side splash panel at this time.
- 11 Connect the driver's and passenger's side radiator core support brackets to the upper shroud using the supplied  $\frac{1}{4}$ " hardware. Use one  $\frac{1}{4}$ " - 20 X  $\frac{3}{4}$ " button head socket cap screw (BHSCS), two  $\frac{1}{4}$ " flat washers, and one  $\frac{1}{4}$ " - 20 hex lock nut for each hole.
- 12 Connect the supplied rubber flaps to each side of the upper shroud using the supplied plastic push pins.



Trimmed Splash Panel

- 13 Install the upper shroud assembly to the front fascia mounting holes as shown using the factory (original) screws. Place the radiator support brackets over the rubber mounts located on both sides of the radiator. The upper shroud seals the area in front of the radiator and acts as a support for the radiator and fan assembly.

PASSENGER'S SIDE  
RADIATOR CORE  
SUPPORT BRACKET  
(CAN ALSO BE PLACED  
ON THE BOTTOM OF THE  
SHROUD)



RUBBER FLAP

SHROUD

✓ **Tech Tip:** Removing the retaining clip on the A/C line near the service port may allow the A/C condenser and radiator to sit lower in the cradle.

DRIVER'S SIDE  
RADIATOR CORE  
SUPPORT BRACKET  
(CAN ALSO BE PLACED  
ON THE BOTTOM OF THE  
SHROUD)



RUBBER FLAP

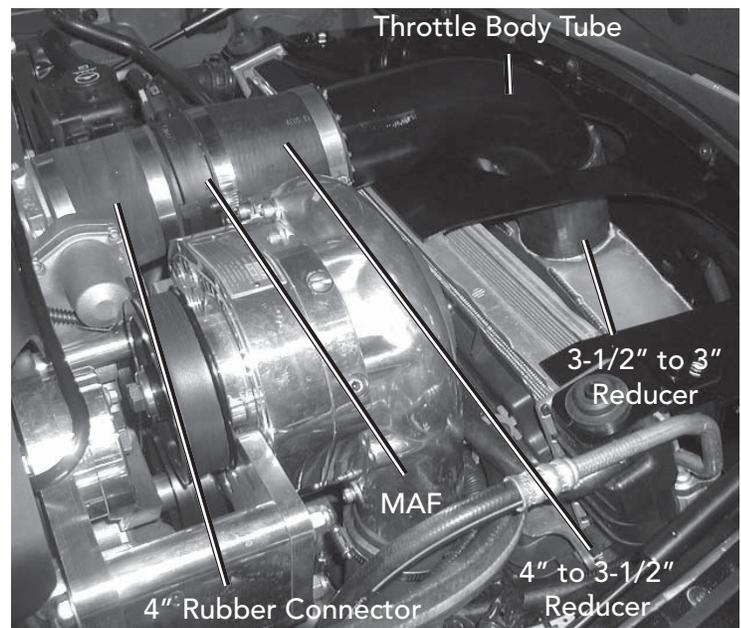
Upper Shroud

- 14 Connect the supplied 3½" to 3" rubber reducer to the 3" port on the top of the intercooler.
- 15 Remove the MAF sensor from the factory air inlet assembly using a T20 Torx bit. Re-install the MAF sensor into the MAF tube using the M4 X 12mm HHCS. Make sure the arrow on the MAF sensor is pointing towards the throttle body.



MAF Sensor Installation

- 16 Connect the steel throttle body tube to the rubber reducer.
- 17 Finally, connect the throttle body tube to the 3½" end of the 4" to 3½" rubber reducer using a #56 hose clamp, then connect the 4" end of this reducer to the MAF tube using a #64 hose clamp. Connect the 4" rubber connector to the MAF tube and throttle body using #64 hose clamps.



Throttle Body Tube Installation

# FUEL INJECTOR REPLACEMENT



**Note:** This section only applies to full systems, which include fuel injectors. If you do not have a full system, additional fuel system components will be required before starting the vehicle.



1 Remove the gas cap to relieve vapor pressure in the fuel tank and connect the negative battery cable.



**Tech Tip:** If the vehicle cannot be started to depressurize the fuel system, relieving the pressure by pressing the pin on the schrader valve is acceptable. Place a shop rag under the valve to collect leaking fuel.



