

2014-17 Chevy SS High Output Intercooled System **Installation Guide**



The Intercooled Supercharging Experts!®

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INTRODUCTION

Congratulations on purchasing your ProCharger® 2014 Chevy SS High Output Intercooled System. Read this entire manual before you attempt to install your ProCharger kit. It is imperative that you follow all of the instructions in the order they appear in this installation guide. If you have any questions regarding any aspect of this installation, call us at (913) 338-2886.

For best results, we recommend reviewing the installation instructions beforehand, and following the installation instructions closely and in sequence. A detailed packing list has been provided to assist you in identifying the components of your ProCharger system.

Required Tools and Supplies

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



Warning: Your supercharged Chevy SS must always be run on 91 octane or higher gas.



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

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

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

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

The engine on which the ProCharger® is to be installed should retain the factory compression ratio. If it has been modified in any way, please consult ProCharger staff before proceeding with the installation. This supercharger system is intended for use on STOCK, strong, well-maintained engines/transmissions. Installation on a worn or troublesome powertrain should be reconsidered. ATI PROCHARGER WILL NOT BE HELD RESPONSIBLE FOR DAMAGE TO A VEHICLE'S POWERTRAIN. ATI ProCharger is not responsible for ECM tuning/programming on non-stock vehicles. ATI PROCHARGER recommends verifying that your vehicle has current ECM updates from the vehicle manufacturer before installation.

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

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 For complete system installations, please review the Tuning and Fuel Injector Replacement sections to ensure you have the proper components to complete the installation. Tuning for this vehicle is a multi-step process that can be initialized before the installation has begun. If there are any questions about this process, or any other step during your installation, please call ProCharger Technical Service at 913-338-2886.

TUNING

2014- 2016 Models Only, 2017 Models proceed to page 2.

✓ **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.



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.

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.



6 Install the provided OBD-II port cover (shown below) into the OBD-II port. This will alert any person doing service work to the vehicle to not re-flash the ecm possibly causing severe engine damage or harm.

Proceed to page: 4

2 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.

4 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.



OBD-II Port Cover

TUNING THE VEHICLE 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.

2017 Models Only.



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

- 2 Connect the inTune programmer to the OBD-II port located below the steering column using the OBD-II cable included with your programmer.

inTune Programmer



Warning: *Voltage fluctuations are a common cause of reflashing failure. Be sure your battery is fully charged, remove the cooling fan and fuel pump fuses, keep the stereo off, and do not open or close any doors or windows while reflashing.*



Warning: *During a reflashing, either stay in the vehicle or open a window prior to reflashing to prevent getting locked out.*

- 3 Upload your stock tune from the ECM to the inTune programmer:
 - 1) Select **Tune Vehicle**
 - 2) When prompted turn the key to the on position without starting the engine
 - 3) Select Advanced Tune
 - 4) Select Install Standard Tune
 - 5) Select Modify Stock Tune
- 4 Follow the on screen prompts. Your original backup will be saved.
 - 1) Select Backup Only

- 1 Remove the inTune programmer from its box and review the included instructions for updating your device.
 - 1) Connect the inTune programmer to your PC with the provided USB cable. Allow the device to load drivers to the PC.
 - 2) Run the inTune updater software.

- 5 Connect the inTune programmer to your PC with the provided USB cable. A window will appear showing the inTune as an additional storage device.
 - 1) Select Open Files
 - 2) Select Tunes
 - 3) Select VIN Folder
 - 4) Click and drag the Original Backup file to your PC's desktop or hard drive
- 6 Email the **Original Backup** file to tuning@procharger.com with the ProCharger serial number in the subject line.
- 7 You will receive the tune for your vehicle within 24 hours. Save the modified tune to your desktop or hard drive.
- 8 Connect the inTune programmer to your PC and open the inTune drive:
 - 1) Click and drag the ProCharger Tune file from your desktop or hard drive to the inTune drive.
 - 2) Allow the file time to load, do not disconnect before the file has finished loading
- 9 Connect the inTune programmer to the OBD-II port located below the steering column.
- 10 Download the modified tune from the inTune programmer to your vehicle:
 - 1) Select **Tune Vehicle**
 - 2) Select **Advanced Tune**
 - 3) **Install Custom Tune**
 - 4) **Select Procharger**
 - 5) **Select Apply Tune**
- 11 Follow the on-screen prompts:
- 12 The ProCharger tune will now be written to your vehicle. This process can take several minutes.

**Troubleshooting:**

•If the programmer fails to install the tune to your vehicle for any reason, it will enter into "VEHICLE RECOVERY MODE." Reprogram the vehicle with the "RESTORE VEHICLE" option before attempting to install the ProCharger Tune again.

- 13 Install the provided OBD-II port cover (shown below) into the OBD-II port. This will alert any person doing service work to the vehicle to not re-flash the ecm possibly causing severe engine damage or harm.



OBD-II Port Cover

GETTING STARTED



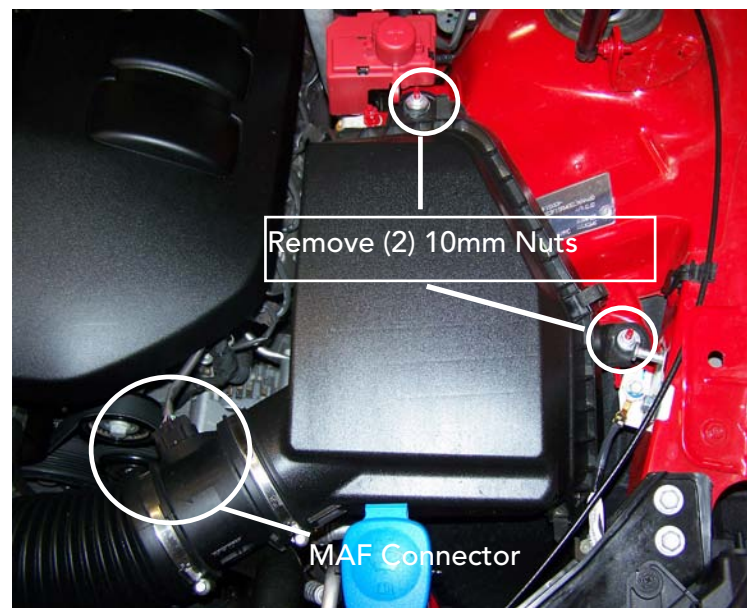
Completion of this section will configure the vehicle for system installation:

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



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 ProCharger warranty.

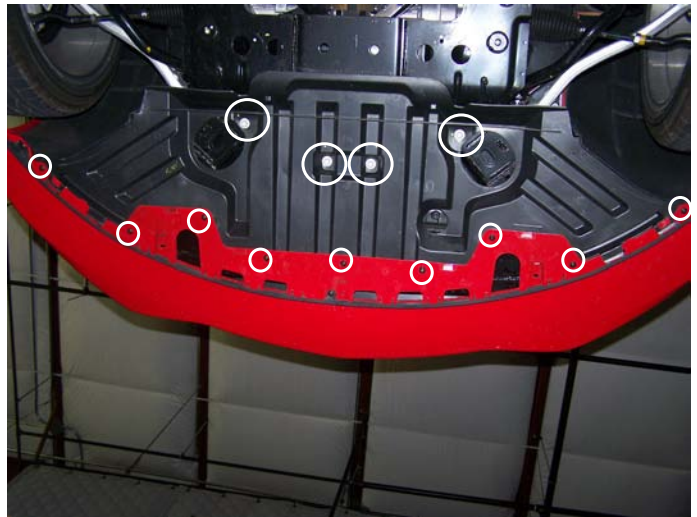
- 1 Remove the gas cap to relieve fuel tank vapor pressure. Remove the fuel pump fuse from the fuse block (position F8). Crank the engine over for a few seconds (the engine will not start) to bleed fuel pressure from the fuel lines. Replace the fuse.
- 2 Disconnect the negative battery cable from the battery located in the trunk using a 10mm wrench.
- 3 Remove the engine cover by pulling firmly upward and out toward the front of the vehicle. Set the cover aside.
- 4 Remove the wiring connector from the Mass Airflow Meter (MAF).
- 5 Disconnect the PCV line running to the factory intake system by squeezing the fitting tightly and pulling out.
- 6 If equipped remove the sound tube from the inlet pipe by squeezing the clamp with a pair of pliers and pulling out.
- 7 Using a 7mm nut driver, loosen the hose clamp holding the intake hose to the throttle body. Remove the (2) 10mm nuts securing the factory air filter box.
- 8 Firmly pull up on the air filter box and remove the entire factory air intake system from the vehicle.
- 9 Using a 7mm nut driver, loosen the (2) hose clamps securing the MAF to the airbox and inlet hose. Separate the components and set the MAF aside, it will be reused later. The rest of the intake system will not be re-installed.



Factory Air Inlet

Getting Started

- 10 Raise the front of the vehicle using car ramps, jackstands, or a vehicle lift.
- 11 Remove the (4) bolts securing the underside cladding to the engine cradle using a 13mm socket. Using a T-20 Torx socket remove the (9) screws securing the underside cladding to the front fascia.
- 12 Remove the screws (3) per side holding the splash guards to the cladding with a T-15 Torx socket. Pry the (2) tabs up on the cladding and remove the underside cladding from the vehicle.
- 13 With a T-15 Torx socket remove the (3) per side (5 on 2017) screws connecting the front fascia to the splash panels.
- 14 Unplug the fog light harness on the passenger framewell behind the fascia.
- 15 Using a 10mm socket, remove the (6) bolts securing the front fascia to the vehicle. From the top of the fascia use a T-20 Torx socket to remove the (6) remaining bolts on the radiator cover then remove the cover.
- 16 Pull the corner of the fascia where it meets the fender forward to release it from the clips on both sides.



