2014-15 Camaro Z-28 Stage II 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® 2014-15 Camaro Z-28 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) 338-2886.

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.



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



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.

Required Tools and Supplies

- 3/8" & 1/2" Socket Sets (standard & metric)
- 1/2" Impact Gun
- 1/2" Breaker Bar
- T20 & T15 Torx Bit
- Open End Wrench Set (standard & metric)
- 3/8" Hex Bit Set (standard & metric))
- Flat & Phillips Screwdrivers
- Plier Set
- Propane torch
- Loctite 272
- Drill and 1/2" Drill Bit
- GM Balancer Install Tool
- GM Balancer Removal Tool



Warning: Your supercharged Camaro 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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PLEASE PROCEED TO THE TUNING SECTION FOR COMPLETE SYSTEM INSTALLATIONS. 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 handheld tuner. If you do not have a full system, additional tuning will be required before starting the vehicle.

- 1 Set the parking brake. Plug the X3 handheld into the vehicle's OBDII port. Proceed to Program Vehicle and then to Upload Stock. Follow the on-screen prompts. The device will read the stock tune from the vehicle.
- Download SCT Device Updater from www.sctflash.com to your computer. Using SCT Device Updater, click on Get Stock File From Device. This will generate 2 files:
 - 1. "- -".bef
 - 2. "vin#".sul
- 3 Email the 2 files to tuning@procharger. com along with the serial number from the blower and X3 handheld.
- The tune for your vehicle will be emailed back to you from tuning@procharger. com. Upload the tune from your computer to the X3 handheld using the Device Updater Software.
- 5 Plug the X3 handheld into the OBDII port. Proceed to Program Vehicle, Select Custom Tune, and Select Tune following the on-screen prompts.



Tech Tip: 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.

GETTING STARTED



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

- (A) Factory Air Filter Box
- (B) Mass Airflow (MAF) sensor
- (C) Factory Inlet Pipe
- (D) Plastic Engine Covers



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.

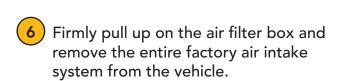
- Disconnect the negative battery cable from the battery (located in the trunk) using a 10mm wrench.
- Remove the engine covers by pulling firmly upward on both covers. Set the covers aside.
- 3 Disconnect the Mass Airflow Meter (MAF) wiring harness from the intake tube by pressing the tab together and pulling out.



Factory Inlet Removal

- Disconnect the PCV line running to the factory intake system by unclipping the connector tab and pulling out.

 Remove the opposite end of the PCV line attached to the dry sump tank by unclipping the connector and pulling out. This will no longer be used. Using a 5/16" nut driver, loosen the throttle body hose clamp.
- 5 Remove the (2) nuts that fasten the air cleaner box to the vehicle using a 10mm socket.

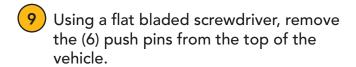




Dry-Sump PCV Line

Getting Started

- 7 Using a T20 Torx bit, remove the MAF sensor from the factory intake tube and set it aside for reuse later. The rest of the intake system will not be re-installed.
- Remove the upper fascia fasteners with a 10mm socket (driver's and passenger's side).





- Remove the front wheels from the vehicle.
- Using a T20 torx bit, remove the screws (3 per side) that attach the inner splash panel to the front fascia.



Remove Factory MAF From Intake Tube



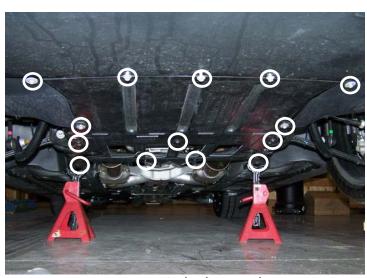
Remove Upper Fascia Fasteners & Push Pins



Remove Screws (3 Per Side)

Raise the vehicle and support with jack stands.

From the underside with a 10mm remove (14) bolts and (2) clips holding the lower splash panel shown to the right. Remove the panel.



Lower Splash Panel

Using a 7mm socket remove (4) screws holding the bottom of the inner fender to the fascia. Repeat for the other side.



Remove 7mm Screws (4 Per Side) From Bottom Of Inner Fender

- With a T-15 Torx remove (4) per side screws holding the fender flare to the fender.
- Pull out the fender flare to unclip it from the fender.



Remove Screws (4 Per Side) From Fender Flare

Getting Started

- Pull back inner wheel well to access 7mm bolt (1 per side) attaching the fascia to the vehicle.
- 19 With a 10mm socket and 3" extension, remove the screws (4 per side) that secure the fascia to the fender (located behind the front fascia). They can be accessed from the wheel well area.
- From the underside using a T-15 Torx remove the (2) per side screws holding the brake duct brackets to the inner fenders. Remove the brackets by pulling up and out from the bottom.

From underneath the vehicle, remove the (2) 10mm screws. Repeat for the other side.



Remove 7mm Screw (1 Per Side)



Brake Duct Bracket



Remove (2) 10mm Bolts

- Pull out on each side of the fascia to unclip it from the vehicle. Pull the entire fascia forward and separate it from the vehicle. Unplug the wiring harness located on the passenger's side. Remove the fascia from the vehicle.
- Using a 13mm socket and 3" extension, loosen the fasteners (3 per side) that connect the front bumper to the vehicle. Slide air dam supports off the bumper. Remove the fasteners. Remove the bumper and set it aside.
- Unclip the ambient air temperature sensor and wiring harness that is connected to the radiator shrouding.
- 25) Three (3) separate pieces make up the radiator shrouding. Remove the plastic radiator shrouding by removing the (8) push pins holding it in place.



