

# Mustang GT 1999-2004 H.O. & Stage II Intercooled System **Installation Guide**



The Intercooled Supercharging Experts!®

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# INTRODUCTION

Congratulations on purchasing your ProCharger® Ford Mustang GT 1999-2004 High Output or Stage II 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

- 1/2" and 3/8" Socket Sets (standard & metric)
- 3/8" Hex Bit Set (allen head)
- 1/2" and 3/8" Breaker Bars and 4" Extensions
- 3/8" Torx Bit Set
- Open End Wrench Set (standard & metric)
- Adjustable Wrench
- Flat Screwdrivers
- Phillips Screwdrivers
- Plier Set
- Fuel Line Tool Set
- Spark Plug Socket
- Ford Factory Repair Manual



**Warning:** Your supercharged Mustang GT 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.

# TABLE OF CONTENTS

Introduction .....	i
Table of Contents.....	ii
Tuning .....	1
Getting Started.....	3
Fuel Injector Replacement .....	5
ProCharger Head Unit .....	6
Intercooler and Tubing.....	10
Fuel Pump.....	15
Final Assembly .....	18
Installation Review .....	20
Operation and Maintenance .....	21
Limited Warranty .....	23
ProCharger Extended Coverage.....	24

**IF YOU PURCHASED A COMPLETE SYSTEM, PLEASE PROCEED TO THE ECM TUNING SECTION. TUNING THESE VEHICLES IS A MULTI-STEP PROCESS THAT SHOULD BE INITIATED BEFORE SYSTEM INSTALLATION BEGINS. PLEASE ALLOW 24 HOURS 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

✓ **Note:** Spark plugs should be replaced if they are platinum or have more than 10,000 miles of use. Plugs that are one heat range colder than stock are recommended.

- 1 Disconnect the negative (-) battery cable from the battery.
- 2 Remove the coolant reservoir, without disconnecting any hoses or sensors, and set it aside to allow access to the front of the engine.
- 3 Remove the crankcase vent tube connecting the inlet duct to the driver's side valve cover.
- 4 Remove the air filter housing, MAF sensor, inlet duct and all related components connected to the throttle body. Disconnect the wiring clips from the inlet air temperature and MAF sensors. Remove both sensors from the inlet duct and retain for re-installation.
- 5 Drain approximately one gallon of coolant from the vehicle, then remove the upper radiator hose.
- 6 Remove the serpentine accessory drive belt.



Air Filter Housing, Etc.



**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. Eight psi is the maximum intercooled boost recommended for stock 1999-2004 4.6 2V GT's.



**Tech Tip:** The factory belt routing will not be interrupted by the ProCharger, and the original belt may be re-installed (bypassing the ProCharger) in the event of a drive belt failure.

7

Raise the vehicle, secure with jackstands, and lock the wheels to the left.

8

Remove the driver's side lower plastic splash panel to allow access to the driver's side of the engine compartment.



**Tech Tip:** Removing both front wheels, the passenger's side splash panel and the inner fender well liner may simplify the following procedure.

9

Remove the coolant reservoir mounting bar that extends upwards from the rear of the core support. This item will not be reused.

10

Remove the rod extending upwards from the front of the core support to the hood latch assembly. This item will not be reused.

11

If so equipped, remove any aftermarket ECM module.



**Warning:** Aftermarket ECM modules, unless specifically designed for use with a supercharger, advance timing at elevated rpm's, and in most cases will cause detonation and engine damage under boost conditions.



# FUEL INJECTOR REPLACEMENT



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

- 1 Remove the throttle body to allow access to the passenger's side fuel rail.



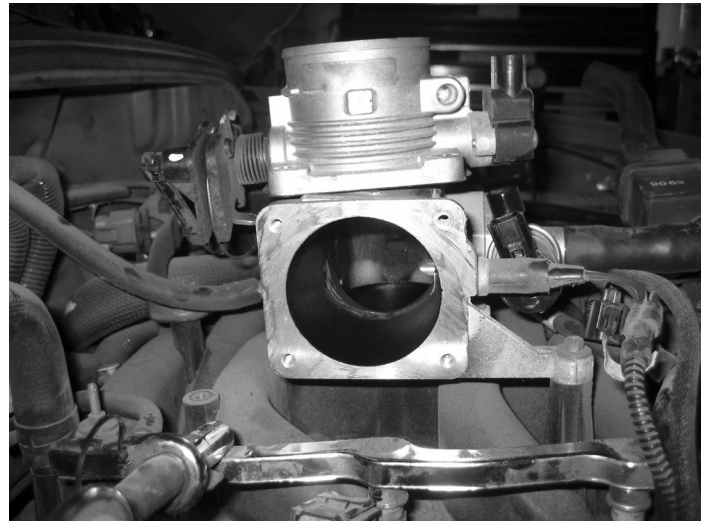
**Warning:** When working on high pressure fuel systems, caution should be taken when handling high pressure lines, as residual pressure may cause fuel to spray unless relieved prior to disconnection.

- 2 Unplug the existing injectors from the wiring harness.
- 3 Remove the 4 bolts (2 on each side) that hold down the fuel rails, then remove the fuel rails and injectors from each side of the engine.

- 4 Remove the stock injectors from the fuel rails and replace with the supplied injectors. Lubricate the new o-rings with fresh engine oil before installing into the fuel rails.



**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.



Throttle Body Removed



Fuel Injectors (Stock Injectors Shown)

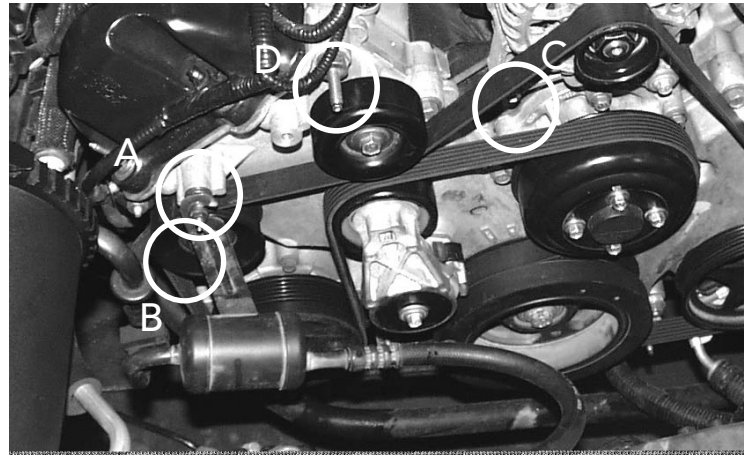
- 5 Replace the fuel rails and injectors into the intake manifold and re-install the previously removed hold-down bolts.
- 6 Connect the wiring harness to each of the new injectors.

