1996-1998 Mustang GT H.O. & Stage II Intercooled System Installation Guide



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Torque Specification Chart	Grade 5			Grade 8		
Thread Size	Torque (lb. ft.)			Torque (lb.ft.)		
1/4-20	11	8	7	16	12	10
1/4-26	13	10	8	18	14	11
5/16-18	23	17	14	33	25	20
5/16-24	26	19	15	36	27	22
3/8-16	41	31	25	58	44	35
3/8-24	47	35	28	66	49	39
7/16-14	66	49	40	93	70	56
7/16-20	74	55	44	104	78	62
1/2-13	101	75	60	142	106	85
1/2-20	113	85	68	160	120	96

INTRODUCTION

Congratulations on purchasing your ProCharger[®] 1996-1998 Mustang GT High Output or Stage II Intercooled System. Read this entire manual before you attempt to install your ProCharger kit. It is imperative that you follow all of the instructions in the order they appear in this installation guide. If you have any questions regarding any aspect of this installation, call us at (913) 338-2886.

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: Your supercharged Mustang must always be run on 91 octane or higher gas.

Required Tools and Supplies

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

Required for Non-SC Applications

- Center Punch
- 9/16" Tapered Punch
- 3/8" NPT Tap
- Heavy Grease
- Silicone Sealer
- Oil Filter Wrench & Filter
- Silicone Sealant
- 5 Quarts Engine Oil (Synthetic Preferred)

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

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

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

The engine on which the ProCharger[®] is to be installed should retain the factory compression ratio. If it has been modified in any way, please consult ProCharger staff before proceeding with the installation. This supercharger system is intended for use on STOCK, strong, well-maintained engines/transmissions. Installation on a worn or troublesome powertrain should be reconsidered. ATI PROCHARGER WILL NOT BE HELD RESPONSIBLE FOR DAMAGE TO A VEHICLE'S POWERTRAIN.

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

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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.

GETTING STARTED

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

- 1 Disconnect the negative (-) battery cable from the battery.
- 2 Remove the coolant reservoir, without disconnecting any hoses or sensors, and set it aside to allow access to the front of the engine.

3 Remove the crankcase vent tube connecting the inlet duct to the driver's side valve cover.

- Remove the air filter housing, MAF sensor, inlet duct and all related components connected to the throttle body from the vehicle. Disconnect the wiring clips from the inlet air temperature and MAF sensors. Remove both sensors from the inlet duct and retain for re-installation.
- 5 Drain approximately one gallon of coolant from the vehicle, then remove the upper radiator hose.

Remove the serpentine accessory drive belt.

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

7 Without disconnecting the vacuum switch or coil electrical connectors, remove the ignition coil bracketry from the passenger's side of the engine ('98 model year). These brackets will not be reused.

Getting Started

- Remove the two upper tensioner retaining bolts. Remove the passenger's side alternator mounting bolt and replace it with the supplied 8mm stud.
- 9
- Raise the vehicle, secure with jackstands, and lock the wheels to the left.
- 10 Remove the front driver's side lower plastic splash panel to allow access to the inside of the driver's side of the engine compartment.



Note: Removing both front wheels and the passenger's side splash panel and inner fender well liner may simplify this procedure.

- 11
 - Remove the coolant reservoir mounting bar extending upward from the rear of the core support. This item will not be reused.



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



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

Long 8mm Stud



Alternator/Idler Preparation

OIL DRAIN/FEED SETUP

Oil Drain Setup



Note: This section applies to oil-fed blowers only (ex: P600B or D1). For self contained (SC) applications, proceed to the next section.

Warning: This is a gravity feed system; the oil-return line must be kink-free and run downhill for it's entire length, draining into the pan above the oillevel line.

Punch (don't drill) a small pilot hole in the driver's side of the oil pan, centering as indicated. Start with a small center punch and work up to a hole large enough to start the 3/8" NPT tap (approximately 9/16").

