# 2018+ F-150 5.0L HO/Stage 2 Intercooled System Installation Guide





The ULTIMATE Power Adder™

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ProCharger is a registered trademark and The Intercooled Supercharging Experts!™ and Designed to Blow Away the Competition™ are trademarks of Accessible Technologies, Inc. and may not be used without express permission.

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® 2018+ F-150 5.0L HO/Stage 2 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.



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 F-150 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.

## **Required Tools and Supplies**

- 3/4" Socket Set (standard & metric)
- ½" Socket Set (standard & metric)
- ½" Impact Gun
- ½" Breaker Bar and 4" Extention
- T20 Torx Bit
- Open End Wrench Set (standard & metric)
- 5/16" Nut Driver
- 3/8" Hex Bit Set (allen head)
- Flat Screwdrivers
- Phillips Screwdrivers
- Plier Set
- Reciprocating Saw
- Ford Engine Coolant



**Tech Tip:** Installing spark plugs that are one heat ranger colder than stock and gapping your plugs to .035" is recommended.

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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.

# **GETTING STARTED**



Completion of this section will configure the vehicle for system installation:

- (A) Factory Air Filter Box
- (B) Factory Inlet Pipe

## **Getting Started**

- 1 Disconnect the negative battery cable from the battery using an 10mm.
- 2 Disconnect the (2) vent hoses from the intake tube.
- Unclip the (2) retainers and remove the upper portion of the air filter box.



Disconnect Vent Hoses From Intake Tube

- 4 Loosen the (1) hose clamp using a 7mm socket on the throttle body.
- Remove the upper portion of the airbox and intake tube assembly from the vehicle.



Loosen Throttle Body Clamp

Remove the lower portion of the airbox from the vehicle by removing the (1) bolt using a 13mm socket from the fender and (2) push clips on the front core support.



Remove Lower Portion of the Air Filter Box

Remove the upper radiator shroud from the vehicle by removing the (14) push pins.



Remove Radiator Shroud

#### 2018-19 Model Years:

8 Remove (2) 7mm screws from inside the wheel well on each side.



2018-19 Model Years: Wheel Well Screws

#### 2020 Model Years:

9 Remove (1) 7mm screw from inside the wheel well on each side.



2020 Model Years: Wheel Well Screws

## **Getting Started**

#### 2020 Model Years:

Remove (4) push pins from inside the wheel well on each side.



2020 Model Year: Wheel Well Push Pins

Pull out on the fender flares, releasing all of the push clips. Remove them from the truck on both sides and set aside.



Remove Fender Flares

Remove the lower grille valance by pulling outward.



Remover Lower Valance

Remove the (4) 10mm screws from the top of the grille support.



Remove Upper Grille Screws

Unplug both the ambient air temp sensor and the active shutters from the grille.



AAT and Active Shutter Motor Plugs

Using an 8mm remove the (2) bolts from the bottom corners of the grille.



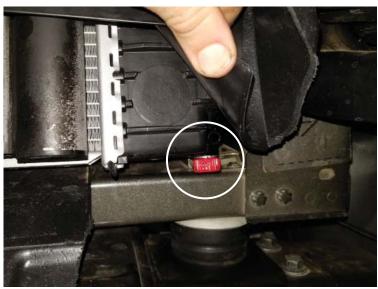
Remove Side Grille Screws

Release the grille from inside the headlight by pulling outward. Remove the grille from the truck.



Remove Grille

- 17 Remove the cap on the coolant tank.
  Place a rubber hose on the 3/8 nipple on the bottom driver side of the radiator.
  Drain the coolant.
- Remove the cap on the coolant tank.
  Place a rubber hose on the 3/8 nipple on the bottom driver side of the radiator.
  Drain the coolant in the cooling system by twisting the drain cock. When all coolant has drained, tighten the drain cock.



Radiator Drain Cock

Remove the driver's side PCV line located on the driver's side valve cover.



Driver Side PCV Line Removal

# COOLING SYSTEM

1 Disconnect the lower radiator hose from the water pump housing.



Disconnect Lower Radiator Hose

Install the supplied 1-1/2" diameter section of coolant hose with the supplied coupler as shown. This will extend the lower radiator hose to clear the bracket spacer installed later. Secure with (2) #24 hose clamps and factory hose clamp (note position of tabs on top to clear bracket installation).