Remove (4) Bolts With 13mm Socket And (9) Screws With T-20 Torx Socket



Remove (3) Screws With T-15 Torx Socket



Foglight Harness

- 17 Using a screwdriver remove the (2) remaining clips holding the fascia to the radiator support. Remove the fascia from the vehicle.



Fascia Clips

- 18 With a 10mm socket remove the bolt holding the plastic shroud on the drivers headlight. Remove the (2) retaining clips with a screwdriver. Remove the passenger side shroud held on by (1) retaining clip.



Drivers Side Headlight Shroud

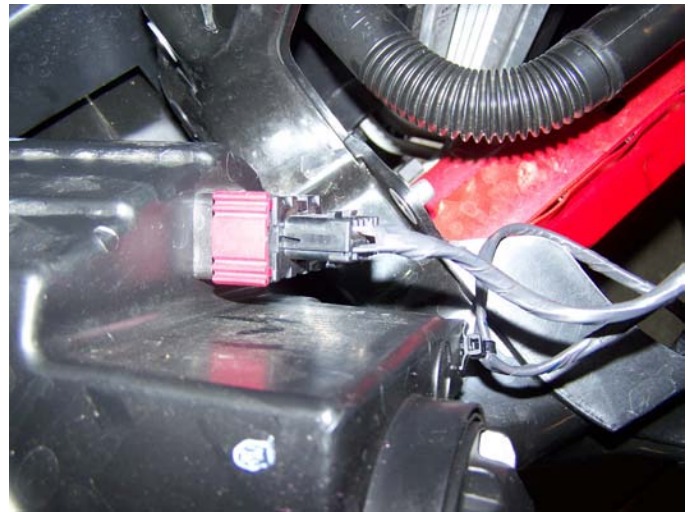
- 19 Using a 10mm socket remove the (2) bolts (1 per side) and pull the plastic front bumper cladding off of the front bumper and set it aside.



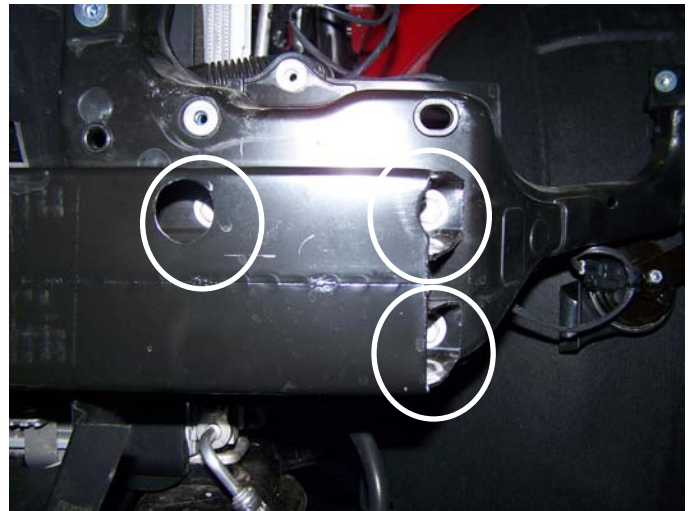
Front Bumper Cladding

Getting Started

- 20 With a 10mm socket, remove the (5) bolts securing the driver's side headlight to the vehicle. Unplug the headlight by prying up on the red securing tab with a flat head screwdriver to release it, and pulling the connector apart. Set the headlight aside.
- 21 Using a 13mm socket and extension, remove the (6) bolts on the front side of the front bumper (3 each on the driver's and passenger's sides).
- 22 Using a 10mm socket, remove the (2) fasteners on the back side of the bumper (1 on each side of the vehicle).
- 23 The front bumper is still held in place by the radiator cladding. Push back on the cladding on the driver's side and pull the cladding off of the tab it is attached to. Do the same to the passenger side.
- 24 The bumper can now be pulled out approx. 6 inches. Detach the wiring harness that is plugged into the washer motor. Pry off the ambient air temperature sensor from the passenger's side of the radiator cladding using a flathead screwdriver. Detach the harness from the cladding.
- 25 Place a pan underneath the vehicle on the passenger's side under the washer reservoir. Pull the (2) windshield washer lines to detach them from the washer motor, located at the bottom passenger's side of the reservoir.



Headlight Securing Tab Release



Front Bumper Fastener Removal
(Driver's Side)



Radiator Cladding Removal

- 26** Using a 10mm wrench, remove the filler neck bolt and pull the washer tank filler neck apart from the reservoir. Remove the filler neck from the vehicle.
- 27** Remove the entire front bumper assembly (including the radiator cladding and windshield washer reservoir).
- 28** With the front bumper removed, using a 10mm socket, remove the (3) bolts securing the reservoir to the bumper. (there are (2) bolts on the passenger's side, (1) on the driver's side). Remove the reservoir/radiator cladding from the bumper. The reservoir/radiator cladding will no longer be used.

If not equipped with a sound tube proceed to the next page.

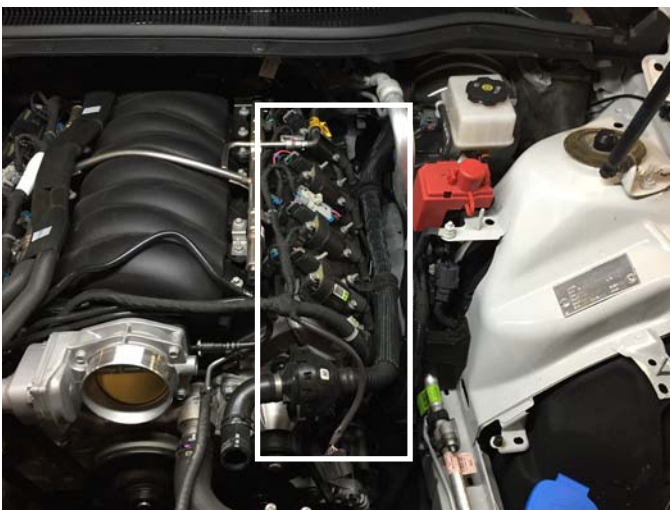
- 29** Using a T-45 and a T-30 torx bit remove the (2) bolts at the cylinder head securing the sound tube. Using a 10mm remove the (2) nuts securing the sound tube to the valve cover.
- 30** Using a 13mm remove the final (2) bolts securing the sound tube to the firewall. Remove the tube from the vehicle.



Remove Filler Neck Bolt



Front Bumper Assembly



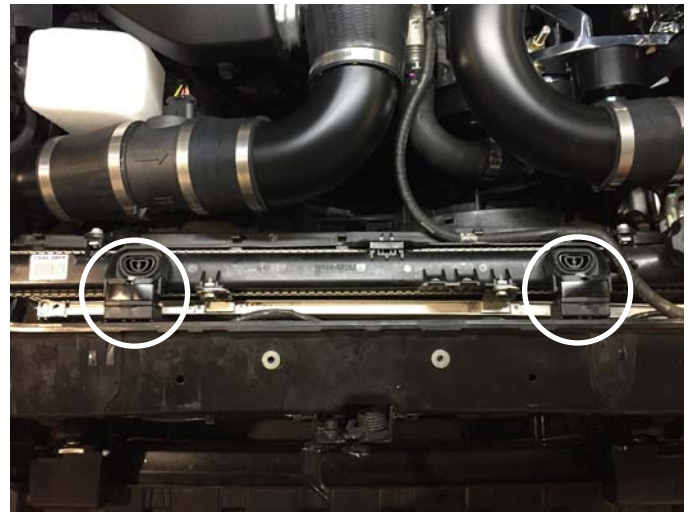
Sound Tube



Sound Tube Connector At Firewall

Getting Started

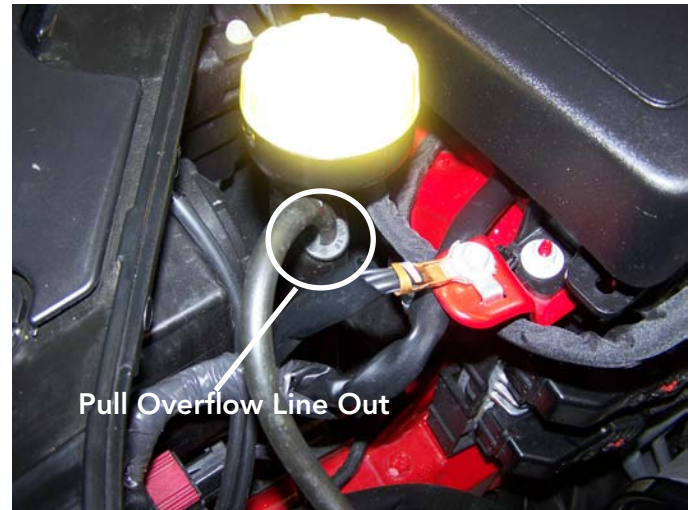
- 31 Using a 10mm remove the bolts securing the radiator to the radiator support. Pull the radiator back and insert the supplied spacers between the radiator brackets and the support. Secure with the supplied M6x 30mm bolts and washers.