# PROCHARGER HEAD UNIT

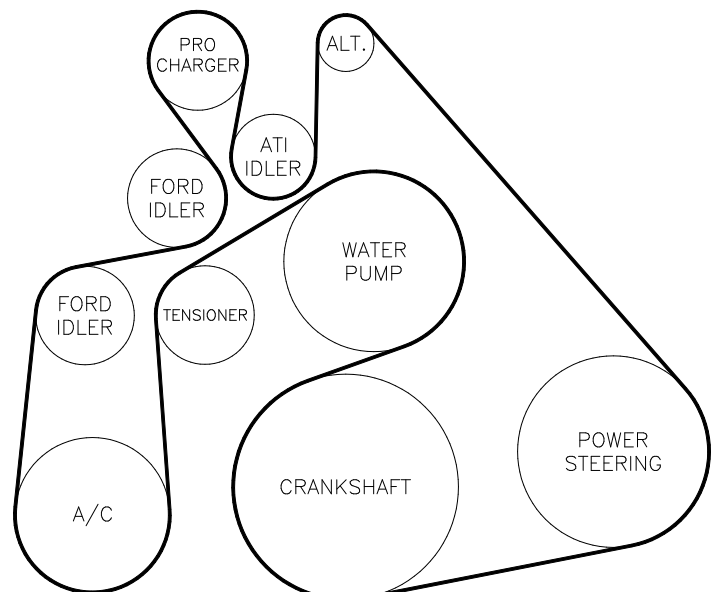
## 2000-2004 Only

✓ **Note:** If installing on a 1999 GT, proceed to the next section.

- 1 Remove the serpentine accessory drive belt if this has not already been done.
- 2 Remove the factory idler bolt (B) and replace it with the supplied M8 X 50mm stud (use thread locking compound). The stud should protrude approximately 1" from the mounting boss.
- 3 Remove the air conditioning line bracket bolt/stud (A) and the factory bolt from the alternator mounting ear (C). Mount the offset spacer bracket (part #AB018A-007) to the alternator mounting ear using the supplied M8-1.25 X 50mm LHSCS. The offset bracket must be positioned to accommodate the 60mm long bolt which passes through the idler pulley and main bracket. This will require trial fitment of the bracket assembly before final torquing of the offset bracket mounting bolt.
- 4 Remove the factory bolt/stud from brace point (D) and thread in the M8-1.25 X 100mm Full Thread HHCS with nut and flat washer installed into the engine front cover far enough to prevent it from interfering with the supercharger mounting bracket.



- 5 Route the supplied serpentine belt around the accessories as indicated below.

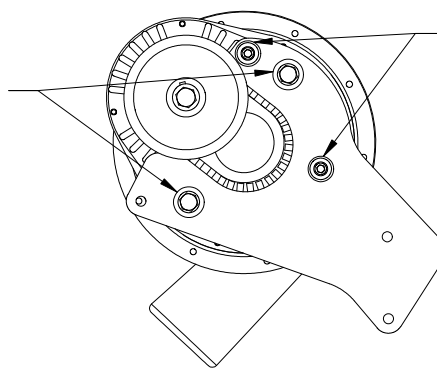


Belt-Routing Diagram

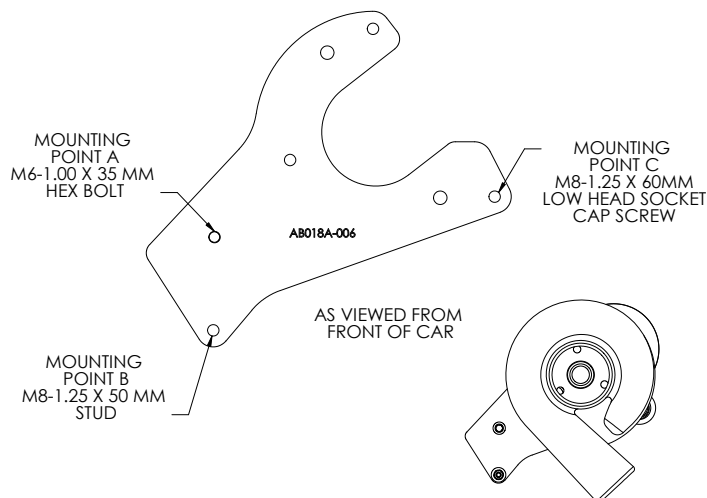
3/8"-16 X 1-1/4"  
HEX HEAD  
CAP SCREW AND  
FLAT WASHER

5/16"-18 X 3/4"  
LOW HEAD  
SOCKET CAP SCREW  
AND FLAT WASHER

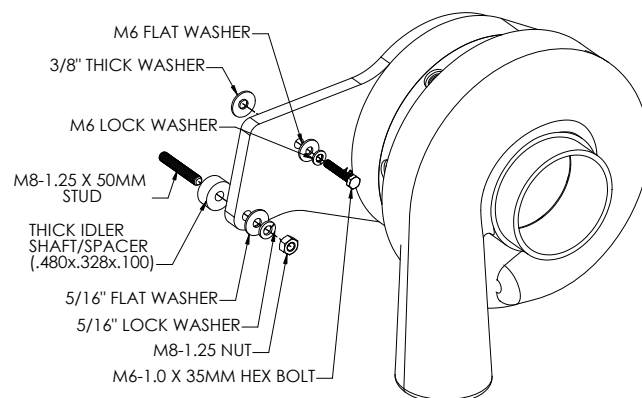
- 6 Using two 3/8"-16 X 1-1/4" HHCS with flat washers and two 5/16"-18 X 3/4" LHSCS with flat washers, attach the ProCharger to the main bracket (part #AB018A-006 for 2000-2004 model years).



- 7 To attach the supercharger and bracket to the engine, remove the belt from the water pump pulley and guide the belt onto the supercharger pulley and around the ATI idler, align the appropriate holes in the main bracket with the corresponding stud(s)/bolt holes and secure using the supplied hardware. With all fasteners in place, torque appropriately.



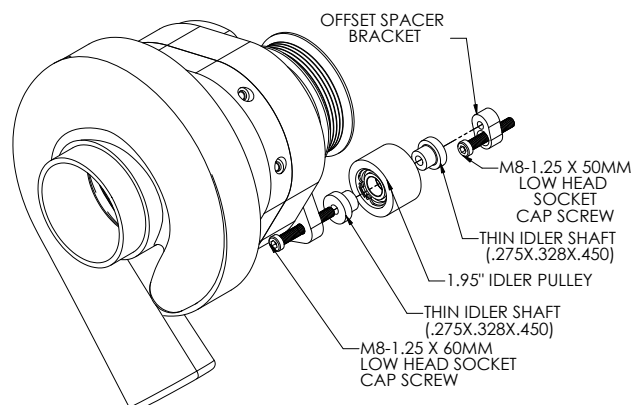
- 8 Once the bracket is installed, back out the M8-1.25 X 100mm Full Thread HHCS (point D) until it contacts the bracket. Now tighten the jam nut to lock the bolt in position.