2 Remove the fuel pump fuse from the fuse block in front of the battery. Crank the engine over for 5 seconds (the engine will not start) to bleed fuel pressure from the fuel lines and fuel rail assembly.



3 Remove the keys from the ignition. Replace the fuel pump fuse. Disconnect the negative battery cable.



**Warning:** The fuel system should be de-pressurized, but some fuel may leak out when the lines are disconnected. Take the necessary precautions to avoid injury or fire.



4 Using the supplied fuel fitting quick-disconnect tool, remove the supply line from the fuel rail (place a shop towel underneath the fitting on the driver's side to minimize fuel leakage).



5 Disconnect the fuel injector electrical connectors one at a time, labeling them by their corresponding injector location.



6 Disconnect the fuel rail wiring harness from the fuel rail. Remove the fuel rail attachment bolts.



7 Remove the fuel rail assembly as one piece with the injectors still attached and place on a clean work surface, making sure to support the assembly to avoid damaging any of the components. Have a shop rag accessible for leaking fuel.



8 Spread the injector retainer clips to release each injector from the fuel rail. Remove the old injectors and set aside.

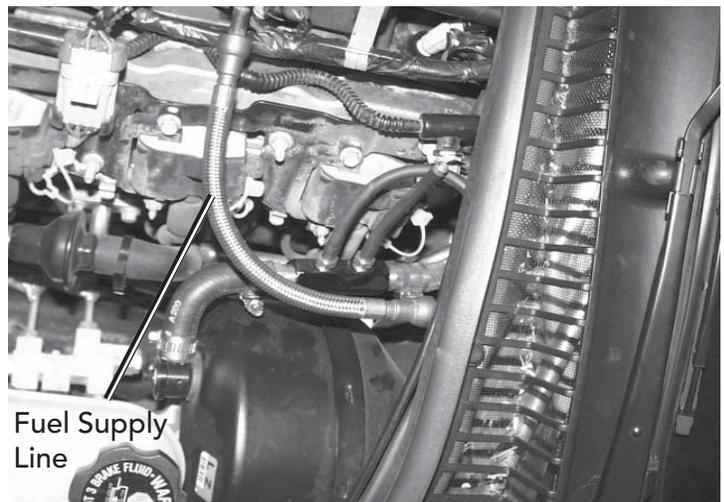


9 Remove the protective plastic caps from each end of the new injectors, being careful not to damage the o-ring seals. Lubricate each new injector o-ring seal with several drops of clean engine oil.

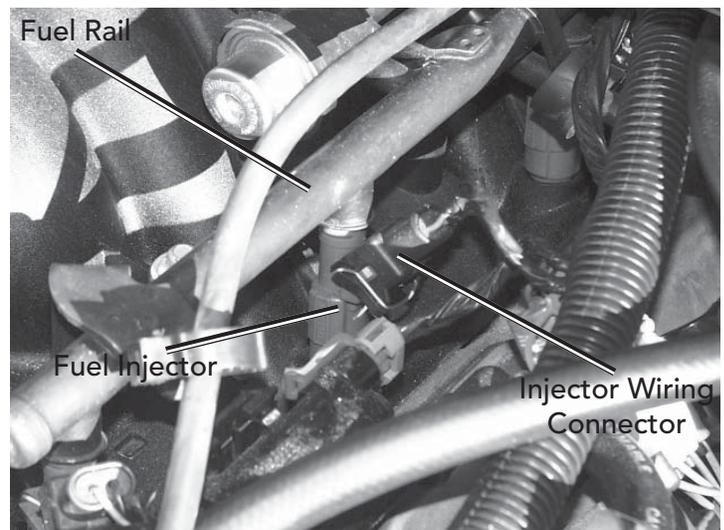


**Warning:** Never re-use fuel injector o-ring seals, as they lose elasticity over time and could cause a fuel leak and/or potential fire.