**Tech Tip:** It may be necessary to trim the factory radiator 1" to prevent a kinked hose.



**Extend Lower Radiator Hose** 

# CRANK PULLEY INSTALLATION



**Tech Tip:** For vehicles utilizing an aftermarket ATI Performance Products balancer (part #918047), 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.

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



Remove Factory Balancer Bolt

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

## **Crank Pulley Installation**



**Tech Tip:** Be sure the crank pulley is installed so it has minimal rotational play. Mount with the cam locks indexed so the further center distance between cam locks is in the same spoke pocket (see image at right for proper orientation).

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



Detailed View of Proper Cam Lock Orientation



Crank Pulley Installed

## PROCHARGER BRACKET AND HEAD UNIT

1 Remove the (3) pieces of hardware labeled in the image at right. The alternator stud can be removed by using a 15mm socket, the remaining (2) bolts use a 13mm socket (the upper 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.

- Mount the main bracket loosely onto the vehicle by installing the M10-1.50 x 140mm bolt and washer through the bracket and 3.353" round spacer into the alternator mounting hole where the stud was removed earlier.
- 3 Slide the (2) 4.313" spacers between the bracket and engine front cover. Using the supplied M8-1.25 x 180mm bolts and washers, secure the assembly by tightening all three fasteners (13 & 17mm socket).



Remove Factory Hardware



Main Bracket Installed

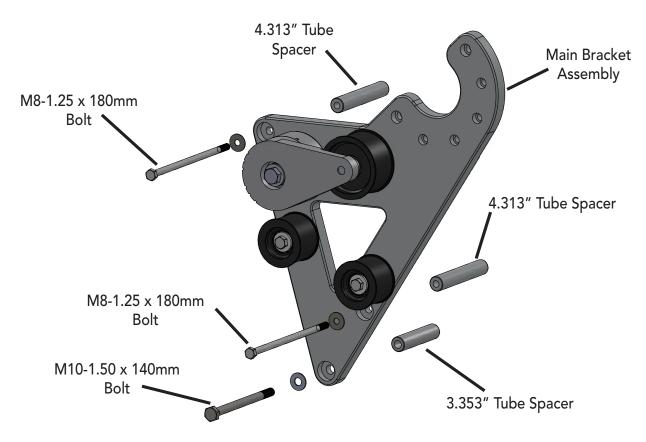


Main Bracket Installed (Lower Spacers)

- 4 Remove the oil fill reminder tag from the head unit. Fill the supercharger with (1) 6 ounce bottle of the supplied blower oil.
- Mount the ProCharger onto the main bracket using the provided (4) 5/16-18 x 1" and (2) 3/8-16 x 1.25" SHCS's. Tighten the fasteners using a 1/4" and 5/16" hex bit.



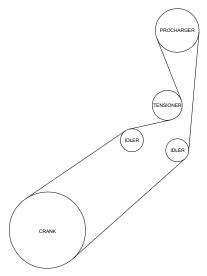
Procharger Head Unit Installed



Main Bracket Schematic

## **ProCharger Bracket and Head Unit**

Install the supplied supercharger belt.
Refer to the supercharger belt schematic for proper routing.



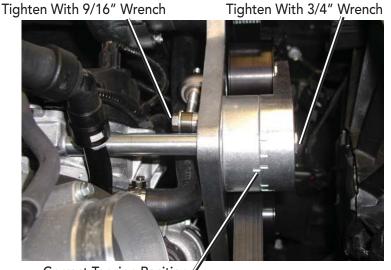
Supercharger Belt Schematic

7 Tighten the belt by rotating the brass tensioner collar clockwise using a 1/2" socket and extension from underneath supercharger as shown. Tension until first set of marks are nearly in line as shown in lower right picture.