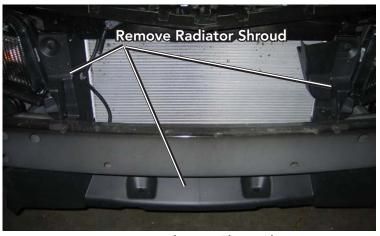
Remove Front Bumper (Passenger Side)



Unclip Ambiant Air Temp Sensor



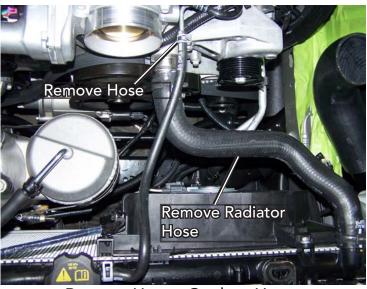
Radiator Shrouding Removed



Remove Radiator Shrouding

Getting Started

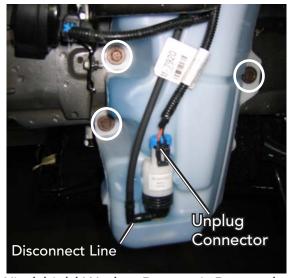
- Place a pan under the radiator drain cock, open the drain cock by rotating the fitting counter clockwise. Removing the coolant cap from the top of the radiator will speed up this process. Once all coolant has been released, close the drain cock.
- Using a pair of pliers, loosen the upper coolant hose clamps and remove the upper coolant hose. Loosen the clamp and remove the small hose by the radiator hose on the engine side as shown to the right.
- Remove the coolant reservoir on the passenger side frame rail by pulling out the overflow hose from under the cap. With a 13mm remove the (2) bolts holding the reservoir to the frame rail. Remove the reservoir from the underside of the vehicle. This will not be reused.
- 29 Locate the windshield washer reservoir on the driver's side of the vehicle. Place a pan under the reservoir, disconnect the main line found on the side of the reservoir, and drain. Unplug the wiring harness from the reservoir. Using a 13mm socket and 3" extension, remove the (3) bolts fastening the reservoir to the vehicle. Remove the reservoir from the vehicle, it will be replaced by a new unit.



Remove Upper Coolant Hose



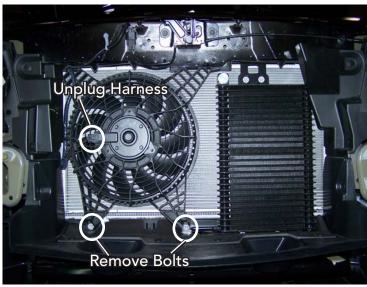
Remove Coolant Reservoir



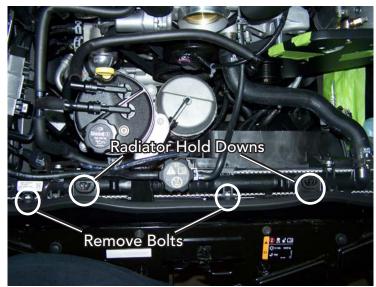
Windshield Washer Reservoir Removal

Remove the pusher fan on the front of the radiator by unplugging the fan harness, with a 10mm remove the (2) bottom bolts. From the top side loosen the radiator hold down bolts to gain access to the top fan bolts. Remove the (2) fan bolts with a 10mm. Slide the fan out between the radiator and the core

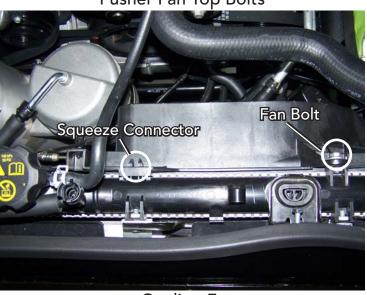
support. This fan will not be reused.



Pusher Fan



Pusher Fan Top Bolts



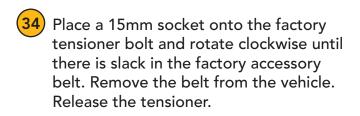
Cooling Fan

Unplug the cooling fan wiring harness.
Using a 10mm remove the bolt securing the fan to the radiator. Squeeze the connector holding the top of the fan to the radiator. Pull the top of the fan towards the motor and straight up to remove it from the vehicle.

Getting Started

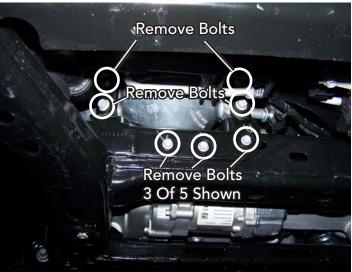
Remove the upper dry sump tank bracket using a 10mm. Remove (2) nuts on the tank and (1) bolt on the radiator support. Remove the bracket.

From under the car with a 13mm remove the (2) lower bolts holding the dry sump tank to the bracket. With the same 13mm loosen the upper (2) bolts holding the dry sump tank to the bracket. Push the dry sump tank up and off of the bracket and support from above. With a 10mm remove the (5) bolts securing the bracket to the frame (3 in front 2 in the back side). Slide the bracket towards the drivers side and pull it up and out of the car.





Dry Sump Tank Top



Dry Sump Tank Bottom



Loosen Tensioner and Remove Belt

Non A/C cars proceed to page 12.

- Locate the A/C compressor on the lower passenger's side of the vehicle. Remove the (4) bolts fastening the compressor to the A/C bracket using a 13mm socket and extension.
- 36) Slide the compressor towards the front of the vehicle. You should now be able to slide the 4 rib A/C belt off of the factory balancer.



Remove (4) A/C Compressor Bolts

CRANK PULLEY



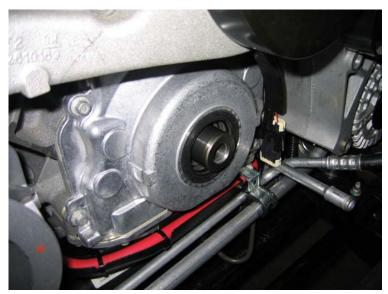
Tech Tip: Placing the car in 6th gear with the rear wheels on the ground will eliminate the need to lock the flywheel through the access cover.

- 1 Identify the transmission access cover, located under the vehicle in front of the transmission. It is secured by (1) bolt. Remove this bolt with a 10mm socket, and set the cover aside.
- 2 Looking inside the transmission access hole, the flywheel should be visible. Using a large flathead screwdriver, place the screwdriver into one of the holes in the flywheel to keep the flywheel from spinning during the crank pulley bolt removal.
- Remove the factory crank bolt using a 24mm socket.



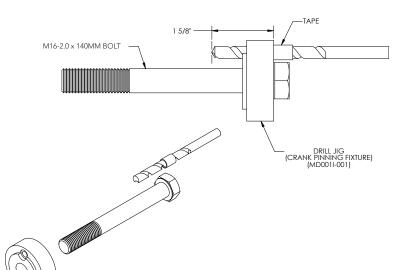
Tech Tip: Using a torch to heat the flange on the crank pulley bolt makes removal easier. There is an adhesive on the back of the flange which helps retain the bolt. Heating this breaks the adhesion.