- 10** Install the retainer clips that were removed in step 8 onto the new injectors. Push each injector into the fuel rail injector socket with the electrical connector facing outward. The retainer clip should lock onto a flange on the fuel rail.
- 11** Install the fuel rail assembly onto the intake manifold, making sure that the injectors are rotated to line up with their corresponding electrical connectors. Using Loctite 272™ (high temperature thread locker) or equivalent, install the fuel rail bolts and torque to 90 in-lbs.
- 12** Connect each injector to the factory harness.
- 13** Replace the gas cap and negative battery cable. Re-install the fuel supply hose by pressing the fitting onto the fuel rail fitting until a snap is heard.
- 14** Check the new injectors for leaks by performing the following procedure:
  - A. Turn the ignition to the "on" position for 2 seconds; don't start the engine!
  - B. Turn the ignition off for 10 seconds.
  - C. Turn the ignition to the "on" position.
  - D. Check for fuel leaks at both ends of each injector and at the fuel supply hose fittings.
- 15** Proceed to the next section if no leaks are detected, otherwise, review the installation and remedy any problems.



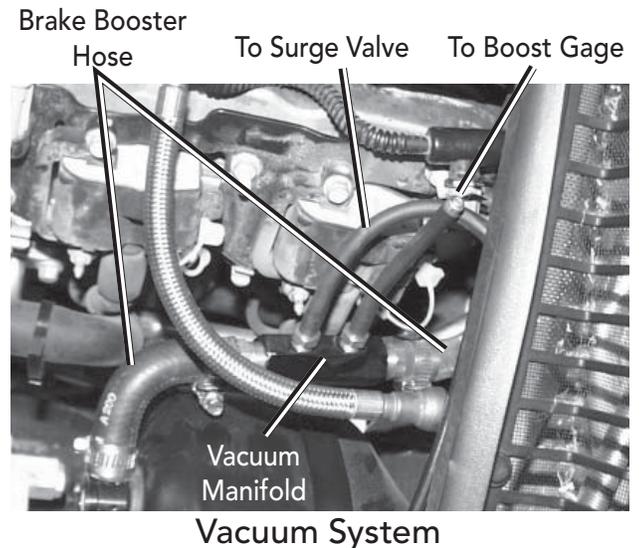
Fuel Rail Supply Line



Fuel Rail and Injectors

# VACUUM MANIFOLD

- 1 Locate the  $\frac{1}{2}$ " ID brake booster hose that runs along the passenger's side of the brake booster to the rear of the intake manifold.
- 2 Using a utility knife or razor blade, remove a  $3\frac{1}{2}$ " long section of the hose.
- 3 Install the supplied vacuum manifold and securely clamp in place using the supplied #6 hose clamps, making sure that there are no vacuum leaks at the splice points.

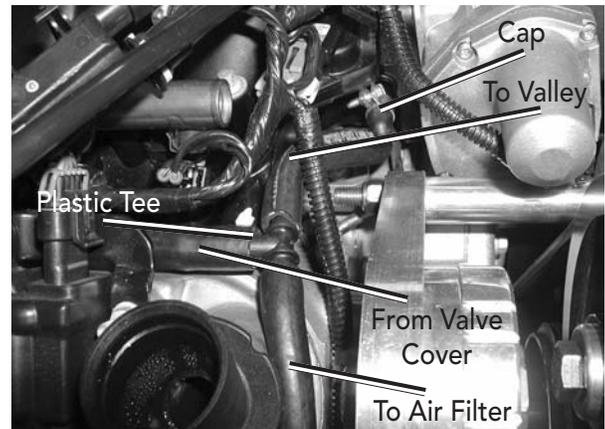


**!** **Warning:** *Improper clamping of the splice into the brake booster hose could cause a vacuum leak and could cause the power brakes to become inoperable. Use extreme caution in installing the vacuum manifold to prevent any possible leaks.*