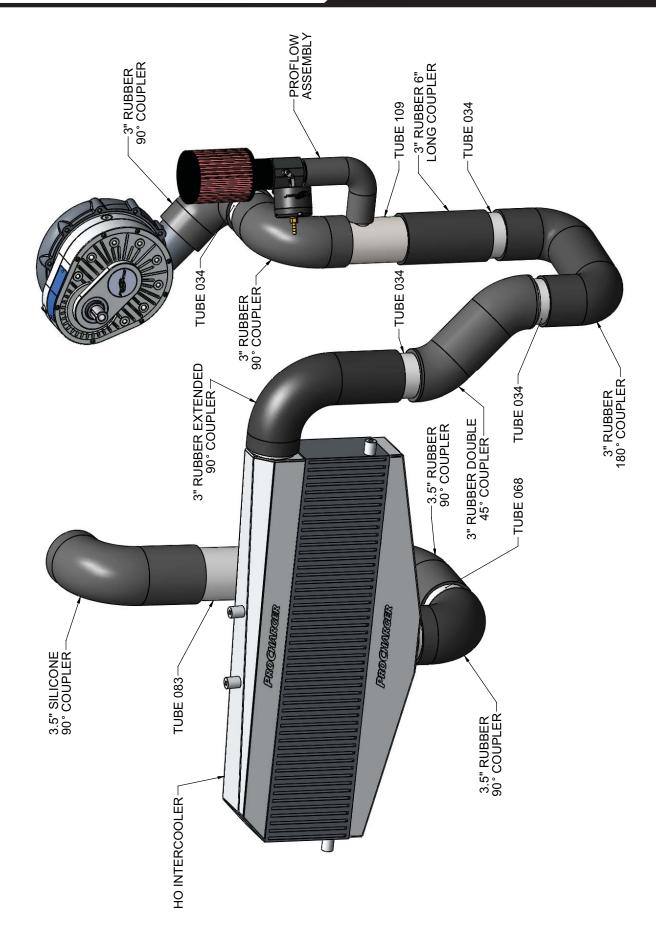
Belt Tensioning (Brass Collar Access)

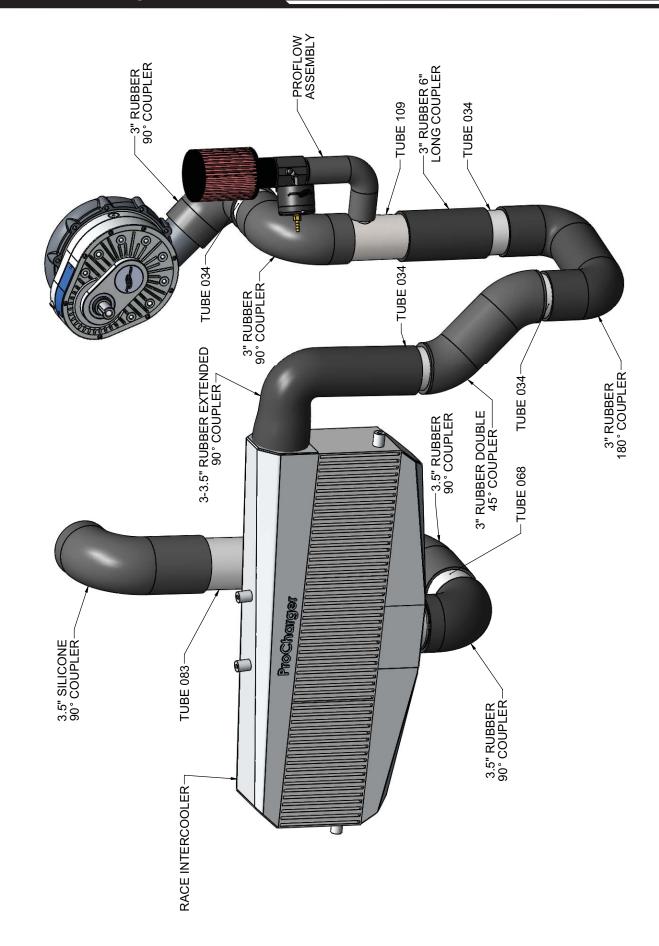
8 Tighten the (2) tensioner bolts (front and back) to secure the tensioner into place using a 3/4" wrench and 9/16" wrench.