Note: 3/8" NPT refers to a pipe's <u>inner</u> diameter. Use as short a punch as possible to ensure sufficient clearance between the punch and internal engine components.

Pack the flutes of the 3/8" NPT tap with heavy grease and tap to a depth approximately 1/2 the length of the tap.

Note: This tap is tapered and should not be fully threaded into the pan.



- 3 Clean the threads and remove all chips (a magnet works well).
- Liberally apply silicone sealer and attach the 3/8" NPT - 1/2" barb fitting to the oil pan – do not connect the oil drain line at this point, as it should be connected to the ProCharger first.

Oil Drain/Feed Setup

- Using the provided .250" spacers and 8mm bolts, attach the belt shield to the engine, centered at the front of the oil pan.
- 6 Temporarily install the oil return line at this time, and pour approximately 1/2 quart of oil through it to flush out any residue in the oil pan.
- 7 At this point, cover the return fitting inlet to prevent any foreign matter from entering the oil pan.
- 8 Perform an oil and filter change prior to completing installation and starting the engine.

Oil Feed Setup

1 Remove the 1/4" NPT plug from the feed port located immediately beneath the factory oil-pressure sending unit. The sender is located at the front of the engine, near the oil filter.

Warning: Do not use Teflon[™] tape or sealant on the fitting, as this could block the ProCharger oil nozzle!



Install the supplied 90° fitting to the vacant port.





PROCHARGER HEAD UNIT

WARNING: Never strike the ProCharger pulley with a hammer or other tool under any circumstance! Evidence of such force will void the warranty, as serious damage to the precision bearings within the ProCharger could occur.

SC/Bracket Install

1 Using the supplied 3/8" hex and 5/16" allen head bolts and flat washers, attach the ProCharger to the main bracket.

2 Route the supplied serpentine belt around the accessories as indicated.



- Install the main bracket mounting hardware as shown. The stud(s) should leave approximately 1 inch protruding from the nearest flat surface. Using thread locking compound on the studs is recommended.
- Place the supplied 3/8" flat washer over the 8mm - 1.25 x 40mm stud.
- With the 8mm x 120mm stud installed in the engine block, install the idler pulley and spacer bushings between the alternator and the main bracket, placing the .790" spacer between the engine and the pulley.
- 6 To attach the supercharger, while guiding the belt onto the supercharger pulley, align the appropriate hole in the main bracket with the corresponding stud(s)/ bolt holes and secure using the supplied hardware. With all fasteners in place, torque to 20 ft-lbs.
- 7 With the main bracket securely attached, using a 1/2" square drive, load the tensioner and guide the drive belt over the water pump pulley and into place.
 - **Note:** The factory tensioner may have begun to lose tension. Improper belt tension will result in drive belt failure. Replacing "soft" tensioners with a new factory replacement (available at your local Ford dealer) is recommended.



SC Main Bracket Hole Location

P600B/Bracket Install

Using the supplied 5/16" hex bolts and 1 flat washers, attach the ProCharger to the main bracket.



Connect the oil-feed and oil-return lines to the ProCharger.



WARNING: Do not use Teflon[™] tape or sealant on the fittings, as this could block the ProCharger oil nozzle.

Route the supplied serpentine belt 3 around the accessories as indicated.



Install the main bracket mounting hardware as shown. The stud(s) should leave approximately 1 inch protruding from the nearest flat surface. Using thread locking compound on the studs is recommended.

5) Place the supplied sheet metal spacer over the two 8mm - 1.25 x 40mm studs. 6 With the 8mm x 120mm stud installed in the engine block, install the idler pulley and spacer bushings between the alternator and the main bracket, placing the .790" spacer between the bracket and the engine.



