

# 2005-15 Toyota Tacoma Intercooled System **Installation Guide**



The **ULTIMATE** Power Adder™

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

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

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

Gauges should be of a type that can be read from the cockpit while performing a wide-open throttle road test. Cockpit or hood-mounted gauges are preferable. In order to obtain usable readings, the gauges should measure pressure at the intake manifold and fuel rail. IF VEHICLE DOES NOT MAINTAIN PROPER FUEL PRESSURE (50-65 PSI), DECREASE THROTTLE APPLICATION IMMEDIATELY. In some cases, extra vehicle modifications can strain the stock fuel pump. If your vehicle has difficulty retaining adequate fuel pressure, contact ATI ProCharger about the availability of an upgraded fuel system.

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

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

# INTRODUCTION

Congratulations on purchasing your ProCharger® 2005-15 Toyota Tacoma 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

- Open End Wrench Set (standard & metric)
- 3/8" & 1/2" Socket Sets (standard & metric)
- 3/8" Hex Bit Set (standard & metric)
- 8mm nut driver
- Torx bit set
- Drill
- Cut-Off Wheel/Reciprocating Saw
- 1/2" Extension
- 1/2" Breaker Bar
- Plier Set
- WD-40



**Tech Tip:** Installing NGK 4904 spark plugs and gapping the plugs to .035" is recommended.



**Warning:** Read and understand all safety precautions in this manual before installation. Failure to comply with instructions in this manual could result in personal injury, property damage, and/or voiding your warranty.



**Warning:** Your supercharged vehicle must always be run on 91 octane or better gas. The best way to insure this is to run the tank near empty (below 1/4) and fill with 91 octane for several tanks prior to installing the supercharger.

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## TUNING

✓ **Tech Tip:** This section only applies to full systems, which include an ECM flash tool. 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 First the RTD flasher will need to be installed on a PC. Go to the following link for the download: <https://files.hptuners.com/rtd%20flasher/rtd%20flasher.msi>

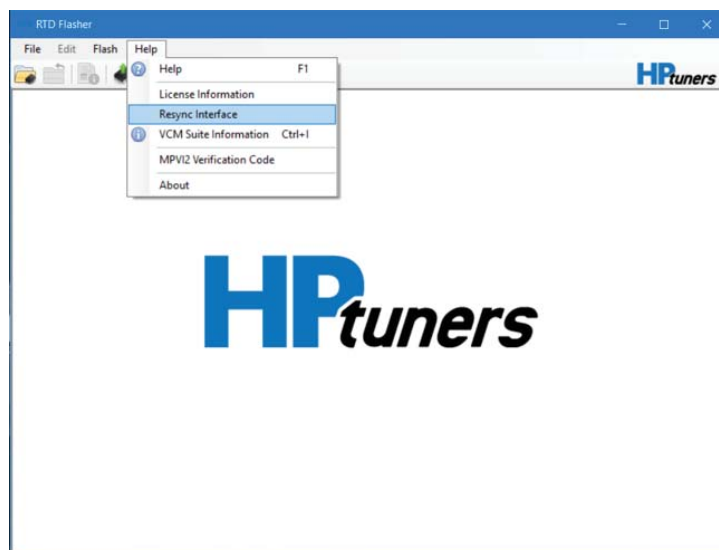
! **Attention:** Must be installed on a Windows 7 or Windows 10 machine.

- 2 If the RTD needs a driver update go to this link: [http://www.ftdichip.com/Drivers/CDM/CDM21228\\_Setup.zip](http://www.ftdichip.com/Drivers/CDM/CDM21228_Setup.zip)

Before going to the link, make sure the RTD is plugged into the computer via the USB and you have an internet connection.

- 3 Read the stock file by performing the following steps:

- 1) Make sure the computer is connected to the internet.
- 2) Plug the RTD to the USB port on the computer and into the OBD II port in the vehicle.
- 3) Open the RTD flasher on the PC. Press Help > Resync device (this will ensure that the RTD is up to date and will allocate any credits intended for this RTD unit).
- 4) Turn the vehicle's key position to on (engine NOT running).
- 5) Make sure any unnecessary electronics are off, as this may cause voltage instability during the read and flash process. (automatic headlights, Radio, Interior lights (when possible), ECT.).



Resync Device Screen

## Tuning

- 6) In RTD flasher select the read vehicle icon. Under the hardware drop down select Denso 992K, Toyota. Once the read is initiated, **DO NOT** interrupt the read until it is complete.

- 7) Save the read file onto the PC.

- 8) E-Mail the file to [tuning@procharger.com](mailto:tuning@procharger.com). Include the supercharger Serial number in the subject line of the E-Mail.

**Attention:** Be sure to follow the on-screen prompts.

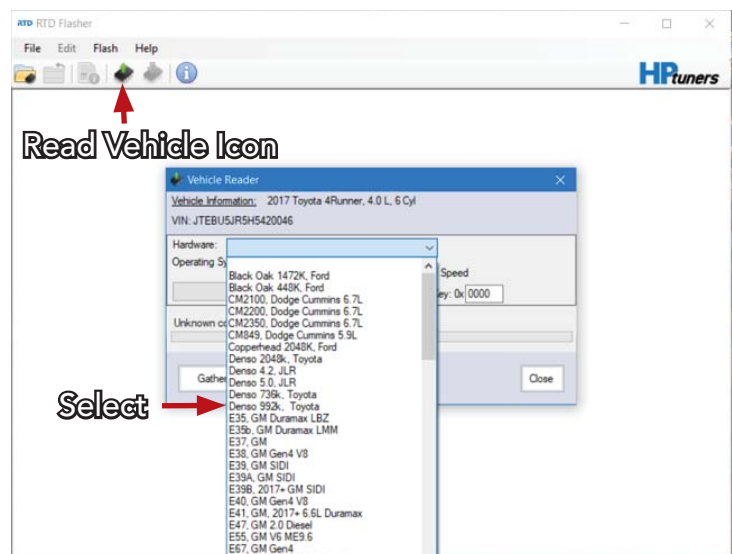
- 4 After receiving the tune file from [tuning@procharger.com](mailto:tuning@procharger.com). Do the following steps:

- 1) Plug the RTD tool into the computer and into the OBD II port of the vehicle.
- 2) Open the RTD flasher on the PC.
- 3) Select the Write vehicle Icon, then select the procharger file from the e-mail. Do not interrupt the flash process.
- 4) Once the file is written to the vehicle, the RTD flash will give confirmation.

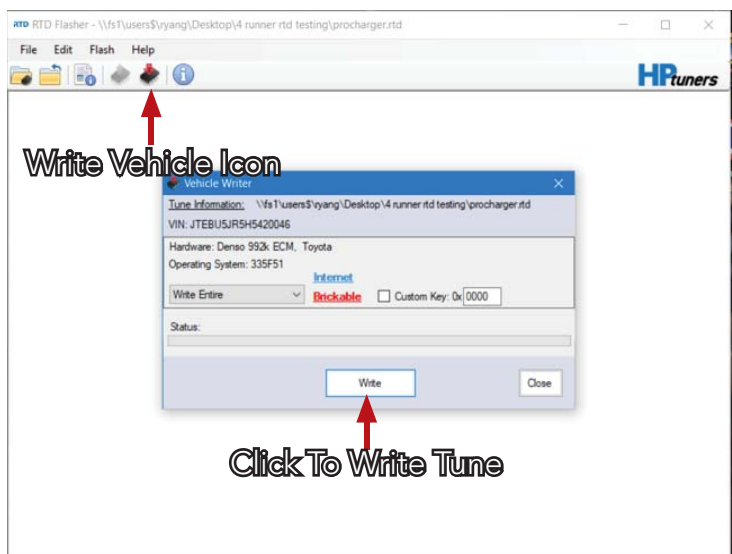
- 5 Install the provided OBD-II port cover (shown below) into the OBD-II port. This will alert any person doing service work to the vehicle to not re-flash the ecm possibly causing severe engine damage or harm.



