

# 2011-2012 Mustang GT High Output Intercooled System **Installation Guide**



**The ULTIMATE Power Adder™**

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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 (50-65 PSI), 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.

# INTRODUCTION

Congratulations on purchasing your ProCharger® 2011-2012 Mustang GT 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) 338-2886.

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" Socket Set (standard & metric)
- 1/2" Impact Gun
- 1/2" Breaker Bar and 4" Extension
- #20 Torx Wrench
- Open End Wrench Set (standard & metric)
- 5/16" Nut Driver
- 3/8" Hex Bit Set (allen head)
- Flat Screwdrivers
- Phillips Screwdrivers
- Plier Set
- Soldering Iron and Solder
- Heat Gun
- Ford Engine Coolant

 **Warning:** Read and understand all safety precautions in this manual before installation. Failure to comply with instructions in this manual could result in personal injury, property damage, and/or voiding your warranty.

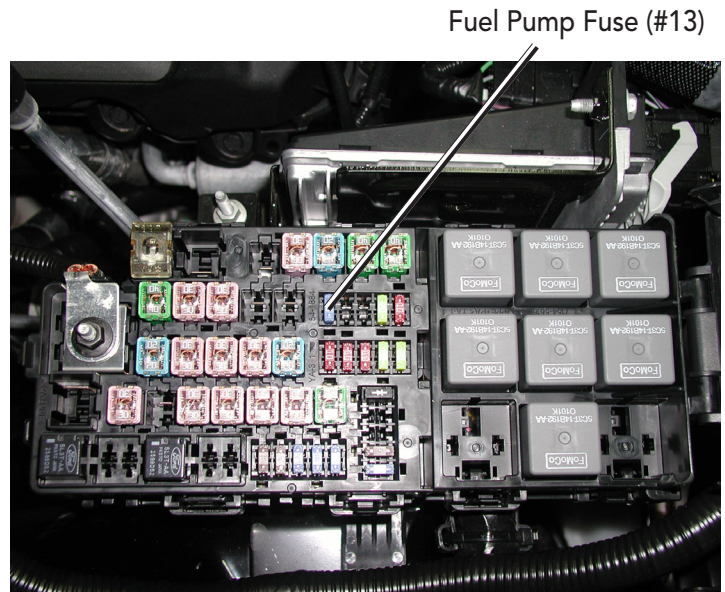
 **Warning:** Your supercharged Mustang must always be run on 91 octane or better gas. The best way to insure this is to run the tank near empty (below 1/4) and fill with 91 octane for several tanks prior to installing the supercharger.

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# FUEL SYSTEM PURGE

- 1 Open the fuse box cover. Remove the fuel pump fuse located in position #13 by pulling the fuse up.
- 2 Start the engine and allow it to idle until it stalls. Crank the engine for 5 seconds after it stalls to purge the remaining fuel pressure from the fuel rails.
- 3 Lower both windows  $\frac{1}{2}$ " to allow the door to close correctly after the battery is disconnected.
- 4 Turn the ignition off.
- 5 Disconnect the battery ground.
- 6 Replace the fuel pump fuse.



Fuel Pump Fuse Removal

# BUMPER COVER REMOVAL

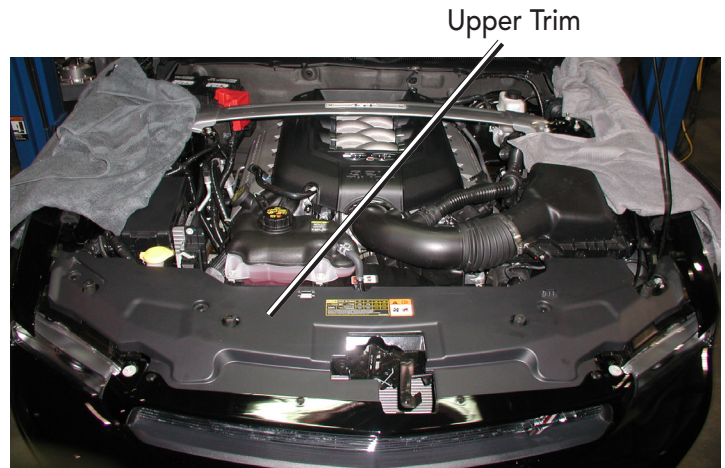
1 Remove the upper trim piece by removing the (8) push pins.

2 Raise the vehicle.

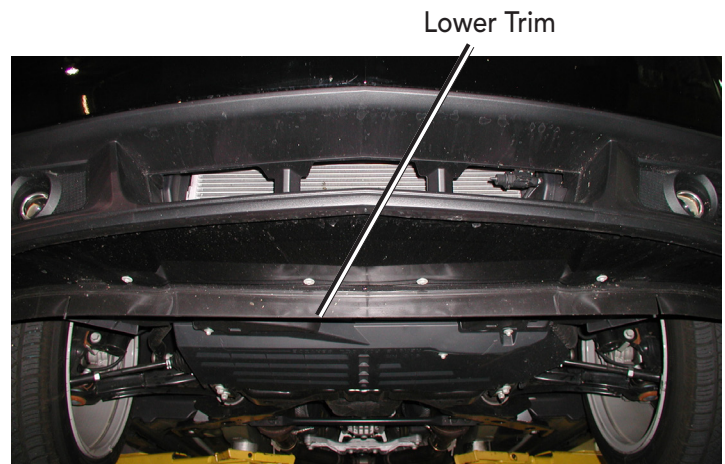
✓ **Tech Tip:** Removing the front wheels allows for extra room for front fascia removal. Use a 21mm socket and impact to remove the front wheels if desired.

3 Remove the lower trim by removing the (9) fasteners securing it to the vehicle with a 7mm socket.

4 Remove the inner fender well screws, (2) per side, with a 7mm socket.



Remove Upper Trim Piece



Remove Lower Trim Piece

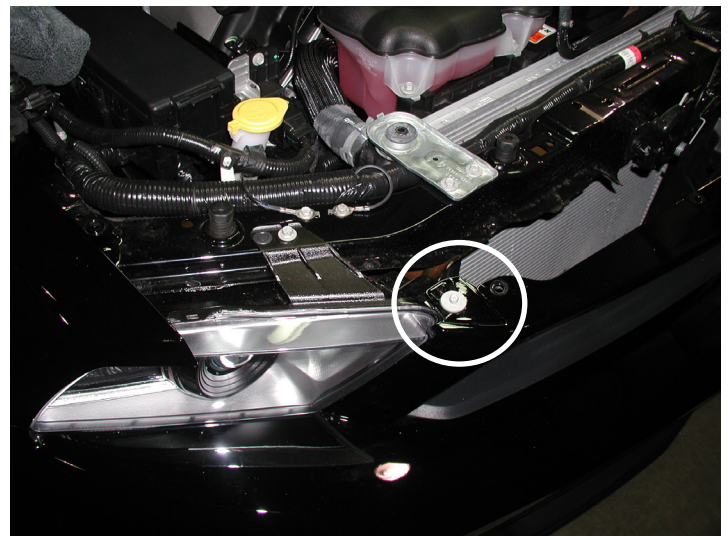


Remove Inner Fender Well Screws  
(Drivers Side Shown)

- 5 Remove the fasteners securing the oil service panel using an 8mm socket for (3) screws. Flip the oil service panel open and allow it to hang down.
- 6 Remove the (2) top bumper cover bolts using an 8mm socket.
- 7 Remove the bumper cover by pulling it out at each wheel well. Pull the bumper cover forward several inches and unplug the fog lights and side markers. Also unclip the ambient air temperature sensor from the fascia at this time. Set the bumper cover aside and out of the way.



Remove Oil Service Panel Fasteners

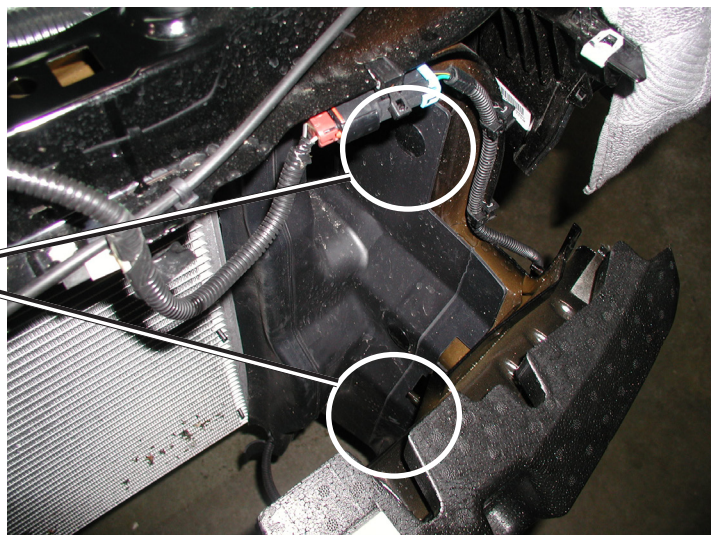


Remove Top Bumper Cover Bolts  
(Passenger's Side Shown)

## Bumper Cover Removal

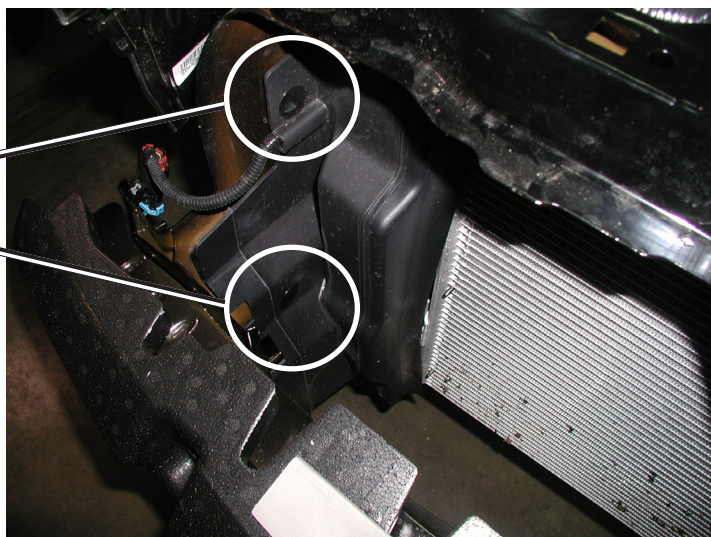
- 8 Remove the driver's and passenger's side plastic radiator shrouds by removing the push pins (2 per side) and pulling the shrouds out the front of the vehicle.