- 7 To attach the supercharger, while guiding the belt onto the supercharger pulley, align the appropriate hole in the main bracket with the corresponding stud(s)/ bolt holes and secure using the supplied hardware. With all fasteners in place, torque to 20 ft-lbs.
- 8 With the main bracket securely attached, using a 1/2" square drive, load the tensioner and guide the drive belt over the water pump pulley and into place.
- 9 Once the belt is tensioned properly, the oil-return line may be installed. Route the return line from the supercharger outlet to the return fitting at the pan, in such a manner that oil will be allowed to flow freely downward to the pan. Trim to an appropriate length and secure using the hose clamp provided. Using wire ties, secure the oil lines so as to prevent them from being damaged by high temperature (ie: exhaust) and moving objects (ie: belts/pulleys).
 - **WARNING:** This is a gravity-feed system; the oil-return line must be kinkfree and run downhill its entire length, draining into the pan above the oillevel line.
 - **Note:** The factory tensioner may have begun to lose tension. Improper belt tension will result in drive belt failure. Replacing "soft" tensioners with a new factory replacement (available at your local Ford dealer) is recommended.

8mm - 1.25 x 40mm Stud (Place Sheet Metal Main Bracket Spacer Between Head & Bracket; This Spacer Will Tie These Two Holes Together)





Main-Bracket Installed (P600B) (Blower removed for clarity, ProCharger will be bolted to bracket before installation)



Blower & Brackets Installed (P600B)

FUEL SYSTEM



Note: This section only applies to full systems, which include a fuel management unit and an in-line fuel pump. If you do not have a full system, additional fuel system modificatons will be required before starting the vehicle.

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



Installed FMU

Fuel Management Unit

- Mount the supplied FMU by drilling two holes in the passenger's side inner fender and securing with the provided screws. **Note:** care should be taken to avoid drilling into the ABS unit mounted on the back side of the fender!
- Using the supplied spring lock disconnect tool, remove the section of rubber fuel rail return line extending from the passenger's side, rear of the engine, towards the inner fender, near the firewall. This will not be reused.



Note: The return line is the one that does not have a pressure test fitting.

- 3 Connect the FMU inlet line (with male spring lock fitting, connected to the side of the FMU) to the return line at the engine.
- 4 Connect the FMU return line (with plastic quick disconnect fitting, connected to the bottom of the FMU) to the fuel rail return line which returns to the tank.
- 5 Connect one end of the supplied vacuum line to the top of the FMU, and splice the other end into the factory fuel pressure regulator vacuum supply port, using the supplied "T" fitting. The factory union where the hard red vacuum line changes into rubber line, next to the passenger's side valve cover, is a convenient place to make this splice.

Fuel System

Boost Line



Secure the fuel and vacuum lines using wire ties.

Verify the FMU needle valve initial setting: 24 lb/hr or larger injectors - 1/2 turn from fully closed (cw).

In-Line Fuel Pump

Note: On 1998 models it will be necessary to remove the return line check valve for proper operation.

- 1 Raise the rear of the vehicle and support with jack stands under the frame, allowing the suspension to hang free. Remove the spare tire, jack, etc., to avoid damage during drilling.
 - Disconnect the inlet fuel line of the fuel filter (tank side of filter).
- 3 To mount the fuel pump, hold the fuel pump/bracket assembly against the bottom of the spare tire well, between the differential and fuel tank. The fuel pump should be on the forward side of the bracket, and the center mounting hole approximately 8" from the driver's side fuel tank retaining strap bolt. Center-punch the three hole locations.



FMU Connection Detail

Bleeder Valve



FMU Needle Valve

Fuel System



Using a 3/8" - 7/16" drill bit, drill the three mounting holes.

Insert the supplied 1/4" grommets into each hole. From the top (inside the car), insert a 1/4" x 1" bolt with flat washer through each grommet. From underneath, place the bracket onto the bolts. Using washers and nylon lock nuts, secure the bracket. Tighten the nuts so that the bracket is secure but not overtightened. Do not crush the grommets or noise and vibration will be transmitted to the car's interior.