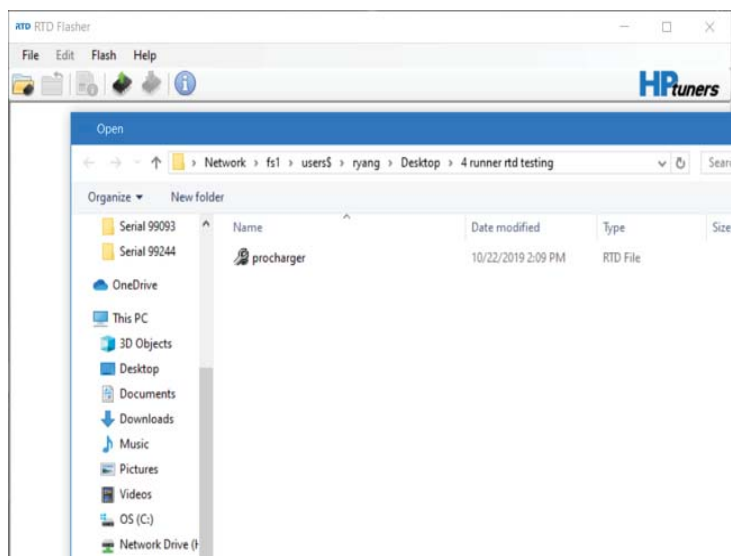
OBD II Port Cover



Read Vehicle Screen



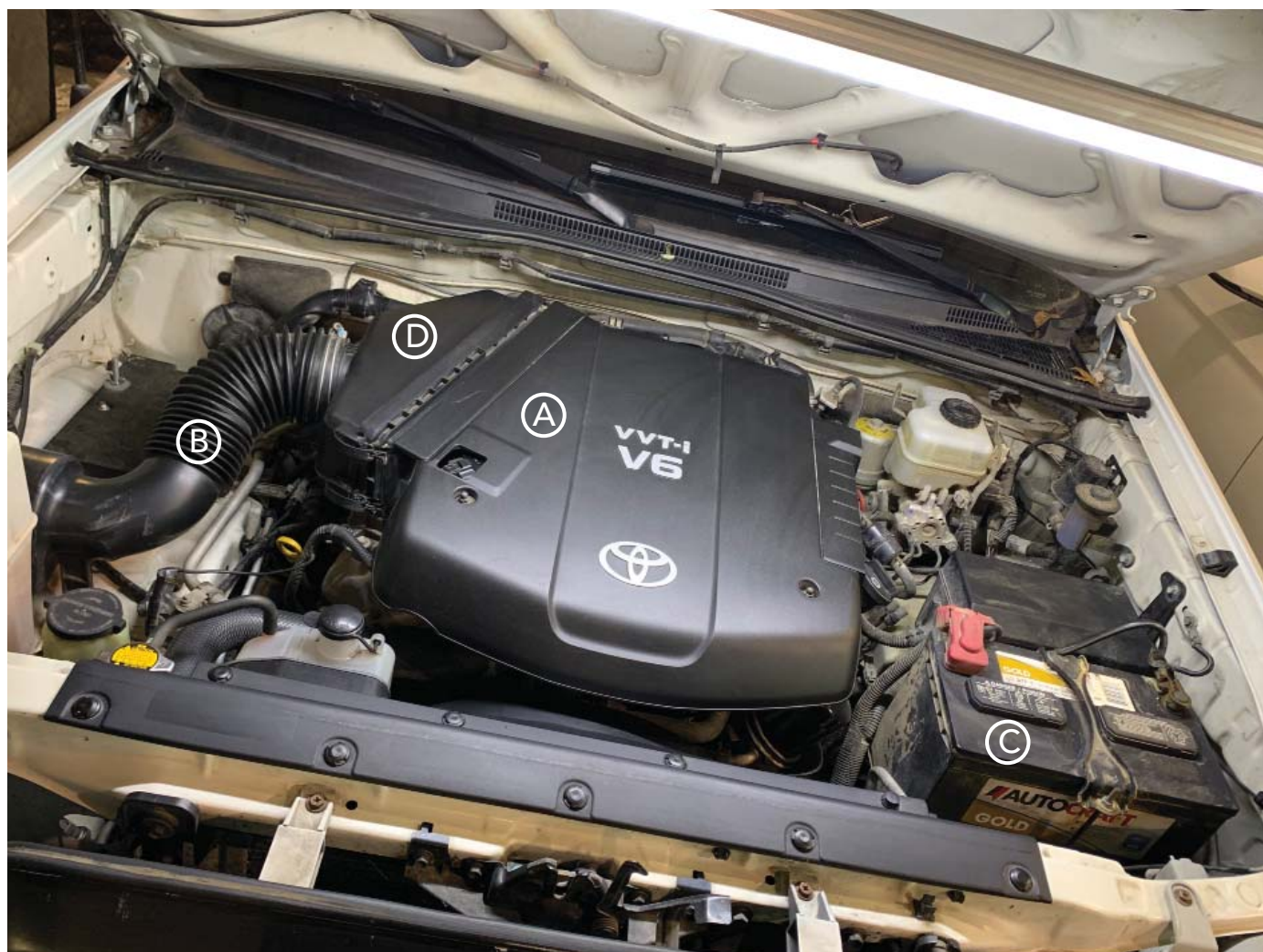
Write Vehicle Screen



Select ProCharger Tune File



# GETTING STARTED



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

(A) Engine Cover

(B) Air Inlet Tube

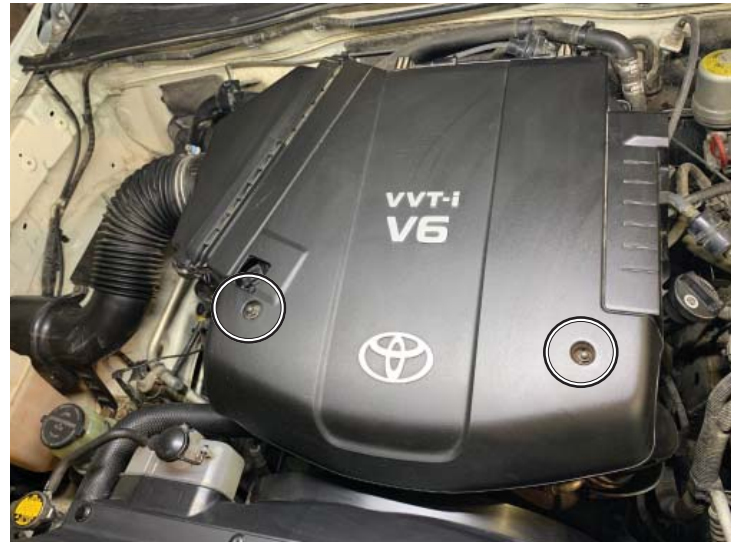
(C) Battery

(D) Air Filter Housing

**!** 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

- 1 Use a 10mm to disconnect the negative battery terminal.
- 2 Remove the (2) bolts on the front of the engine cover using a 10mm. Flip up and pull forward on the engine cover to remove it.



Engine Cover

- 3 Use a 12mm to remove the (2) bolts securing the inlet tube to the inner fender well. Use a 10mm to loosen the hose clamp connecting the air inlet tube to the air box.
- 4 Remove the air inlet tube from the truck.



Air Inlet Tube

- 5 Unplug the MAF sensor shown and disconnect the PCV hose from the air box.



MAF Sensor and PCV Hose



- 6 Disconnect the small vacuum hose shown from the back side of the air box.



Fuel Pressure Regulator Vacuum Hose

- 7 Remove the (2) bolts retaining the air box to the intake using a 10mm. Use a 10mm to loosen the hose clamp connecting the air box to the throttle body.



Remove Air Box

- 9 Remove the (2) bolts securing the top of the front grille using a 10mm.
- 10 Remove the (2) push pins securing the top of the front grille.
- 11 Pull the front grille out and up to remove from the truck.



Front Grille Removal

## Getting Started

- 12** Remove the (3) bolts securing the headlight using a 10mm.



Headlight Bolts

- 13** Remove the (1) push pin securing the top of the front bumper.



Top Front Bumper

- 14** Remove all of the push pins/screws securing the wheel liner to the front bumper.



Wheel Liner To Front Bumper



- 15 Pull the bumper forward and down as shown in order to access the reaming headlight bolt.
- 16 Remove the (1) bolt from the side of the headlight shown using a 10mm.



Side Headlight Bolt

- 17 Remove the (1) push pin securing the lower headlight molding. Slide the headlight molding out of the way as shown.



Lower Headlight Moulding

- 18 Pull the headlight out from the front of the truck.
- 19 Unplug the (3) light bulbs shown from the back of the headlight. Set the headlight aside. Repeat headlight removal procedure (steps 12-19) for both sides.



Unplug Lights

## Getting Started

- 20** Remove the radiator cap from the top of the radiator. Using the drain petcock located on the bottom driver's side of the radiator, drain enough coolant out to remove the upper radiator hose.



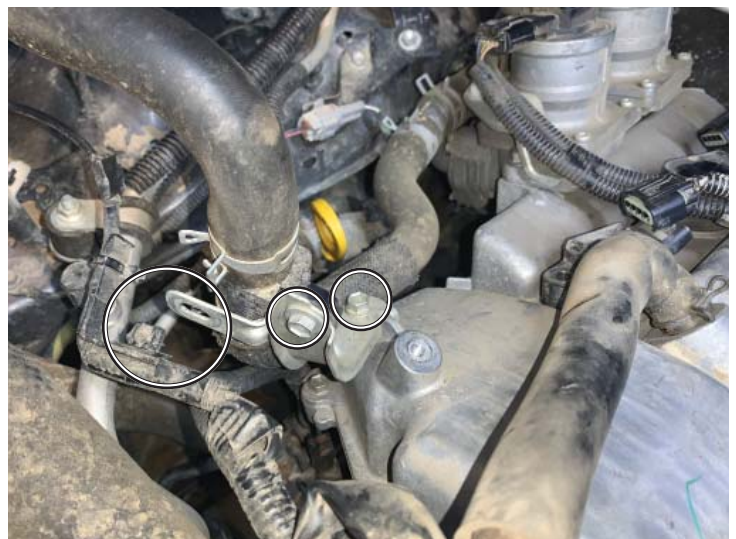
Radiator Drain Petcock

- 21** Using pliers remove the upper radiator hose and set aside. It will be replaced by a new hose later in the install.