Remove Push Pins



Plastic Radiator Shroud  
(Driver's Side Shown)

Remove Push Pins



Plastic Radiator Shroud  
(Passenger's Side Shown)

# AIR INLET AND BOX REMOVAL

- 1 Lower the vehicle.

✓ *Tech Tip: Some vehicles are equipped with an upper strut tower brace. Use a 13mm socket to remove the (4) fasteners securing the brace, remove the brace from the vehicle.*

- 2 Remove the engine cover. Pull the cover straight up and remove from the vehicle.

- 3 Using a 5/16" nut driver, loosen the inlet connection to the throttle body.

- 4 Using a 10mm socket, remove the fastener securing the inlet line running to the driver's side firewall. Pull the line out of the driver's side firewall by pulling gently outwards.

Optional Upper Strut Tower Brace

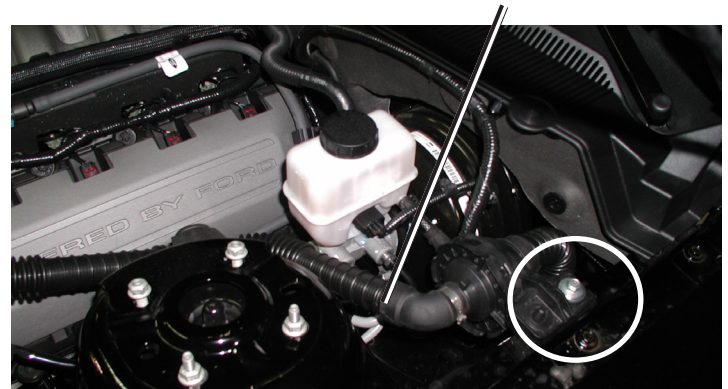


Engine Compartment



Factory Airbox

Remove Inlet Line To Firewall



Fastener For Inlet Line Running To Driver's Side Firewall

## Air Inlet and Box Removal

- 5 Mount the supplied grommet found in the air inlet bag (3FRAI-001) into the hole in the firewall.
- 6 Unplug the PCV line connected to the driver's side cylinder head. Unplug the wiring harness for the MAF sensor and remove the push pin that secures the MAF harness to the intake tube.
- 7 **Automatic transmissions:** If installing onto an automatic transmission vehicle, unplug the vacuum line from the factory air intake. Unwrap and remove the foam from the factory vacuum tree (see image at right). Manual transmission vehicles proceed to the next step.
- 8 Remove the airbox assembly from the vehicle. Using a 10mm socket and extension, remove the fastener securing the lower portion of the airbox to the vehicle. Lift the lower portion of the airbox up and out of the vehicle at this time.
- 9 Remove the cold air inlet from the vehicle.

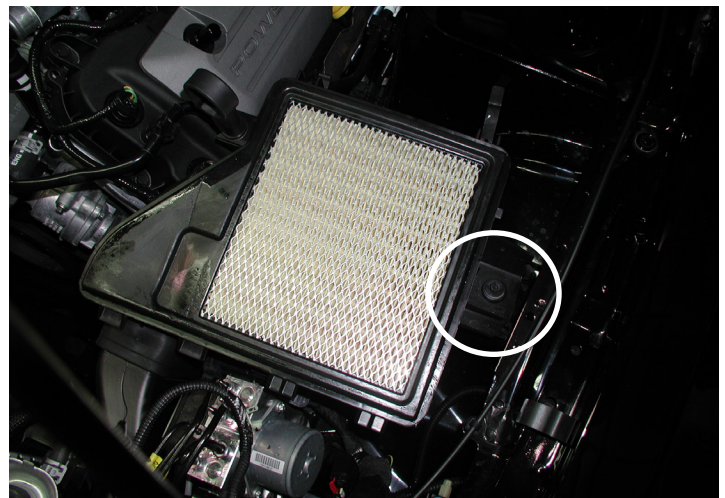


Supplied Grommet Installed

Unwrap and Remove Foam      Unplug Vacuum Line From Air Inlet



Vacuum Line Removal (Automatic Only)



Remove Lower Airbox Fastener

# FUEL INJECTOR INSTALLATION

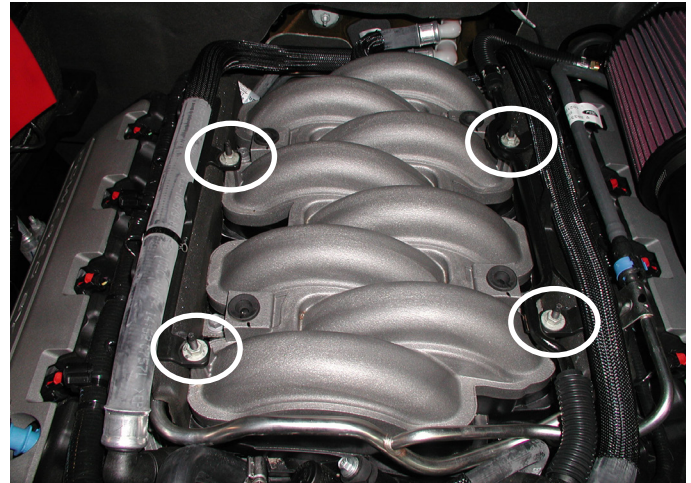
## Full Systems Only

✓ **Tech Tip:** Tuner kits do not include fuel injectors. Contact ProCharger for correct size and availability of upgraded injectors.

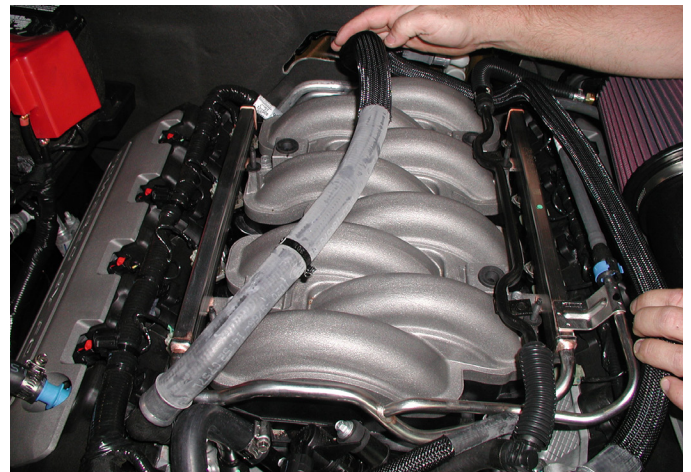
- 1 If you have not already done so, de-pressurize the fuel system by completing the steps outlined in section 1 of this manual.
- 2 Using a 10mm socket, remove the (4) nuts securing the plastic fuel rail insulation bracket. Remove the bracket along with the foam insulators wrapped over the fuel rails. Pull the insulators up and out of the vehicle for removal.
- 3 Lift up and adjust the coolant lines that run over the top of the fuel rails out of the way.
- 4 Place a shop towel underneath the fitting on the driver's side fuel rail where the stainless steel fuel supply line and fuel rail join. Push the two tabs on the fitting together and pull the supply line from the fuel rail, being careful to minimize fuel leakage.

! **CAUTION:** 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.

- 5 Disconnect the fuel injector electrical connectors one at a time, labeling them by their corresponding injector location, to ensure proper sequential injector firing order after re-assembly.



Remove Fuel Rail Insulation Nuts (4x)



Adjust Coolant Lines For Fuel Rail Removal



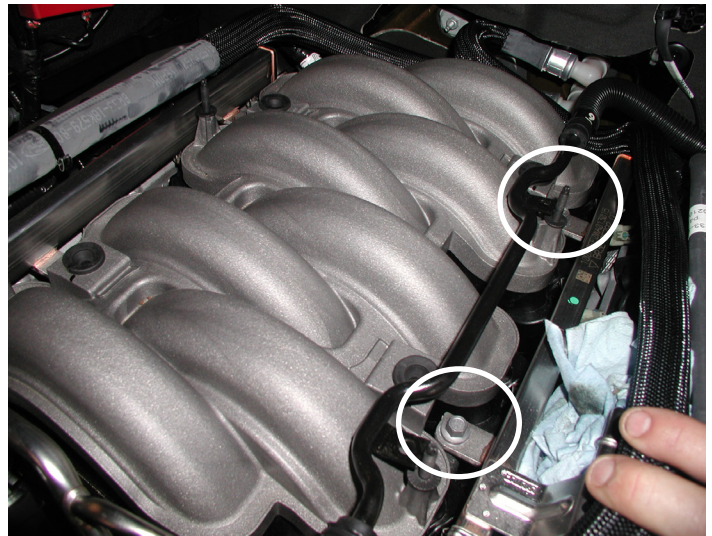
Disconnect Fuel Supply Line

## Fuel Injector Installation

- 6 Remove the fuel rail attaching bolts with a 10mm socket (4X).
- 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.
- 8 Spread the injector retainer clips to release each injector from the fuel rail. Remove the old injectors and set aside. Lubricate each new injector o-ring seal with several drops of clean engine oil.