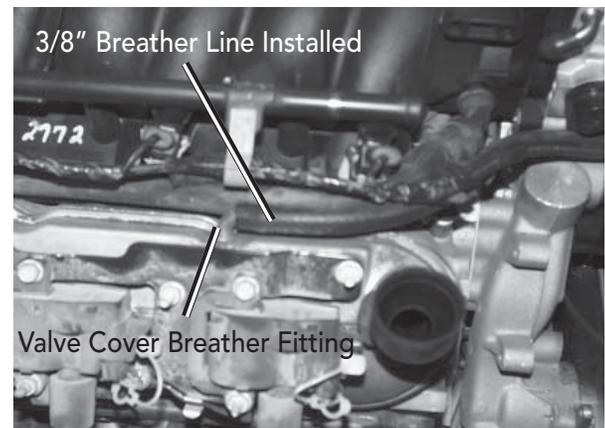
- 4 Attach the  $\frac{3}{16}$ " vacuum hose to one of the  $\frac{3}{16}$ " barb fittings on the installed vacuum manifold, then route and attach to the ProFlow anti-surge valve vacuum port if not already done. Attach a boost gauge to the other  $\frac{3}{16}$ " barb fitting. If you are not going to use a boost gauge, remove the  $\frac{3}{16}$ " barb fitting that isn't being used and replace it with the supplied pipe plug.
- 5 Secure all vacuum hoses to their fittings with zip ties.

## FINAL ASSEMBLY

- 1 Remove the crankcase ventline from the passenger's side valve cover and throttle body. Place the supplied  $\frac{3}{8}$ " rubber cap over the breather tube and secure with a supplied clamp. Remove the factory vent hose from the crankcase valley port near the underside of the throttle body and install a 6" piece of  $\frac{3}{8}$ " hose. Insert the supplied  $\frac{3}{8}$ " tee into the other end.
- 2 Attach the supplied  $\frac{3}{8}$ " breather hose to the fitting on the passenger's side valve cover and route to the  $\frac{3}{8}$ " tee. Secure both ends with zip ties. Route out of the way of any moving parts and secure.
- 3 Attach the remaining  $\frac{3}{8}$ " rubber hose to the open end of the  $\frac{3}{8}$ " tee and route towards the front of the vehicle.



PCV System



Passenger's Valve Cover Breather

## Final Assembly

- 4 Drill a  $\frac{3}{8}$ " hole in the bottom of the air filter and install the supplied  $\frac{3}{8}$ " plastic 90° barb fitting.
- 5 Connect the supplied  $\frac{3}{4}$ " rubber hose to the ProCharger inlet and secure with a #60 hose clamp.
- 6 Install the plastic air bridge and air filter. Secure connections with #60 hose clamps. Bend the tabs on top of the radiator to make more room for the air inlet.
- 7 Re-install the plastic engine covers, trimming the passenger's side cover as necessary to clear the bracket.
- 8 Check all fluids and correct levels as necessary.
- 9 Reconnect the negative battery cable.



ProCharger Air Bridge



Engine Cover

# OPERATION AND MAINTENANCE

## Cold Starting

Never race your engine and ProCharger supercharger when your engine is cold. Allow the water temperature to climb into operating range for several minutes before driving above 2,500 rpm, to ensure adequate oil lubrication.

## Fuel Quality

With a properly installed intercooled ProCharger supercharger system, detonation should not occur. For the best performance and reliability, use premium grade fuel (91 octane or higher). Listen for signs of detonation after refueling, and after replacement or modification of any fuel system component(s). If detonation occurs, reduce the throttle and locate the source.

## Ignition System Maintenance

If your spark plugs are more than a year old or have more than 10,000 miles logged, you should consider changing them before driving your vehicle under load. Spark plug wires should be changed if visibly damaged or when resistance exceeds factory specifications.

## Air Filter Maintenance

Your air filters should be cleaned periodically, potentially as often as every 10,000 miles or 6 months, even though a service interval of 50,000 - 100,000 miles is quoted by the manufacturer under normal driving conditions. A clogged air filter will result in decreased boost levels and vehicle performance. Be sure to re-oil the cleaned filter before re-installing. Always operate your vehicle with an air filter, failure to do so may result in damage to your ProCharger supercharger and personal injury!

## Belt Replacement

The serpentine belt, which turns your ProCharger supercharger, will stretch after initial run-in, and should be retightened after the first hundred miles. Tighten the belt sufficiently to avoid slippage, but do not overtighten. Overtightening the belt could cause damage to the ProCharger supercharger's precision bearings. When re-installing the belt, use the belt routing diagram in this manual. If you reuse a thrown belt and find that it needs frequent re-tightening, the belt is damaged and should be replaced. Gates Micro-V belts can be bought from ATI or from your local parts store.

## ProCharger Oil Change Intervals

The first oil change should be performed at 500 miles and at 6,000 mile intervals thereafter. Clean drain plug after every oil change. Drain oil by removing the drain plug. Clean off drain plug before re-installing.