Upper Radiator Hose

- 22** Remove the harness clip from the bracket shown on the valve cover.
- 23** Using a 10mm remove the 2 bolts shown securing the hose to the bracket and securing the bracket to the valve cover. The bracket will not be reused.



Valve Cover Bracket



## FUEL INJECTORS

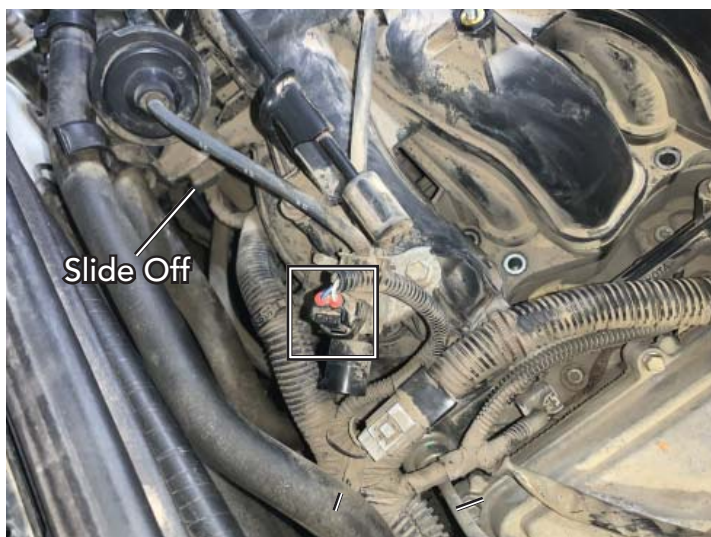
- 1 Using a 10mm remove the (4) bolts securing the throttle body to the intake manifold.
- 2 Remove the throttle body from the intake and lay it aside.
- 3 If equipped with a brake booster, remove the vacuum line from the intake manifold.
- 4 Unplug the electrical connector and disconnect the vacuum hose from the EVAP valve.
- 5 Disconnect the vacuum hose from the bottom of the EVAP canister on the side of the intake manifold.
- 6 Unclip (2) clips securing the harness to the driver's side of the intake manifold.
- 7 Unplug the electrical connector on the vacuum valve located on the top-back of the intake manifold.
- 8 Unclip the (3) harness clips on the intake manifold surrounding the valve. And slide the harness clip off of the back of the intake manifold shown.



Throttle Body



Driver's Side Disconnect



Passenger's Side Disconnect

## Fuel Injectors

- 9 Remove the (6) bolts securing the intake manifold to the lower manifold using both a 12mm and a 8mm allen.



Intake Bolts

- 10 Remove the (2) bolts on the driver's side of the intake manifold using a 12mm.



Intake Bolts

- 11 Remove the (1) bolt on the front of the intake manifold using a 12mm.

- 12 Carefully lift the intake manifold up and remove from the engine bay.



**Note:** Use rags or tape to cover the open intake runners to make sure nothing falls in them.



Intake Bolts



**13** Unplug all (6) of the electrical connectors on the injectors.

**14** Use a 10mm to remove the (6) bolts securing both fuel rails.

✓ **Tech Tip:** Place rags around the fuel rails to catch any remanence of fuel.



Fuel Rail Bolts

**15** Disconnect the fuel feed and return lines by removing the covers and pushing the quick release style connectors shown.



Disconnect Fuel Feed Line

**16** Carefully pull up on the fuel rails, releasing the injectors. Swing the fuel rails up as shown for injector disassembly.

**17** Pull each individual injector out of the fuel rail. Make sure to check the fuel rail port closely to make sure all factory seals were removed.



Factory Fuel Injector

## Fuel Injectors

✓ **Tech Tip:** It is good practice to use silicone lubricant on all injector o-rings to prevent them from being damaged during install.

18 Insert the new injector assemblies into the fuel rails as shown.

19 Connect the supplied injector harnesses to the injectors.



New Fuel Injector

20 Remove the factory seals from the injector ports in the lower intake plenum.

21 Place the new injector seals in the injector ports.



Injector Port Seal

22 Place (2) of the provided M6 washers between the lower intake manifold and the fuel rails in order to space the rails up.

! **Note:** Make sure the fuel injectors are seated properly before tightening bolts.

23 Secure the rails with the (6) factory bolts previously removed.



Fuel Injectors Installed



**!** **Note:** Installing new spark plugs is recommended and should be done at this time. Use NGK 4904 plugs and gap to .035".

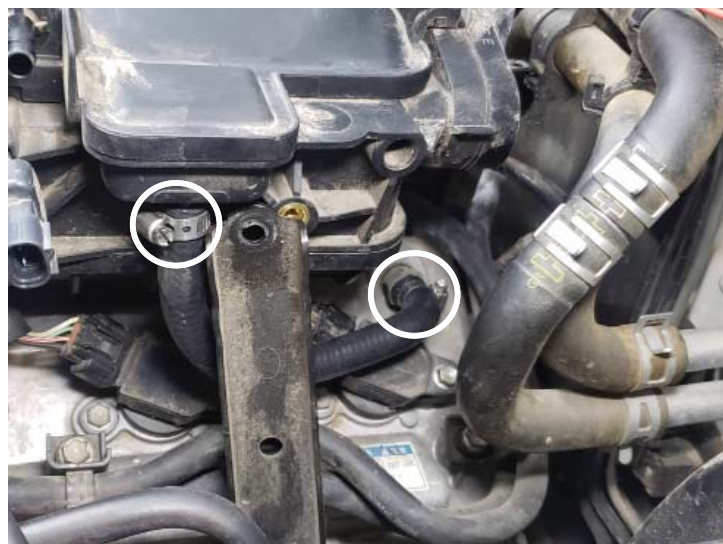
**!** **Note:** On older vehicles it is recommended to change intake gaskets at this time.

**24** Reinstall the intake manifold in the reverse order in which it was removed.

**25** Install the provided #04 hose clamps on the driver's side PCV hose shown. The hose clamps can be found in the PCV bag.



Spark Plug Coils



Driver's Side PCV Hose

# A/C LINE RELOCATION

1 Using a 10mm remove the (1) nut on the A/C line bracket releasing the u-bracket.

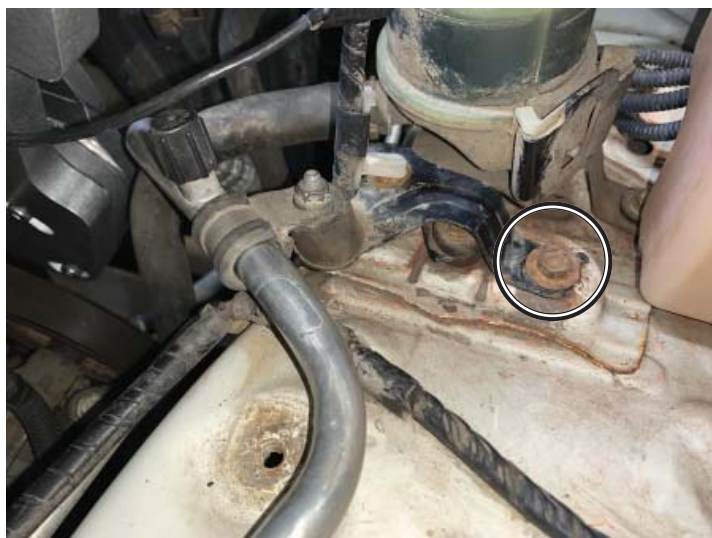
2 Using a 10mm remove the (1) bolt securing the A/C bracket to the inner fender well.



Factory A/C Bracket Removal

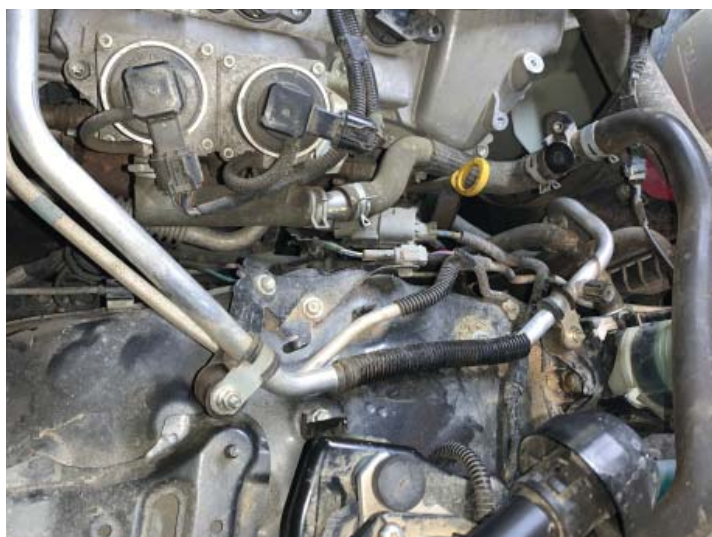
3 Relocate the A/C bracket to the front of the truck as shown. Using the bolt hole location used to secure the factory air inlet tube.