Correct Tension Position

Tighten Rear Tensioner Bolts





# INTERCOOLER AND TUBING INSTALLATION

#### **Grille Modifications**

- 1 Place the grille facing down on the ground.
- 2 Remove the vertical bars using a T20.
- Remove the Y-shaped actuator bar from the active shutters. Individually pull each tab outward from each shutter blade.



**Tech Tip:** Once all of the tabs are released from each shutter blade the actuator bar can be removed from the grille.

Remove all sets of shutters from the grille. Carefully bend each individual blade in order to remove the rotation nipple from its mount.

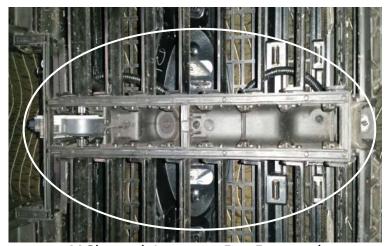


**Tech Tip:** Once the blade is released from its mounting point slide the blade out from the other joint. Remove the blade from the grille.

5 The actuator bar and removed shutters will not be used. The only set of shutter blades remaining on the grille are those connected to the active shutter motor.



Vertical Bar Removal



Y-Shaped Actuator Bar Removal



Remove Shutter Blades

## Intercooler and Tubing



Grille Removal

- 6 Remove the AAT sensor and harness for relocation.
- 7 Using a 10mm socket remove the (4) nuts from the back, (2) on each side. Using an 8mm socket remove the (1) screw from the middle.
- 8 Remove the rubber guard from the bottom by removing the (4) push pins.
- 9 Remove the plastic grille mount from the grille by releasing the (5) metal clips on the bottom.
- Trim the mount as shown for adequate clearance for the intercooler.



Lower Guard Removal



**Modified Grille Mount** 

- Trim the mount as shown for adequate clearance for the intercooler tubing.
- Reassemble the modified grille mount back onto the grille.
- 13) Relocate the AAT sensor.



Driver's Side Grille Mount Modified

Trim the plastic moulding resting underneath both the radiator and a/c condenser as shown.



**Radiator Moulding** 

## Intercooler and Tubing

#### Intercooler Install



**Tech Tip:** To ease installation, leave hose clamps and brackets loose until all tubes have been positioned. Trim rubber connectors as desired after test fitting all tubing to determine proper length required.

- 1 Mark the hood latch position, then remove the (2) bolts from the hood latch using a 10mm socket. Install the upper intercooler bracket behind the hood latch and re-install the hood latch bolts.
- Mount the intercooler to the upper bracket using (2) supplied 3/8"-16 X 7/8" socket head cap screws with washers

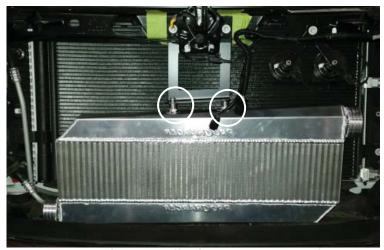


**Tech Tip:** Be sure to mount the intercooler as close to the radiator as possible.

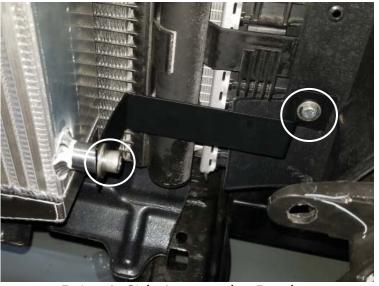
- Install the driver's side intercooler bracket (AIFY1A-005) to the radiator using the (1) supplied M6 bolt, (2) washers, and (1) jam nut.
- Mount the intercooler to the driver's side intercooler bracket using the (1) supplied 3/8"-16 X 7/8" socket head cap screw with washer.
  - Note: Stage 2 Intercooler: The driver's side intercooler bracket to the intercooler will require the use of a 3/4" long tube spacer and 3/8"-16 X 1-1/2" SHCS with washer.