4 Use a balancer removal tool to remove the factory crank balancer.



Crank Balancer Removed

- Using a GM crank balancer installation tool, install the supplied modified balancer onto the crankshaft.
- To ensure that the balancer does not spin independently from the crank, the two must be pinned.
- 7 Following the diagram to the right, set up the drill bit, measuring 1-5/8" from the end and taping the bit for drill depth reference.
- 8 Place the provided bolt through the pinning fixture, and tighten onto the crankshaft with a 24mm socket.
- 9 Drill the crank to the proper depth, then remove the bolt and fixture. Clean the area thoroughly, including the drilled hole.
- 10 Place the 1/4" pin into the crank; be sure the pin is set all the way into the crank (tapping the pin with a rubber mallet is acceptable).



Crankshaft and Harmonic Balancer Drill Jig



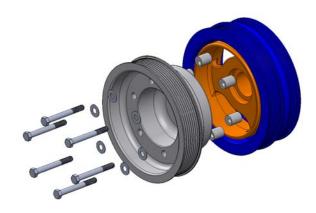
Drill Fixture In Place



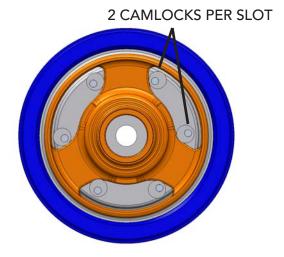
Balancer Pinned to Crankshaft

Installation Using Factory Balancer

- Insert the (6) 5/16 18 bolts and washers through the supplied pulley, apply Loctite 272 to the bolts and thread the (6) supplied cam locks onto the threads from behind the pulley. Hand tighten the cam locks.
- Mount the crank pulley and cam locks onto the factory balancer, ensuring (2) cam locks are inserted into each slot on the balancer.
- Place the provided washer onto the new crank bolt, insert into the new crank pulley and into the crank. Rotate the assembly until the cam locks stop the pulley. Tighten the crank bolt to 240 ft-lbs. Be sure the flathead that is holding the flywheel stationary is properly positioned for tightening.
- Activate the cam locks by tightening the (6) bolts to ensure that the crank pulley and balancer spin together.
- Remove the screwdriver from the transmission access hole, replace the access shield, and tighten the bolt.
- Re-install the 4 rib A/C belt. Slide the A/C compressor back into place and tighten the (4) bolts with a 13mm socket.
- 17) Re-install the accessory belt.



Crank Pulley and Cam Lock Assembly



Cam Lock Positions From Back Side View



Crank Pulley Installed

MAIN BRACKET ASSEMBLY

With a 15mm remove the (4) bolts shown to the right.



Bracket Mounting Points

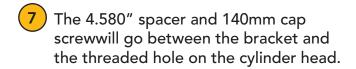
Relocate the ground wire to the next hole down on the cylinder head as shown. Flatten the tab on the wire eyelet and secure with the original bolt removed in the last step.

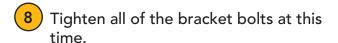


Ground Wire Relocated

Main Bracket Assembly

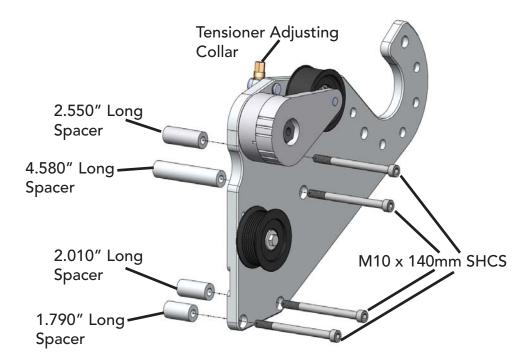
- Mount the supercharger bracket using the supplied spacers and M10x 140mm bolts. Reference the diagram on page 16 for proper spacer placement.
- 4 Starting at the bottom left corner of the bracket insert one 140mm cap screw through the bracket and slide on the 1.790" spacer. Insert the bolt into the factory idler bracket below the idler.
- 5 A 140mm cap screw and 2.010" spacer will go to the right of the 1.790" spacer on the factory idler bracket.
- The 2.550" spacer and 140mm cap screw will go between the bracket and the top factory idler bracket.







Main Bracket Installed (Rear View)



Main Bracket Assembly

PROCHARGER HEAD UNIT

- Install the oil drain line onto the supercharger. Fill the supercharger with (1) 6 ounce bottle of supplied blower oil.
- Mount the ProCharger onto the main bracket using the provided 5/16" and 3/8" SHCS's. Tighten the fasteners.
- Loosen the tensioner by first loosening the 1/2" bolt located on the front of the tensioner with a 3/4" socket. Loosen the jackscrew mounting bolt located in the back of the main bracket assembly with a 9/16" wrench. Loosen the tensioner by rotating the brass collar on the top of the bracket assembly clockwise.



Procharger Mounting



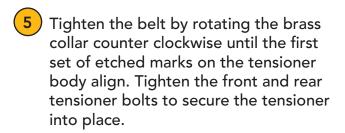
Tensioner Assembly

Head Unit

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

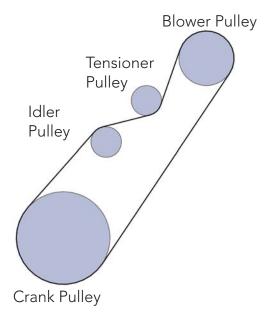


Tech Tip: If the belt is too tight to install, remove the idler pulley. Mount the belt onto the crank, blower, and tensioner pulleys. Slide the idler pulley under the belt and into place. Use Loctite 272 on the bolt before tightening.





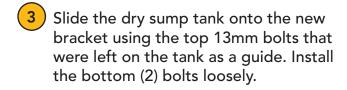
Proper Tensioner Position

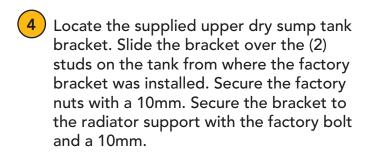


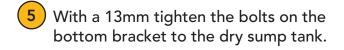
Blower Belt Schematic

FANS / DRY SUMP

- 1 Before reinstalling the factory fan, trim the shroud as shown to the right. This will allow clearance for the factory dry sump tank. Install the fan.
- 2 Locate the supplied bottom dry sump tank bracket. From under the car support the dry sump tank up as high as possible. Slide the bracket onto the frame. Loosely install the rear (2) factory bolts securing the bracket to the frame. While installing the (3) front bolts insert the supplied 3/8" washers between the bracket and the frame (1 per bolt). Secure the bolts with a 10mm.