6 Clip the supplied 90° female fitting (attached to the pump output hose) to the fuel filter inlet. Rotate the stock 90° female fitting on the line coming from the fuel tank (originally attached to the fuel filter inlet), and clip it to the supplied male fitting (attached to the fuel pump inlet hose).



In-Line Pump Location (from Below Trunk)



In-Line Pump Relay (from Above Trunk)



(Viewed from Beneath, Looking Towards Rear of Vehicle)

- Mount the supplied relay inside the tire well, within the vehicle, near the stock fuel harness (on the trunk floor near the passenger's side taillight).
- 8 Tap relay terminal #85 into the red/ purple wire (may be brown on some models) on the stock fuel harness (inside the vehicle near the passenger's side taillight). This will ensure that the stock inertial impact switch controls both the in-tank and in-line fuel pumps. Connect relay terminal #86 to the relay installation screw or any other suitable surface as a ground.
 - Connect relay terminal #87 to the positive terminal on the supplied fuel pump. Connect the negative terminal on the supplied fuel pump to a clean ground. Make sure all wires and hoses are firmly secured against the underbody, using wire ties as necessary.

- 10 Connect relay terminal #30 to the positive power terminal at the power distribution block in the front left corner of the engine compartment using the supplied in-line fuse and ring connector. Make sure to secure the wire to the underside of the vehicle (brake line) with cable ties.
- 11) Secure all wiring using the supplied wire ties.
- 12 Temporarily reconnect the battery, and turn the ignition key to the "on" position for 2-5 seconds to verify that the pump operates correctly. If the pump does not operate in this fashion, recheck all connections and verify proper wiring to the inertial impact switch.



In-line Fuel Pump Relay Wiring Diagram

Intercooler and Tubing



INTERCOOLER AND TUBING

Note: Leave all clamps loose until you have installed all of the tubes and hoses. Adjust each hose and tube for best fit and then tighten all clamps. Hose installation can be eased if you first wet the metal tubes and fittings with a solution of dishwashing soap and water. Some hoses may require trimming for optimal fit; this can be accomplished using a sharp utility knife.

Unbolt the power steering cooler line brackets from the core support.

2 Remove the rubber lines running to the cooler. Cut the supplied rubber power steering hose into two sections. Using the provided clamps and hose splices, install hose sections so that cooling lines are spaced far enough forward to not interfere with the intercooler. Tighten cooler lines.

3 Once the intercooler is installed, attach the stock power steering cooler bracket to the tab located on the bottom front of the intercooler.



Note: See page 16 for Bullitt intake.

2-Core Intercooler

Attach the aluminum "L" bracket to the hood latch support and to the bracket extending upward from the top of the intercooler using the supplied 5/16" fasteners, locknuts and washers. 5 Using the power steering cooler mounting clips and hardware, attach the intercooler to the core support using the mounting tabs at the bottom of the intercooler.

Install hoses and clamps on the intercooler tubes, allowing plenty of overlap between rubber hoses and steel tubes, with the hose clamps located firmly over the metal tubing.

7 Arrange and install the tubes as shown. **Note:** The end of hose G which attaches to the intercooler may need to be trimmed for best fit.

Using the supplied flange, gaskets, adapter tube and 1/4" hardware, assemble the MAF sensor assembly as shown (page 17).



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

Using the factory hardware, bolt the provided tube support bracket to the passenger's side inner fender using the air dam mounting studs. Install the remaining tubes/hoses as indicated. Attach the tube assembly to the support bracket using the provided clamp.

10 Check all clamped connections and verify that they are tightened properly.

3-Core Intercooler

- Attach the aluminum "L" bracket to the hood latch support and to the bracket extending upward from the top of the intercooler using the supplied 5/16" fasteners, locknuts and washers.
- Inserting from below, install the intercooler (with inlet and outlet hoses attached) in front of the radiator, aligning the holes in the mounting tabs with the power steering cooler attachment points on the core support.