- 9 With the main bracket securely attached, using a 3/8" square drive (break-over bar or ratchet), load the tensioner and guide the drive belt over the water pump pulley and into place.

- 10 Fill the ProCharger with one bottle (6 oz for a P1SC or D1SC) of the supplied oil.

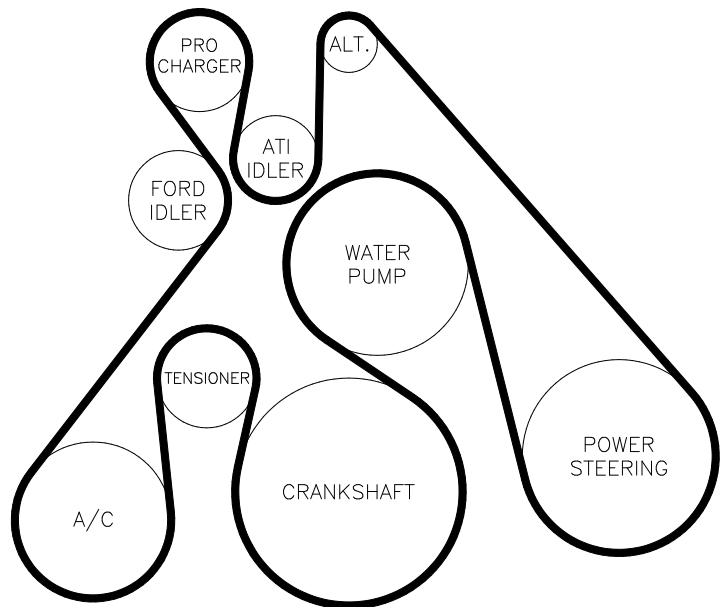
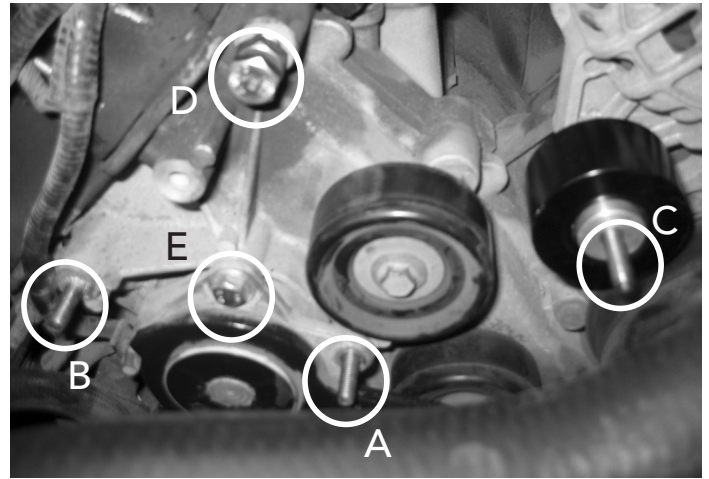
✓ **Note:** Improper belt tension will result in drive belt failure. ATI recommends replacing "soft" tensioners with a new factory replacement available at your local Ford dealer.



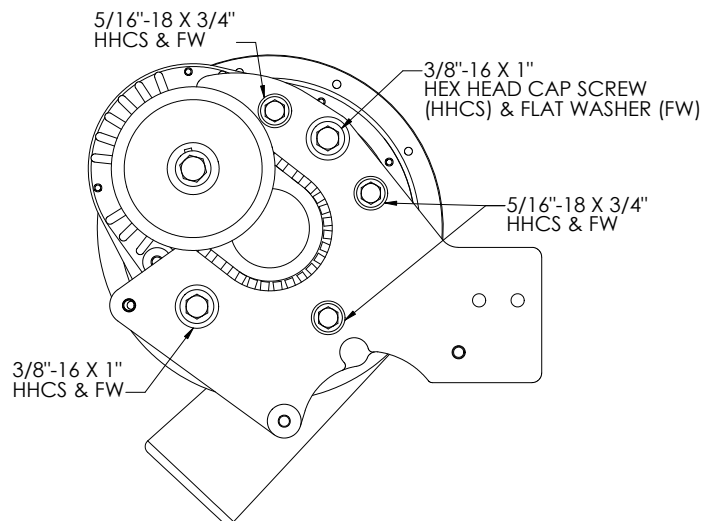
## 1999 Only

✓ **Note:** If installing on a 2000-2004 GT, proceed to the next section.

- 1 Remove the serpentine accessory drive belt if this has not already been done.
- 2 Remove the passenger's side alternator mounting bolt/stud (C) and replace it with a M8-1.25 X 120mm stud.
- 3 Remove the two upper tensioner retaining bolts/studs. The uppermost tensioner retaining bolt (E) will be replaced with an M8-1.25 X 16mm HHCS and flat washer (this washer may need to be omitted, make sure bolt does not interfere with bracket). In the other tensioner mounting boss (A) insert an M8-1.25 X 50mm stud. Remove the stud from the other front cover boss (B) and insert an M8-1.25 X 40mm stud (use thread locking compound on all studs). The studs should protrude approximately 1" from the mounting boss.
- 4 Remove the factory bolt/stud from brace point (D) and thread in the M8-1.25 X 100mm Full Thread HHCS with nut and flat washer installed into the engine front cover far enough to prevent it from interfering with the supercharger mounting bracket.
- 5 Route the supplied serpentine belt around the accessories as indicated at right.