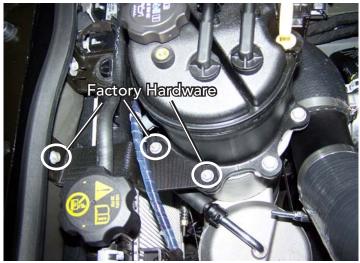




Trim Fan Shroud



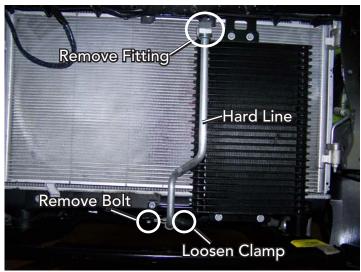
Bottom Dry Sump Bracket Installed



Top Dry Sump Bracket Installed

Fans / Dry Sump

- With an adjustable wrench remove the top fitting on the oil cooler being careful to not damage the cooler top. Remove the bolt holding the line to the bracket with a 10mm. Place a drain pan under the oil cooler to catch any coolant that may be in the system. With a pair of pliers loosen the clamp on the hose and remove the hard line assembly.
- Docate the oil cooler bag. With the 90° adaptor fitting screw the fitting onto the cooler and point it to the drivers side. Secure the fitting by tightening the locknut.



Oil Cooler

- 8 Screw the supplied barb fitting onto the adaptor.
- 9 With the supplied 1/2" hose insert the hose onto the barb fitting and run it along the right side of the cooler towards the factory cooler line. Cut hose to length and connect it to the factory cooler line with the supplied 1/2" to 5/8" connector. Secure the connections with the supplied hose clamps and the factory hose clamp on the cooler line. Zip tie the line to the radiator to secure it.



Oil Cooler Line Installed

- The supplied pusher fan mounts to the radiator using (4) supplied brackets. The brackets mount to where the factory pusher fan mounted to the radiator. Reference the picture to the right to properly place the brackets.
- 11) Slide the upper (2) brackets up between the radiator support and the radiator. Loosely secure the brackets to the radiator with the factory bolts.



- 13 Insert the (4) supplied 6mm bolts through the back side of the fan and put the fan on the radiator, slide the upper fan brackets over the top 2 bolts. Loosely secure with the 6mm lock nuts.
- 14 Slide the bottom (2) fan brackets onto the fan bolts. Loosely secure with the 6mm lock nuts. Secure the bottom of the brackets to the radiator with the factory bolts. Secure all connections with a 10mm.



Pusher Fan Mounted



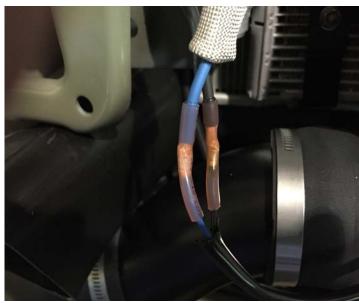
Top Pusher Fan Brackets



Plastic Fan Bracket / 6mm Bolt & Nut

Fans / Dry Sump

- 15 Locate the supplied pusher fan wiring harness. Cut off the factory pusher fan wiring harness connector. Cut the wires to length on the supplied fan wiring harness.
- Strip the wire covers back. Using the Supplied solder connectors connect the black wires together and the blue wire to the red wire on the fan harness together. Use a heat source to melt the solder in the connectors making sure the wires are secure.
- Plug the new connector into the fan and secure the wires away from any moving objects with zip ties.



Fan Wires Spliced

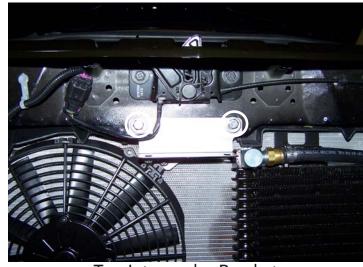
INTERCOOLER

Stage 2 Intercooler:

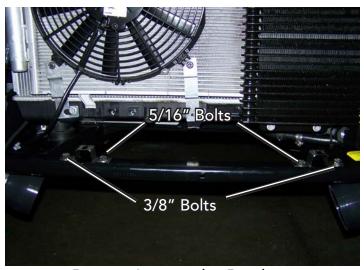
(For race intercooler skip to page: 24)

- 1 Using the supplied M8 x 20mm bolts and washers loosely mount the supplied upper intercooler bracket to the existing threaded holes on the radiator support as shown to the right.
- 2 Using the supplied 5/16" x 3/4" and 3/8" x 3/4" bolts washers and locknuts loosely mount the supplied lower intercooler brackets to the existing holes on the bottom radiator support as shown to the right.
- Mount the top of the intercooler to the bracket using (2) 3/8" x 3/4" bolts and washers. Make sure the MAF bung faces the passenger side.
- Mount the bottom of the intercooler to the brackets using the (2) supplied 3/8" x 3/4" bolts and washers. Tighten all hardware at this time making sure to use rubber tape anywhere the intercooler touches.





Top Intercooler Bracket



Bottom Intercooler Brackets



Stage 2 Intercooler Installed

Race Intercooler:

5 Using the supplied (2) M8x 55mm bolts, (2) 3/8" washers and (2) 1.610" spacers loosely mount the top of the intercooler to the existing threaded holes in the radiator support as shown to the right. Make sure the MAF bung faces the passenger side.