4 Secure the bracket with the factory air inlet bolt using a 12mm.



A/C Bracket Relocation

5 Secure the line to the bracket using the original u-bracket and nut. Place the bracket on the A/C line as close to the A/C port as possible.



A/C Line Re-Routed



## CRANK PULLEY

- 1 Remove the (4) bolts from the water pump pulley releasing the fan blade.
- 2 Remove (2) bolts from the shroud (1) on each side and remove the shroud/fan from the truck.



Remove Fan And Fan Shroud

- 3 Use a 22mm and an impact gun to remove the balancer bolt.
- ✓ **Tech Tip:** Using a torch to heat the crank balancer bolt makes removal easier. If an impact gun will not remove the bolt, use a universal pulley holder and long breaker bar to loosen the balancer bolt.
- 4 Make sure the (2) M8 threaded holes in the balancer are clean and free of any debris.



Factory Crank Bolt

- 5 Install the crank pulley shim to the back of the provided crank pulley.



Crank Pulley Shim Installed

## Crank Pulley

- 6 Install the crank pulley into the factory balancer using the factory crank bolt. Leave enough slack to rotate the crank pulley.
- 7 Place red thread locker onto the supplied M8 bolts, secure the crank pulley to the balancer using the supplied (2) M8 bolts and washers into the (2) threaded holes in the balancer.
- 8 Tighten the **crank bolt** to **205 ft-lbs** and tighten the **M8 bolts** to **100 in-lbs**.

**!** **Note:** Make sure to follow the recommended torque specs.



Crank Pulley Installed



## MAIN BRACKET ASSEMBLY

- 1 Remove the (2) front valve cover bolts shown with a 10mm.
- 2 Remove the (1) timing cover bolt shown with a 12mm.



Bracket Mounting Holes

- 3 Using a 14mm actuate the tensioner counter clockwise and loosen the belt.



Loosen Factory Belt

- 4 Using a 14mm remove the factory idler bolt shown, located to the left of the crank pulley.



Remove Factory Idler Pulley Bolt

## Main Bracket Assembly

- 5 Thread the provided 4-3/4" long threaded rod into the front timing cover as far as possible.
- 6 Slide the factory pulley and factory washer over the threaded rod.



Timing Cover Secured

- 7 Slide the provided idler shaft and 6 rib pulley over the threaded rod.

✓ **Tech Tip:** Pulley orientation should be snap ring facing the timing cover.

- 8 With a 17mm secure the idler pulley assembly using the provided M10 lock nut and washer.



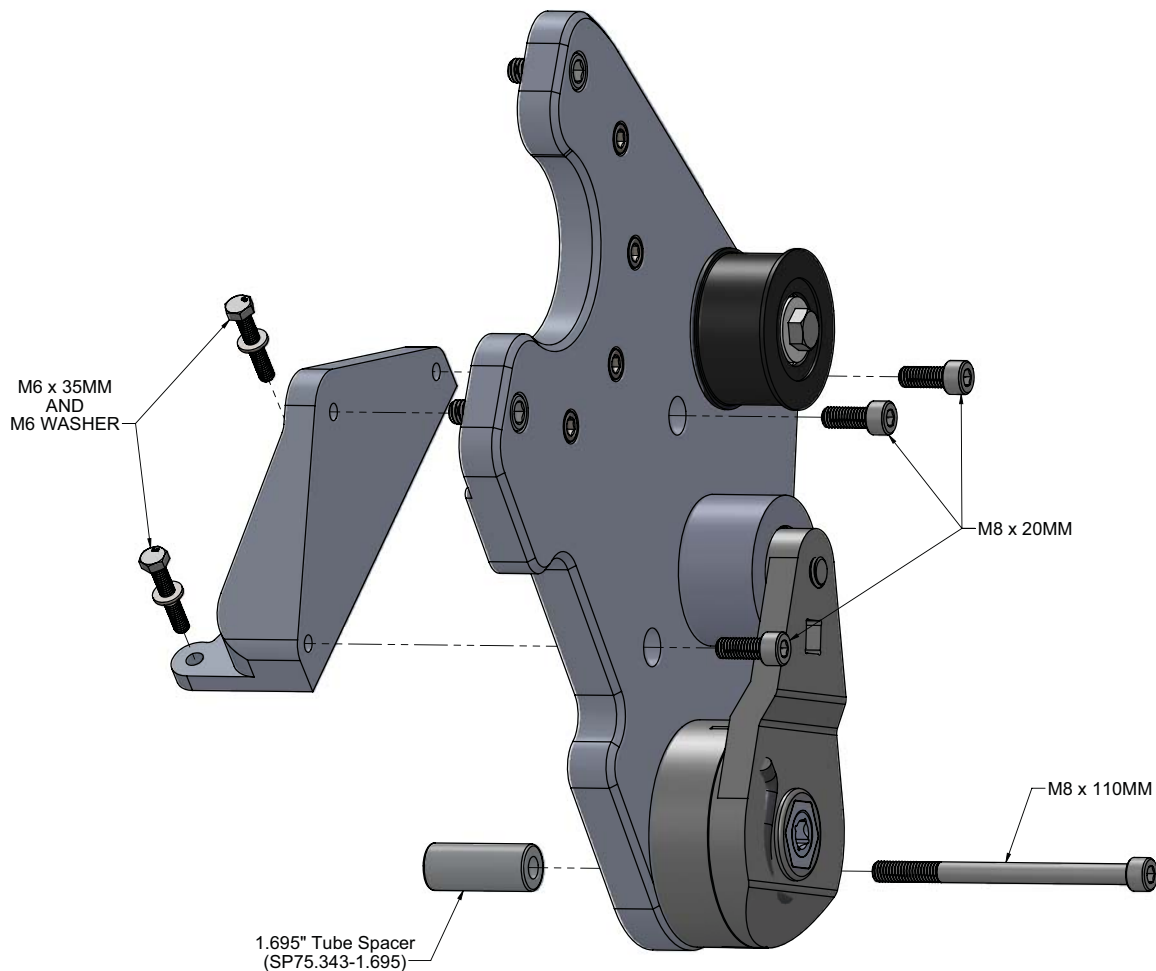
Idler Shaft In Factory Pulley

- 9 Reinstall the factory belt.
- 10 Loosely install the sub bracket to the main bracket as shown using the (3) M8 x 20mm SHCS. Do not tighten.



Install Sub Bracket to Main Bracket





Main Bracket Assembly

**!** **Note: Not following the below install procedure will result in misalignment of the belt.**

**11** Install the bracket assembly to the front of the engine using the following procedure:

- Start the (2) M6 x 35mm bolts and washers through the sub bracket into the valve cover. Do not tighten.
- Secure the bottom of the bracket using the M8 x 110mm SHCS and 1.695" tube spacer. Tighten the bolt.
- Tighten the (3) M8 x 20mm SHCS securing the sub bracket to the main bracket.
- Tighten the (2) M6 x 35mm bolts and washers securing the sub bracket to the valve cover.



ProCharger Bracket Assembly

## Main Bracket Assembly

- 12 Using a 10mm remove the (1) bolt securing the dipstick to the passenger side of the engine.
- 13 Re-secure the dipstick to the side of the engine using the provided 1.610" tube spacer and M6 x 55mm bolt and washer.



Oil Dipstick

- 14 Install the provided oil drain line on the ProCharger.
- 15 Fill the ProCharger with the provided 6 ounce bottle of fluid. Remove oil fill tag.
- 16 Secure the ProCharger to the main bracket using the (2) provided 3/8 SHCS and (4) provided 5/16 SHCS.



ProCharger Installed

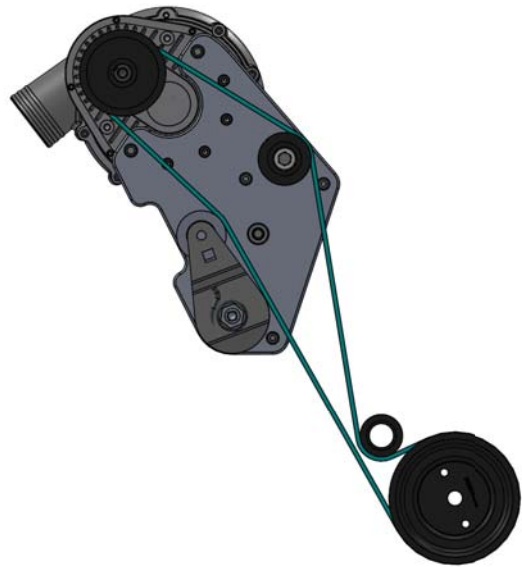
- 17 Insert a 1/2" breaker bar square end into the end of the spring tensioner as shown.