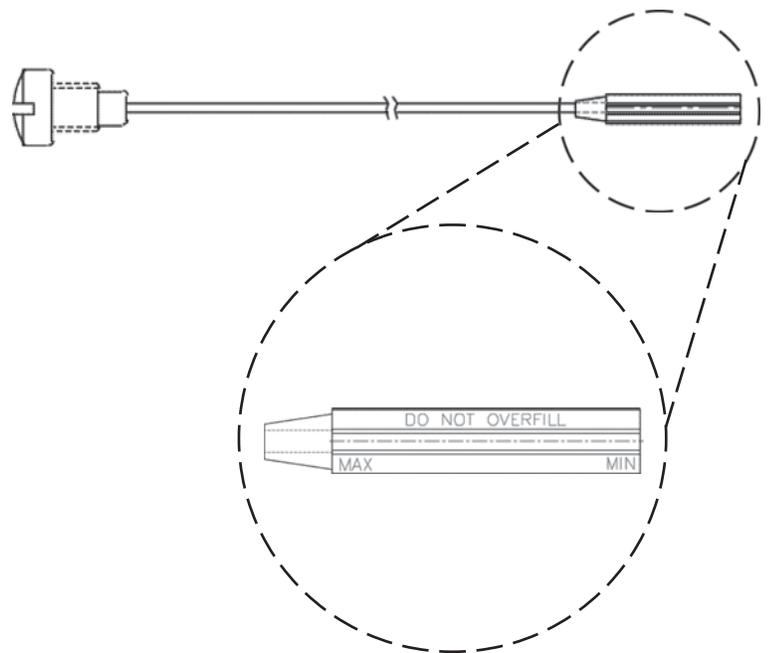
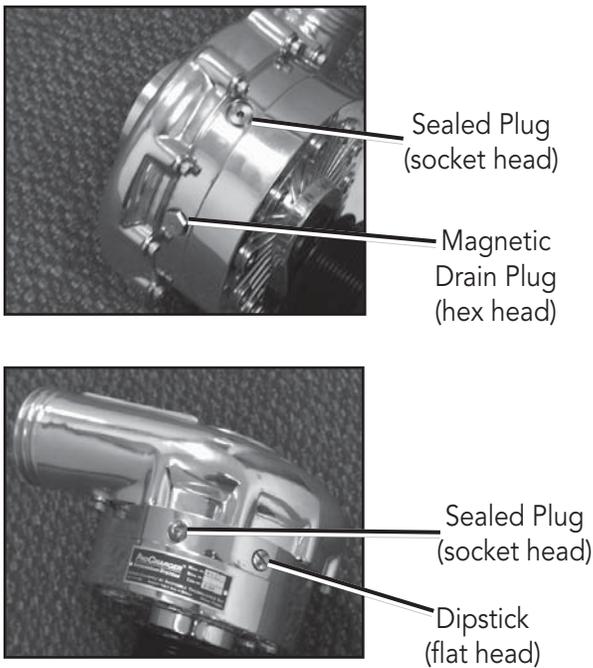
## ProCharger Oil Level

The ProCharger supercharger's oil level must be checked periodically to ensure the proper lubrication. The dipstick can be loosened using a flat blade screwdriver or a coin. When installed, the oil level should remain between the minimum (MIN) and maximum (MAX) indicators at all times.

**!** **Warning:** Filling the ProCharger higher than the maximum level on the dipstick can lead to bearing and seal damage. The supercharger is a sealed unit and should not normally require the addition of oil between service intervals. If excessive usage is noted, the unit should be sent to ATI for inspection and repair. The dipstick fitting should be firmly tightened after changing or checking the oil level.

## General

When removing the warning tag from the dipstick, be sure to retain the nylon washer. A spare nylon washer and o-ring is included. Use only the ATI supplied nylon washer and o-ring when servicing the oil dipstick and drain plug. A discoloration of the oil and residue on the drain plug may occur during the initial oil changes. This is normal and will gradually decrease. For the proper positioning of the ProCharger supercharger, the serial tag should be pointing upwards. Installing the ProCharger supercharger in another position will cause inadequate oiling and supercharger failure. If you have any questions about the maintenance of your supercharger, contact ATI.