Upper Intercooler Bracket Installed

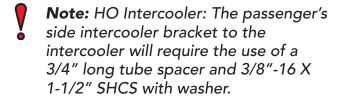


Intercooler Installed to Upper Bracket



Driver's Side Intercooler Bracket

- Install the passenger's side intercooler bracket (AIFY1A-006) to the radiator using the (1) factory bolt already in the radiator.
- Mount the intercooler to the passenger's side intercooler bracket using the (1) supplied 3/8"-16 X 7/8" socket head cap screw with washer.





Passenger's Side Intercooler Bracket



Intercooler Installed



Connect the ProCharger to the 3" rubber 90° coupler using a #52 hose clamp.

**Tech Tip:** All hose connections for the intercooler tubing will utilize the #52 hose clamps except the couplers which connect to the 3-1/2" intake tube. Use the #64 hose clamps for this tube.

#### **Proflow Surge Valve:**

Insert tube #034 into the 90° rubber coupler and secure with a #52 hose clamp.



Blower Discharge

## Intercooler and Tubing

#### Race Valve Surge Valve:

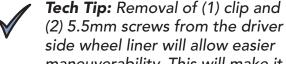
- 9 Install the supplied 90° pushlock fitting onto the race valve.
- Install the supplied o-ring into the groove on the race valve tube and install the race valve onto the tube using the supplied #10 SHCSs.
- 11) Insert tube #255 into the 90° rubber coupler and secure with a #52 hose clamp.

#### **Proflow Surge Valve:**

- Trim one end of the 3" rubber 90° coupler 1-1/2" and insert the long end into tube #034 as shown using a #52 hose clamp.
- 13 Insert the short end of surge tube #109 into the 90° rubber coupler and secure with a #52 hose clamp.

#### Race Valve Surge Valve:

- Trim one end of the 3" rubber 90° coupler 1-1/2" and insert the long end into tube #255 as shown using a #52 hose clamp.
- Insert the short end of surge tube #031 into the 90° rubber coupler and secure with a #52 hose clamp.



maneuverability. This will make it easier to route the tubes through it. Once tubes are routed re-insert the clip and screws to secure the wheel liner.



Race Valve Install



**Proflow Install** 

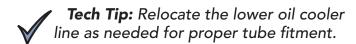
- Slide the 3" x 6" rubber hose onto surge tube #031 or tube #109 and secure with a #52 hose clamp.
- Insert tube #034 into the 3" rubber hose and secure the connections with #52 hose clamps.
- 18) Slide the 3" rubber 180° coupler over tube #034. Secure the connections with #52 hose clamps.
- 19 Insert tube #034 into the 3" rubber 180° coupler and secure the connections with #52 hose clamps.

#### **HO** Intercooler:

20 Trim 1" off the short end of the 3" extended 90° rubber coupler. Connect the short end to the intercooler and secure with a #52 hose clamp.

#### Race Intercooler:

- 21 Trim 1" off the short end of the 3.5"-3" extended 90° rubber coupler. Connect the short end to the intercooler and secure with a #52 hose clamp.
- Insert tube #034 into the extended 90° rubber coupler.
- Finish the connection using the 3" rubber double 45° coupler. Using #52 hose clamps to secure on both sides.
- Insert the short end of the 1-1/2" rubber 90° elbow onto the surge bung on tube #109.





Rubber 180° Installed



Tubing To Intercooler Installed



Surge Valve Assembly

## Intercooler and Tubing

- Connect the ProFlow surge valve to the 1-1/2" rubber 90° elbow using #24 hose clamps. Be sure the mechanical linkage for the surge valve is free to move and is not coming in contact with any objects.
- Install the supplied air filter onto the ProFlow surge valve and secure with the supplied hose clamp.



Surge Valve Installed

- 27 Trim 2" off the short and 6" off the long end of the 3.5" rubber 90° coupler.
  Secure the long leg to the intercooler outlet using a #56 hose clamp.
- 28 Insert tube #068 into the 3.5" 90° rubber coupler and secure with a #56 hose clamp.



Intercooler Outlet

- Connect the 3.5" rubber 90° coupler to tube #068 and secure with #56 hose clamps.
- Insert tube #083 into the 3.5" rubber 90° coupler. Secure with #52 hose clamps.