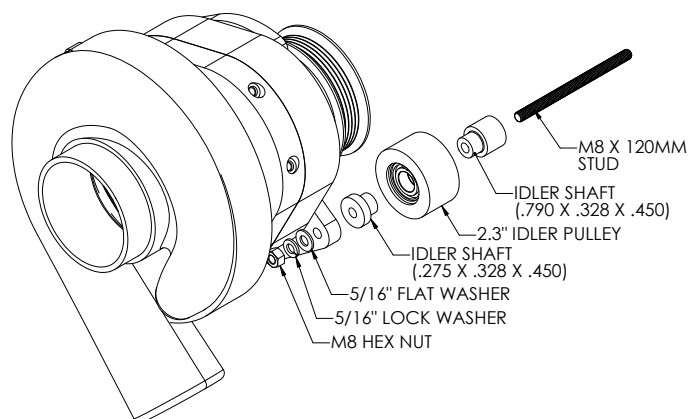
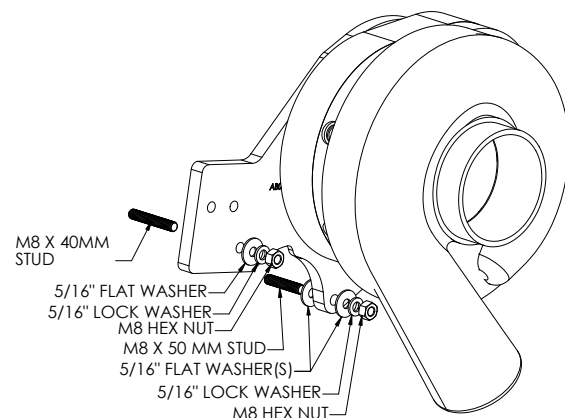
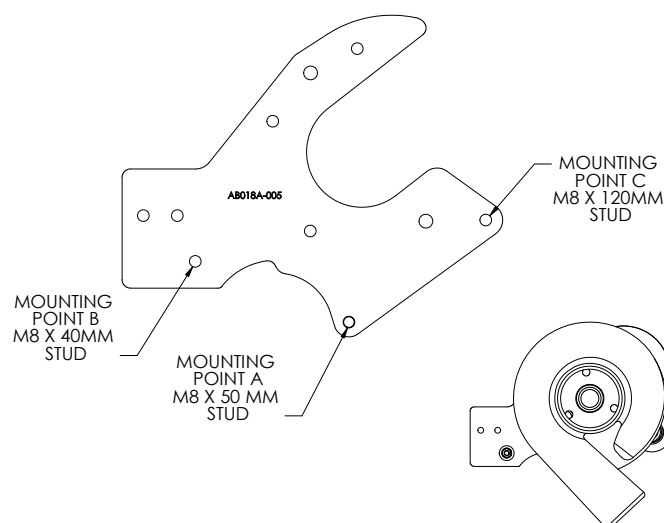


Belt-Routing Diagram





- 6 Using two 3/8"-16 X 1" Hex Head Cap Screws (HHCS) with flat washers (FW) and three 5/16"-18 X 3/4" Hex Head Cap Screws (HHCS) with flat washers, attach the ProCharger to the main bracket (Part # AB018A-005 for 1999 model year).
- 7 To attach the supercharger and bracket to the engine, remove the belt from the water pump pulley and guide the belt onto the supercharger pulley and around the ATI idler, align the appropriate holes in the main bracket with the corresponding stud(s)/bolt holes and secure using the supplied hardware. With all fasteners in place, torque appropriately.
- 8 Once the bracket is installed, back out the M8-1.25 X 100 MM Full thread HHCS (point "D") until it contacts the bracket. Now tighten the jam nut to lock the bolt in position.
- 9 With the main bracket securely attached, using a 1/2" square drive (ratchet or break-over bar), load the tensioner and guide the drive belt over the water pump pulley and into place.
- 10 Fill the ProCharger with one bottle (6 oz for a P1SC or D1SC) of the supplied oil.



✓ **Note:** Improper belt tension will result in drive belt failure. ATI recommends replacing "soft" tensioners with a new factory replacement available at your local Ford dealer.

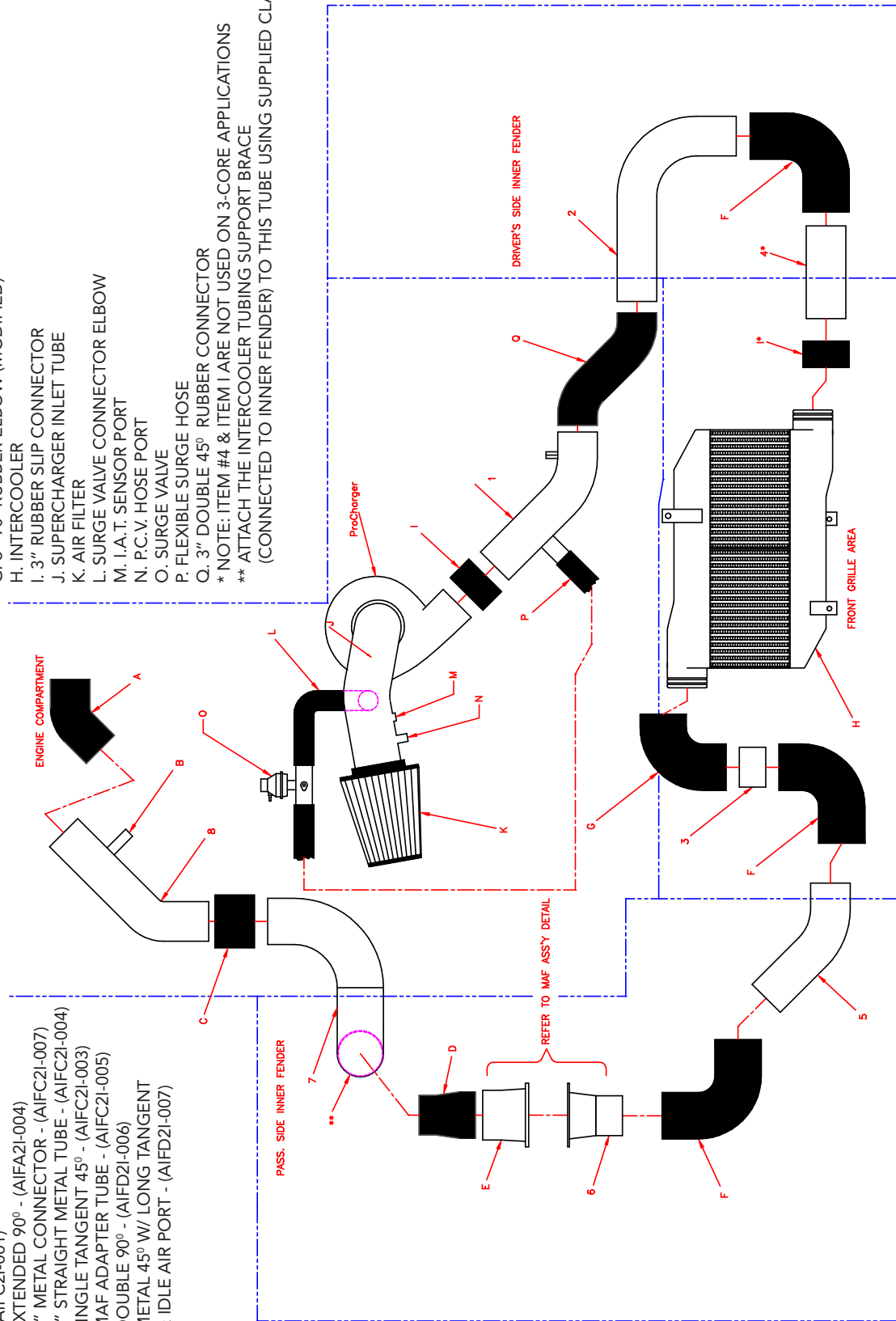
## 99-04 MUSTANG GT SUPERCHARGER SYSTEM SCHEMATIC DIAGRAM