## LIMITED WARRANTY

Accessible Technologies, Inc. (ATI) provides a limited twelve (12) month warranty on the ProCharger supercharger against defects in materials and workmanship unless otherwise specified. This limited warranty starts on the date of original purchase from your local dealer, or date of shipment from the factory. This limited warranty coverage is extended only to the original owner and excludes hoses, sleeves, and electronic components manufactured by other companies. IF THE SUPERCHARGER'S DRIVE RATIO IS ALTERED IN ANY WAY FROM THE FACTORY SETTING, WARRANTY COVERAGE IS VOID. USE OF ANY PULLEY NOT MANUFACTURED OR SUPPLIED BY ATI VOIDS ALL WARRANTY COVERAGE. ATI's warranty obligations are limited to the terms below:

ATI agrees to honor a warranty claim at its sole discretion and only after inspection at the ATI factory. No warranty will be honored if any part of the product is found to have been improperly installed, tampered with, mishandled, or misused in any way. Disassembly of the ProCharger supercharger or removal of the ProCharger supercharger's serial plate voids all warranties. Claims for freight damages should be directed to the freight company.

If ATI's limited warranty applies, your product will be repaired or replaced at ATI's discretion and shipped back. If the limited warranty does not apply, ATI will advise you of the specific reason, cost of the repair, and delivery time. After advising you of this information we will, at your option, either proceed with repairs or return your product to you in the state in which it was received. In either case the product will be shipped to you, insured at replacement value. Therefore, you will pay the return shipping and insurance charges if ATI's limited warranty does not apply to your product.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESS OR IMPLIED. THE DURATION OF ANY AND ALL WARRANTIES ON THE PRODUCTS DISCUSSED ARE LIMITED TO THE PERIOD IDENTIFIED ABOVE. ATI IS NOT RESPONSIBLE IN ANY EVENT FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. No ATI dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

To obtain service under this warranty you must do the following during the warranty period:

Phone ATI (913-338-3086) and provide us with the following information:

- ProCharger supercharger serial number.
- Vehicle year, make, model, engine modifications, and other modifications.
- Description of perceived issue.

If a solution to your issue can not be found after the above phone consultation, you will be assigned a return authorization number (RMA). You must then properly package and ship your product, at your expense, to the ATI factory. The product should be carefully packaged in a rugged box.

**Include the following information inside the box with your product:**

- Copy of your original invoice or receipt.
- Name, address, and daytime telephone number.
- Return authorization number (RMA).
- Vehicle year, make, model, engine modifications, and other modifications.
- Description of perceived issue.

Clearly mark the warranty claim number on the top and one side of the box in characters at least 2" tall. Properly package the product and ship it, prepaid and insured for the retail value of the component(s) being returned, to the following address:

**Accessible Technologies, 14801 West 114th Terrace,  
Lenexa, Kansas 66215**

# PROCHARGER EXTENDED COVERAGE

The ProCharger Extended Coverage Program extends the ProCharger warranty coverage for an additional twenty-four (24) months, for a total of thirty-six (36) months or three years of coverage. This extended coverage applies to parts for the ProCharger supercharger head unit only and does not include other system components. With your extended coverage registration, you will receive two (2) additional boxes of ProCharger Supercharger oil.

Under the extended coverage program, Accessible Technologies, Inc. (ATI) will repair or replace any component within the supercharger head unit which is found to be defective. Only the supercharger head unit itself is included in the extended coverage.

Service under the extended coverage program is obtained through the same process as described in the Limited Warranty.