Tube #083 Installed

Finish the connection to the throttle body by inserting tube #083 into the silicone reducer followed by a 3.5" 90° silicone elbow. Slide the Silicone elbow onto the throttle body. Secure connections with 3.75" T-bolt clamp.



**Tech Tip:** Any location where steel tubes could abrade on the chassis should be cushioned with the supplied self-adhesive rubber strips.



Tubing To Throttle Body Installed



**Tech Tip:** Reroute the small rubber hose as shown so it doesn't rub the belt.



Hose Orientation

# MAP SENSOR REPLACEMENT

1 Using a 8mm socket remove the factory MAP sensor from the back of the intake.



**Tech Tip:** This is a difficult process and may be easier to remove the intake. If you choose not to, it is easier to access from the driver's side of the intake manifold.

2 Using the factory bolt install the supplied MAP sensor in place of the factory one.



**Tech Tip:** Lubricate the oring of the new MAP sensor with oil. This will make it easier to slide into the intake.



MAP Sensor on Back of Intake

# VACUUM MANIFOLD

If equipped with a vaccum line from the brake booster to the intake manifold that had (2) factory check valves as shown to the right follow steps 3-7.



Factory Vaccum Line To Brake Booster

2 If equipped with a vaccum line from the brake booster to the intake manifold that had (1) factory check valves as shown to the right follow steps 8-12.



Factory Vaccum Line to Brake Booster

# For vehicles equipped with (2) factory check valves only:

Remove the hard plastic line located between the intake manifold and check valve.



Remove Vaccum Line

#### Vacuum Manifold



**Tech Tip:** Remove the hard plastic line from the fittings. As shown this will allow you to retain the factory fittings on both sides.



Hose Fitting Modification

Assemble the supplied vacuum manifold using the provided barb fittings and plugs. If you are not going to use a boost gauge, assemble with one 3/16" barb fitting, otherwise install two 3/16" barb fittings, then plug the remaining 1/8" port(s).



Vacuum Manifold Assembled

- 5 Using the (2) pieces of 90 degree rubber hose trim as needed to secure the vaccum manifold in place of the hardline removed.
- 6 Install the vacuum manifold and securely clamp in place using the supplied #8 hose clamps, making sure that there are no vacuum leaks at the splice points.



Vacuum Manifold Installed

Relocate the factory vacuum tree along the fuel rail next to the vacuum manifold if not done so already. Remove the factory PCV line from the end of the

factory tree. Install the supplied 3/8" vacuum cap to the open end of the tree.



Vacuum Tree Plug

# For vehicles equipped with (1) factory check valves only:

8 Remove the hard plastic line located between the right front intake manifold and factory vaccum tree.



Remove Vaccum Line



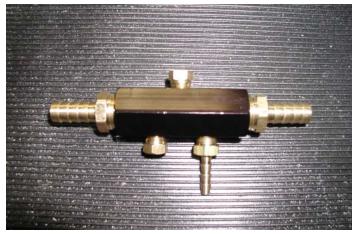
**Tech Tip:** Remove the hard plastic line from the fittings. As shown this will allow you to retain the factory fittings on both sides.



**Hose Fitting Modification** 

## Vacuum Manifold

9 Assemble the supplied vacuum manifold using the provided barb fittings and plugs. If you are not going to use a boost gauge, assemble with one 3/16" barb fitting, otherwise install two 3/16" barb fittings, then plug the remaining 1/8" port(s).



Vacuum Manifold Assembled

- Using the (2) pieces of 90 degree rubber hose trim as needed to secure the vaccum manifold in place of the hardline removed.
- 11 Install the vacuum manifold and securely clamp in place using the supplied #8 hose clamps, making sure that there are no vacuum leaks at the splice points.



Remove Vaccum Line

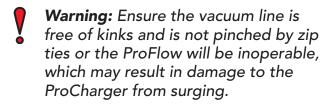
Relocate the factory vacuum tree along the fuel rail next to the vacuum manifold if not done so already. Remove the factory PCV line from the end of the factory tree. Install the supplied 3/8" vacuum cap to the open end of the tree.