### METAL TUBING

1. METAL 45° W/LONG TANGENT & SURGE - (AIFC21-001)
2. EXTENDED 90° - (AIFA21-004)
3. 3" METAL CONNECTOR - (AIFC21-007)
4. 3" STRAIGHT METAL TUBE - (AIFC21-004)
5. SINGLE TANGENT 45° - (AIFC21-003)
6. MAF ADAPTER TUBE - (AIFC21-005)
7. DOUBLE 90° - (AIFD21-006)
8. METAL 45° W/ LONG TANGENT & IDLE AIR PORT - (AIFD21-007)

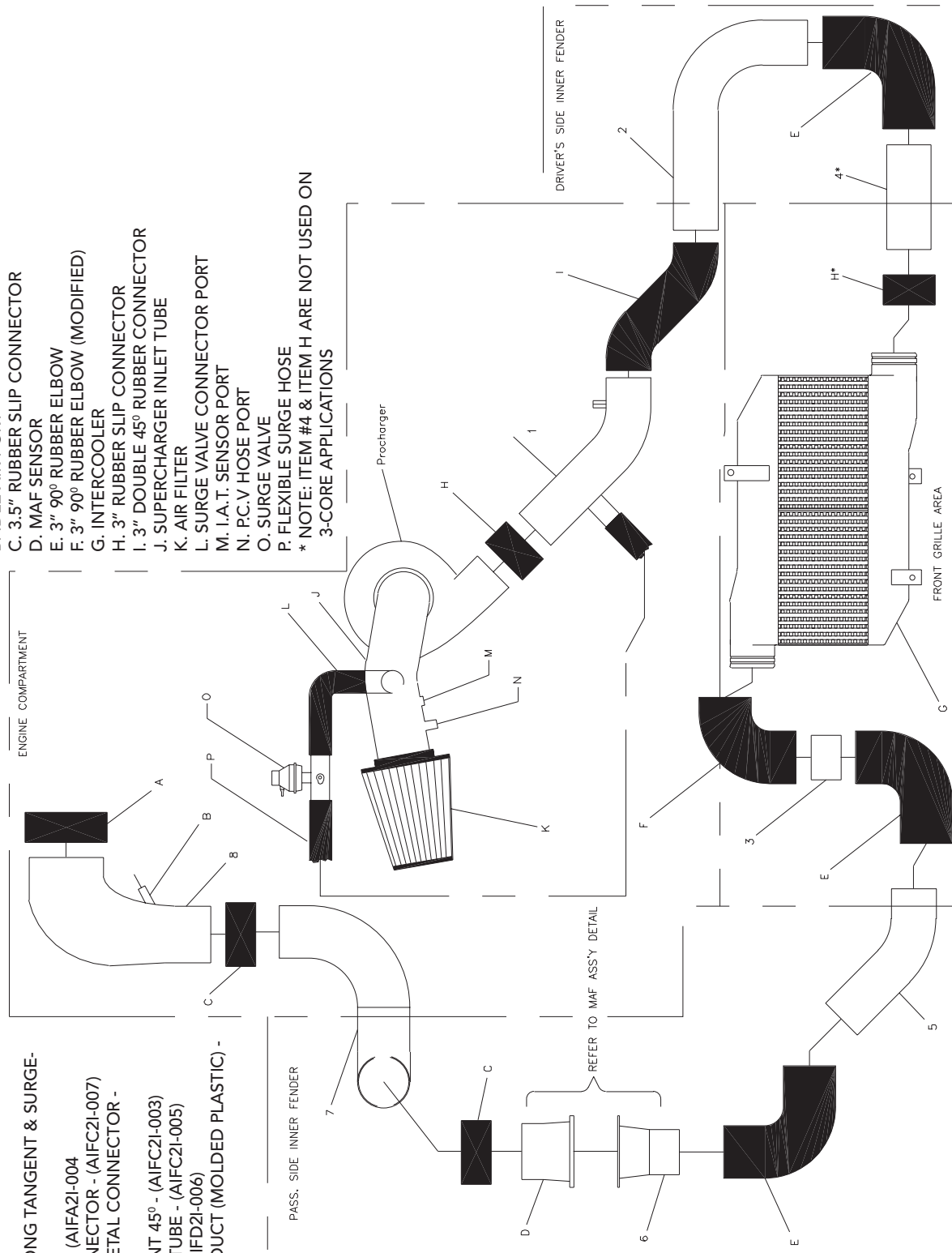
- A. 3" 45° RUBBER ELBOW
- B. IDLE AIR PORT
- C. 3" RUBBER SLIP CONNECTOR
- D. 3.5" - 3" RUBBER REDUCER
- E. MAF SENSOR
- F. 3" 90° RUBBER ELBOW
- G. 3" 90° RUBBER ELBOW (MODIFIED)
- H. INTERCOOLER
- I. 3" RUBBER SLIP CONNECTOR
- J. SUPERCHARGER INLET TUBE
- K. AIR FILTER
- L. SURGE VALVE CONNECTOR ELBOW
- M. I.A.T. SENSOR PORT
- N. P.C.V. HOSE PORT
- O. SURGE VALVE
- P. FLEXIBLE SURGE HOSE
- Q. 3" DOUBLE 45° RUBBER CONNECTOR

\* NOTE: ITEM #4 & ITEM I ARE NOT USED ON 3-CORE APPLICATIONS  
 \*\* ATTACH THE INTERCOOLER TUBING SUPPORT BRACE (CONNECTED TO INNER FENDER) TO THIS TUBE USING SUPPLIED CLAMP



## METAL TUBES

1. METAL 45°W/LONG TANGENT & SURGE-  
(AIFC21-001)
2. EXTENDED 90° - (AIFA21-004)
3. 3" METAL CONNECTOR - (AIFC21-007)
4. 3" STRAIGHT METAL CONNECTOR -  
(AIFC21-004)
5. SINGLE TANGENT 45° - (AIFC21-003)
6. MAF ADAPTER TUBE - (AIFC21-005)
7. DOUBLE 90° - (AIFD21-006)
8. ENGINE INLET DUCT (MOLDED PLASTIC)  
(AM0201-001)





# INTERCOOLER AND TUBING

- 1 Unbolt the power steering cooler line brackets from the core support.
- 2 Remove the rubber lines running to the cooler. Cut the supplied rubber power steering hose into two sections. Using the provided clamps & hose splices, install the hose sections so the cooling lines are spaced far enough forward that they do not interfere with the intercooler. Tighten the cooler lines.
- 3 Once the intercooler is installed, attach the stock power steering cooler bracket to the tab located on the bottom front of the intercooler.
- 4 Attach the aluminum "L" bracket (part #AIFC4I-002) to the hood latch support and to the bracket extending upward from the top of the intercooler using the supplied 5/16" fasteners, locknuts and washer.