Belt Tensioner



- 18 Route the provided 6 rib supercharger belt as shown.



Belt Routing

- 19 Rotate the tensioner counter clockwise. Slide the belt over the ProCharger pulley. Release the tensioner and remove the breaker bar from the tensioner.

✓ **Tech Tip:** It may be necessary to remove the top idler pulley in order to get the belt on. Once the belt is installed the pulley should be reinstalled.

- 20 Reinstall the fan and fan shroud.



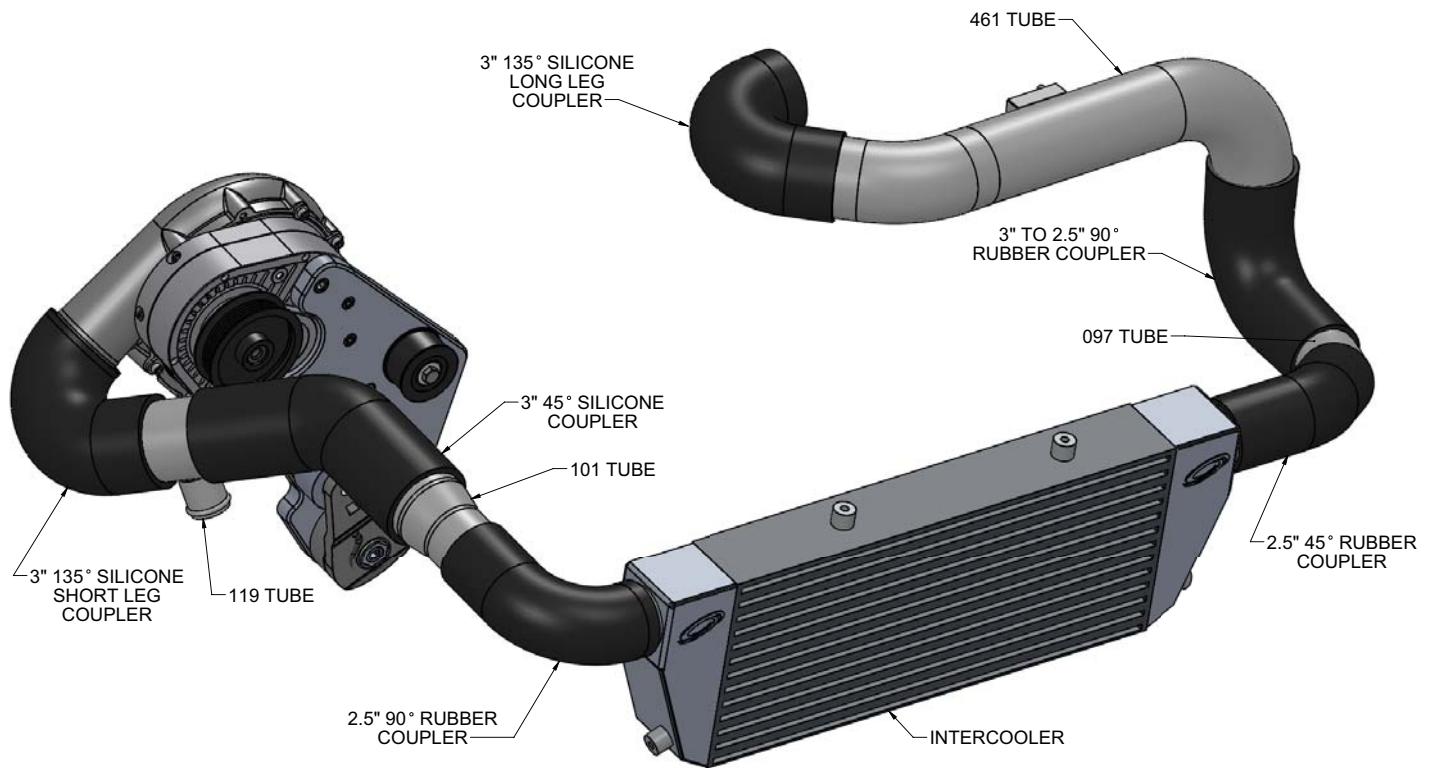
Supercharger Belt Installed

# 2005-2011 MODEL YEARS

## INTERCOOLER AND TUBE ROUTING

### WITHOUT WINCH

Vehicles equipped with a winch skip to page 31

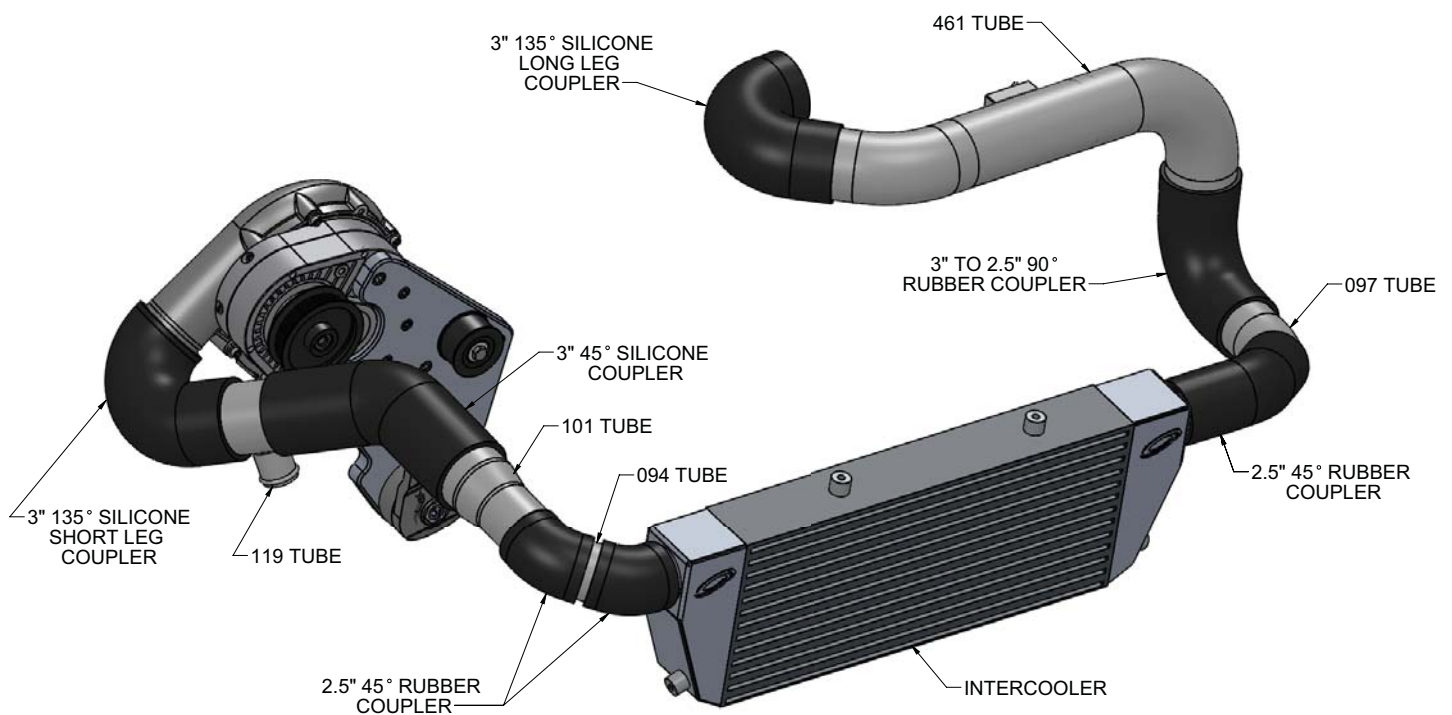


# 2012-2015 MODEL YEARS

## INTERCOOLER AND TUBE ROUTING

### WITHOUT WINCH

Vehicles equipped with a winch skip to page 31



## Intercooler and Tubing

- 1 Using a 12mm remove the (2) bolts securing the horns to the core support. They will be relocated.



Remove Horns

- 2 Using a 10mm remove the (2) bolts securing the hood latch cover and set aside it will not be reused.



Hood Latch Cover

### If equipped with an oil cooler:

- 3 Using a 10mm remove the (4) bolts securing the oil cooler and lines to the front of the radiator. Lay the oil cooler down and out of the way.



Oil Cooler



✓ **Tech Tip:** It is easier to modify the front radiator support if you remove the PS reservoir from its bracket. Press the tab in and lift upward and set the reservoir aside.