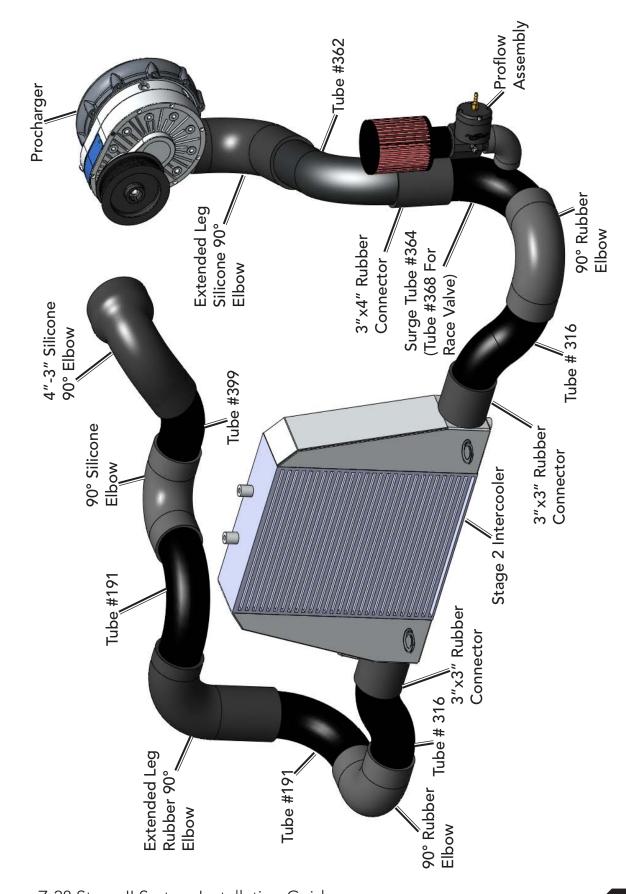
Race Intercooler Installed

6) With the supplied M8x 25 mm bolts washers and lock nuts. Secure the bottom of the intercooler to the existing holes on the bottom of the radiator support as shown to the right. Tighten all hardware at this time.

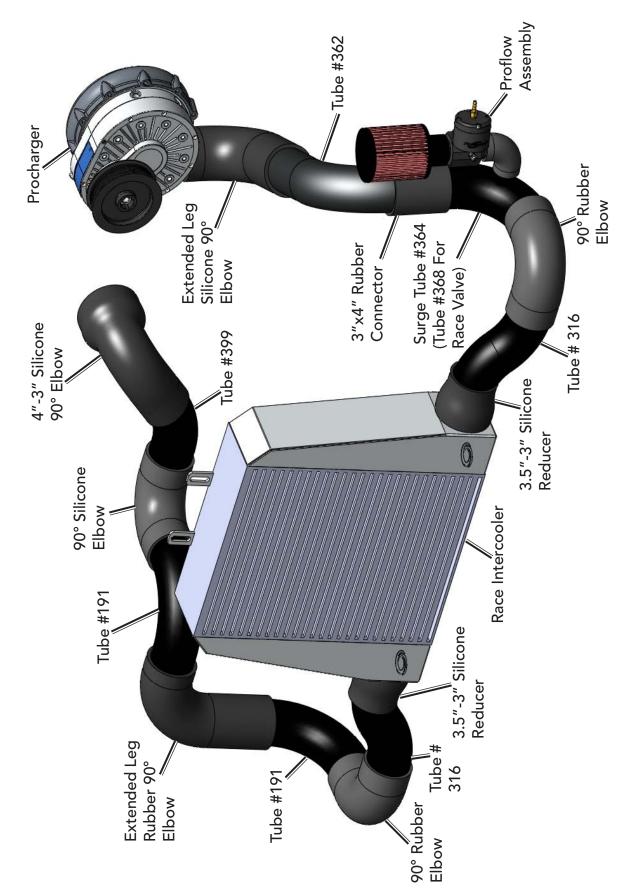


Bottom Intercooler Mounts

STAGE II INTERCOOLER AND TUBE SCHEMATIC

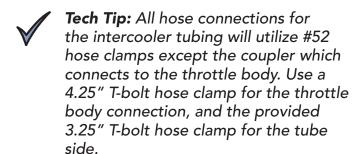


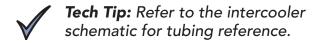
RACE INTERCOOLER AND TUBE SCHEMATIC



INTERCOOLER TUBING

- Using a zip tie mount the IAT sensor to the radiator support as shown to the right.
- 2 Using the supplied M4 screws and washers, mount the MAF into the bung located on the intercooler. Make sure the arrow on the MAF points down and is on the passenger's side of the vehicle.





- 3 Slide an extended leg silicone 90° elbow onto the outlet of the supercharger. The short leg goes onto the supercharger.
- Insert the short leg of tube #362 into the silicone 90° elbow.



IAT Sensor Mounted



MAF Installed



Silicone 90° Elbow and Hose #362

Intercooler Tubing

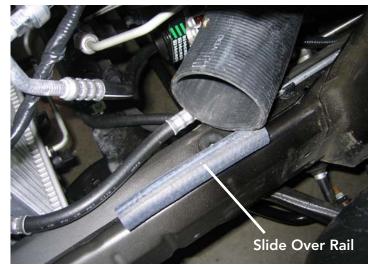


Tech Tip: A section of 5/8" rubber hose has been included in the kit. This hose can be cut down the length of the hose, and mounted onto the top of the frame rail in order to eliminate vibration from tube #362.

- 5 Slide the 3"x4" rubber connector onto tube #362.
- 6 Insert tube #364 (tube #368 for race valve) into the rubber connector.
- 7 Slide the 90° rubber elbow onto tube #364.
- 8 Insert tube #316 into the rubber 90° elbow.
- 8 Secure all connections with a #52 hose clamps.



Race Intercooler: Slide a 3.5" to 3" silicone reducer onto tube #316 and slide the connector onto the inlet of the intercooler secure the connection with a #52 hose and #60 hose clamp's



5/8" Hose Installed For Eliminating Vibration



Tubing To Stage 2 Intercooler Installed



Tubing To Race Intercooler Installed

10 Stage 2 Intercooler: Slide a 3"x3" rubber connector onto the outlet of the intercooler. Secure with a #52 hose clamp.

Race Intercooler: Slide a 3.5" to 3" silicone reducer onto the outlet of the intercooler. Secure with a #60 hose clamp.

- Insert tube #316 into the previously installed connector.
- 12) Slide a 90° rubber elbow onto tube #316.
- 13 Insert tube #191 into the rubber 90° elbow making sure the tube points straight up.
- Slide an extended leg 90° rubber elbow onto tube #191. Long leg goes to the tube.
- 15) Insert another tube# 191 into the extended leg 90° elbow.
- Slide a silicone 90° elbow onto tube #191.
- Secure connections with a #52 hose clamp.