Radiator Spacers Installed

COOLANT OVERFLOW RESERVOIR RELOCATION

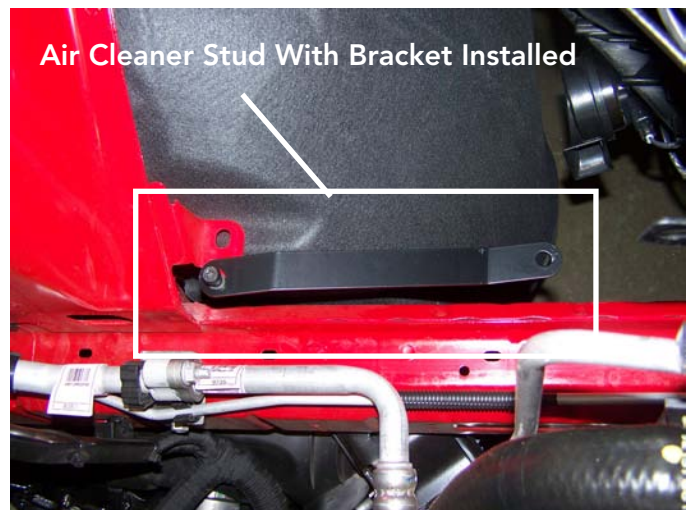
- 1 Pull the overflow line (held in by a rubber grommet) out of the factory overflow reservoir, set it aside for later in the install.
- 2 Using a 13mm socket, remove the (2) fasteners (accessible from beneath the car) holding the reservoir in place. The wiring connector and bracket will need to be removed to access one of the bolts. Lift the reservoir up and out off of the frame rail, and pull the reservoir out from the bottom of the vehicle.
- 3 Using a flathead screwdriver, pry the wiring harness clip off of the reservoir. Remove the assembly from the vehicle. Be careful not to spill any coolant from the reservoir. Reattach the wiring connector removed earlier to the bracket and plug the harness in. Wire tie the bracket to the frame.
- 4 Remove the filler neck from the reservoir by pulling it straight out. This neck will be reused.
- 5 Remove the air cleaner stud using a T30 Torx bit. Place the supplied bracket over the threaded hole, and re-insert the air cleaner stud finger tight.
- 6 Remove the driver's side horn bolt using a 10mm socket. Place the supplied bracket behind the horn, re-insert the horn bolt and hand tighten.



Overflow Line



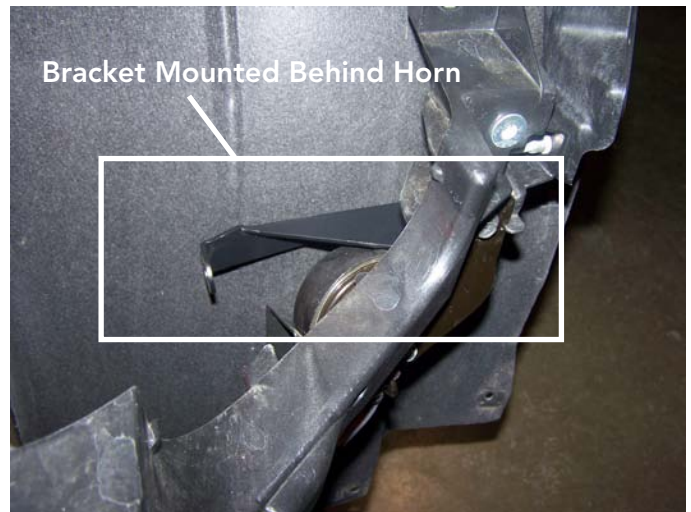
Wiring Harness Unplugged Remove Connector From Bracket



Overflow Reservoir Bracket

Cooling system

- 7 Using the (2) supplied 8mm bolts and washers, install the supplied coolant reservoir. Once positioned, tighten the hardware from steps 5 and 6.
- 8 Re-insert the hose removed in step 1 into the coolant neck, cut it to length and insert the end onto the nipple on the radiator. Slide the remaining hose onto the overflow nipple of the supplied coolant tank, zip-tie the hose the side and out of the way of the tire.
- 9 Install the factory filler neck onto the new reservoir.
- 10 Pour the coolant from the factory reservoir into the new unit.
- 11 The markings on the coolant cap dip stick are compatible with the new reservoir. Be sure to check the fluid level once completed.



Overflow Reservoir Horn Bracket



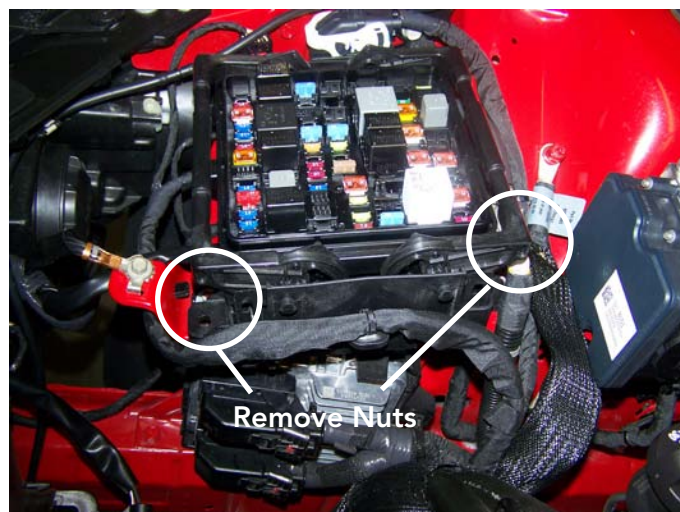
New Coolant Reservoir Mounted

WINDSHIELD WASHER RESERVOIR RELOCATION

- 1 Unpackage the provided windshield washer reservoir kit. Using the supplied clear tubing, route a short section from the bottom of the new reservoir to the side nipple on the washer motor.
- 2 Slide the bracket off the back of the new reservoir. Mount it to the supplied black bracket using the supplied nuts and bolts with a 10mm socket and wrench.
- 3 Remove the fuse box cover by pulling up. With a 10mm socket remove the ground wire on the backside of the fuse box. Using a 13mm socket remove the (2) nuts holding the fuse box down and mount the new bracket configuration to the stud closest to the firewall underneath the fuse box sandwiching the bracket between the fuse box and the car body. Replace & tighten the nuts and ground wire, replace the cover.
- 4 Cut the factory windshield washer electrical connector and strip both wires back approximately 1/2".
- 5 Route the washer motor wires to the front of the vehicle through the fan shroud, near the open ended wires that were stripped in step 4. Strip 1/2" from each wire.



Tube Routing From Reservoir
To Washer Motor



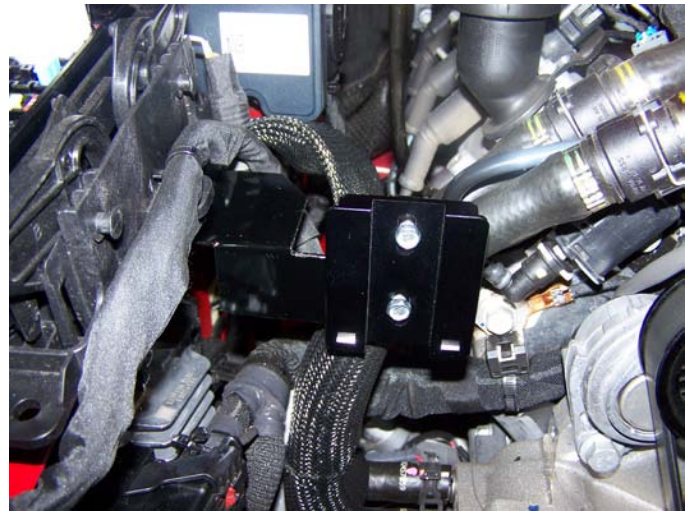
Remove Nuts
Fuse Box Nuts



Washer Tank Mounting Stud

Windshield Washer Reservoir

6 Using the provided solder butt connectors, connect the new washer motor wires to the factory wires. Solder connectors do not need to be crimped; apply a heat source to the center section of the connector with the wires both inserted to solder the wires together. Once the connections have been made, pull the loom over the wires and use electrical tape to help insulate and secure the wires. Zip tie the wires out of the way.



Reservoir Bracket Configuration

7 Remove the factory windshield washer breather line (the washer line not connected to the washer nozzles), and discard.

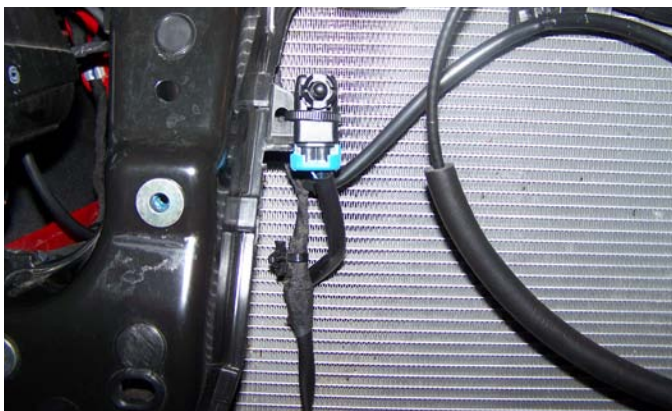
8 Route the main fluid line from the front of the vehicle and connect it to the open nipple on the top of the washer motor. Be sure to route it away from any belts or pulleys and secure with zip ties.

9 Fill the reservoir with washer fluid.

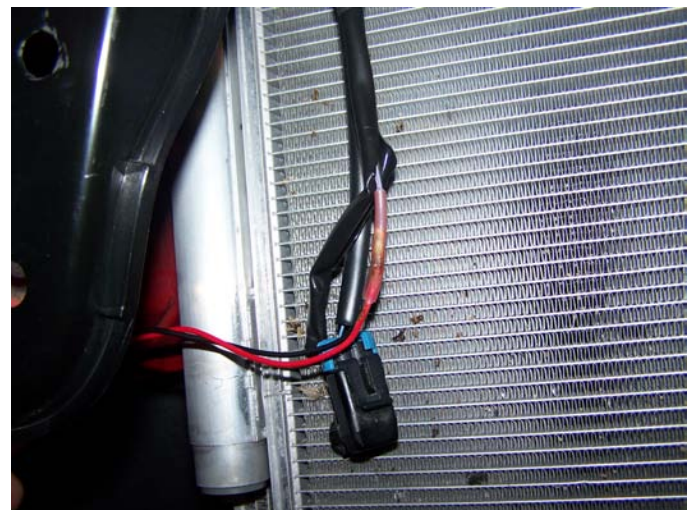
10 At this time, locate the ambient air temperature sensor located on the passenger's side front of the vehicle. Zip tie it to the front of the vehicle, so it has an open air path.