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

- Install hoses and clamps on the intercooler tubes, allowing plenty of overlap between rubber hoses and steel tubes, with the hose clamps located firmly over the metal tubing.
- Arrange and install the tubes as shown. Note: The end of hose G which attaches to the intercooler may need to be trimmed for best fit.
- Using the supplied flange, gaskets, adapter tube and 1/4" hardware, assemble the MAF sensor assembly as shown (page 17).

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

- Using the factory hardware, bolt the provided tube support bracket to the passenger's side inner fender using the air dam mounting studs. Install the remaining tubes/hoses as indicated. Attach the tube assembly to the support bracket using the provided clamp.

10) Check all clamped connections and verify that they are tightened properly.



"Bullitt" Inlet Tube Installation



"Bullitt" Inlet Tube Schematic



FINAL ASSEMBLY

1 Attach a sufficient length of the supplied 5/8" rubber hose to the valve cover breather fitting (driver's side) and route it to the fitting on the supercharger inlet elbow.

2

Reconnect the upper radiator hose, trimming as necessary for best fit.

Fasten the supplied coil bracket to the main bracket using the provided 1/4" fasteners. Mount the coil in the bracket, using the four 10-24 x 1-1/4" cap screws.

Slightly bend the air conditioning lines so that the supercharger intake assembly can be installed in the vehicle.

Assemble the supercharger intake components as shown and connect to the inlet of the supercharger. Connect the crankcase ventilation hose. Using the supplied splice connectors and wire, lengthen the Inlet Air Temperature harness to the appropriate length (if needed). With the harness extended, install the I.A.T. sensor to the supercharger intake.

- 6 Attach the supplied reservoir support rod to the coupler nut on the supercharger discharge tube, and reinstall the coolant reservoir using the supplied 1/4" nut and flat washer.
- 7 Using the 1-1/2" 90° elbow and the provided 1-1/2" flex hose, install the surge valve between the supercharger inlet J and metal elbow 1 (page 14). With the surge valve located, splice into a manifold vacuum line with the supplied tee and connect the line to the vacuum port on the valve.
 - Using a section of the supplied 5/8" hose, connect the Idle Air Resonator to the throttle body adapter duct (tube 8, ref. B on page 14). Secure using the provided clamps. Using the supplied clamps, secure both ends of the Idle Air Control hose leading from the resonator to the intake manifold.

Surge Valve Connection Port Inlet Air Temperature Sensor Crankcase Ventilation Hose Grommet Air Filter Supercharger Intake Assembly

TUNING



(1

Note: Too much fuel will cause the car to hesitate, be sluggish, emit heavy black smoke and not attain intended boost levels. A lean condition will cause the car to detonate (which, under higher boost conditions, can cause blown head gaskets), run hot or break up. The FMU can be adjusted via the air bleed needle valve on the top of the unit. Since each car is different and engine and exhaust modifications will affect your final fuel pressure settings, the following is a guide offered to help you arrive at your final FMU setting.

24 lb/hr Injectors (or larger)

Your initial setting should read 1/2 turn from fully closed (cw). The vacuum line going to the FMU should contain a white restrictor. Fuel pressure should increase linearly from the stock setting (38 psi) to approximately 90 to 110 psi at moderate to full boost conditions. If the car hesitates upon snap acceleration or heavy black smoke is emitted from the tail pipe, reduce fuel pressure by turning the needle valve ccw in 1/4 to 1/2 turn increments until the hesitation is no longer present. Fuel pressure should spike to 75 to 85 psi under full boost for 24 lb/hr injectors. If the car detonates or breaks up under boost, increase fuel pressure by turning the needle valve cw in 1/4 to 1/2 turn increments.

Warning: FMU air-bleed needle-valve adjustment is extremely sensitive; never change fuel pressure by more than 1/2 turn increment at a time (decrease to 1/4 or 1/8 turn increments as you get closer to your final setting).