Tubing Out Of Stage 2 Intercooler Installed



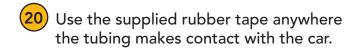
Tubing Out Of Race Intercooler Installed

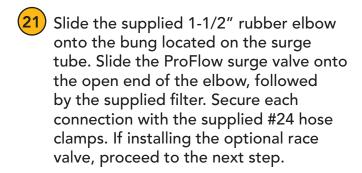


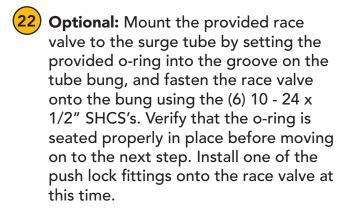
Tubing To Throttle Body Installed

Intercooler Tubing

- 18 Insert tube #399 into the silicone 90° elbow. Secure connection with a #52 hose clamp.
- 19 Finish the connection by sliding the 4" to 3" silicone 90° elbow onto tube #399 and onto the throttle body. Use a 3.25" T-bolt hose clamp at the tube connection and a 4.25" T-bolt clamp at the throttle body connection.









Throttle Body Tube Installed



Proflow Surge Valve Installed



Race Valve Installed

WINDSHIELD WASHER RESERVOIR

- 1 Mount the (2) windshield washer reservoir brackets together using the supplied 6mm bolts and nuts, then to the vehicle using the provided 5/16" x 3/4" long bolts, washers, and lock nuts. The mounting holes are located on the driver's side, to one side of the headlight housing.
- 2 Cut the factory windshield washer wires to remove the plug from the factory harness. Using the supplied solder crimps, attach the factory wires to the supplied plug. Slide the wires into the solder crimps and heat the center of the crimp fitting until the solder melts. Cover the wires with the provided wire loom.
- Plug the factory washer line into the port on the top of the motor. Plug an additional line into the front of the motor and route to the bottom of the reservoir (see image below). Plug the harness into the new reservoir at this time as well.
- 4 Slide the new reservoir onto the mounted brackets.



Windhsield Washer Hose Routing



Windshield Washer Reservoir Brackets Mounted



Windshield Washer Reservoir Bracket Hardware Mounted (Front View)



Windshield Washer Reservoir Installed

PCV System

- 1 If not already done, remove the PCV line that runs from the air intake system to the dry sump tank.
- Remove the "U" shaped PCV line that is located behind the throttle body, and connects the intake manifold and crankcase valley. Install a 6" piece of 3/8" hose (cut from the supplied 3/8" rubber hose) to this port and insert the supplied 3/8" check valve. Be certain the arrow on the check valve points towards the intake manifold connection, preventing boost from entering the crankcase. On the other end of the check valve install another 6" piece of 3/8" hose, then route and secure it back to the intak manifold port.
- 4 Run the remaining 3/8" hose from the open port on the dry sump tank under the throttle body to the supercharger inlet area.



Hose Attached To Dry Sump Tank



Dry Sump PCV Line



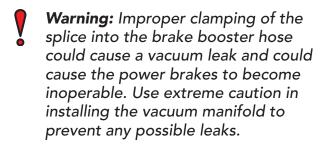
Remove Factory PCV Hose

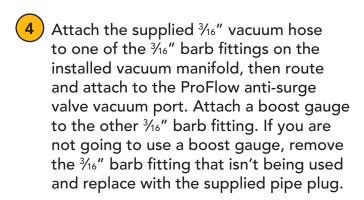


PCV Check Valve

VACUUM MANIFOLD

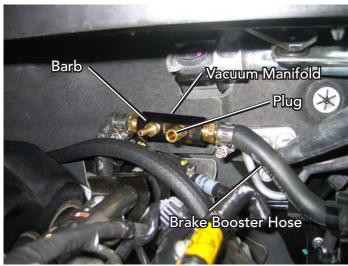
- 1 Locate the ½" ID brake booster hose that runs along the back side of the engine near the firewall. The line is connected to the brake booster located on the driver's side.
- 2 Using a hose cutter, remove a 3-½" long section of the hose.
- 3 Assemble the vacuum manifold using the provided barb fittings 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.







Tech Tip: Stage 2 systems, leave an 1/8" port on the vacuum manifold open. It will be used for a pressure switch in a later step.



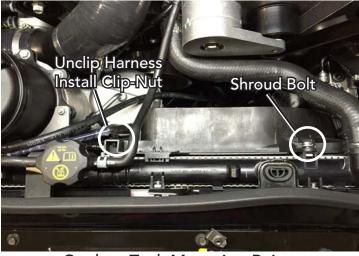
Vacuum Manifold Installed



Tech Tip: When installing a race valve, the assembly utilizes push lock fittings and nylon hose, replacing the standard barb fitting and rubber hose. Thread the push lock fitting onto the vacuum manifold and race valve, and simply push the nylon line into each fitting to create a secure connection.

COOLANT TANK

- 1 If not already done unclip the fan harness from the fan shroud. With a 10mm remove the fan shroud bolt.
- 2 Install the supplied clip-nut onto the shroud.
- Install the supplied coolant tank to the fan shroud using the existing fan shroud bolt and the supplied M6 bolt and washer.
- 4 Route the factory coolant overflow hose to the barb fitting on the bottom of the tank and cut it to length. Attach the line to the barb fitting using a supplied hose clamp to secure the connection.
- Install the supplied 3/8" hose onto the barb fitting on the side of the coolant tank, secure with a supplied hose clamp. Route the line away from the fan and towards the ground. This line is for venting purposes.
- 6 Install the supplied cap onto the tank.



Coolant Tank Mounting Points



Coolant Tank Mounted

FUEL SYSTEM



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

- 1 If you have not already done so, depressurize the fuel system by completing steps 2-4. Otherwise, skip to step 5.
- Remove the gas cap to relieve vapor pressure in the fuel tank.
- Remove the fuel pump fuse from the underhood fuse block (in front of the battery). Crank the engine over for 5 seconds (the engine will not start) to bleed fuel pressure from the fuel lines and fuel rail assembly. Replace the fuel pump fuse. Remove the keys from the ignition.
- 4 Disconnect the negative battery cable.
- 5 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. Using the supplied fuel fitting quick-disconnect tool, remove 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.