✓ **Note:** Leave tube clamps loose until all tubes have been installed.

## 3 Core Intercooler

✓ **Note:** On some vehicles it may be necessary to use the slotted extenders to mount the intercooler lower on the front of the core support.

- 5 Inserting from below, install the intercooler (with inlet & outlet hoses attached) in front of the radiator, aligning the holes in the mounting tabs with the power steering cooler attachment points on the core support.



3 Core Intercooler Installed

## 2 Core Intercooler

- 5 Using the power steering cooler mounting clips and hardware, attach the intercooler to the core support using the mounting tabs at the bottom of the intercooler.

## Intercooler Installation Cont.

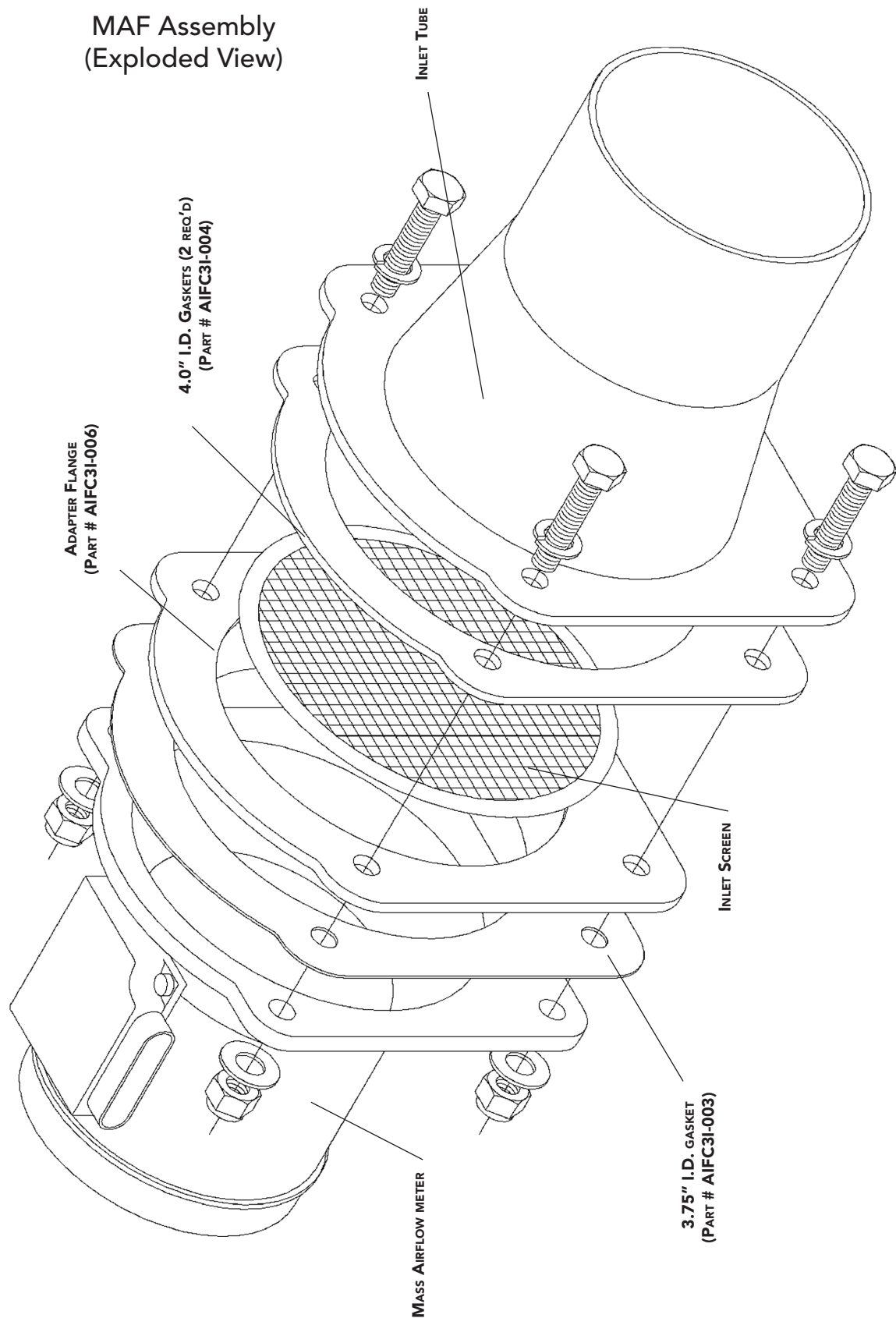


**Note:** There is a slight offset in the gaskets and the flange. Verify concentric alignment of all components before tightening the bolts.

- 6 Install hoses and clamps on intercooler tubes, allowing plenty of overlap between hoses and steel tubes, with the hose clamps located behind the connector beads.
- 7 Arrange and install all tubes as shown on page 8 for GT, or pages 9 and 11 for SVO/FRPP intake equipped vehicles (includes "Bullitt"). Hose G (GT) or F (Bullitt) may need to be trimmed on the intercooler end for best fit.
- 8 Using the supplied flange, gaskets, adapter tube and 1/4" hardware, assemble the MAF sensor assembly as shown on page 12.
- 9 Using the factory hardware, bolt the provided tube support bracket (part #AIFC4I-003) to the passenger's side inner fender using the air dam mounting studs. Install the remaining tubes and hoses as indicated. Attach the tube assembly to the support bracket using the provided clamp.
- 10 Check all clamped connections and verify that they are tightened properly.



"Bullitt" Inlet Tube Installation



## FUEL PUMP

✓ **Note:** This section only applies to **Stage II** full systems, which include a high flow fuel pump. If you do not have a full system, additional fuel system modifications will be required before starting the vehicle.