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

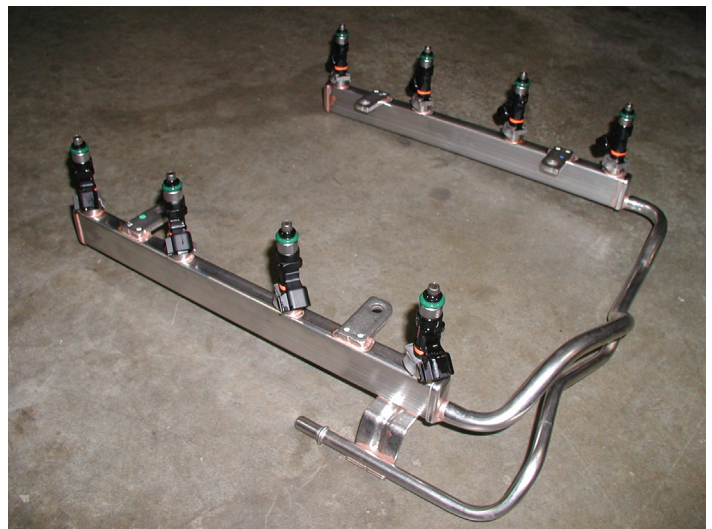
- 9 Install the retainer clips onto the new injectors. Push each injector into the fuel rail injector socket with the electrical connector facing outward. The retainer clip should lock onto a flange on the fuel rail.
- 10 Remove the factory fuel rail spacers (4x) using a pair of pliers, by pulling straight up while applying moderate force.
- 11 Insert the supplied fuel rail spacers. Properly align and install the fuel rail assembly back into the vehicle. Secure the assembly using the (4x) supplied M8-1.5 x 80mm bolts and washers.
- 12 Reclip the electrical connectors to each fuel injector. Plug the supply line back into the rail. Re-install the fuel rail insulation and plastic brackets at this time..



Remove Fuel Rail Mounting Bolts (4x)



Fuel Rail Spacer Removal (4X)

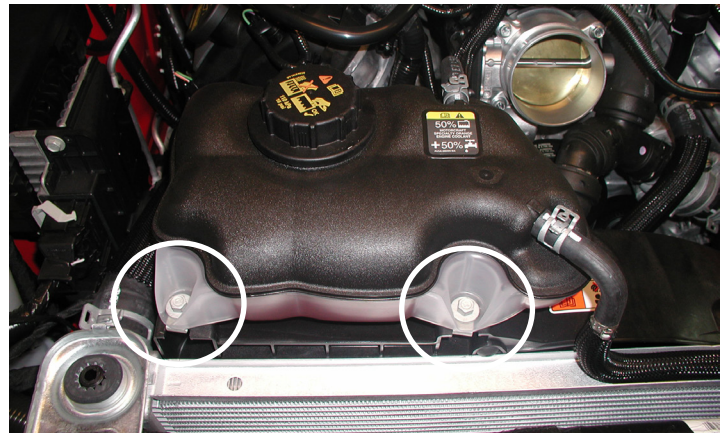


New Fuel Injectors Installed  
Onto Fuel Rail Assembly

# CRANK PULLEY INSTALLATION

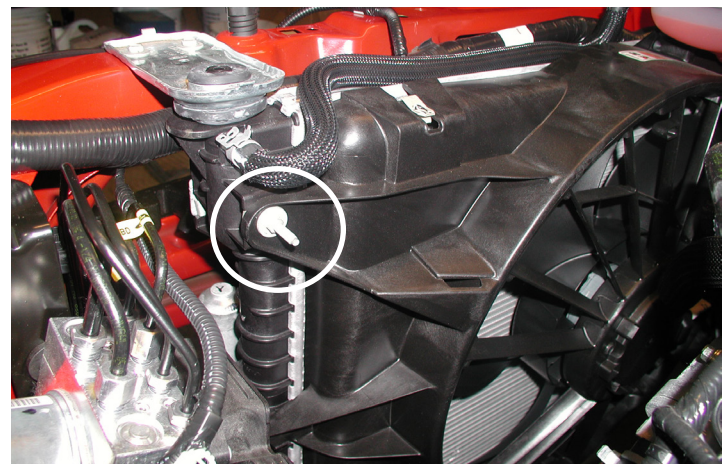
✓ **Tech Tip:** Removal of the factory coolant overflow tank and radiator fan is necessary for clearance during supercharger crank pulley installation.

1 Using a 10mm socket, remove the (2) bolts securing the coolant overflow tank to the plastic radiator fan shroud. Slide the tank up and off of the shroud, and set it off to the side.



Remove Overflow Tank Bolts (2X)

2 Unplug the cooling fan harness located on the cooling fan on the passenger's side of the vehicle. Using a 10mm socket, remove the (2) bolts securing the fan to the radiator. If you are installing this on an **automatic transmission** vehicle, remove the 10mm bolt retaining the transmission cooling lines to the fan. Lift the cooling fan up and pull it out of the vehicle. Be careful not to damage the radiator during removal.



Remove Cooling Fan Bolts (Driver's Side View)

✓ **Tech Tip:** For vehicles utilizing an aftermarket ATI Performance Products balancer (part #SK109E1), refer to the manufacturers installation instructions. The supplied crank pulley mounts to the damper using the (3) supplied 3/8-16 x 2.5" bolts and washers.

3 Using an impact and 18mm socket, remove the factory balancer bolt.



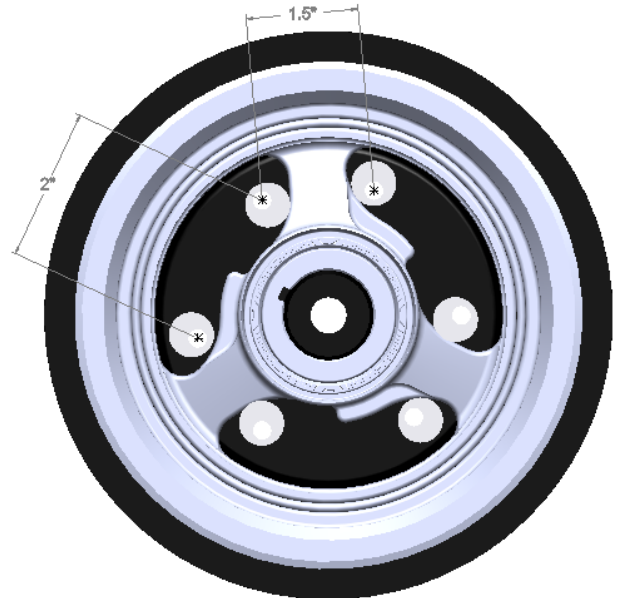
Remove Factory Balancer Bolt

## Crank Pulley Installation

- 4 Mount the supplied crank pulley to the factory balancer. The crank pulley uses a cam lock design to ensure the pulley locks in place and does not freely spin. With the cams loose, slide the pulley onto the balancer, making sure the cam locks are aligned properly between the factory balancer spokes. Rotate the crank pulley clockwise until the cam locks stop it from rotating.

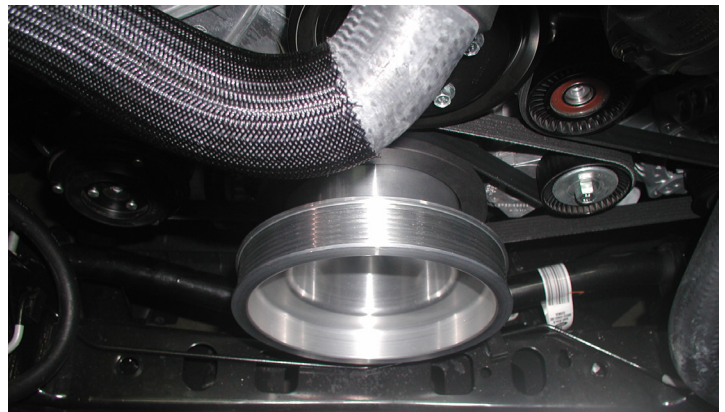


Back View of Crank Pulley and Cam Locks Installed



Detailed View of Proper Cam Lock Orientation

- 5 Slide the factory crank bolt washer onto the supplied M12-1.5 x 120mm bolt; using a 19mm socket, torque to 35 ft-lbs, then tighten the bolt an additional 90°.
- 6 Tighten the (6) cam lock bolts with a 1/2" socket.