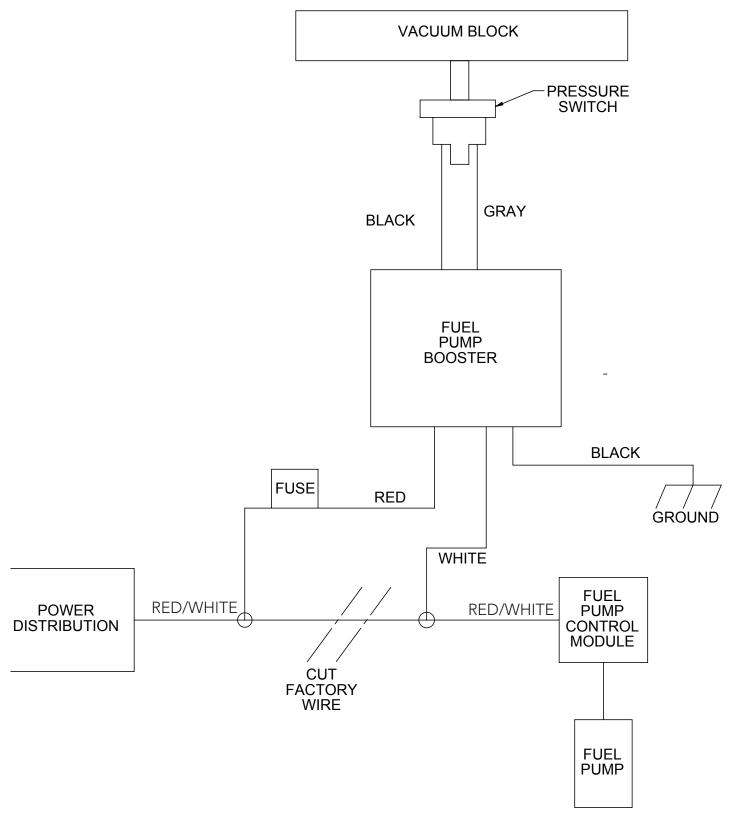
- 6 Disconnect the fuel injector electrical connectors one at a time, labeling them by their corresponding injector location, to ensure proper sequential injector firing order after re-assembly.
- 7 Disconnect the fuel rail wiring harness from the fuel rail. Remove the fuel rail attaching bolts.
- 8 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.
- 9 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.

Fuel System

- 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.
- Install the fuel rail assembly onto the intake manifold, making sure that the injectors are rotated to line up with their corresponding electrical connectors.

 Using Loctite 272™ (high temperature thread locker) or equivalent, install the fuel rail bolts and torque to 90 in-lbs.
- Connect each injector to the factory harness.

FUEL PUMP BOOSTER



Fuel System



Warning: This fuel pump booster has been configured to work properly with your application. Changing the settings could result in fuel pump or engine damage.

- Replace the factory fuel pump fuse with the supplied 30 amp fuse.
- 15) If not already done, disconnect the negative battery cable in the trunk.
- Securely mount the fuel pump booster to the bottom of the rear deck in the trunk. For high power or high ambient temperature usage, the booster should be mounted outside of the spare tire well where it is exposed to cooling air.
- 18 Attach the eyelets on the black and gray wires to the tabs on the pressure switch (order does not matter) and route the wires along the back of the firewall, through grommet in passenger side of firewall, then through the passenger compartment to the trunk next to the fuse box. Run wires under carpet and behind plastic interior panels. Connect the harness to the fuel pump booster.



Fuel Pump Booster Mounted



Pressure Switch



Trigger Wires and Trunk Fusebox

- 19 In the trunk of the vehicle, locate and remove the Fuel Pump Control Module fuse (position F15 on some models) from the fusebox on the passenger side.
- Remove the fusebox from the passenger side of the trunk and remove the rear cover of the fusebox to expose the wiring harness.
- Locate the fuel pump wire (red with white stripe) coming from behind the module fuse and cut a couple inches back from fusebox to allow splicing onto both ends.
- Connect the cut end of the red/white wire that goes to the fuse box to the red wire on the fuel pump booster. Connect the cut end of the red/white wire that goes to the control module to the white wire on the fuel pump booster. Connect the black wire on the booster to a good chassis ground. The extra connectors are not used.
- Assemble and mount the fusebox back onto trunk panel. Re-install the passenger side panel carpet and rear plastic trim panel.
- Replace the gas cap and negative battery cable. Re-install the fuel supply hose by pressing the fitting onto the fuel rail fitting until a snap is heard.
- 25) 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.



Fusebox Disassembled



Fuel Pump Wire Location

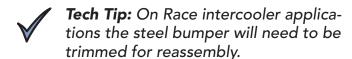


Fuel Pump Booster Installed

Final Assembly

Air Inlet

- 1 Re-install the factory engine covers.
- 2 Using a 1/4" drill bit, drill out the spotwelds (4x) holding the auxiliary battery post bracket to the inner fender. Slide the battery post off of the bracket and remove the bracket from the vehicle. Install the supplied bracket using the provided 1/4-20 screws, washers, and nuts. Slide the battery post into the new bracket.
- 3 Locate the air inlet bag. Slide the provided rubber coupler onto the inlet of the blower, straight end onto the blower, followed by the air inlet tube (#289).
- 4 Drill a 3/8" hole into the end of the air filter that is supplied with the kit. Slide the provided 90° plastic elbow onto the open end of the PCV line that was installed in the PCV section. Slide the open end of the elbow into the hole that was drilled into the air filter.
- 5 Slide the air filter onto the air inlet tube. Adjust the tube/filter/hose coupler and secure the connections with the provided hose clamps.
- Re-install the factory coolant hose's. For tensioner clearance the upper radiator hose needs to be pulled back from the fully seated position as shown to the right.
- 7 Re-install the steel bumper.





Auxilary Battery Post Relocation Bracket Installed



Air Inlet Assembly Installed



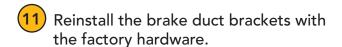
Coolant Hoses Installed

Brake Ducts

With a 7mm remove the (2) bolts holding the brake duct bracket's to the bottom of the fascia. Repeat for the other side.

9 With a 7mm remove the (3) bolts holding the brake duct brackets to the front of the fascia.







Brake Duct Bracket's



Bottom Brake Duct Bracket Bolts



Top Brake Duct Bracket Bolts



Brake Duct Bracket's Trimmed

Final Assembly

- Re-install the front fascia. Be sure to connect the wiring harness to the fascia. The brake duct's will have to be slid in from the wheel well area and onto the brake duct brackets for proper fitment. Install all the factory hardware for fascia installation. Install the fasteners that secure the wheel liners.
- Refill the coolant, and windshield washer reservoir.
- Re-install the wheels and tires if removed.
- 15) Reconnect the battery.
- 16 Check all fluids after several drive cycles.