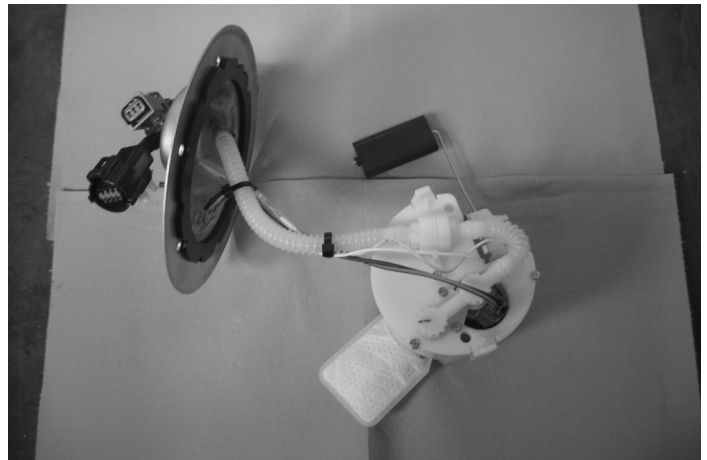
! **Warning:** When working on high pressure fuel systems, caution should be taken when handling high pressure lines, as residual pressure may cause fuel to spray unless relieved prior to disconnection.

✓ **Tech Tip:** This procedure may be simplified by emptying the fuel tank prior to removal.

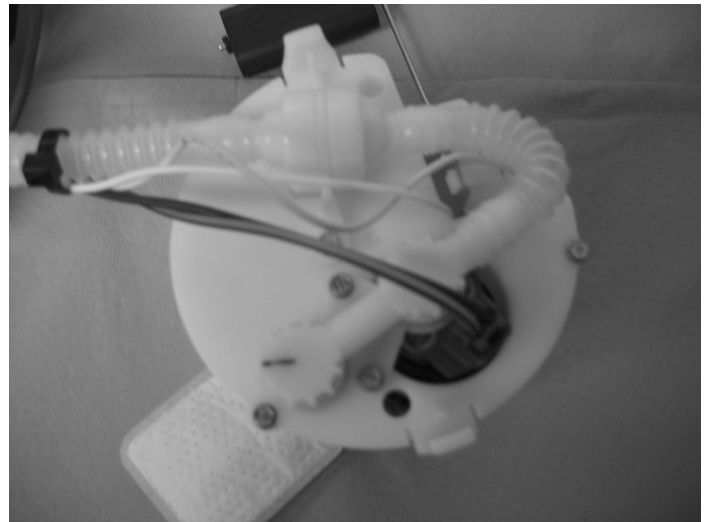
- 1 Raise the rear of the vehicle and support it with jack stands under the frame, allowing the suspension to hang free.
- 2 Disconnect the fuel filler neck by removing the three screws located at the fuel filler neck, behind the fuel filler door.
- 3 Place a floorjack or similar support mechanism beneath the tank. Loosen and remove the tank support straps and allow the tank to rest against the floorjack. Slowly lower the tank from the vehicle to provide access to the fuel line.

## Fuel Pump

- 4 Disconnect the fuel line (using a fuel line tool) and all wiring from the fuel tank and remove the fuel tank from the vehicle.
- 5 Remove the fuel pump canister assembly from the tank.
- 6 Remove the retaining screws that hold the canister together and the hoses down.
- 7 Pull the hose (hat) off the top of the fuel pump.



Fuel Pump Canister Assembly



Six Retaining Screws



Hose Removal



- 8 Disconnect the wiring clip from the top of the fuel pump.
- 9 Remove the canister lid.
- 10 Remove the stock fuel pump from the canister. Remove the sock from the stock fuel pump. Place the sock on the supplied fuel pump (part #FP009I-011).
- 11 To re-install, repeat the above steps in reverse order.



Unplug Wiring Clip



Canister Lid Removal

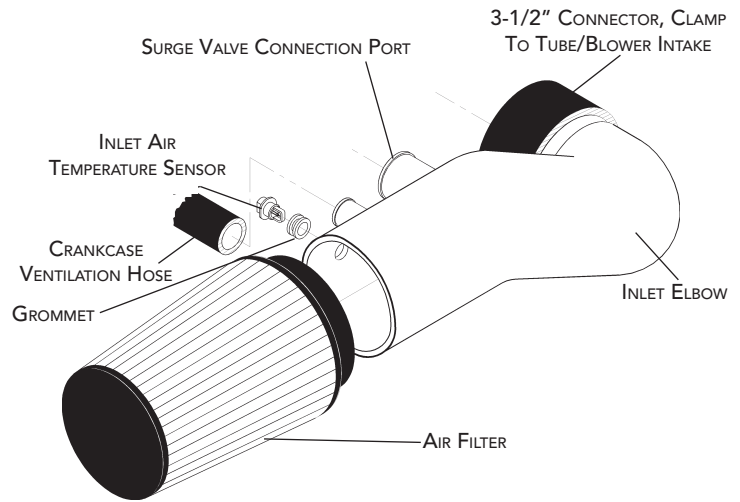


Fuel Pump

# FINAL ASSEMBLY

**Warning:** Never operate the vehicle without an air filter. Failure to do so may result in damage to the supercharger and/or personal injury.

- 1 Attach a sufficient length of the supplied 5/8" rubber hose to the driver's side valve cover breather fitting and route it to the fitting on the supercharger inlet elbow.
- 2 Reconnect the upper radiator hose, trimming as necessary for best fit.
- 3 Assemble the supercharger inlet components as shown.
- 4 Bend the A/C service port down and out of the way of the inlet tube and reposition the fan sensor on the side of the radiator as necessary. Connect the assembly to the inlet of the supercharger, connecting the crankcase ventilation hose.
- 5 Lengthen the Inlet Air Temperature sensor harness as needed, using the supplied splice connectors and wire. With the harness extended, install the sensor onto the supercharger intake.



Supercharger Inlet Assembly

✓ **Tech Tip:** When connecting to the supercharger, spraying the connector with window cleaner, etc., may ease installation.





- 6 Attach the supplied reservoir support rod (part #MR001A-001) to the coupler nut on the supercharger discharge tube, and re-install the coolant reservoir using the supplied 1/4" nut & flat washer.
- 7 Using the 1-1/2" 90° elbow and the provided 1-1/2" flex hose, install the surge valve between the supercharger inlet and the steel elbow nearest the supercharger outlet. Splice into a manifold vacuum line with the supplied 3/16" X 3/16" X 3/16" plastic tee (part #GF005I-010) and connect the line to the vacuum port on the valve.
- 8 Using a section of the supplied 5/8" hose, connect the Idle Air Resonator to the throttle body adapter duct (refer to pages 8 or 9 for additional detail). Connect both ends of the Idle Air Control hose leading from the resonator, to the intake manifold. Secure all connections using the provided clamps.
- 9 Fill all fluids to proper levels.