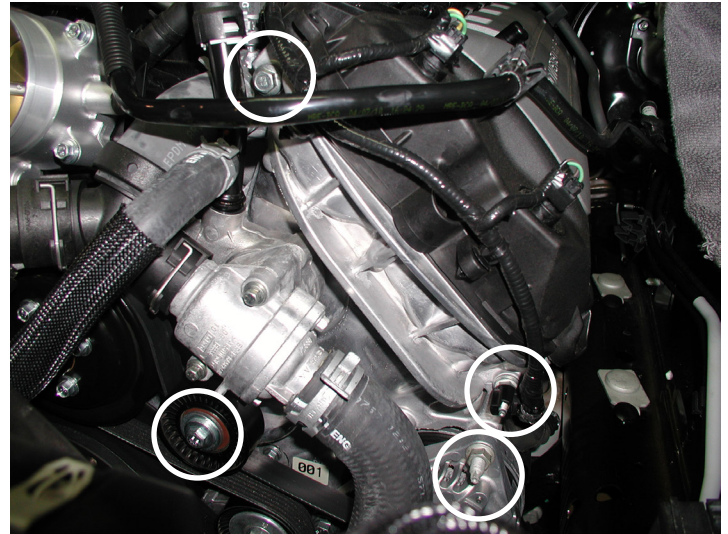


Crank Pulley Installed

## PROCHARGER BRACKET AND HEAD UNIT

- 1 Remove the (4) pieces of hardware indicated in the image at right. The alternator nut can be removed by using a 15mm socket, the remaining (3) bolts use a 13mm socket (the lower right bolt will have a plastic cap that needs to be pulled off before accessing the bolt).

✓ **Tech Tip:** The upper coolant tube may need to be bent slightly to remove the upper bolt.



Remove Factory Hardware

- 2 Thread and tighten the supplied 3.625" long hex spacer onto the stud you removed the nut from in the previous step. Use a 3/4" wrench to tighten the spacer.

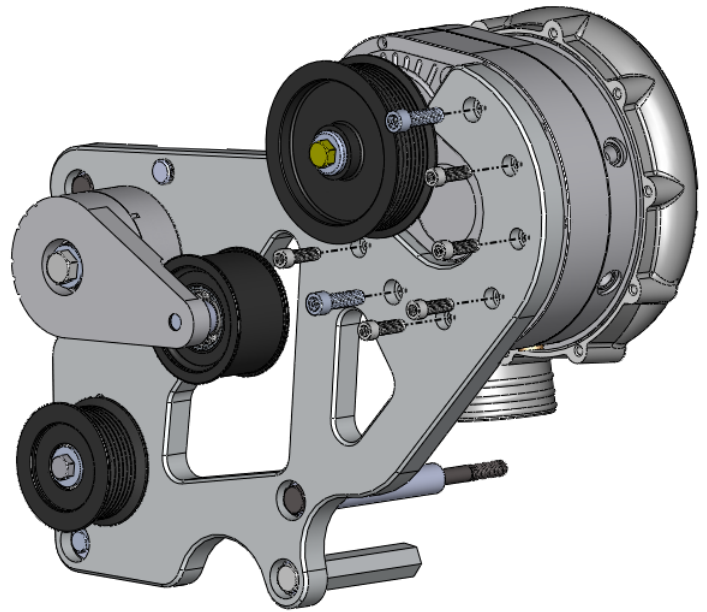
## ProCharger Bracket and Head Unit

- 3 Install the oil drain line onto the supercharger. Verify the plug at the end of the drain line is tight.
- 4 Mount the ProCharger onto the main bracket using the provided (5) 5/16-18 x 1" and (2) 3/8-16 x 1.25" SHCS's. Tighten the fasteners.

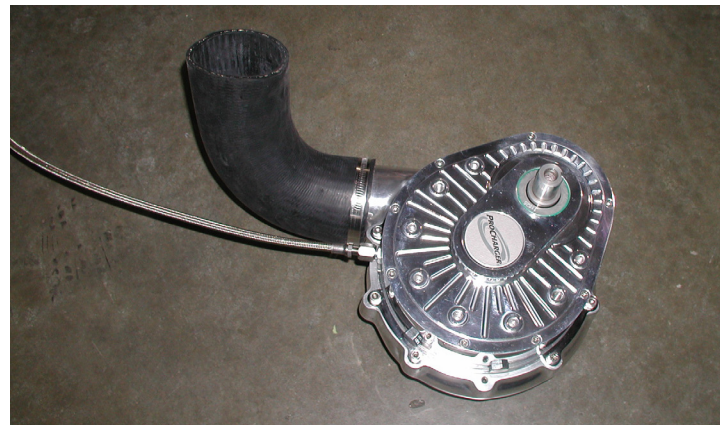


**Tech Tip:** The rubber coupler that will attach to the blower discharge may be easier to adjust and tighten before securing the head unit to the bracket assembly (use a 90° elbow, short end mounted to the discharge). Reference the intercooler installation in the next section for proper component usage and orientation of the coupler (see image at right).

- 5 Mount the main bracket loosely into the vehicle by loosely tightening the M10-1.25 x 25mm bolt and washer into the hex spacer.
- 6 Slide the 1.745" idler shaft/spacer between the bracket and the stock idler pulley. Secure with the supplied M8-1.25 x 80mm bolt and washer.



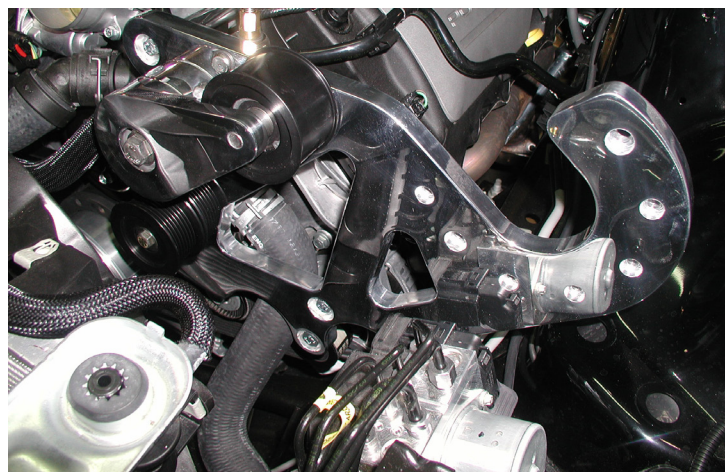
Procharger Head Unit Installation



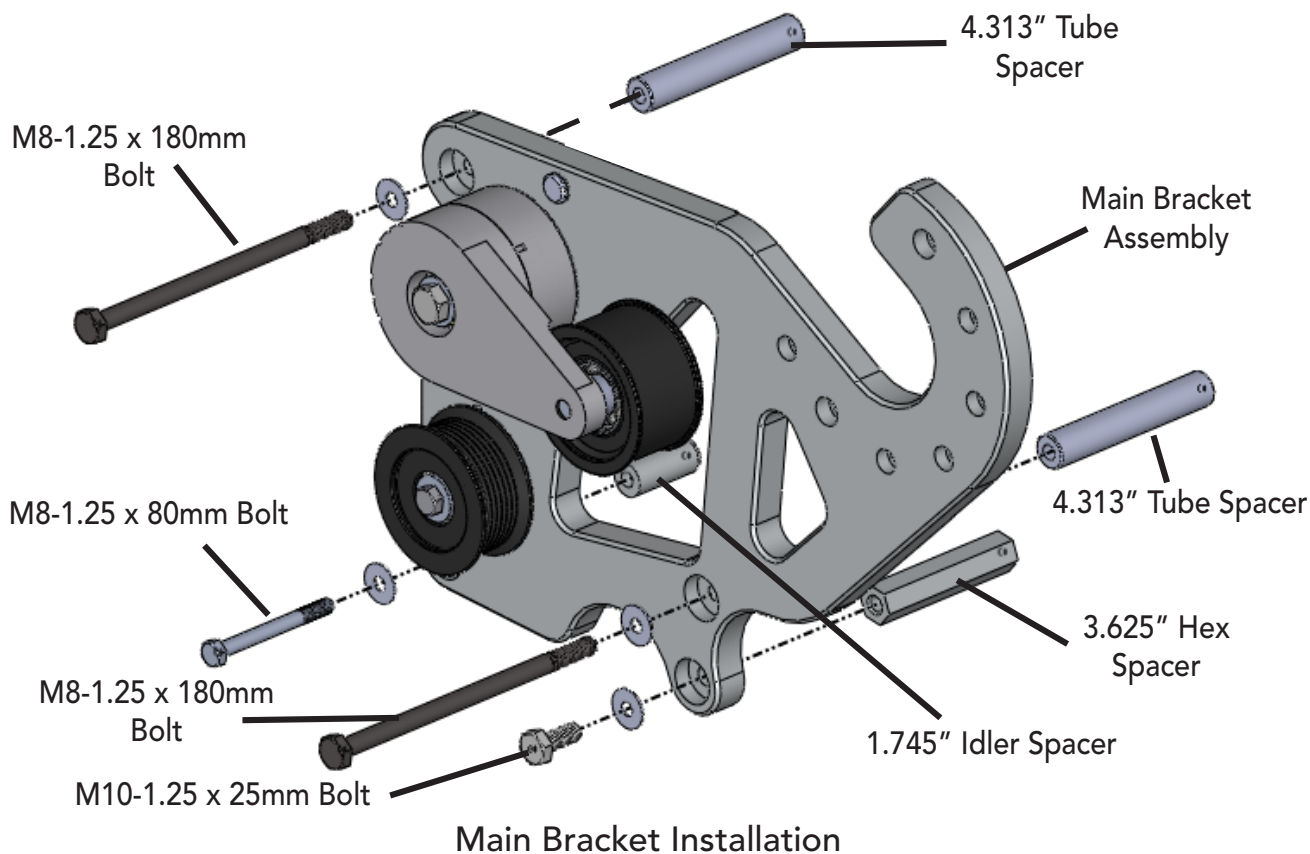
Rubber Coupler Installed Onto Head Unit

**7** Slide the (2) 4.313" spacers between the bracket and engine front cover. Using the supplied M8-1.25 x 180mm bolts and washers, tighten the assembly. Tighten the fasteners from the previous (2) steps at this time.