PS Reservoir

### Passenger's Side Modification:

- 4 Using the supplied 3.5" hole saw, begin the pilot drill at the "x" in the picture to the right.

**Warning:** A large hole saw can be dangerous to use, when it grabs it will twist the drill violently. Apply light pressure when using.



"X" Marks The Spot

- 5 The picture to the right is an example of the hole made by the hole saw.



Hole Cut

- 6 To prevent cutting yourself and scuffing the tubes apply the rubber trim guard around the hole cut as shown.



Rubber Trim Installed

**Driver's Side Modification:**

- 7** Remove the small black electrical box from the back side of the driver's side core support. This will need relocated.
- 8** Remove the wire clip from the core support located right next to the small black electrical box.
- 9** Unclip the shown electrical harness from the bottom of the driver's side headlight pan.
- 10** Insert the clip on the small black electrical box into the hole that the harness clip was just removed from.



Small Black Electrical Box



Remove Harness Clip

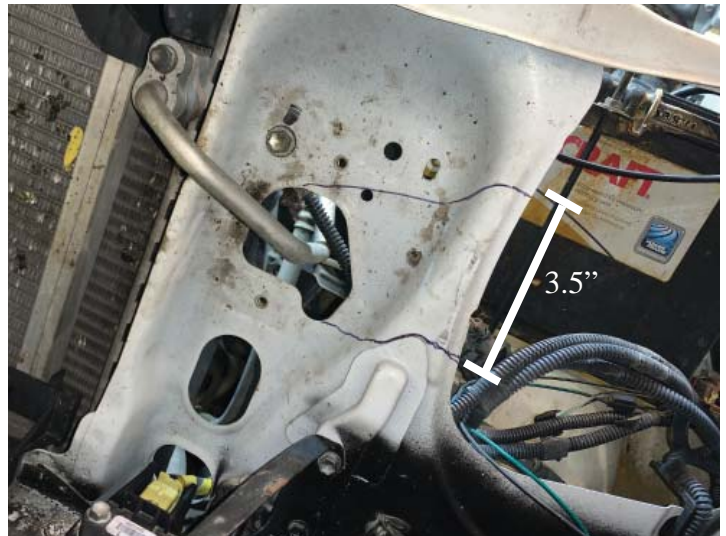


Small Black Box Relocated



### Driver's Side Modification:

- 11** Mark the core support as shown. The measurement between the end of your marks should be a minimum of 3.5".



Hole Marked

- 12** Using a reciprocating saw or cut-off wheel, cut the core support as shown.

- 13** To prevent cutting yourself and scuffing the tubes apply the rubber trim guard around the cut edges.



Hole Cut

- 14** Use a 10mm to loosen the center horn bolt and rotate the horns so that they will face downward.

- 15** Reinstall the right horn as shown using the factory 12mm bolt.

- 16** Using the supplied M8 x 25mm bolt and washer. Secure the left side horn/intercooler bracket to the core support. Position the bracket as far up as possible.



Horns Reinstalled

## 2005-2008 Model Years Only:

- 17 Remove the center core support/hood latch support from the vehicle.
- 18 Using a tool of choice trim the support piece as shown. Reinstall on the vehicle.



## All Model Years:

**! Attention:** Upper intercooler brackets may appear slightly different but should be installed according to steps 19 and 20.

- 19 Secure the provided upper intercooler brackets in the location shown using the provided M6 x 20mm bolt and washer. Position the bracket as far up as possible.



Upper IC Brackets

- 20 Using a 9/16 socket secure the intercooler to the upper intercooler brackets using the (2) 3/8 x 3/4" long bolts.

**✓ Tech Tip:** Make sure the threaded bungs on the sides of the intercooler are positioned facing the front of the truck.



Intercooler to Upper IC Brackets



## Intercooler and Tubing

**!** **Attention:** Lower intercooler brackets may appear slightly different but should be installed according to steps 21-23.

**21** Verify the location of the lower intercooler brackets on each side. They are side specific.

**22** Secure the lower intercooler brackets to the bumper supports existing holes using the provided 5/16 bolts, washers, and lock nuts.

**23** Use a 9/16 to secure the brackets to the side of the intercooler using the provided 3/8 x 3/4" long bolts.

**✓ Tech Tip:** It may be necessary to bend the hood latch release if it is touching the intercooler.



Lower IC Brackets



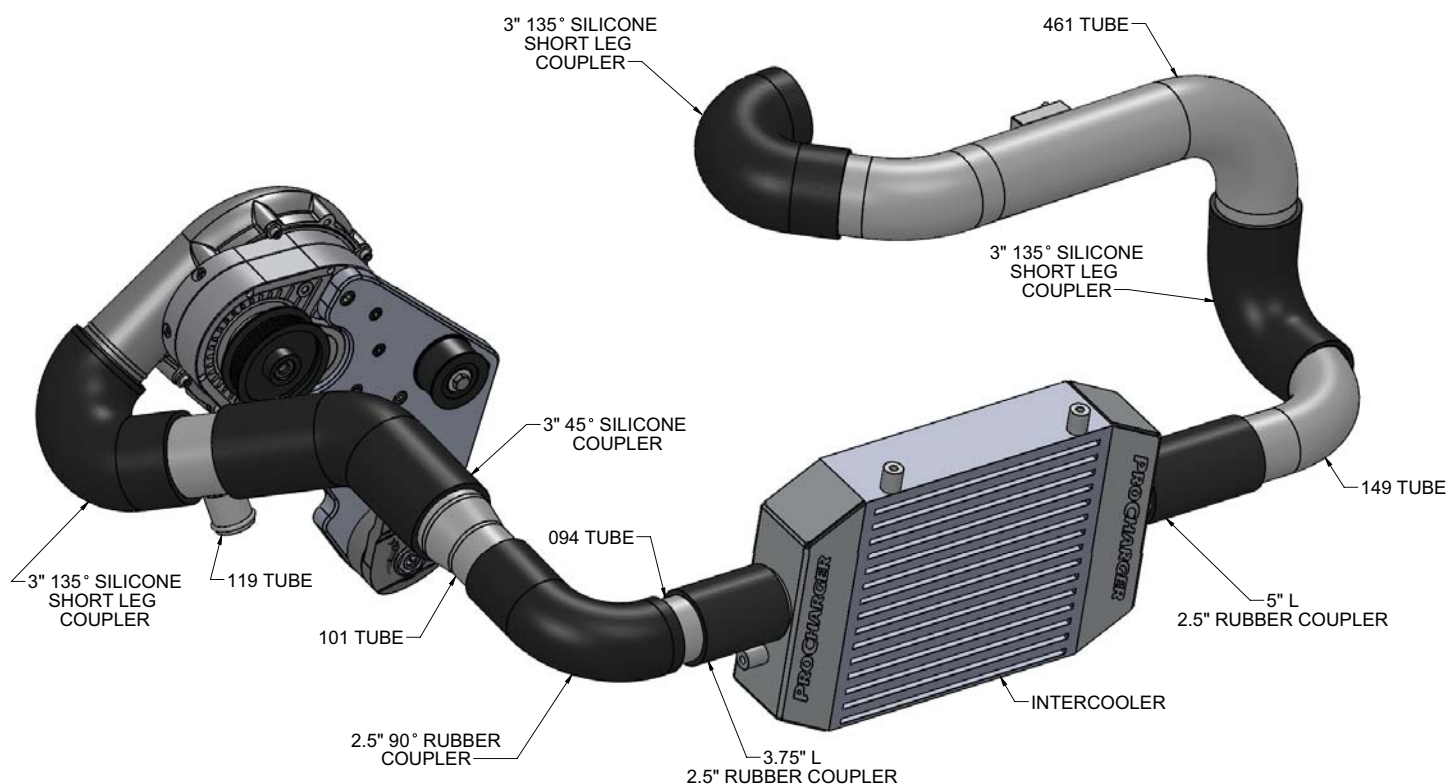
Intercooler Installed



# 2005-2015 INTERCOOLER AND TUBE ROUTING

## WITH WINCH

Vehicles not equipped with a winch skip to page 39



## Intercooler and Tubing

- 1 Using a 12mm remove the (2) bolts securing the horns to the core support. They will be relocated.



Remove Horns

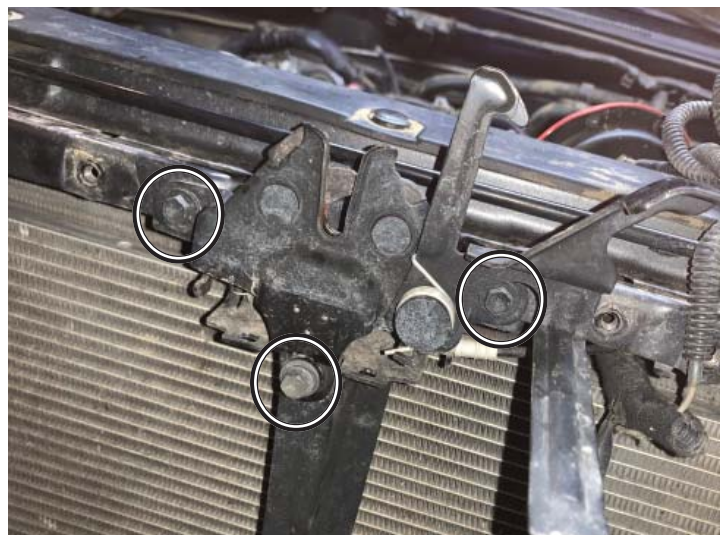
- 2 Using a 10mm remove the (2) bolts securing the hood latch cover and set aside it will not be reused.