New Reservoir Mounted



Ambient Air Temp Sensor Mounted



New Wiring Routed For Washer Motor

CRANK PULLEY

- 1 Locate the transmission access cover under the vehicle in front of the transmission. Remove the securing 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.
- 3 Using a 24mm socket and a breaker bar, remove the factory crank pulley bolt, remembering to ensure the flywheel is being held stationary.



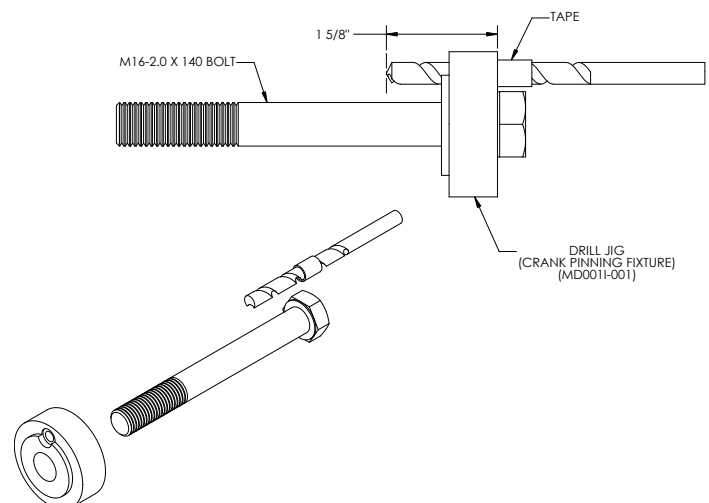
Transmission Access Shield and Hardware

- ✓ **Tech Tip:** Using a torch and heating the flange on the crank pulley bolt before removal makes removal easier. There is an adhesive on the back of the flange bolt which helps retain the bolt. Heating this breaks the adhesive.



Crank Pulley Bolt Removed

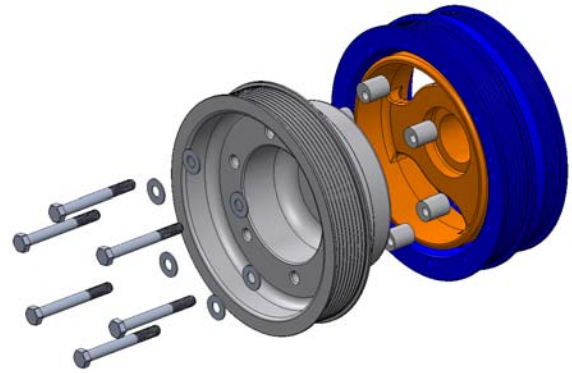
- 4 Following the diagram to the right, set up the drill bit, measuring 1-5/8" from the end and taping the bit for drill depth reference.
- 5 Place the provided bolt through the pinning fixture, and tighten onto the crankshaft with a 24mm socket.
- 6 Drill the crank to the proper depth, then remove the bolt and fixture. Clean the area thoroughly, including the drilled hole.



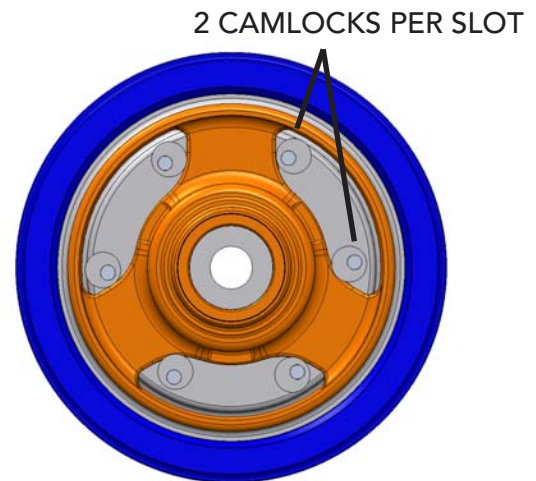
Crankshaft and Harmonic Balancer Pinning

Crank Pulley

- 7 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).
- 8 Insert the (6) 5/16-18 bolts and washers through the supplied pulley, and thread the (6) supplied cam locks onto the threads from behind the pulley. Hand tighten the cam locks.
- 9 Mount the crank pulley and cam locks onto the factory balancer, ensuring (2) cam locks are inserted into each slot on the balancer.
- 10 Activate the cam locks by tightening the (6) bolts; this will ensure the crank pulley and balancer spin together.
- 11 Place the provided cupped washer onto the new crank bolt, insert through the new crank pulley and into the crank. Tighten the bolt to 240 ft-lbs. Be sure the flathead that is holding the flywheel stationary is properly positioned for tightening.
- 12 Remove the screwdriver from the transmission access hole, replace the access shield, and tighten the bolt.



Crank Pulley and Cam Lock Assembly

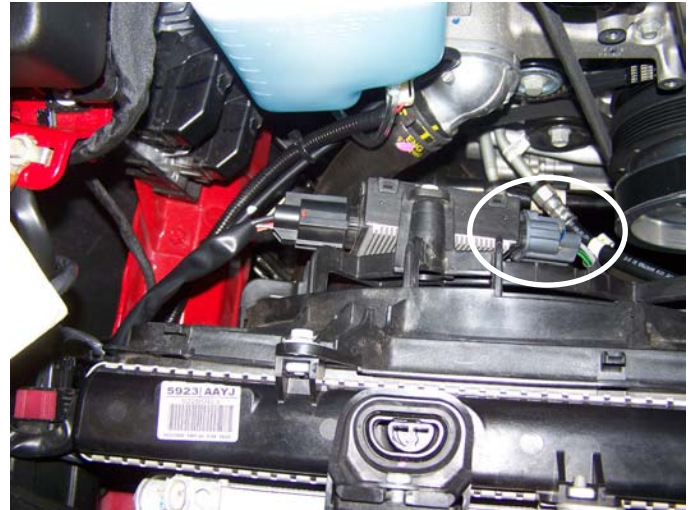


Cam Lock Positions From Back Side View

TRANSMISSION COOLER

Automatic Only: For manual transmission cars proceed to page 17.

1 Remove the cooling fan by unplugging the wiring harness connector on the passenger side of the fan. Using a 10mm socket remove the (2) bolts holding the fan to the radiator. Squeeze the clip in the middle top of the fan to release the fan from the radiator. Lift straight up on the fan to release it from the bottom hold downs.



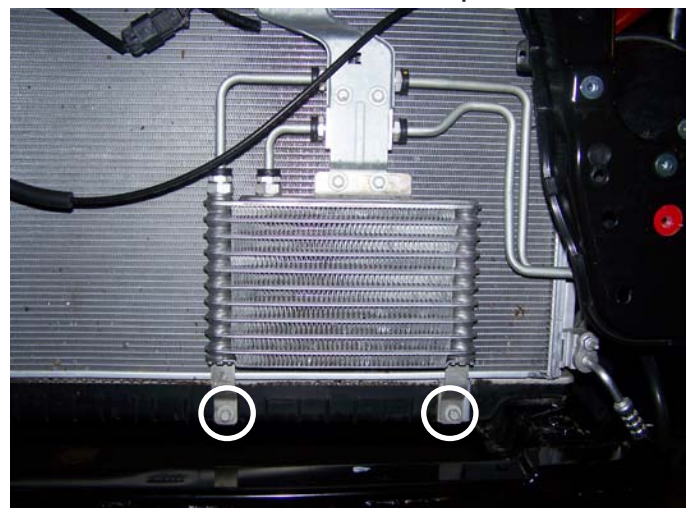
Cooling Fan Harness Connector

2 Lift the passenger side of the fan straight up while moving the fan around the hoses on the drivers side and remove the fan.



Fan Bolts and Clip

3 With a 10mm wrench remove the trans cooler by removing the (4) bolts (2) on top (2) on the bottom of the bracket. Disconnect the cooler lines by pulling back the black covers exposing the retaining clips. Use a screw driver to pry up on the metal retaining clips remove both clips.

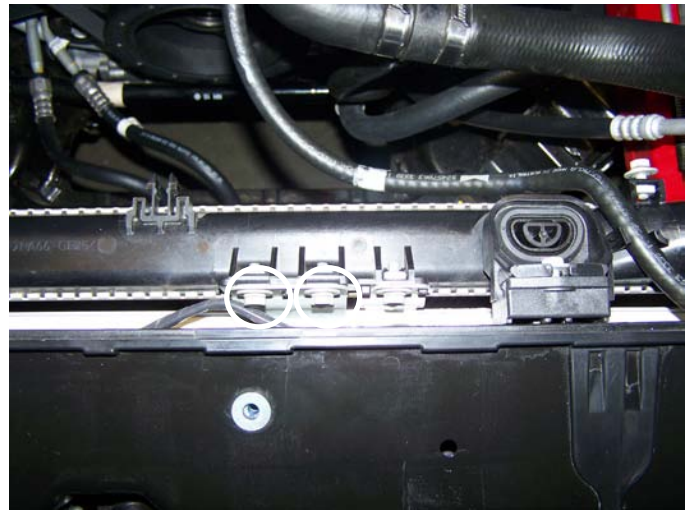


Transmission Cooler Bottom Bolts

✓ **Tech Tip:** Radiator hold downs may have to be removed to allow room for fan and Transmission Cooler removal.