Race kits are not eligible for the ProCharger Extended Coverage Plan

### To qualify for the ProCharger Extended Coverage:

- Only the original owner of the ProCharger supercharger is eligible.
- Completion of the Extended Coverage Registration Form is required, along with a \$99 registration fee. This form must be completed in its entirety, and must be submitted along with payment within 30 days from the date of original purchase from your local dealer or date of shipment from the factory.
- Participants must have a ProCharger P-1SC, P-1SC-1, P-1X, C1, or C2 supercharger head unit using the maximum warranted boost level. All terms and conditions within "The Limited Warranty" apply. Acts resulting in disqualification include but are not limited to the following:
  - Disassembly or modification the ProCharger supercharger.
  - Removal or attempted removal of the ProCharger drive pulley(s).
  - Removal or attempted removal of the ProCharger supercharger serial number plate.
  - Removal or attempted removal of the compressor housing or transmission case.
- Participants agree to properly maintain the ProCharger supercharger and provide proof of compliance with the following recommended maintenance:
  - Change the ProCharger supercharger oil after the initial break-in period of 500 miles (automotive) or 15 hours (marine).
  - Change the ProCharger supercharger oil every 6,000 miles after the initial break-in period.
  - Use only the specified amount of ProCharger Supercharger oil in the ProCharger supercharger.
  - Inspect and clean the magnetic drain plug at every ProCharger supercharger oil change.
  - Check the ProCharger supercharger oil level frequently.

# ProCharger Extended Coverage Program Registration Form

Return this completed form and a \$99 check within 30 days of original purchase.

Name: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Address: \_\_\_\_\_

Purchased From: \_\_\_\_\_

City: \_\_\_\_\_

ProCharger Serial #: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Vehicle Year: \_\_\_\_\_

Daytime phone: \_\_\_\_\_

Vehicle Make: \_\_\_\_\_

Evening phone: \_\_\_\_\_

Vehicle Model: \_\_\_\_\_

E-mail: \_\_\_\_\_

Please rank in order of importance starting with 1 being most important.

Age  18 - 24  25 - 34  35 - 44  
 45 - 54  55 and up

Which information sources most influenced your decision to purchase a ProCharger system?

Income  \$15,000 - \$29,000  \$30,000 - \$44,000  
 \$45,000 - \$69,000  \$70,000 and up

- \_\_\_ Magazine advertising
- \_\_\_ Dealer recommendation
- \_\_\_ ProCharger Brochures
- \_\_\_ Witnessed performance on a car
- \_\_\_ Test drive
- \_\_\_ Magazine editorials
- \_\_\_ Friends
- \_\_\_ Conversations with ATI technicians
- \_\_\_ Web Site (please specify) \_\_\_\_\_
- \_\_\_ Other (please specify) \_\_\_\_\_

What magazines do you read?

- Car & Driver
- Car Craft
- Chevy High Performance
- Four Wheel and Off Road
- Hot Rod
- Motor Trend
- Muscle Mustangs and Fast Fords
- GM High-Tech Performance
- 5.0 Mustang
- Super Street
- Mustang Monthly
- Truck Trends
- Popular Hot Rodding
- Road & Track
- Sport Truck
- Super Chevy
- Truckin'
- Street Truck

What most influenced your decision to purchase a ProCharger system?

- \_\_\_ Reliability
- \_\_\_ Standard warranty
- \_\_\_ Extended coverage warranty
- \_\_\_ Performance
- \_\_\_ Quiet operation
- \_\_\_ Removability (ability to return car to stock)
- \_\_\_ Cost
- \_\_\_ Ease of Installation

Who installed your ProCharger system?  Self  Dealer  Other \_\_\_\_\_

Have you own a forced induction system previously?  Yes  No

If yes:

Supercharger: Brand(s) \_\_\_\_\_ Vehicle(s) \_\_\_\_\_

Turbocharger: Brand(s) \_\_\_\_\_ Vehicle(s) \_\_\_\_\_

I have read and understand the policy for the ProCharger Extended Coverage Program. I have not and will not modify my ProCharger supercharger in any way during my participation in the extended coverage program. I have read and answered all questions on this form. I have enclosed my check for \$99, payable to ATI, for enrolling my ProCharger supercharger (serial number indicated above) in the extended coverage program for an additional twenty-four (24) months beyond the standard limited warranty period of twelve (12) months.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Mail this completed registration form with a \$99 check to ATI at: 14801 West 114th Terrace, Lenexa, KS 66215. If you have any questions, contact us at techserv@procharger.com or (913) 338-2886 8:30 AM - 5:30 PM CST, Monday - Friday.

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**Accessible Technologies, Inc.**  
14801 W. 114th Terrace  
Lenexa, KS 66215  
Phone: 913.338.2886  
Fax: 913.338.2879  
techserv@procharger.com

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Part Number PMGP1A-001 Rev. H