Hood Latch Cover

✓ **Tech Tip:** Mark the location of the hood latch with tape or a marker.

- 3 Remove the (3) bolts securing the hood latch to the core support using a 10mm.



Hood Latch



- 4 Remove the IAT sensor from the middle of the vertical support brace.
- 5 Using a 10mm remove the (2) bolts securing the vertical support brace. It will not be reused.



Vertical Support Brace

### If equipped with an oil cooler:

- 6 Using a 10mm remove the (4) bolts securing the oil cooler and lines to the front of the radiator. Lay the oil cooler down and out of the way.



Oil Cooler

✓ **Tech Tip:** It is easier to modify the front radiator support if you remove the PS reservoir from its bracket. Press the tab in and lift upward and set the reservoir aside.



PS Reservoir



### Passenger's Side Modification:

- 7 Using the supplied 3.5" hole saw, begin the pilot drill at the "x" in the picture to the right.

**Warning:** A large hole saw can be dangerous to use, when it grabs it will twist the drill violently. Apply light pressure when using.



"X" Marks The Spot

- 8 The picture to the right is an example of the hole made by the hole saw.



Hole Cut

- 9 To prevent cutting yourself and scuffing the tubes apply the rubber trim guard around the hole cut as shown.



Rubber Trim Installed

**Driver's Side Modification:**

- 10** Remove the small black electrical box from the back side of the driver's side core support. This will need relocated.



Small Black Electrical Box

- 11** Unclip the shown electrical harness from the bottom of the driver's side headlight pan.



Remove Harness Clip

- 12** Insert the clip on the small black electrical box into the hole that the harness clip was just removed from.

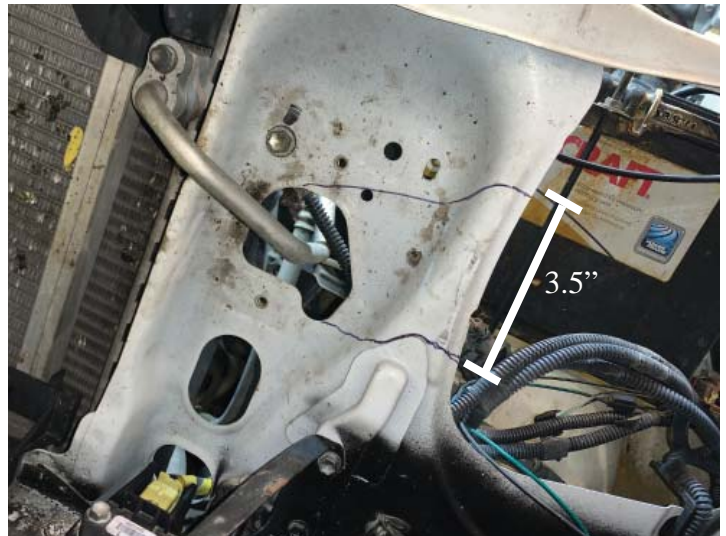


Small Black Box Relocated



### Driver's Side Modification:

- 13** Mark the core support as shown. The measurement between the end of your marks should be a minimum of 3.5".



Hole Marked

- 14** Using a reciprocating saw or cut-off wheel, cut the core support as shown.

- 15** To prevent cutting yourself and scuffing the tubes apply the rubber trim guard around the cut edges.



Hole Cut

- 16** Secure the upper intercooler brackets (not to be confused with the shorter horn brackets) to the top of the intercooler using the (2) 3/8 x 3/4" long bolts.

- 17** Slide the intercooler over the winch into place as shown.

- 18** Using the supplied M6 x 20mm bolt and washer. Secure the upper intercooler brackets to the core support where the hood latch cover was previously. Position the bracket as far up as possible.



Upper Intercooler Brackets



- 19** Using a 10mm remove the (2) bolts securing the impact sensors to the lower radiator support from both sides.



Impact Sensor

- 20** Slide the passenger's side lower intercooler bracket beneath the impact sensor. Secure the impact sensor using the factory bolts in the factory location.



Passenger's Lower Intercooler Bracket

- 21** Secure the lower intercooler bracket to the intercooler using the (1) 3/8 x 3/4" long bolts.



Driver's Lower Intercooler Bracket

- 22** Slide the driver's side lower intercooler bracket beneath the impact sensor. Secure the impact sensor using the factory bolts in the factory location.

- 23** Secure the lower intercooler bracket to the intercooler using the (1) 3/8 x 3/4" long bolts.

## Intercooler and Tubing

- ✓ **Tech Tip:** It may be necessary to bend the hood latch release if it is touching the intercooler.



Intercooler Installed

- 24 Using a 10mm remove the horns from the factory brackets. Install the horns on the shorter end of the provided horn brackets.
- 25 Install the horns as shown using the provided horn brackets.
- 26 Zip tie the IAT sensor to the bottom of the hood latch.



Horns Reinstalled

- ✓ **Tech Tip:** Some manipulation may be required on the horn brackets to get the grille to fit at the end of the install.



## Intercooler Tube Routing Both Options:

- 27** Locate the short leg 3" 135° silicone coupler. Trim 1-1/8" off the long leg of the coupler.
- 28** Slide the short end of the short leg 3" 135° silicone coupler over the ProCharger as shown. Secure with 3.38" T-bolt clamp.
- 29** Insert tube #119 into the 3" 135° silicone coupler. Make sure to position the surge tube outlet as shown between the windshield washer tank and power steering reservoir. Secure with 3.25" T-bolt clamp.
- 30** Slide the 3" end of tube #101 into the 3" 45° silicone coupler. Secure with 3.25" T-bolt clamp.
- 31** Slide the 3" 45° silicone coupler over tube #119 while inserting the 2.5" end of tube #101 through the hole cut as shown. Secure with 3.25" T-bolt clamp.



Blower Discharge



Tube #119 Installed



Tube #101 Installed



## Intercooler and Tubing

### 2005-2011 Model Years Without Winch:

- 32** Complete the connection to the intercooler inlet using the 2.5" 90° rubber coupler. Slide the long end over tube #101. Secure with #40 hose clamps.



2005-11 - W/O Winch Intercooler Inlet

### 2012-2015 Model Years Without Winch:

- 33** Complete the connection to the intercooler inlet using the (2) 2.5" 45° rubber coupler. Connect the (2) couplers with tube #094. Secure with #40 hose clamps.

✓ **Tech Tip:** Trimming of the rubber couplers will be required.



2012-2015 - W/O Winch Intercooler Inlet

### With Winch:

- 34** Slide the short end of the 2.5" 90° rubber coupler over tube #101. Secure with #40 hose clamps.
- 35** Insert tube #094 into 2.5" 90° rubber coupler over tube #101. Secure with #40 hose clamps.
- 36** Connect tube #094 to the intercooler using the 3.75"L 2.5" rubber coupler. Secure with #40 hose clamps.



W/ Winch Intercooler Inlet

**Without Winch:**

- 37** Slide the 2.5" 45° rubber coupler over the intercooler outlet. Secure with #40 hose clamp.
- 38** Insert tube #097 into the 2.5" 45° rubber coupler as far as possible. Secure with #40 hose clamp.



Tube #097 Installed

**With Winch:**

- 39** Slide the 5" L 2.5" rubber coupler over the intercooler. Secure with #40 hose clamps.
- 40** Insert tube #149 into 2.5" rubber coupler. Secure with #40 hose clamps.



Tube #149 Installed

**Without Winch:**

- 41** Slide the 2.5" end of the 2.5" to 3" 90° rubber reducer over tube #097 as far as possible. Secure with #40 hose clamp.

✓ **Tech Tip:** Trimming of the rubber couplers may be required.



Rubber Reducer Installed



## Intercooler and Tubing

### With Winch:

- 42** Slide the 2.5" end of the 2.5" to 3" 90° rubber reducer over tube #149. Secure with #40 hose clamp.

✓ **Tech Tip:** Trimming of the rubber couplers may be required.



Rubber Reducer Installed

### With Winch and Without Winch:

- 43** Insert tube #461 into the 3" end of the 2.5" to 3" 90° rubber reducer. Secure with #40 hose clamp.

! **Note:** You must adjust tube #461 so that the tube is parallel with the radiator and not at a slope. This can be achieved by rotating the 3" 135° silicone coupler upward and adjusting how far the tube is in the 2.5" to 3" 90° rubber reducer.