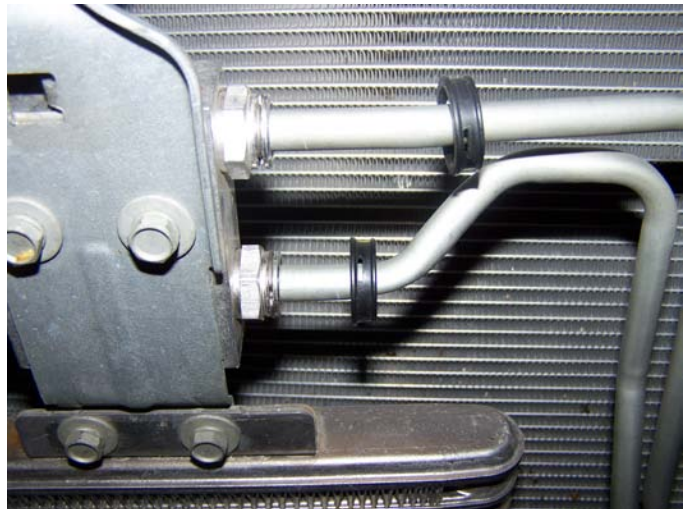
Transmission Cooler

- 4 Remove the transmission cooler from the lines by firmly pulling the lines and the cooler apart.



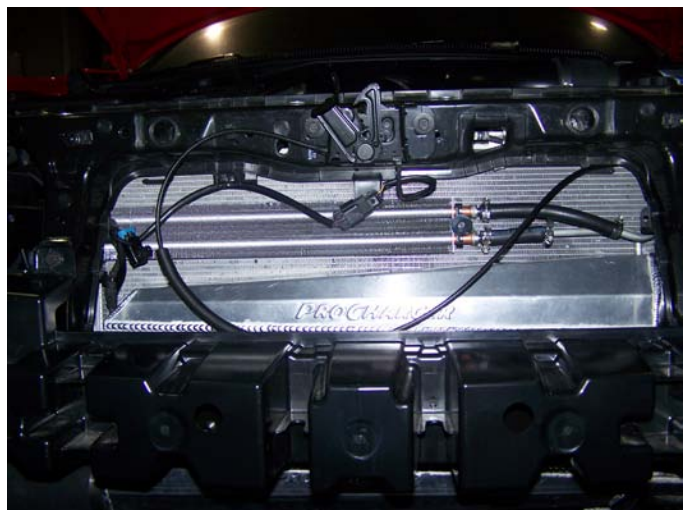
Transmission Cooler Top Bolts

- 5 Mount the supplied transmission cooler to the A/C condenser using the supplied cooler lines, clamps and mount kit. Use the supplied wire loom over the lines that are against the A/C condenser.



Transmission Cooler Line Clips

- 6 Reinstall the cooling fan and hardware.

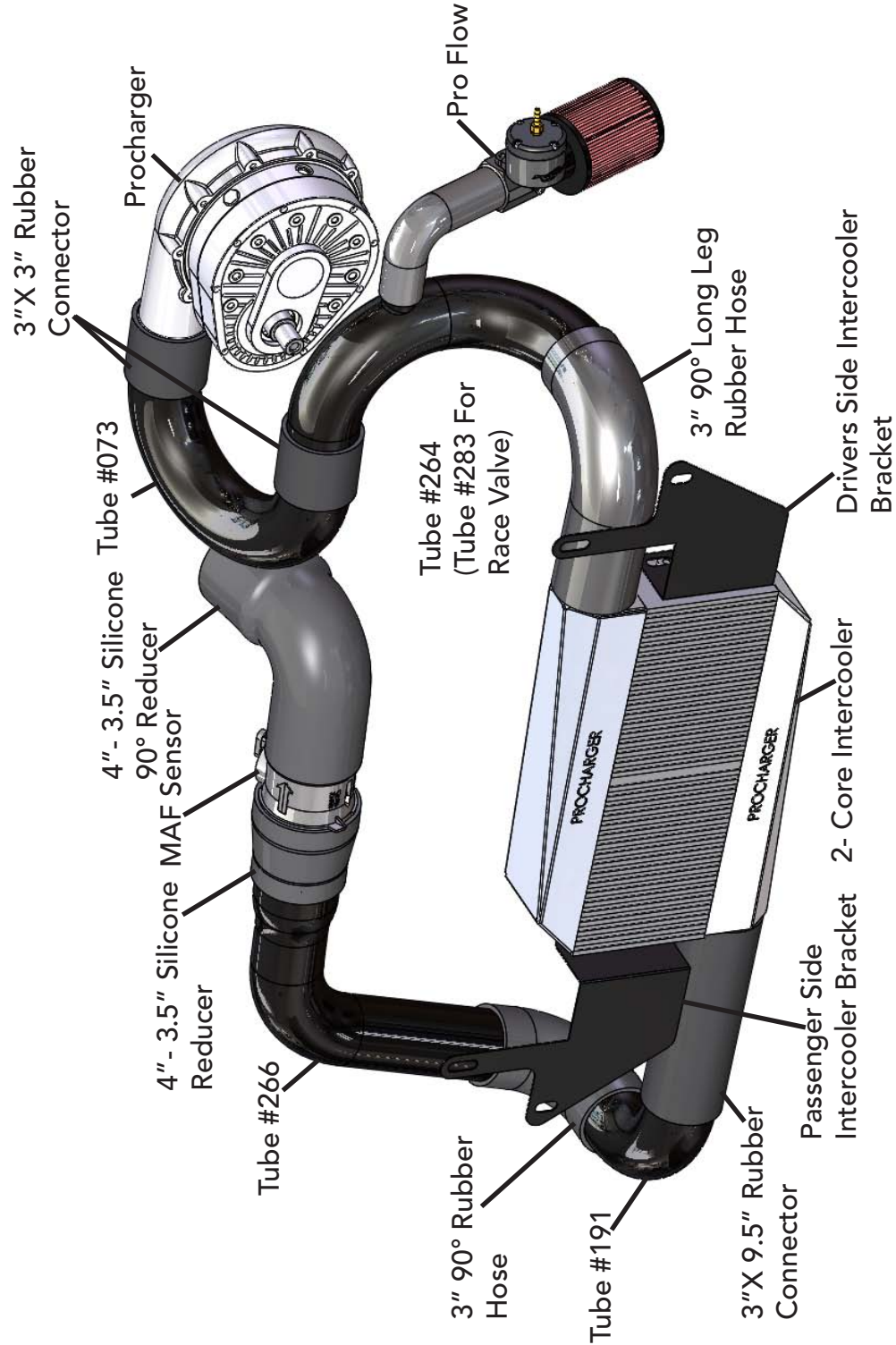


Transmission Cooler Installed

INTERCOOLER AND PROCHARGER

There are (2) intercooler options for the SS offered by Procharger. The two core intercooler is standard, a 3 core intercooler is available for upgraded vehicles needing additional cooling.

2 CORE INTERCOOLER SCHEMATIC



- 1 Thread the (4) 3/8-16 bolts through the driver's side and passenger's side intercooler brackets and into the intercooler. Hand tighten.
- 2 Loosely hang the intercooler onto the front of the car utilizing the top holes on each bracket, fastening through the threaded holes on the front carrier assembly using the factory hardware with a 10mm socket.
- 3 Re-install the front crash bar (using the (6) factory bolts), sandwiching the intercooler bracket between the front bumper and the front carrier assembly. Tighten all bracket hardware at this time.
- 4 Using a 15mm wrench, remove the factory belt by loosening the tensioner.
- 5 Using a 15mm socket remove the factory idler pulley (the idler pulley will be reused later). Using a screwdriver pry the wiring harness hold downs from the cylinder head and idler bracket. Using a 15mm socket remove the idler bracket and top alternator bolt.
- 6 Mount the factory idler to the backside of the bracket using the supplied M10x40 bolt, washer, and idler shaft. Use red Locktite on the bolt threads.
- 7 Before mounting the bracket, you must remove the idler and tensioner pulleys from the bracket.



Intercooler Installed (3 Core I/C Shown)