**8** Remove the oil fill reminder tag from the head unit. Fill the supercharger with (1) 6 ounce bottle of the supplied blower oil. Route the oil drain line to the front of the vehicle under the driver's side headlight, and secure it with zip ties.

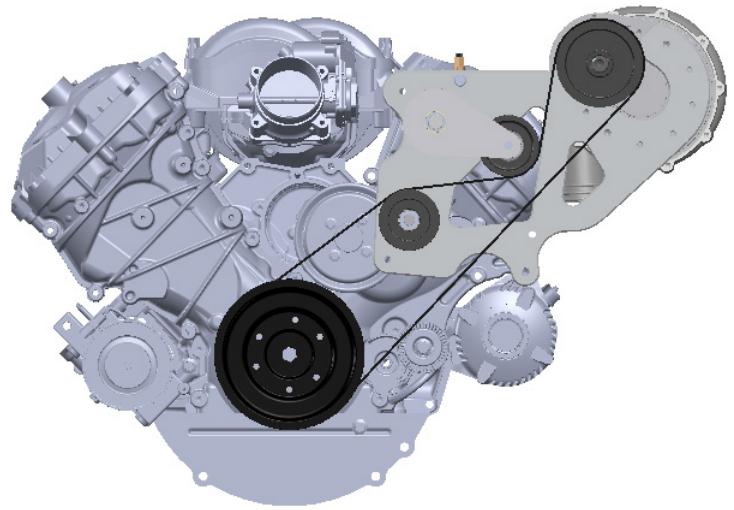


Main Bracket Installed  
(Blower Removed for Clarity)



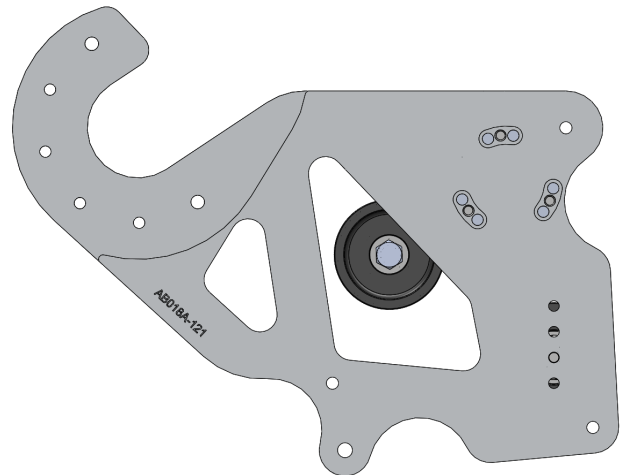
- 9 Using a 1/2" breaker bar rotate the tensioner counter-clockwise and install the supplied supercharger belt, release the tensioner. Refer to the supercharger belt schematic for proper routing.

✓ **Tech Tip:** If the belt is too loose/tight to install, remove the idler pulley. Mount the belt onto the crank, blower, and tensioner pulleys. Slide the idler pulley under the belt and into place. There are (4) locations for the idler pulley to mount to. The tensioner has (2) alternate locations also for further belt adjustment. Use Loctite 272 on the bolts before tightening.



Supercharger Belt Schematic

- 10 Re-install the cooling fan. Supplied with the kit is a replacement bolt and washer for the driver's side mount (located in the main bracket bag); the original bolt with the threaded stud will not be reused. Use the factory hardware for the passenger's side mount. Plug the harness back into the fan.
- 11 Re-install the coolant overflow tank using the factory hardware.



Tensioner And Idler Locations

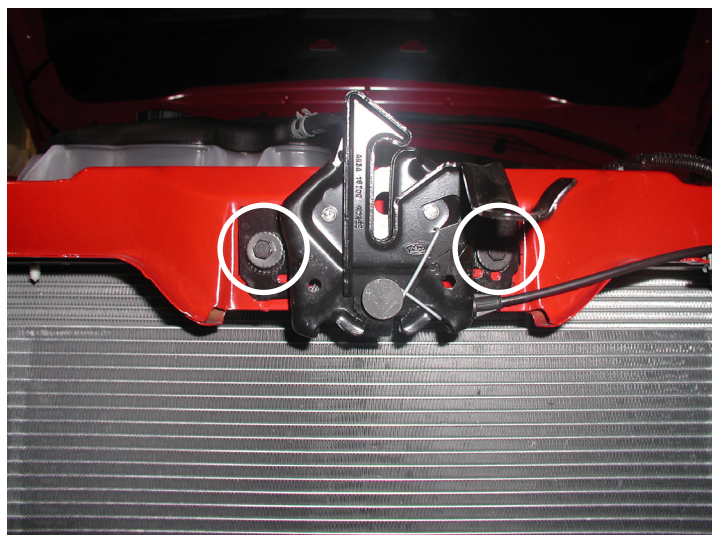
# INTERCOOLER

✓ **Tech Tip:** Be sure to mark the position of the hood latch bracket before removal to insure proper reassembly.

1 Remove the (2) fasteners securing the hood latch to the vehicle using a 10mm socket. Swing the latch assembly out of the way.

2 Remove the mass airflow sensor (MAF) from the factory airbox assembly using a T20 torx bit. Slide the sensor out of the assembly and slide it into the supplied intercooler. Tighten the sensor to the intercooler using the supplied M4-.7 x 12mm bolts .

✓ **Tech Tip:** Verify the arrow on the sensor points up (the direction of the airflow).

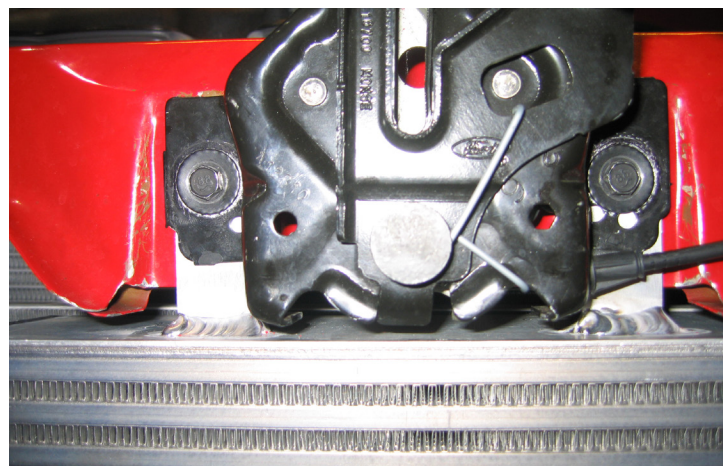


Remove Hood Latch Bolts (2x)



MAF Sensor Installed

- 3 Slide the intercooler into position so the (2) upper tabs align with the holes for the hood latch mount. Slide the hood latch assembly in front of the intercooler tabs, align, and tighten the intercooler and hood latch into place using the factory hardware. Verify the hood latch assembly is still completely operational. Mounting the intercooler too high can cause interference with the hood latch linkage.

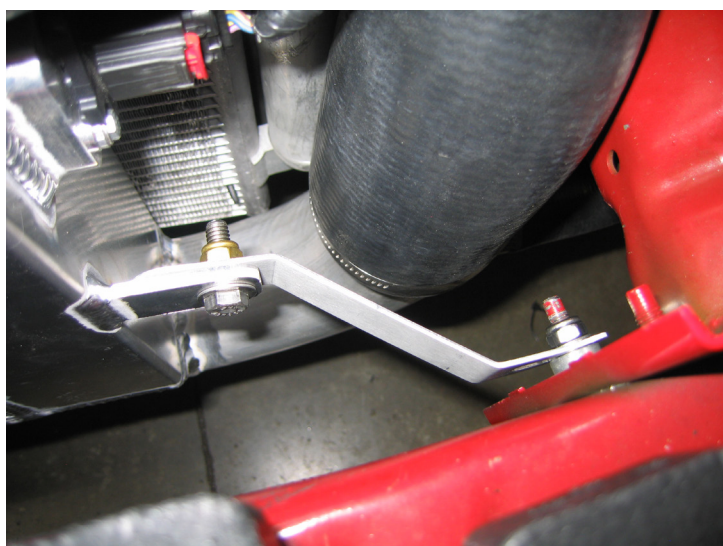


Intercooler Mounted

- 4 Locate the lower intercooler brackets. Mount the driver's side intercooler bracket to the intercooler using the provided 5/16-18 x 1" bolts, washers, and lock nuts. Place a spacer on the back side of the longest bolt holding the bumper onto the vehicle. Slide the open end of the bracket onto the bolt end, and tighten using the provided M8 washer and lock nut.