Supplemental/Race/Off-road

- 2 Off-road, high boost applications require high energy ignition systems for proper combustion. If you are using a stock ignition system on such an application, the plug gap must be reduced to approximately .035" to avoid extinguishing the arc discharge. The use of spark plugs one heat range colder than stock is also advised.
- To get the most out of your system it may prove beneficial to utilize an air fuel ratio meter. Wide band units are most ideal when tuning an engine for maximum performance. Use of a wide band sensor will provide data that will allow you to achieve optimum performance throughout your engine's operating range.
- Vehicles frequently operated under extreme conditions may benefit from modification of the tensioner. Removing some material from the tensioner stop will generally allow installation of a belt one size smaller than that supplied in the kit. Belts operated frequently under high RPM conditions may elongate and lose tension. Usage of a shorter belt often remedies this condition.

INSTALLATION REVIEW/SAFETY CHECK

- 1 Carefully review the entire installation. Examine oil and fuel lines routed near moving parts and exhaust components to ensure that they are protected from chafing or abrasion, secure and free of twists and kinks. All wires and hoses should be firmly secured with clamps or wire ties.
- (2)

Ensure that the air filter is installed.

- Warning: Never operate the vehicle without an air filter. Failure to do so may result in damage to the supercharger and/or personal injury.
- 3

Check and correct all fluid levels.

Note: Your vehicle MUST be filled with 91 or higher octane fuel before any hard driving. You should switch to 91 octane 2 or 3 tanks of gas prior to installation of the ProCharger system in order to guarantee removal of low octane fuel from your vehicle

4 The SC 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.

- **5 Oil-fed blowers:** If not already done, perform an oil and filter change at this time if you have an oil fed supercharger application.
- 6 Start the engine and let it idle for a few minutes. Inspect for air leaks.
- 7 Shut off the engine and check for fluid leakage, signs of rubbing parts, and other potential problems.
- 8 Be sure you have purchased and installed a fuel pressure gauge and/or fuel-air ratio meter to monitor fuel delivery while driving. Installation of a boost pressure gauge is also recommended.
 - Note: Larger cities (especially in winter months) often use oxygenated or reformulated fuels to reduce pollution. Although these fuels have the same octane ratings as unaltered fuels, some people have experienced problems (detonation) with their use. If you experience similar problems, it is advised to reduce your timing or use octane booster to avoid detonation.



Congratulations! You have successfully completed the installation of your new ProCharger supercharger system!

Please continue reading the following pages for important information about maintaining your system.

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 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 purchased from ATI or from your local parts store.

SC Applications

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.

ProCharger Oil Change Intervals

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

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

General

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



LIMITED WARRANTY

Accessible Technologies, Inc. (ATI) provides a limited twelve (12) month warranty on the ProCharger supercharger (36 months for P600B) 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 (SC)

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 \$49 registration fee. This form must be completed in its entirety, and must be submitted along with payment within 30 days from the date of original purchase from your local dealer or date of shipment from the factory.

- Participants must have a ProCharger P-1SC, P-1SC-1, C1, or C2 supercharger head unit using the maximum warranted boost level. All terms and conditions within "The Limited Warranty" apply. Acts resulting in disqualification include but are not limited to the following:
 - Disassembly or modification the ProCharger supercharger.
 - Removal or attempted removal of the ProCharger drive pulley(s).
 - Removal or attempted removal of the ProCharger supercharger serial number plate.
 - Removal or attempted removal of the compressor housing or transmission case.
- Participants agree to properly maintain the ProCharger supercharger and provide proof of compliance with the following recommended maintenance:
 - Change the ProCharger supercharger oil after the initial break-in period of 500 miles (automotive) or 15 hours (marine).
 - Change the ProCharger supercharger oil every 6,000 miles after the initial break-in period.
 - Use only the specified amount of ProCharger Supercharger oil in the ProCharger supercharger.
 - Inspect and clean the magnetic drain plug at every ProCharger supercharger oil change.
 - Check the ProCharger supercharger oil level frequently.