Remove Factory Idler

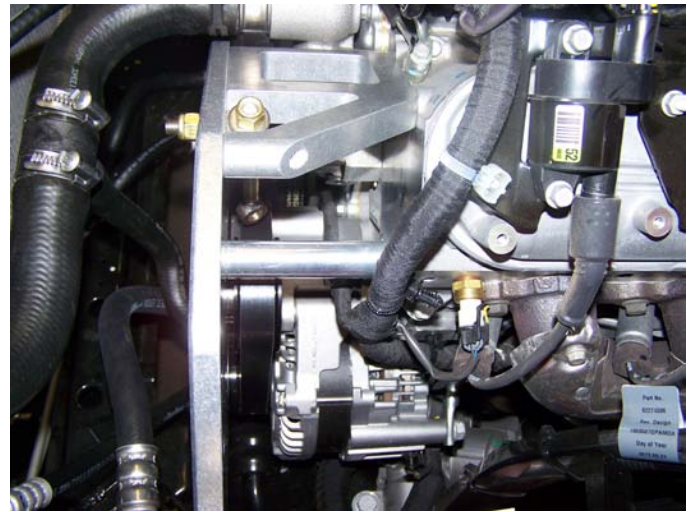
Main Bracket Mounting Locations



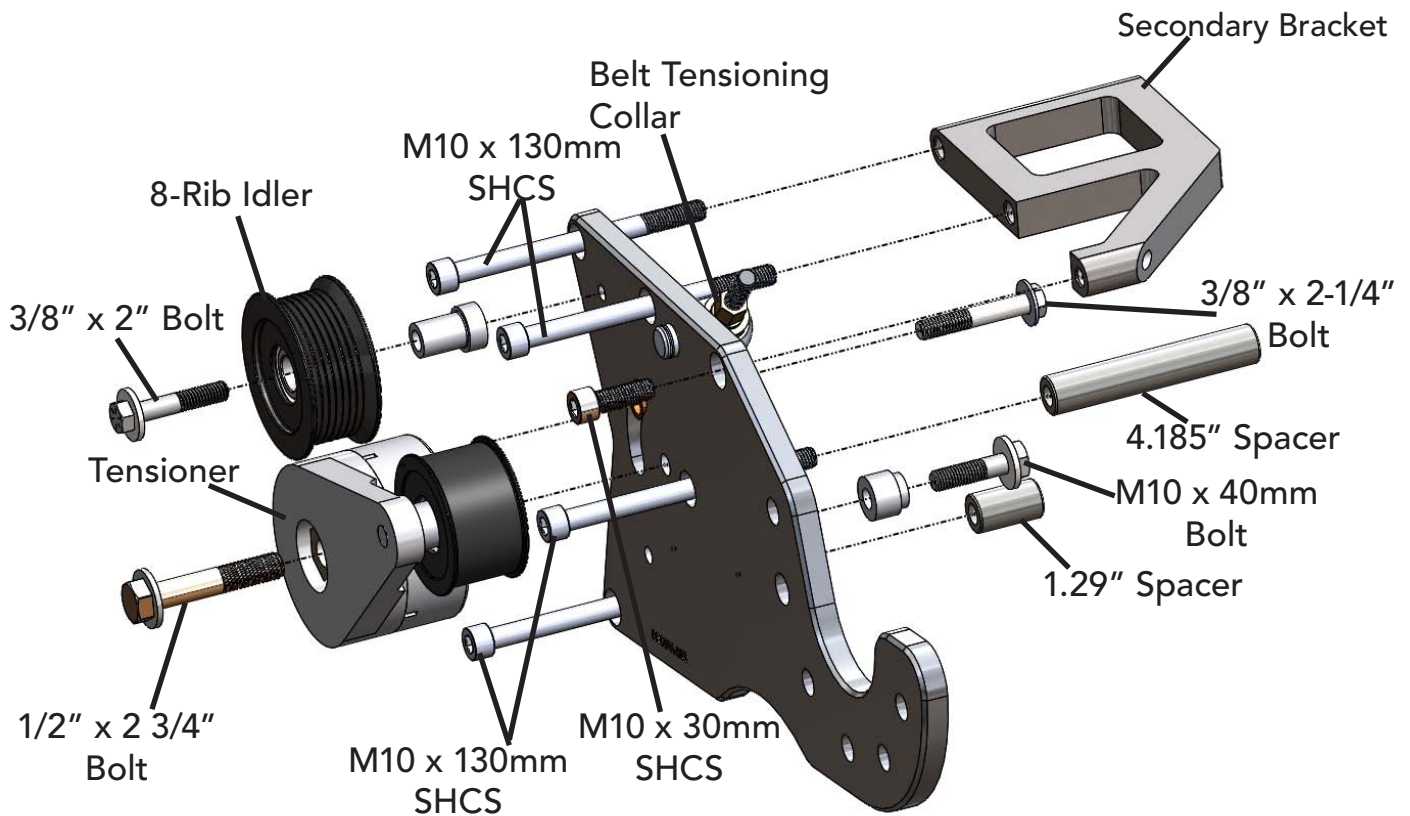
Idler Mounted to Backside of the Bracket

Intercooler and Procharger

- 8 Route the supplied 6-Rib belt over the alternator pulley before installing the bracket.
- 9 Mount the main bracket using (4) M10 x 130mm fasteners and (1) M10 x 30mm fastener in the configuration found in the model to the right. The lower (2) locations require spacers behind the main bracket for proper alignment. Tighten all (4) fasteners.
- 10 Route the belt using the factory routing now using the idler mounted to the bracket
- 11 Place red loctite on the idler pulley bolt, and tighten the idler pulley onto the main bracket assembly.

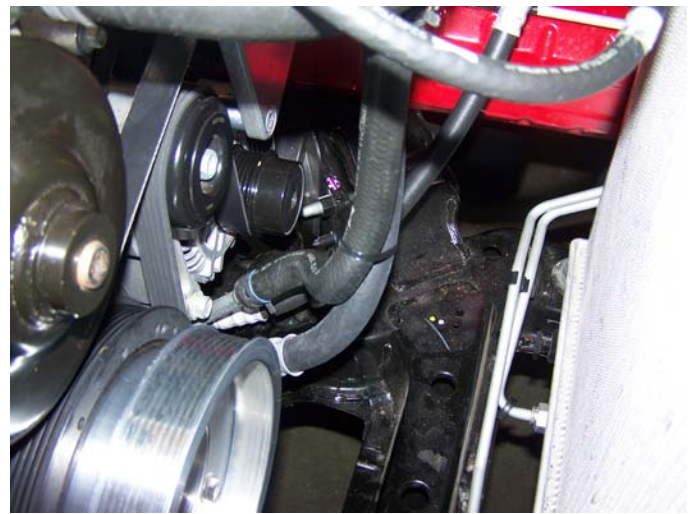


Belt Routed Over Installed Idler



Main Bracket Assembly

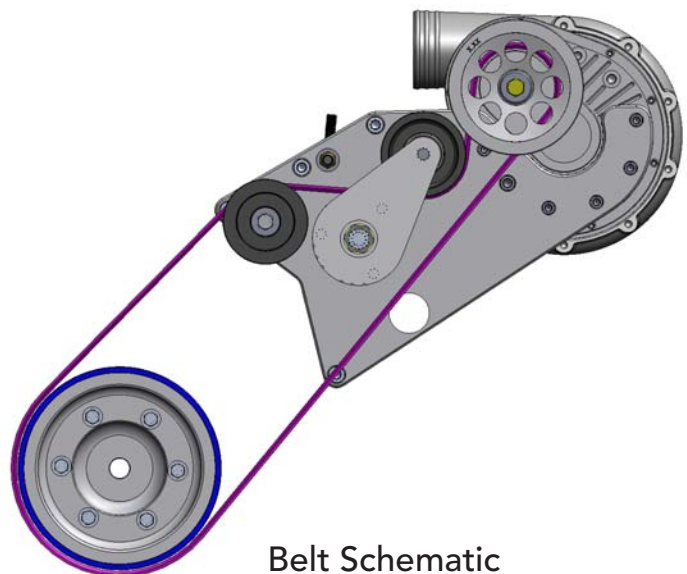
- 12 Zip tie the coolant hose to the A/C line to make room for the blower drive belt.
- 13 Using a flathead screwdriver, remove the dipstick fastener at the top of the blower. Dispense (1) full bottle of oil (6oz for P1SC-1 or D1SC), and tighten the dipstick into the blower.
- 14 Install the blower using (5) 5/16-18 SHCS (tighten with a 1/4" allen), and (1) 3/8-16 SHCS (tighten with a 5/16" allen) in the proper orientation. The serial plate on the blower should face up when installed properly.
- 15 Route the belt onto the pulleys as shown in the schematic to the right.
- 16 Place red loctite onto the tensioner pulley bolt, and mount the tensioner pulley onto the main bracket. Keep this bolt hand tight for the time being.
- 17 To tighten the belt use a 1/2" socket to turn the belt tensioning collar clockwise. Once the belt is tight, tighten down the tensioner bolt with a 3/4" socket. Use a 9/16" wrench to tighten the swing bolt from the back side of the bracket
- 18 To gain clearance around the belt and tensioner do the following steps: Use a pair of pliers to squeeze the clamp at the upper radiator hose and pull it back 1/2". Using a 7mm loosen and rotate the hose clamp that sits in front of the tensioner. Finally zip-tie the hose to the fan in front of the tensioner.



Coolant Hose Tied to A/C Line



Main Bracket Tensioner and Blower Installed



Belt Schematic

Intercooler and Procharger

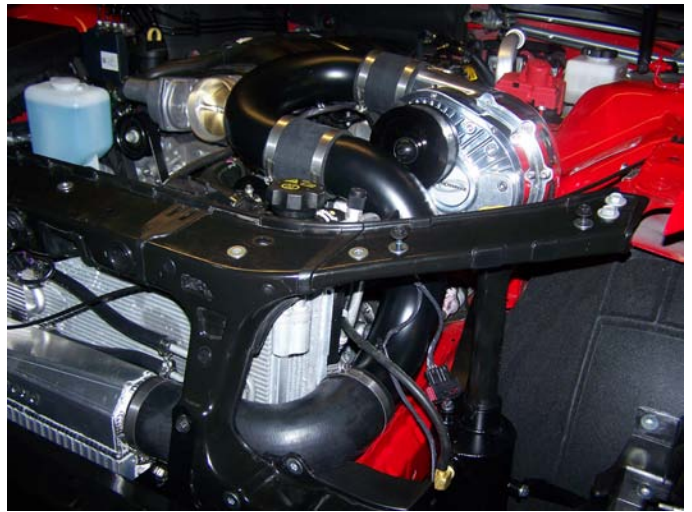
19 Starting on the driver's side, mount the discharge tube #073 and surge tube #264 (#407 for race valve, make sure the surge bung points toward the fender) using the (2) 3" by 3" rubber hoses and (4) #52 hose clamps.

20 Install the 3" rubber 90° (long leg 90° for 2 core I/C standard 90° for the 3 core I/C) hose to the surge tube #264 end, and onto the driver's side of the intercooler (long leg goes to the intercooler on the 2 core setup) using #52 hose clamps.

21 Mount a 4" to 3-1/2" silicone 90° reducer to the throttle body using a 4.25" T-bolt hose clamp.

22 Insert the factory MAF sensor into the 4" to 3-1/2" silicone 90° reducer, secure using a 3.75" T-bolt hose clamp. Be sure the MAF arrow is pointing toward the throttle body, and the electrical connection is pointing toward the firewall.

23 Connect a 4" to 3-1/2" Silicone reducer onto the MAF using a 4.25" T-bolt hose clamp. Insert the 3" to 3-1/2" 90° tube #266 into the open end, tightening it with a 3.75" T-bolt hose clamp.