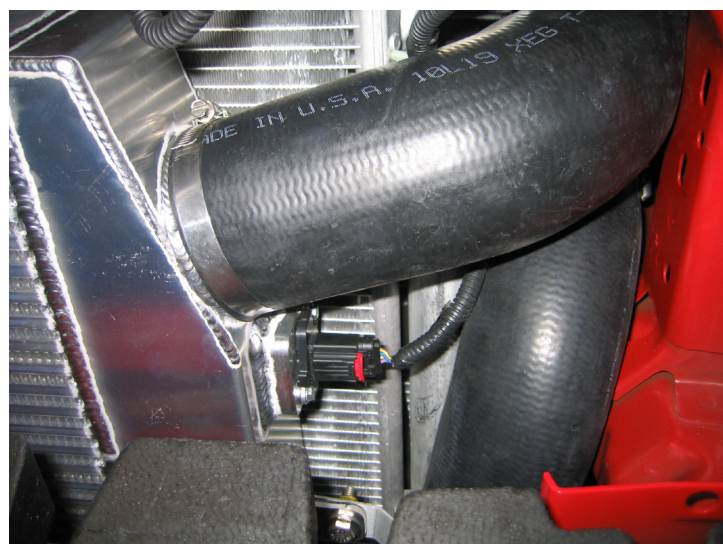


**Tech Tip:** Leave the I/C brackets loose and test fit the fascia before tightening the brackets.



Lower Intercooler Bracket Installed  
(Driver's Side Shown)

- 5 Repeat the previous step for the passenger's side.
- 6 Plug the MAF Sensor harness into the sensor at this time.



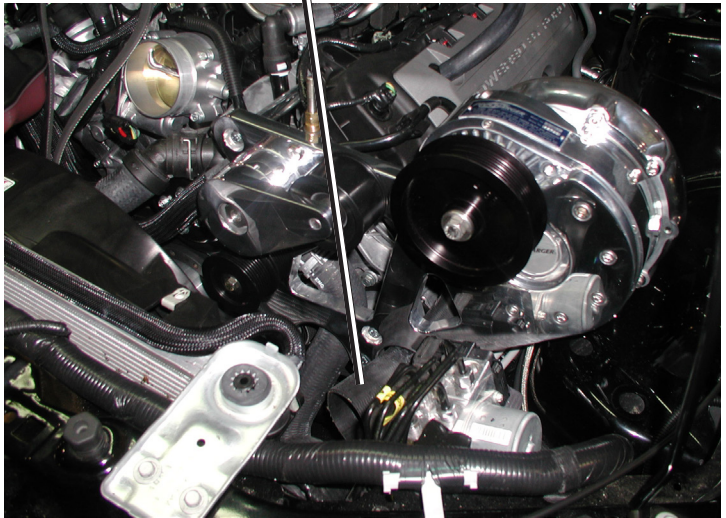
MAF Sensor Harness Plugged In

# INTERCOOLER TUBING

✓ **Tech Tip:** Secure each coupler connection with a #52 hose clamp with the exception of the throttle body reducer connection, which utilizes t-bolt clamps. It is best practice to slide the hose clamp over the coupler, keeping it loose until all of the connections have been made and adjusted. Due to differences in installation, rubber couplers may need additional trimming for proper fitment.

- 1 Install (1) of the 90° 3" elbow couplers onto the discharge of the supercharger if not already done. Mount the short end of the elbow onto the supercharger and route the long end under the main bracket assembly (see image at right). There is a cutout in the main bracket for the coupler to route through.
- 2 Cut down the length of the short section of 5/8" rubber hose and slide it around the (2) brake lines on the driver's side under the brake module. Zip tie it into place with zip ties found in PCV bag #3FRMM-001 (see image at right). This will ensure the brake lines do not encounter any unnecessary wear.
- 3 Install the longer straight end of the double 45° tube (tube #293) into the open end of the coupler from step 1.

Route Coupler Under Bracket

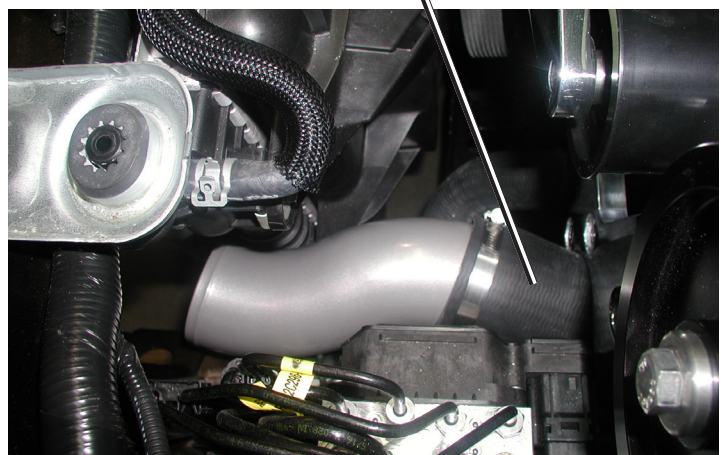


Blower Discharge Coupler Installed



Insulation Onto Brakeline Installed

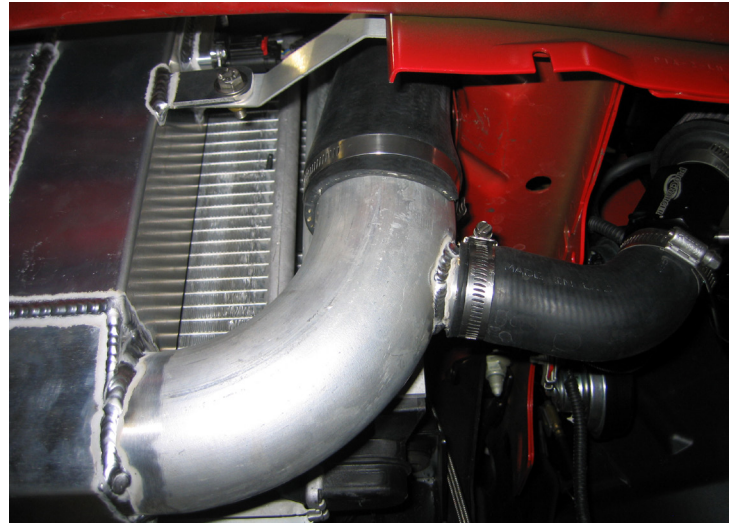
Connection From Blower Discharge



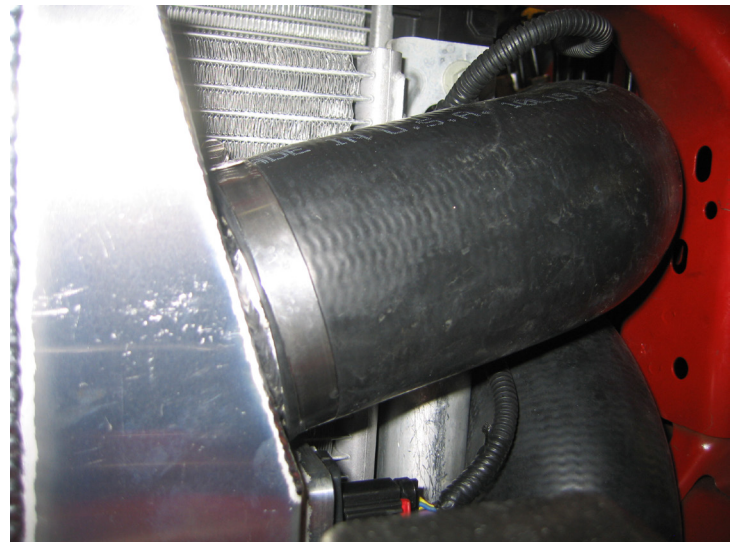
Tube #293 Installed

## Intercooler Tubing

- 4 Mount a 3" 90° rubber coupler onto the end of tube #293. Connect the open end of this hose to the surge tube which is welded onto the intercooler (see lower intercooler hose connection image at right).
- 5 Mount a 3" 90° rubber coupler onto the discharge of the intercooler with the long end towards the intercooler (see upper intercooler hose connection image at right).
- 6 Slide the silicone 3-1/2" to 3" reducer onto the short radius end of tube #291 along with the (2) t-bolt clamps.