ProCharger Extended Coverage Program Registration Form

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

Address: Purchased From: City: ProCharger Serial #: State: Zip: Daytime phone: Vehicle Make: Evening phone: Vehicle Make: Ermail: Please rank in order of importance starting with Age 18 - 24 25 - 34 IAS - 54 0.55 and up Income 0.515,000 - \$29,000 0.530,000 - \$44,000 What magazines do you read? Magazine advertising Dealer recommendation ProCharger Brochures Witnessed performance ProCharger Brochures Car Craft Witnessed performance on a car Car Craft Magazine advertising Muscle Mustangs and Fast Fords Other (please specify) Muscle Mustang Monthly Reliability Super Street What most influenced your decision to purchase a ProCharger system? Muscle Mustang Monthly Reliability Dealer recome advertising Other (please specify) Super Street What most influenced your decision to purchase a ProCharger system? Muscle Mustang Monthly Reliability Track Trends Cart Street Tuck Standard warranty<	Name:	Date of Purchase:				
City: ProCharger Serial #: State: Zip: Vehicle Year: Daytime phone: Vehicle Make: Evening phone: Vehicle Make: Evening phone: Vehicle Model: Ermail: Please rank in order of importance starting with 1 being most important. Age 18 - 24 25 - 34 Income S15,000 - 529,000 \$30,000 - 544,000 S45,000 - 569,000 \$570,000 and up Magazine advertising What magazines do you read? — ProCharger Brochures Car & Driver — Magazine advertising Car & Driver — Magazine advertising Motor Trend — Test drive Motor Trend — Test drive Motor Trend — Web Site (please specify) Mustang Monthly — Reliability Mustang Monthly — Reliability Mustang Monthly — Removability (ability to return car to stock) Mustang Monthly — Removability (ability to return car to stock) Mustang Monthly — Removability (ability to return car to stock) Super Chevy — Performance Super Chevy — Reliability Super Chevy	Address:	Purchased From:				
State: Zip: Vehicle Year: Daytime phone: Vehicle Make: Evening phone: Vehicle Model: Frail: Please rank in order of importance starting with 1 being most important. Age 18 - 24 25 - 34 35 - 44 Mater and the standard start in order of importance starting with 1 being most important. Please rank in order of importance starting with 1 being most important. Mater and the standard start in order of importance starting with 1 being most important. Mich information sources most influenced your decision to purchase a ProCharger system? Mater and off Read Friends Car & Driver Magazine advertising Dealer recommendation ProCharger system? Motor Trend Motor Trends Motor Trend What most influenced your decision to purchase a ProCharger system? Mustang Monthly Standard warranty Mustang Monthly Standard warranty Super Street Performance Mustang Monthly Reliability Truckin' Case of Installation Who installed your ProCharger system? Self Dealer Other Have you own a forced induction system previously? Yes <t< td=""><td>City:</td><td colspan="2">ProCharger Serial #:</td></t<>	City:	ProCharger Serial #:				
Daytime phone: Vehicle Make: Evening phone: Vehicle Model: Evening phone: Vehicle Model: Please rank in order of importance starting with 1 being most important. Please rank in order of importance starting with 1 being most important. Mage 18 - 24 25 - 34 35 - 44 Mage 18 - 24 25 - 34 35 - 44 Mage 18 - 24 25 - 34 35 - 44 Mage 18 - 24 25 - 34 35 - 44 Mage 18 - 24 25 - 34 35 - 44 Mage 18 - 24 25 - 34 35 - 44 Mage 18 - 24 25 - 34 35 - 44 Mage 18 - 24 25 - 34 35 - 44 Mage 16 - 25 - 30 35 - 00 Magazine advertising Dealer recommendation ProCharger System? Magazine advertising Dealer recommendation Procharger Brochures Magazine advertising Car Craft Magazine advertising Magazine advertising Muscle Mustangs and Fast Fords What most influenced your decision to purchase a ProCharger System? Muscle Mustang Super Street Magazin advarranty	State: Zip:	Vehicle Year:				