Driver's Side I/C Tubing Installed



Tubing To Throttlebody Installed

- 24 Place a 3" rubber 90° hose onto the open end of tube #266, and insert the 3" 90° tube #191, tightening them with #52 hose clamps.
- 25 **2 Core Intercooler:** Install the 3"x 9.5" rubber hose and connect it to the passenger side of the intercooler. Use #52 hose clamps to secure the connections
- 26 **3 Core Intercooler:** Insert the 3"x 5.5" rubber hose and connect it to the passenger side of the intercooler. Use #52 hose clamps to secure the connections.
- 27 Verify all connections are tight before proceeding to the next step.
- 28 Re-install the front driver's side headlight and headlight cladding, front fascia, and underside cladding.



Lower Passenger's Side I/C Tubing Installed
(2 Core)



Lower Passenger's Side I/C Tubing Installed
(3 Core)

FUEL INJECTOR REPLACEMENT



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



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.

- 1 If you have not already done so, you should now de-pressurize the fuel system by completing steps 2-4. Otherwise, skip to step 5.
- 2 Remove the gas cap to relieve vapor pressure in the fuel tank.
- 3 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 of the 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.
- 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.
- 10 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.

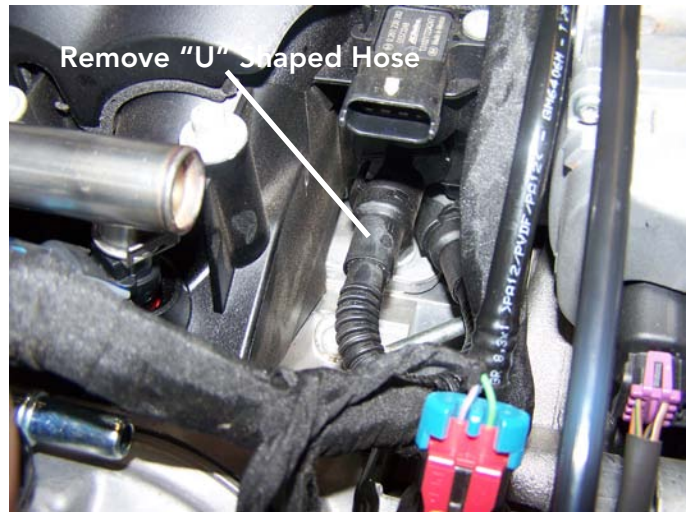
- 11** Install the retainer clips onto the new injectors. Push each injector into the fuel rail injector socket with the electrical connector facing outward. The retainer clip should lock onto a flange on the fuel rail.

- 12** 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.

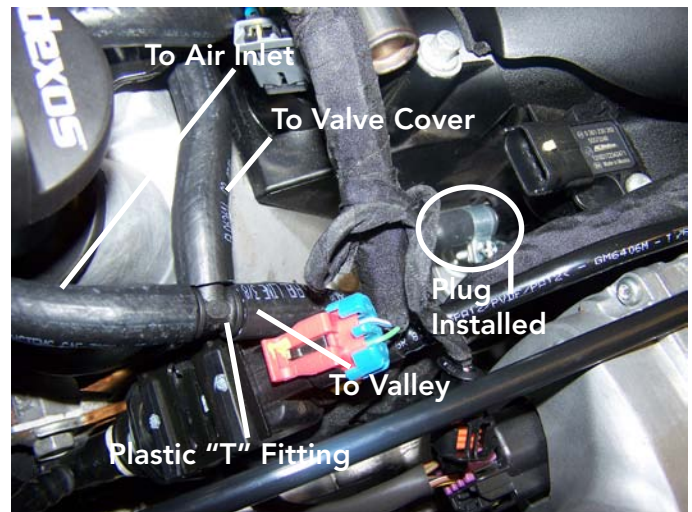
- 13** Connect each injector to the factory harness.

PCV MODIFICATION

- 1 If not already done, remove the PCV line that runs from the air intake system to the passenger's side valve cover bung.
- 2 Remove the "U" shaped PCV line that is located behind the throttle body, and connects the intake manifold and crankcase valley.
- 3 Place the supplied 3/8" vacuum cap over the intake manifold bung, and secure with the provided #6 hose clamp.
- 4 Cut a 6" length of 3/8" rubber hose and install it onto the crankcase valley bung. Slide the provided plastic tee fitting onto the opposite end.
- 5 Cut a 6" length of 3/8" rubber hose and install it onto the passenger side valve cover bung. Slide the opposite end into the plastic tee fitting.
- 6 Attach the remaining 3/8" rubber hose to the open end of the plastic tee, and route it over the throttle body to the drivers side. This will be connected to the air inlet in a later step.



Remove "U" Shaped Hose



Remove Factory PCV Hose

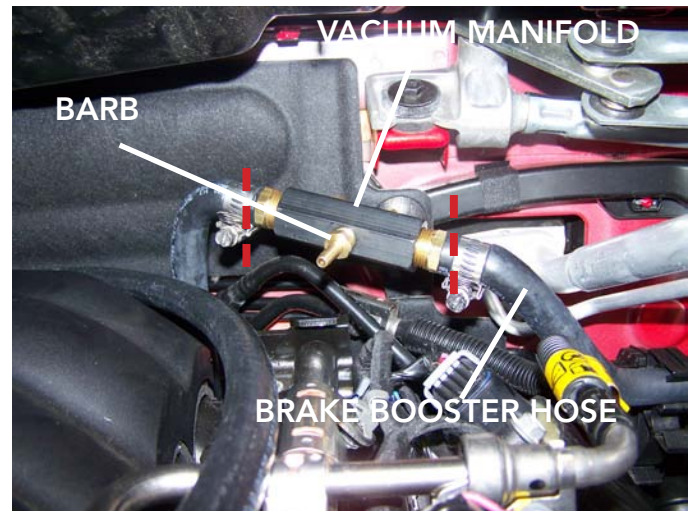
PCV Hose Routing

VACUUM MANIFOLD

- 1 Locate the $\frac{1}{2}$ " 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 utility knife or razor blade, remove a $3\frac{1}{2}$ " long section of the hose.
- 3 Assemble the manifold with the $\frac{3}{8}$ " barb fittings attached to each end, on the main body attach one $\frac{3}{16}$ " barb fitting (push lock fitting for race valve) for the surge valve and an additional $\frac{3}{16}$ " barb fitting for a boost gauge (if not using a boost gauge plug with the MPT plug provided) plug the additional hole with the MPT plug provided. Install the supplied vacuum manifold and securely clamp in place using the supplied #06 hose clamps, making sure that there are no vacuum leaks at the splice points.

! **Warning:** *Improper clamping of the splice into the brake booster hose could cause a vacuum leak and could cause the power brakes to become inoperable. Use extreme caution when installing the vacuum manifold to prevent any possible leaks.*

- 4 Attach the supplied $\frac{3}{16}$ " vacuum hose (or push lock line for race valve) to one of the $\frac{3}{16}$ " barb fittings on the installed vacuum manifold, then route the hose towards surge tube #266 (#407 for race valve). Attach a boost gauge (if one is being used) to the other $\frac{3}{16}$ " barb fitting.
- 5 Secure all vacuum hoses to their fittings with zip ties.



Vacuum Manifold Placement

FINAL ASSEMBLY

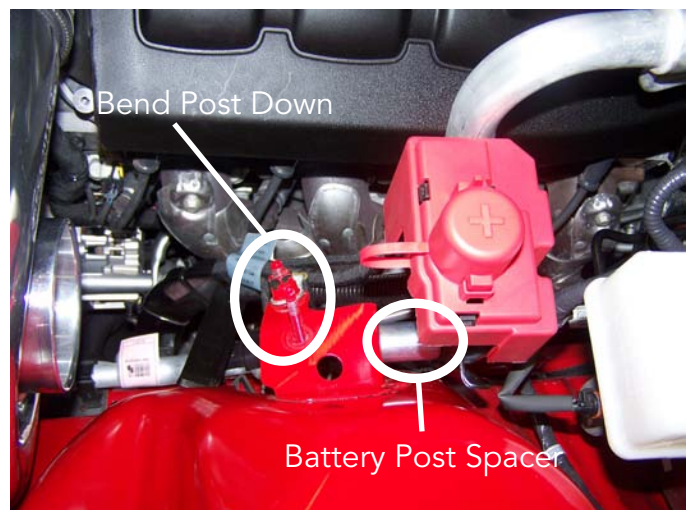
- 1 Install the surge valve by connecting the 90° molded hose to the bung located on the surge tube #264. Route the tube down the inner fender towards the bottom of the overflow reservoir. Attach the surge valve to the end of the hose and the open element air filter on the other end secure all connections with a #20 hose clamp.
- 2 **Optional:** Mount the provided race valve to the surge tube by setting the provided o-ring into the groove on the tube bung, and fasten the race valve onto the bung using the (6) 10 - 24 x 1/2" SHCS's. Verify that the o-ring is seated properly in place before moving on to the next step. Install one of the push lock fittings onto the race valve at this time.
- 3 Route the 3/16" (or optional push lock line for race valve) vacuum line from the vacuum manifold to the surge valve bung. Route the hose out of the way of moving components and secure with wire ties.
- 4 To make room for the air inlet assembly the ground wire stud on the auxiliary battery post bracket (drivers side) needs to be bent down. Using a 13mm wrench remove the bolt holding the auxiliary battery post to the bracket. Using the 1.375" spacer, washer and 8x60mm bolt, space the auxiliary battery post towards the firewall and tighten the bolt.



Surge Valve Tube Routing



Surge Valve Position



Auxiliary Battery Post

- 5 Trim the PCV line to length and insert the open end of the PCV line routed from the passenger's side valve cover into the 3/8" inlet bung.
- 6 Install the preassembled air inlet onto the blower using a #64 hose clamp. Tighten the clamp so the 3/8" bung is positioned toward the engine.
- 7 Plug in the provided MAF extension harness. This will extend the stock MAF wires to reach the new MAF location. Zip tie the harness securely to ensure it will not contact any belts or pulleys.
- 8 Trim the engine cover to fit around the intercooler tubing and main bracket assembly. The image to the right provides a guideline for trimming. It is best to set the engine cover in its correct location resting atop the interfering components, and marking the cover accurately yourself.
- 9 Place the engine cover in its correct position, test fit, and snap it into place once everything fits properly.
- 10 Install the air filter onto the air inlet using the attached hose clamp.
- 11 If vehicle was equipped with a sound tube place the provided grommet into the open hole in the firewall.