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

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 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 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 the drain plug after every oil change. Drain 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.



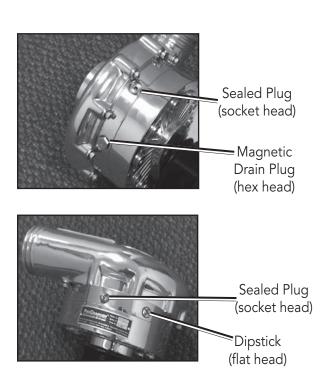
Warning: Filling the ProCharger higher than the maximum level on the dipstick can lead to bearing and seal damage. The supercharger is a sealed unit and should not normally require the addition of oil between service intervals. If excessive usage is noted, the unit should be sent to ATI for inspection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

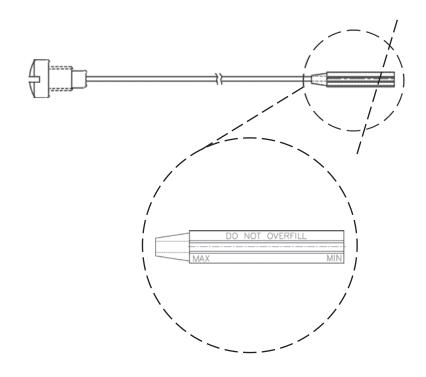
General

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

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

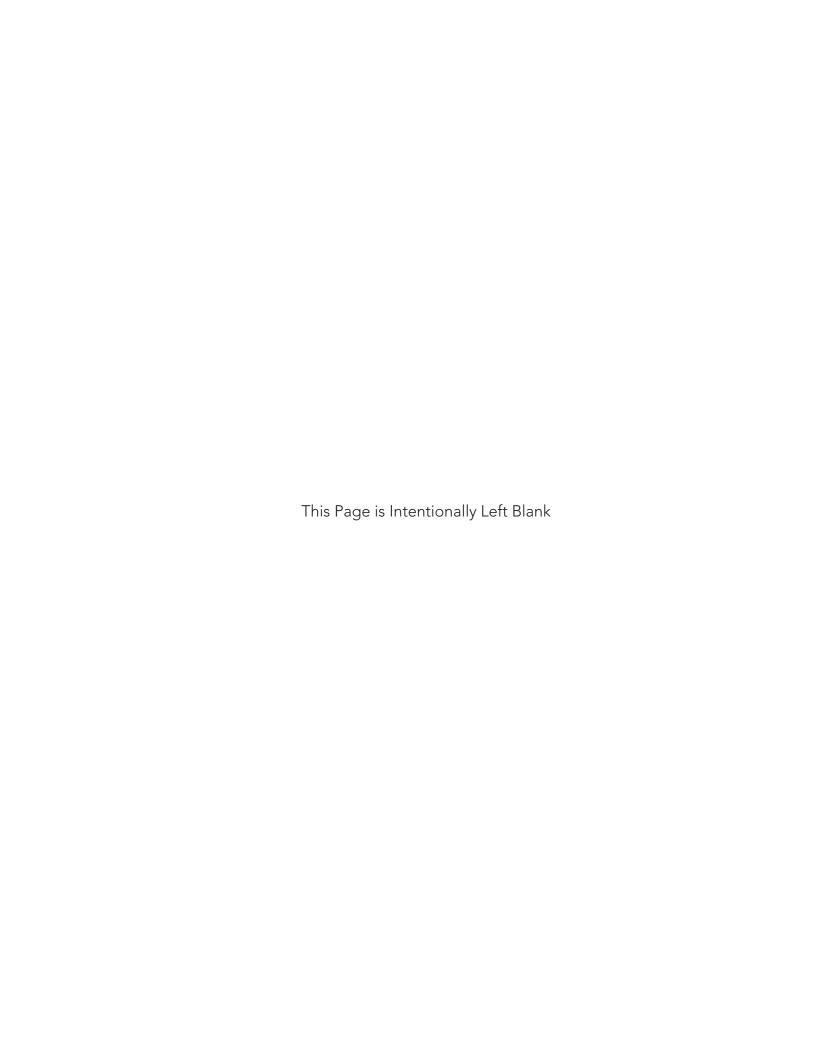
Service under the extended coverage program is obtained through the same process as described in the Limited Warranty.

Race kits are not eligible for the ProCharger Extended Coverage Plan

To qualify for the ProCharger Extended Coverage:

- Only the original owner of the ProCharger supercharger is eligible.
- Completion of the Extended Coverage
 Registration Form is required, along with
 a \$99 registration fee. This form must be
 completed in its entirety, and must be
 submitted along with payment within 30 days
 from the date of original purchase from your
 local dealer or date of shipment from the
 factory.

- Participants must have a ProCharger P-1SC, P-1SC-1, P-1X, C1, or C2 supercharger head unit using the maximum warranted boost level. All terms and conditions within "The Limited Warranty" apply. Acts resulting in disqualification include but are not limited to the following:
 - Disassembly or modification the ProCharger supercharger.
 - Removal or attempted removal of the ProCharger drive pulley(s).
 - Removal or attempted removal of the ProCharger supercharger serial number plate.
 - Removal or attempted removal of the compressor housing or transmission case.
- Participants agree to properly maintain the ProCharger supercharger and provide proof of compliance with the following recommended maintenance:
 - Change the ProCharger supercharger oil after the initial break-in period of 500 miles (automotive) or 15 hours (marine).
 - Change the ProCharger supercharger oil every 6,000 miles after the initial 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 Purchase: |
|---|---|
| Address: | Purchased From: |
| City: | ProCharger Serial #: |
| State: Zip: | Vehicle Year: |
| Country: | Vehicle Make: |
| Daytime phone: | Vehicle Model: |
| Evening phone: | Please rank in order of importance starting with |
| E-mail: | 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 | 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 | |
| Have you own a forced induction system previously? If yes: Supercharger: Brand(s) | ☐ Yes ☐ No 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 \$1 | 00 about to ATI at 14901 West 114th Tarrage |

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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