Evening phone: Vehicle Model: Processed Please rank in order of importance starting with 1 being most important. Age 18 - 24 25 - 34 35 - 44 Income 1515,000 - \$29,000 \$30,000 - \$44,000 Mich information sources most influenced your decision to purchase a ProCharger system? Income \$15,000 - \$29,000 \$30,000 - \$44,000 Statum Magazine advertising Dealer recommendation ProCharger Brochures What magazines do you read? ProCharger Brochures Car Craft Test drive Car Craft Magazine advertising Dealer recommendation ProCharger Brochures What magazines do you read? Test drive Car Craft Magazine advertising Chery High Performance Magazine advertising Boutstang Other (please specify) Muscle Mustangs and Fast Fords Other (please specify) Stoward Trend Web Site (please specify) Truck Trends ProCharger system? Bouger Street Standard warranty Street Truck Street Truck Super Charger Brand(s) Vehicle(s) Turbocharger: B	Daytime phone:	Vehicle Make:				
E-mail: Please rank in order of importance starting with 1 being most important. Age 18 - 24 25 - 34 35 - 44 Income \$15,000 - \$29,000 \$30,000 - \$44,000 Mich information sources most influenced your decision to purchase a ProCharger system? Magazine advertising Dealer recommendation Magazine advertising Car & Driver What magazines do you read? What magazine advertising Car & Craft Dealer recommendation Chevy High Performance Magazine advertising Conversations with ATI technicians What most influenced your decision to purchase a ProCharger system? Mustang Monthly Other (please specify) Other (please specify) Mustang Monthly Standard warranty Extended coverage warranty Super Street ProCharger system? Quiet operation Mustang Monthly Standard warranty Extended coverage warranty Super Chevy Performance Quiet operation Breines Breines Installation What most influenced your decision to purchase a proCharger: strence? Strence Super Chevy Performance Strence Brocharger: Brand(s) Vehicle(s) Cost	Evening phone:	Vehicle Model:				
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What magazines do you read?	Age □ 18 - 24 □ 25 - 34 □ 35 - 44 □ 45 - 54 □ 55 and up Income □ \$15,000 - \$29,000 □ \$30,000 - \$44,000 □ \$45,000 - \$69,000 □ \$70,000 and up	Which information sources most influenced your decision to purchase a ProCharger system? Magazine advertising				
Who installed your ProCharger system? □ Self □ Dealer □ Other	 What magazines do you read? Car & Driver Car Craft Chevy High Performance Four Wheel and Off Road Hot Rod Motor Trend Muscle Mustangs and Fast Fords GM High-Tech Performance 5.0 Mustang Super Street Mustang Monthly Truck Trends Popular Hot Rodding Road & Track Super Chevy Truckin' Street Truck 	 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) 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 				
Have you own a forced induction system previously? □ Yes □ No If yes: Supercharger: Brand(s) Vehicle(s) Turbocharger: Brand(s) Vehicle(s) I have read and understand the policy for the ProCharger Extended Coverage Program. I have not and will not modify my ProCharger supercharger in any way during my participation in the extended coverage program. I have read and answered all questions on this form. I have enclosed my check for \$99, payable to ATI, for enrolling my ProCharger supercharger (serial number indicated above) in the extended coverage program for an additional twenty-four (24) months beyond the standard limited warranty period of twelve (12) months. Signature Date	Who installed your ProCharger system?	Dealer Other				
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	Have you own a forced induction system previously? If yes: Supercharger: Brand(s)	□Yes □No 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	Turbocharger: Brand(s)	Vehicle(s)				
Signature Date	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				

cut along the dotted line

cut along the dotted line

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. This Page is Intentionally Left Blank

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

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