Engine Cover Trimming Guide Lines



Sound Tube Grommet Installed

✓ **Note:** If installing a complete system, ensure the Procharger tune has been loaded before starting the vehicle. If you do not have a full system, additional tuning will be required before starting the vehicle.



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

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 re-tightened after the first hundred miles. Tighten the belt sufficiently to avoid slippage, but do not overtighten. Overtightening the belt could cause damage to the ProCharger supercharger's precision bearings. When re-installing the belt, use the belt routing diagram in this manual. If you reuse a thrown belt and find that it needs frequent re-tightening, the belt is damaged and should be replaced. Gates Micro-V belts can be 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 drain plug before re-installing.

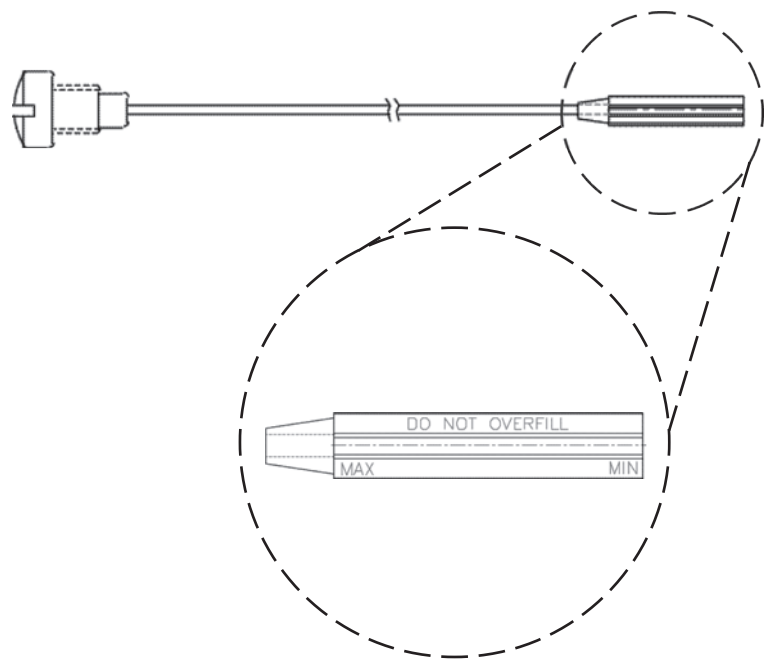
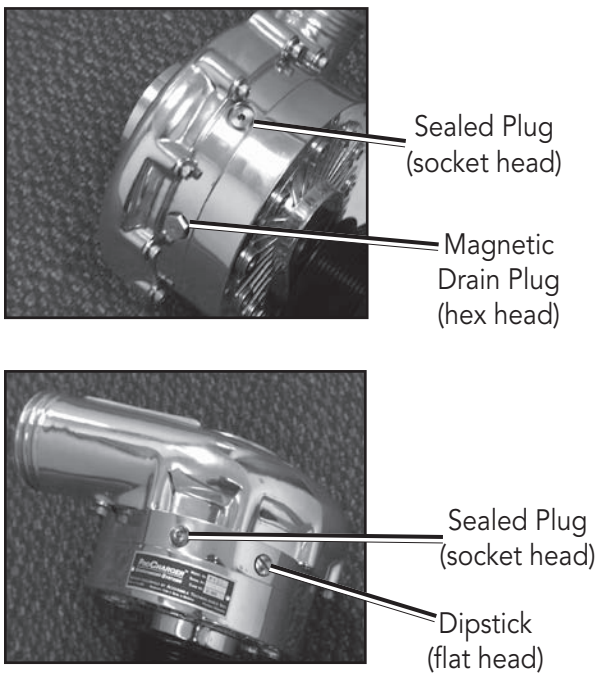
ProCharger Oil Level

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



LIMITED WARRANTY

Accessible Technologies, Inc. (ATI) provides a limited twelve (12) month warranty on the ProCharger supercharger against defects in materials and workmanship unless otherwise specified. This limited warranty starts on the date of original purchase from your local dealer, or date of shipment from the factory. This limited warranty coverage is extended only to the original owner and excludes hoses, sleeves, and electronic components manufactured by other companies. IF THE SUPERCHARGER'S DRIVE RATIO IS ALTERED IN ANY WAY FROM THE FACTORY SETTING, WARRANTY COVERAGE IS VOID. USE OF ANY PULLEY NOT MANUFACTURED OR SUPPLIED BY ATI VOIDS ALL WARRANTY COVERAGE.

ATI's warranty obligations are limited to the terms below:

ATI agrees to honor a warranty claim at its sole discretion and only after inspection at the ATI factory. No warranty will be honored if any part of the product is found to have been improperly installed, tampered with, mishandled, or misused in any way. Disassembly of the ProCharger supercharger or removal of the ProCharger supercharger's serial plate voids all warranties. Claims for freight damages should be directed to the freight company.

If ATI's limited warranty applies, your product will be repaired or replaced at ATI's discretion and shipped back. If the limited warranty does not apply, ATI will advise you of the specific reason, cost of the repair, and delivery time. After advising you of this information we will, at your option, either proceed with repairs or return your product to you in the state in which it was received. In either case the product will be shipped to you, insured at replacement value. Therefore, you will pay the return shipping and insurance charges if ATI's limited warranty does not apply to your product.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESS OR IMPLIED. THE DURATION OF ANY AND ALL WARRANTIES ON THE PRODUCTS DISCUSSED ARE LIMITED TO THE PERIOD IDENTIFIED ABOVE. ATI IS NOT RESPONSIBLE IN ANY EVENT FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. No ATI dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

To obtain service under this warranty you must do the following during the warranty period:

Phone ATI (913-338-3086) and provide us with the following information:

- ProCharger supercharger serial number.
- Vehicle year, make, model, engine modifications, and other modifications.
- Description of perceived issue.

If a solution to your issue can not be found after the above phone consultation, you will be assigned a return authorization number (RMA). You must then properly package and ship your product, at your expense, to the ATI factory. The product should be carefully packaged in a rugged box.

Include the following information inside the box with your product:

- Copy of your original invoice or receipt.
- Name, address, and daytime telephone number.
- Return authorization number (RMA).
- Vehicle year, make, model, engine modifications, and other modifications.
- Description of perceived issue.

Clearly mark the warranty claim number on the top and one side of the box in characters at least 2" tall. Properly package the product and ship it, prepaid and insured for the retail value of the component(s) being returned, to the following address:

**Accessible Technologies, 14801 West 114th Terrace,
Lenexa, Kansas 66215**

PROCHARGER EXTENDED COVERAGE

The ProCharger Extended Coverage Program extends the ProCharger warranty coverage for your 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 break-in period.
 - Use only the specified amount of ProCharger Supercharger oil in the ProCharger supercharger.
 - Inspect and clean the magnetic drain plug at every ProCharger supercharger oil change.
 - Check the ProCharger supercharger oil level frequently.

ProCharger Extended Coverage Program Registration Form

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

Name: _____

Date of Purchase: _____

Address: _____

Purchased From: _____

City: _____

ProCharger Serial #: _____

State: _____ Zip: _____

Vehicle Year: _____

Daytime phone: _____

Vehicle Make: _____

Evening phone: _____

Vehicle Model: _____

E-mail: _____

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

Age 18 - 24 25 - 34 35 - 44
 45 - 54 55 and up

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?

What magazines do you read?

- Car & Driver
- Car Craft
- Chevy High Performance
- Four Wheel and Off Road
- Hot Rod
- Motor Trend
- Muscle Mustangs and Fast Fords
- GM High-Tech Performance
- 5.0 Mustang
- Super Street
- Mustang Monthly
- Truck Trends
- Popular Hot Rodding
- Road & Track
- Sport Truck
- Super Chevy
- Truckin'
- Street Truck

- ___ Magazine advertising
- ___ Dealer recommendation
- ___ ProCharger Brochures
- ___ Witnessed performance on a car
- ___ Test drive
- ___ Magazine editorials
- ___ Friends
- ___ Conversations with ATI technicians
- ___ Web Site (please specify) _____
- ___ Other (please specify) _____

What most influenced your decision to purchase a ProCharger system?

- ___ Reliability
- ___ Standard warranty
- ___ Extended coverage warranty
- ___ Performance
- ___ Quiet operation
- ___ Removability (ability to return car to stock)
- ___ Cost
- ___ Ease of Installation

Who installed your ProCharger system? Self Dealer Other _____

Have you own a forced induction system previously? Yes No

If yes:
Supercharger: Brand(s) _____ Vehicle(s) _____

Turbocharger: Brand(s) _____ Vehicle(s) _____

I have read and understand the policy for the ProCharger Extended Coverage Program. I have not and will not modify my ProCharger supercharger in any way during my participation in the extended coverage program. I have read and answered all questions on this form. I have enclosed my check for \$99, payable to ATI, for enrolling my ProCharger supercharger (serial number indicated above) in the extended coverage program for an additional twenty-four (24) months beyond the standard limited warranty period of twelve (12) months.

Signature _____ Date _____

Mail this completed registration form with a \$99 check to ATI at: 14801 West 114th Terrace, Lenexa, KS 66215. If you have any questions, contact us at techserv@procharger.com or (913) 338-2886 8:30 AM - 5:30 PM CST, Monday - Friday.

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Accessible Technologies, Inc.
14801 W. 114th Terrace
Lenexa, KS 66215
Phone: 913.338.2886
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Part Number PMGW1A-001 Rev. F