Vacuum Tree Plug

#### For all vehicles:

- 13 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 (if installed) to the other 3/16" barb fitting.
- Loosely secure the vacuum manifold and lines with zip ties as needed.





**Proflow Vaccum Hose** 

# PCV AND AIR FILTER

1 Remove the passenger side PCV line.



Passenger Side PCV Line Removal

2 Locate the PCV bag. Slide a 5/8" rubber cap onto each open bung located on the intake manifold and the passenger's side valve cover. Secure the cap on the intake manifold with the a #10 hose clamp.



Rubber Caps Installed

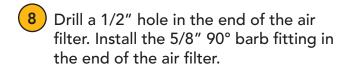
- 3 Locate the factory PCV line that has a 90° fitting removed in the first section of this manual. Remove the factory hardline from the 90° fitting as shown.
- 4 Attach 5/8" rubber hose to 90° fitting and secure with a #10 hose clamp.
- 5 Place the fitting on the driver's side pcv bung on the driver's side valve cover.



**PCV Line Modified** 

- Locate the air inlet bag. Install the trimmed side of the 90° rubber coupler onto the blower inlet with a #60 hose clamp but do not tighten.
- 7 Insert tube #389 in the 90° rubber coupler located on the blower.
- $\sqrt{\phantom{a}}$

**Tech Tip:** Some trimming of the rubber coupler may be required to clear the brake master cylinder.



- 9 Install the air filter with hose clamp onto tube #389. Trim and attach the 5/8" hose to the barb fitting in the air filter. Adjust the PCV line so there are no kinks.
- 10) Tighten all the hose clamps.



**PCV Line Installed** 



Air Filter Inlet Installed

## FINAL ASSEMBLY

- 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 selfadhesive rubber strips.
- 2 Trim and re-install the air deflectors as desired.
- 3 Re-install the grille and headlight trim.
- Reconnect the negative battery cable to the battery.



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.

# 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

# **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 reoil 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 reinstalling 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.



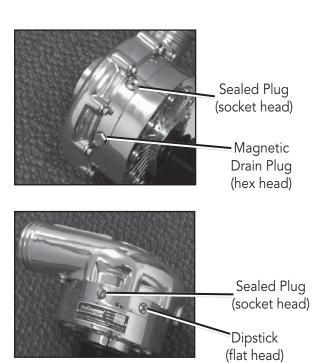
Warning: Filling the ProCharger higher than the maximum level on the dipstick can lead to bearing and seal damage. The supercharger is a sealed unit and should not normally require the addition of oil between service intervals. If excessive usage is noted, the unit should be sent to ATI for inspection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

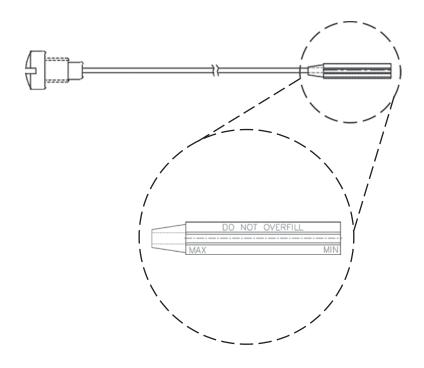
#### **General**

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.





## 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, 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 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 breakin 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.

cut along the dotted line

# **ProCharger Extended Coverage Program Registration Form**

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

Name:		Date of Pu	rchase:	
Address:		Purchased From:		
		ProCharger Serial #:		
State: Zip:		_	nr:	
Daytime phone:			ke:	
Evening phone:			odel:	
E-mail:  Age		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 systen
Have you own a forced induction system previously?  If yes:  Supercharger: Brand(s)		☐ Yes  Vehicle(s)	□No	
Turbocharger: Brand(s)		Vehicle(s)		
my check for \$99, payable to ATI, indicated above) in the extended beyond the standard limited warr	narger superchai ave read and and , for enrolling my d coverage prog ranty period of t	rger in any wa swered all quo y ProCharger ram for an ad welve (12) mo	ly during my participation in the estions on this form. I have enclosed supercharger (serial number ditional twenty-four (24) months onths.	
Signature			Date	
			TI at: 14801 West 114th Terrace,	

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.







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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