Lower Intercooler Hose Connection



Upper Intercooler Hose Connection

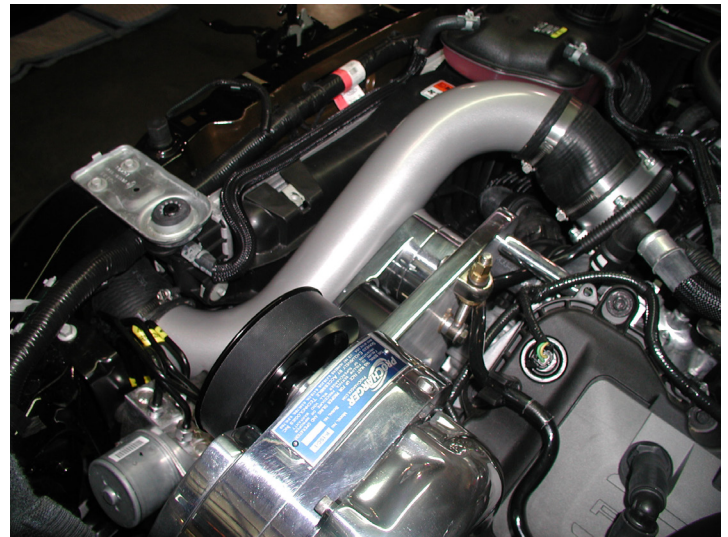
Slide Silicone Onto Tube Before Mating To Throttle Body



Tube #291 Installed (Front View)

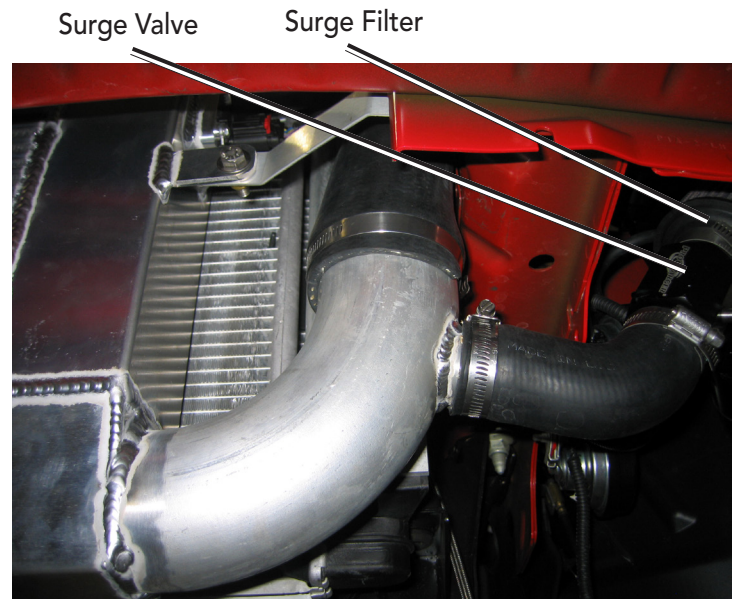
- 7 Slide the longer radius end of tube #291 into the open end of the rubber coupler from the intercooler. Rotate the tube down until it rests on the cooling fan shroud. Align the open end of the tube to the throttle body. Slide the coupler onto the throttle body and tighten the t-bolt clamps.

✓ **Tech Tip:** Be sure there is ample clearance between the throttle body tube and the spring tensioner body. Adjust the tube until there is clearance, and tighten the t-bolt clamps.



Tube #291 Installed (Side View)

- 8 Locate the surge system bag. Slide the supplied 1-1/2" rubber 90° coupler onto the open bung on the surge tube. Slide the surge valve onto the open end of the coupler, followed by the provided surge filter. Tighten the connections with the provided #24 hose clamps.



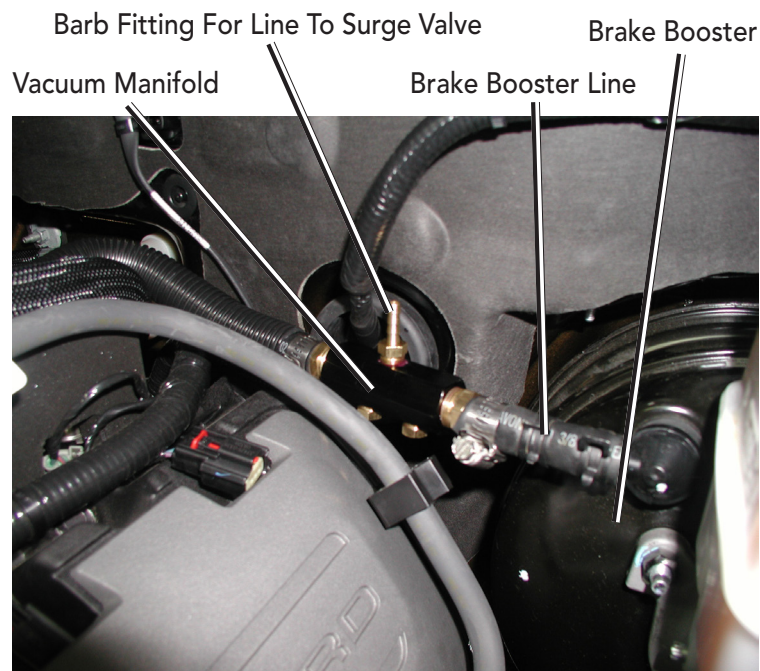
Surge Valve Assembly Installed

# VACUUM MANIFOLD

- 1 Locate the 3/8" ID brake booster hose that runs along the back side of the engine near the firewall. The line is connected to the brake booster located on the driver's side.
- 2 Using a hose cutter, remove a 3-1/2" long section of the hose.

(Manual transmission vehicles only; proceed to the next page for automatic transmission vehicles)

- 3 Assemble the vacuum manifold using the provided barb fittings and plugs. 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.
- 4 Attach the supplied 3/16" vacuum hose to one of the 3/16" barb fittings on the installed vacuum manifold, then route and attach to the surge valve vacuum port. Attach a boost gauge to the other 3/16" barb fitting. If you are not going to use a boost gauge, remove the 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.

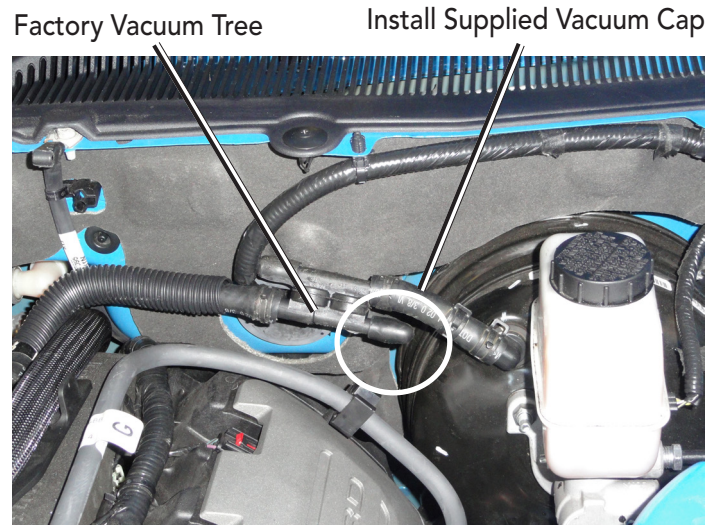


Vacuum Manifold Installed

**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.

## (Automatic transmission vehicles only)

- 3 Relocate the factory vacuum tree that was mounted near the factory air intake next to the throttle body. Mount the tree between the open ends from the previous step. Use the supplied #6 hose clamps to secure each line. Verify the correct orientation before proceeding. The end of the tree with the factory cap should be on the passenger's side of the tree. Mount the supplied 3/8" vacuum cap to the open end of the tree. See image at upper right.



Vacuum Line Removal (Automatic Only)

- 4 Assemble the vacuum manifold using the provided barb fittings and plugs. Install the supplied vacuum manifold between the open vacuum lines near the throttle body and securely clamp in place using the supplied #6 hose clamps, making sure that there are no vacuum leaks at the splice points.

- 5 Attach the supplied 3/16" vacuum hose to one of the 3/16" barb fittings on the installed vacuum manifold, then route and attach to the surge valve vacuum port. Attach a boost gauge to the other 3/16" barb fitting. If you are not going to use a boost gauge, remove the 3/16" barb fitting that isn't being used and replace with the supplied pipe plug.

- 6 Secure all vacuum hoses to their fittings with zip ties.



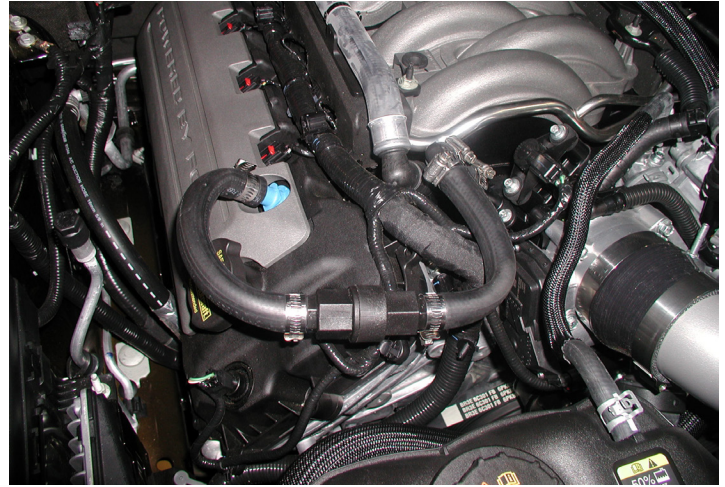
Vacuum Manifold Installed



Vacuum Manifold Installed  
(Passenger's Side View)

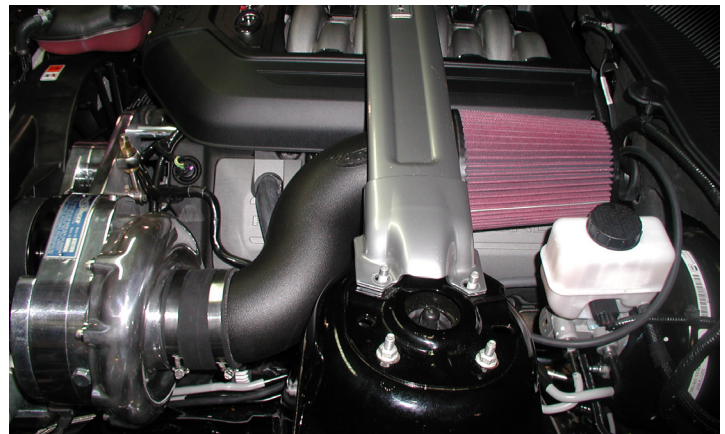
# PCV AND AIR FILTER

- 1 Locate the PCV bag. Locate the supplied 5/8" rubber hose. Cut a short piece of hose to connect to the intake manifold PCV bung. Slide the plastic elbow onto the open end. Using the remaining rubber hose, connect the elbow to the open bung on the passenger's side valve cover. Cut the hose in this section in half, slide the supplied check valve between the 2 cut sections. *Position the check valve so the arrow points toward the intake manifold.* Using the supplied #10 hose clamps, secure all connections.