**CONGRATULATIONS! YOU HAVE COMPLETED THE INSTALLATION OF YOUR NEW PROCHARGER SUPERCHARGER SYSTEM. FOR FULL SYSTEMS, TUNING INSTRUCTIONS ARE ON THE FOLLOWING PAGE. IF YOU DO NOT HAVE A FULL SYSTEM, ADDITIONAL TUNING WILL BE REQUIRED BEFORE STARTING THE VEHICLE. READ THE FOLLOWING PAGES CAREFULLY FOR OPERATION AND MAINTENANCE INSTRUCTIONS, AS WELL AS WARRANTY INFORMATION.**

# INSTALLATION REVIEW & SAFETY CHECK

- 1 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.
  - 2 Carefully review the entire installation. Examine oil and fuel lines routed near moving parts and exhaust components to ensure that they are protected from chafing or abrasion, secure and free of twists and kinks. All wires and hoses should be firmly secured with clamps or wire ties.
  - 3 Ensure that the air filter is installed.
-  **Warning:** Never operate the vehicle without an air filter. Failure to do so may result in damage to the supercharger and/or personal injury.
- 4 Check and correct all fluid levels.
  - 5 **The supercharger contains no oil from the factory. The unit must be filled prior to use.** Use only ATI supplied oil in your ProCharger. Use of oil other than that supplied by ATI will void your warranty.
  - 6 Start the engine and let it idle for a few minutes. Inspect for air leaks.
  - 7 Shut off the engine and check for fluid leakage, signs of rubbing parts, and other potential problems.
  - 8 Be sure you have purchased and installed a fuel pressure gauge and/or fuel-air ratio meter to monitor fuel delivery while driving. Installation of a boost pressure gauge is also recommended.
-  **Note:** Larger cities (especially in winter months) often use oxygenated or reformulated fuels to reduce pollution. Although these fuels have the same octane ratings as unaltered fuels, some people have experienced problems (detonation) with their use. If you experience similar problems, it is advised to reduce your timing or use octane booster to avoid detonation.
-  **Note:** Your vehicle **MUST** be filled with 91 or higher octane fuel before any hard driving. You should switch to 91 octane 2 or 3 tanks of gas prior to installation of the ProCharger system in order to guarantee removal of low octane fuel from your vehicle

# 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.

## 2000-2004 Misc. Parts:

- 3.85" Drive Pulley (DP385I-06D) = DB108I-006 Belt (Gates #K061080)
- 1.95" Idler Pulley = DC003A-61SM
- Idler Shaft (.275x.328x.450) = DM002I-018
- Idler Shaft (.480x.328x.100) = DM002I-034

## 1999 Misc. Parts:

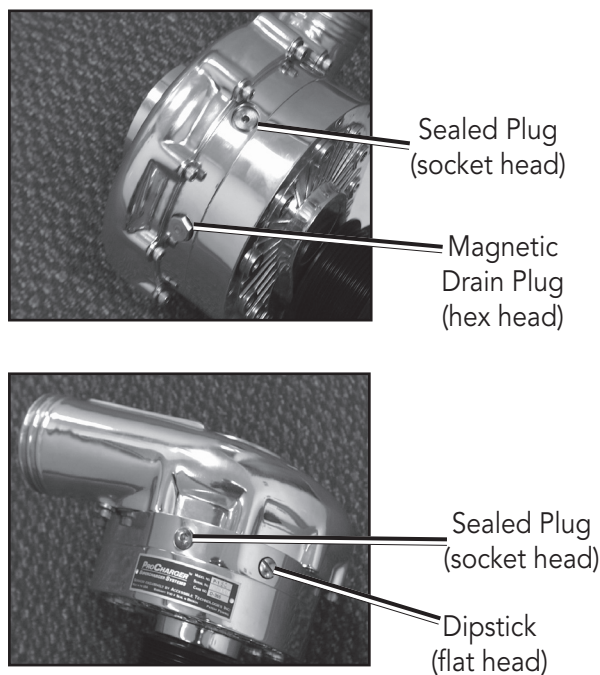
- 3.90" Drive Pulley (DP390I-6SSD) = DB145I-006 Belt (Gates #K061145)
- 2.30" Idler Pulley = DC003A-61SS
- Idler Shaft (.275x.328x.450) = DM002I-018
- Idler Shaft (.790x.328x.450) = DM002I-021



### ProCharger Oil Level

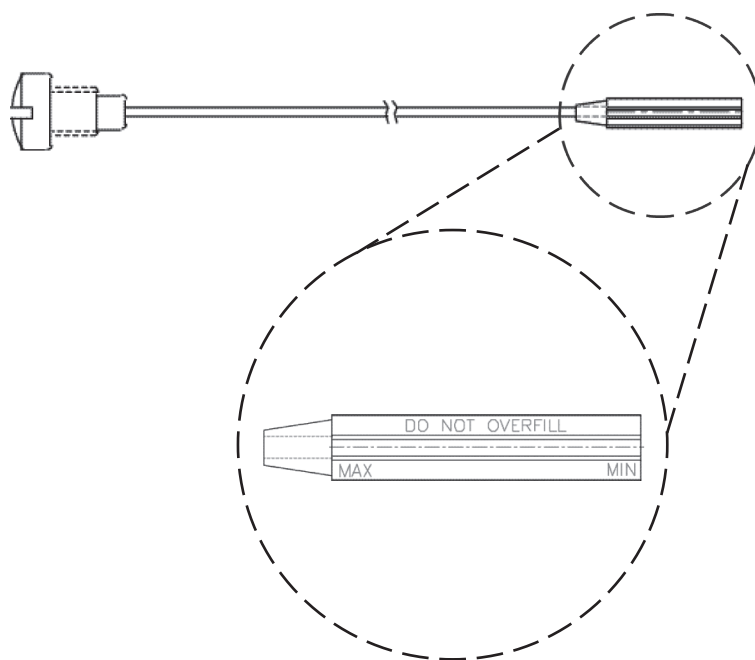
The ProCharger supercharger's oil level must be checked periodically to ensure the proper lubrication. The dipstick can be loosened using a flat blade screwdriver or a coin. When installed, the oil level should remain between the minimum (MIN) and maximum (MAX) indicators at all times.

**!** **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, P1-X, 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: \_\_\_\_\_

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

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

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

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

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

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

Age ☐ 18 - 24 ☐ 25 - 34 ☐ 35 - 44

☐ 45 - 54 ☐ 55 and up

Income ☐ \$15,000 - \$29,000 ☐ \$30,000 - \$44,000

☐ \$45,000 - \$69,000 ☐ \$70,000 and up

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

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

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

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

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

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

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

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

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

- \_\_\_ 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 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 owned 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 PMFE1A-001 Rev. E**