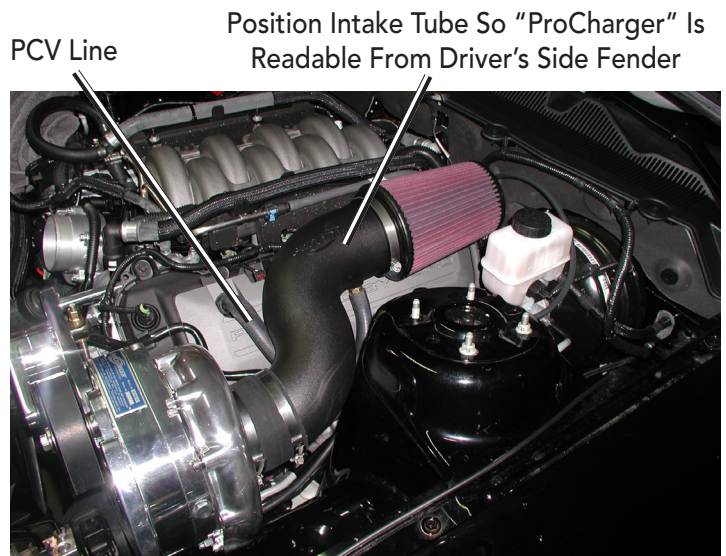
Check Valve Installed In PCV Line

- 2 Cut a 3" section of 5/8" hose and slide it onto the open bung on the driver's side valve cover. Slide the supplied plastic elbow onto the open end of the hose, followed by a 12" section of 5/8" hose. The open end will be connected to the air filter in the following steps.



Air Intake Installed With Upper Strut Bar

- 3 Locate the air inlet bag. Slide the provided air filter onto the end of the rotomolded intake tube. Slide the section of 3-3/4" rubber coupler onto the other end of the intake tube (see image at right for orientation).
- 4 Plug the open end of the 5/8" PCV hose from step #2 onto the brass bung located on the intake tube. Slide the intake tube into place, sliding the open end of the 3-3/4" coupler onto the inlet of the supercharger. Adjust the PCV line so there are no kinks.



Air Intake System Installed



**Tech Tip:** For vehicles with upper strut tower bars, be sure the intake tube is rotated down all the way and the filter is extended out on the rotomolded tube as far as possible.

5

Secure the intake tube connections with the supplied #64 hose clamps.

### 50 State Legal Systems

6

If you have purchased a 50 state legal system, you will have a different style air inlet system. Drill a 1/2" hole on the end of the air filter. Slide the provided plastic elbow into the hole, attach the 5/8" PCV vent line to the elbow. Mount the filter to the airbox. Mount the provided air box and filter assembly to the supercharger inlet using the provided section of 3.75" rubber hose and hose clamps.



50 State Legal Air Intake System Installed

## FINISHING UP

- 1 Inspect belts and pulleys for clearance from all wires and hoses. Adjust and secure any hoses or wires that may be caught or abraded by the belts or pulleys. Verify the belt is properly tensioned. Any locations where steel tubes could abrade on the chassis should be cushioned with the supplied self-adhesive rubber strips.
- 2 Using the factory hardware, re-install the front bumper cover. Plug the fog light and turning signal harnesses back into the proper locations on the front bumper cover. Clip the ambient air temperature sensor back onto the bumper cover.
- 3 Remount the oil service panel and lower plastic trim using the factory hardware.
- 4 Re-install the wheels if removed.
- 5 Re-install the upper plastic trim using the factory hardware.
- 6 Re-install the engine cover by aligning the cover over the engine and pushing downward until all four corners of the cover snap into place.
- 7 If your vehicle was equipped with an upper strut tower bar, re-install it at this time using the factory hardware.
- 8 Reconnect the battery.



**CONGRATULATIONS! YOU HAVE COMPLETED THE INSTALLATION OF YOUR NEW PROCHARGER SUPERCHARGER SYSTEM. READ THE FOLLOWING PAGES CAREFULLY FOR OPERATION AND MAINTENANCE INSTRUCTIONS, AS WELL AS WARRANTY INFORMATION.**

# TUNING



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

1

Plug in the X3 handheld into the OBDII port. Proceed to Program Vehicle, Select Custom Tune, and Select Tune following the on- screen prompts.



**Note:** Tuning your vehicle correctly is extremely important and is necessary for proper vehicle operation and safety. If you have any questions regarding tuning your vehicle or with any steps outlined in these instructions, call a technical service representative at (913) 338-2886.

# 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/or personal injury!

## Belt Replacement

The serpentine belt, which turns your ProCharger supercharger, will stretch after initial run-in, and should be re-tightened 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 purchased 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 the drain plug after every oil change. Drain the oil by removing the drain plug. Clean off the drain plug before re-installing.

## ProCharger Oil Level

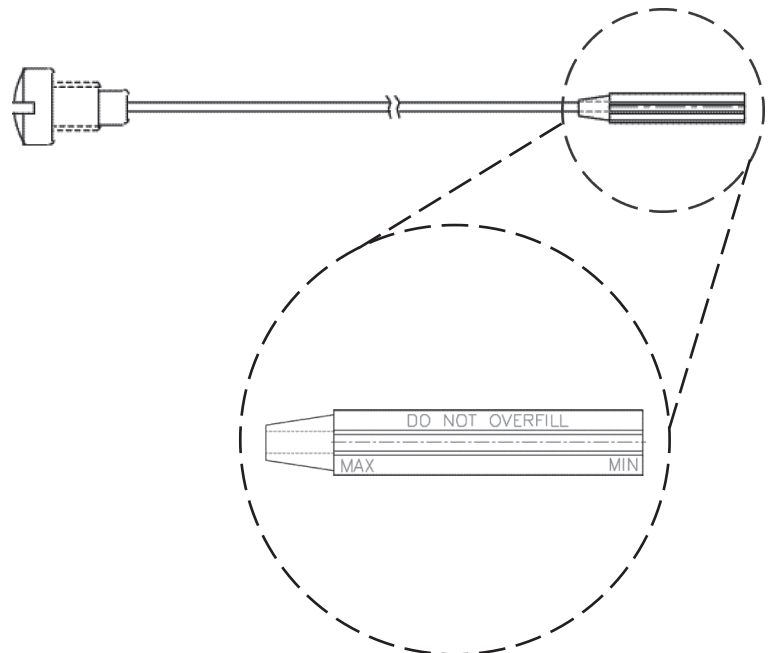
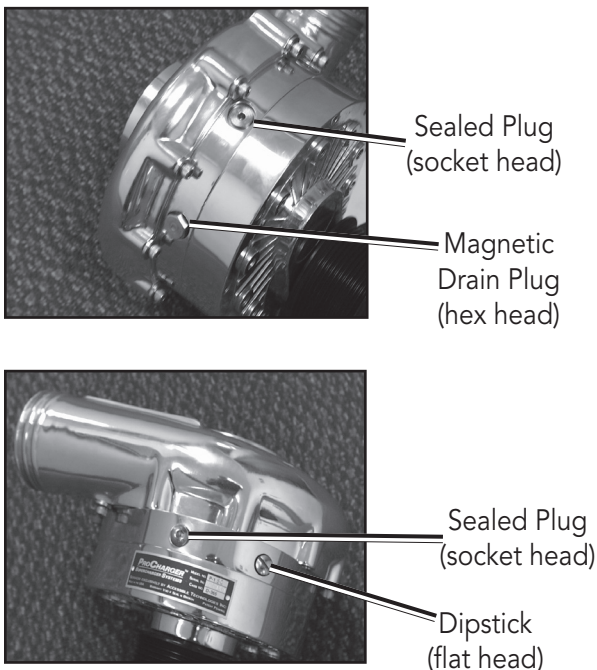
The ProCharger supercharger's oil level must be checked periodically to ensure the proper lubrication. The dipstick can be loosened using a flat blade screwdriver or a coin. When installed, the oil level should remain between the minimum (MIN) and maximum (MAX) indicators at all times.

**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 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.

**Warning:** The supercharger contains no oil from the factory. The unit must be filled prior to use. Use only ATI supplied oil in your ProCharger. The ATI oil has been specially formulated for the bearings in the ProCharger and use of oil other than that supplied by ATI will void your warranty.



# 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 (913-338-2886) 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 your supercharger 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, 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 of 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.

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# 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

☐ 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 PMFR1A-001 Rev. F**