Tube #461 Installed

- 44** Trim 3" from one end of the 3" 135° silicone coupler.
- 45** Slide the short end over the throttle body and insert tube #461 into the long end. Secure with 3.25" T-bolt clamps.

✓ **Tech Tip:** If tube #461 touches the battery adjust the silicone and rubber connection as needed.



Throttle Body Connection



- 46** Using a phillips screw driver remove the MAF sensor from the factory airbox.



Remove MAF Sensor

- 47** Insert the MAF sensor into tube #461 and secure with the (2) provided M4 SHCS.



Installed MAF Sensor

- 48** Plug the MAF sensor into the vehicle using the extension harness provided. Make sure the harness is out of the belt and fan.



MAF Extension Harness

### If equipped with air pump:

- 49 Reroute/modify the air pump hose such that it routes beneath the tubing as shown.



Air Pump Hose

## ALL MODEL YEARS

### WITH WINCH OIL COOLER RELOCATION

If not equipped with an oil cooler skip this section:

- 1 Remove the factory radiator bracket bolt from the driver's side using a 10mm.



Radiator Bracket Bolt

- 2 Remove the factory oil cooler brackets from the oil cooler by removing the (2) 10mm bolts. The brackets will not be reused.



Remove Factory Oil Cooler Brackets

- 3 Slide the oil cooler lines through the core support where they were previously held.



Oil Cooler Lines



## Oil Cooler Relocation

- Secure the oil cooler as shown using the provided M6 x 100mm bolt and washer along with the 2.20" long tube spacer.



Oil Cooler Relocated

## 2005-2008 MODEL YEARS

### WITHOUT WINCH OIL COOLER RELOCATION

If not equipped with an oil cooler skip this section:

- 1 Using a tool of choice remove the bottom tab from the oil cooler as shown.



Oil Cooler Bottom Tab

- 2 Install the provided bracket to the center core support brace as shown using the provided 5/16 bolt, washers, and lock nut.



Passenger's Side Oil Cooler Bracket

- 3 Reinstall the factory bracket on the driver's side as shown using the factory hardware.



Driver's Side Oil Cooler Bracket

## Oil Cooler Relocation

- 4 Reinstall the factory oil cooler as shown, using the provided M6 bolt and washer for the passenger's side and the factory bolt for the driver's side.



Oil Cooler Relocated



## 2012-2015 MODEL YEARS

### WITHOUT WINCH OIL COOLER RELOCATION

If not equipped with an oil cooler skip this section:

- 1 Remove the metal inserts from the (3) rubber isolators on the factory oil cooler.
- 2 Reinstall the metal inserts in the rubber isolators in the back side (opposite of where removed).
- 3 Remove the factory oil cooler bracket from the driver's side.
- 4 Bend the factory oil cooler bracket as shown to the right.
- 5 Reinstall the factory oil cooler on the back side of all the factory brackets as shown using all of the factory hardware.



Oil Cooler Isolators



Factory Oil Cooler Bracket Modified



Oil Cooler Relocated

# SURGE SYSTEM

## WITHOUT BRAKE BOOSTER

If equipped with brake booster skip to next section:

- 1 Remove the factory rubber vacuum cap from the top of the intake manifold.
- 2 Remove the factory vacuum line from the fuel pressure regulator located on the back passenger's side of the intake manifold. It will be replaced with a new line in a later step.
- 3 Assemble the supplied vacuum manifold as shown using the supplied brass fittings.



Remove Factory Vacuum Cap



Remove Factory Vacuum Line



Assembled Vacuum Manifold



- 4 Install the assembled vacuum manifold to the vacuum source on the top of the intake manifold using the 2-1/2" long piece of 3/8" rubber hose. Secure with #20 hose clamp.



Vacuum Manifold Installed

- 5 Route a section of provided 1/8" vacuum line from the vacuum manifold to the fuel pressure regulator as shown.



Pressure Regulator Vacuum Line

- 6 Install the ProFlow assembly and filter as shown to the molded rubber hose.



Surge Valve Assembled



## Surge System

- 7 Install the assembled vacuum manifold hose to the surge tube as shown. Secure with #20 hose clamp.



Surge Valve Installed

- 8 Route a section of provided 1/8" vacuum line from the vacuum manifold to the ProFlow valve as shown.



Surge Valve Installed

- 9 Secure the 1/8" vacuum hose.



Surge Valve Vacuum Line

# SURGE SYSTEM

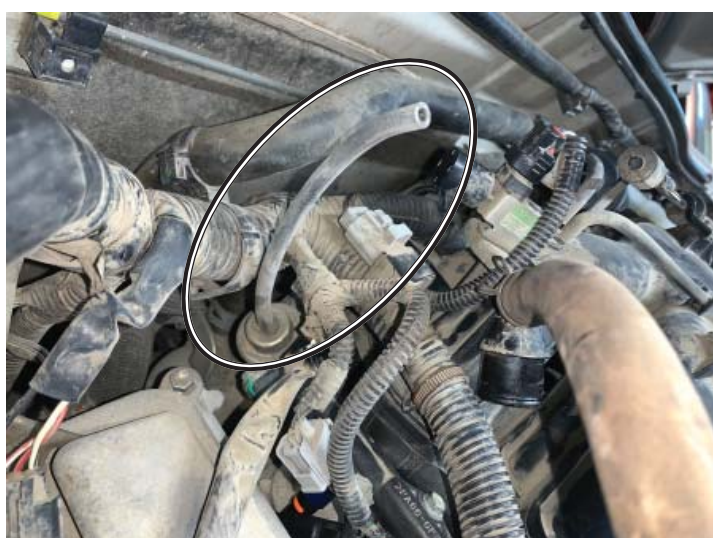
## WITH BRAKE BOOSTER

If not equipped with brake booster skip section:

- 1 Replace the factory hose clamps with the provided #04 hose clamps.
- 2 Remove the factory vacuum line from the fuel pressure regulator located on the back passenger's side of the intake manifold. It will be replaced with a new line in a later step.
- 3 Assemble the supplied vacuum manifold as shown using the supplied brass fittings.



Brake Booster Vacuum Hose



Remove Factory Vacuum Line



Assembled Vacuum Manifold



## Surge System

- 4 Cut a 3-1/2" section of the hose out as shown.



Cut Hose

- 5 Install the assembled vacuum manifold as shown in the area where the hose was cut, Secure with the provided #04 hose clamps.



Vacuum Manifold Installed

- 6 Route a section of provided 1/8" vacuum line from the vacuum manifold to the fuel pressure regulator as shown.



Pressure Regulator Vacuum Line



- 7 Install the ProFlow assembly and filter as shown to the molded rubber hose.



Surge Valve Assembled

- 8 Install the proflow assembly hose to the surge tube as shown. Secure with #20 hose clamp.



Surge Valve Installed

- 9 Route a section of provided 1/8" vacuum line from the vacuum manifold to the ProFlow valve as shown.



Surge Valve Vacuum Line Installed

## PCV SYSTEM/AIR INLET WITH SNORKEL

If not equipped with snorkel skip this section:

- 1 Using pliers remove the large fitting from the factory PCV line located off the passenger's side valve cover.
- 2 Insert the provided 5/8" 90° plastic fitting into the factory hose and secure with the factory hose clamp.
- 3 Using a 3/4" drill bit, drill a hole in the 3.75" 90° rubber coupler as shown.
- 4 Install the 3.75" 90° rubber coupler onto the ProCharger inlet as shown. Secure with a #56 hose clamp.

✓ **Tech Tip:** Use oil and a pick to assist installing the coupler it can be difficult.



Remove PCV Line Fitting



Install New PCV Line Fitting



Drill Hole

- 5 Press the 5/8" 90° plastic fitting into the drilled hole in the 3.75" 90° rubber coupler as shown.



Connect PCV Line to Inlet

- 6 Insert tube #456 into the 3.75" 90° rubber coupler. Secure with a #56 hose clamp.

- 7 Slide the air filter over tube #456. Tighten the hose clamp.

✓ **Tech Tip:** Adjust the tube and coupler on the blower if clearance is needed for the filter.



Air Filter Installed



## PCV SYSTEM/AIR INLET

### WITHOUT SNORKEL

If equipped with a snorkel skip this section:

- 1 Using pliers remove the large fitting from the factory PCV line located off the passenger's side valve cover.
- 2 Insert the provided 5/8" 90° plastic fitting into the factory hose and secure with the factory hose clamp.
- 3 Using a 3/4" drill bit, drill a hole in the 3.75" 45° rubber coupler as shown.
- 4 Install the 3.75" 45° rubber coupler onto the ProCharger inlet as shown. Secure with a #64 hose clamp.

✓ **Tech Tip:** Use oil and a pick to assist installing the coupler it can be difficult.



Remove PCV Line Fitting



Install New PCV Line Fitting



Drill Hole

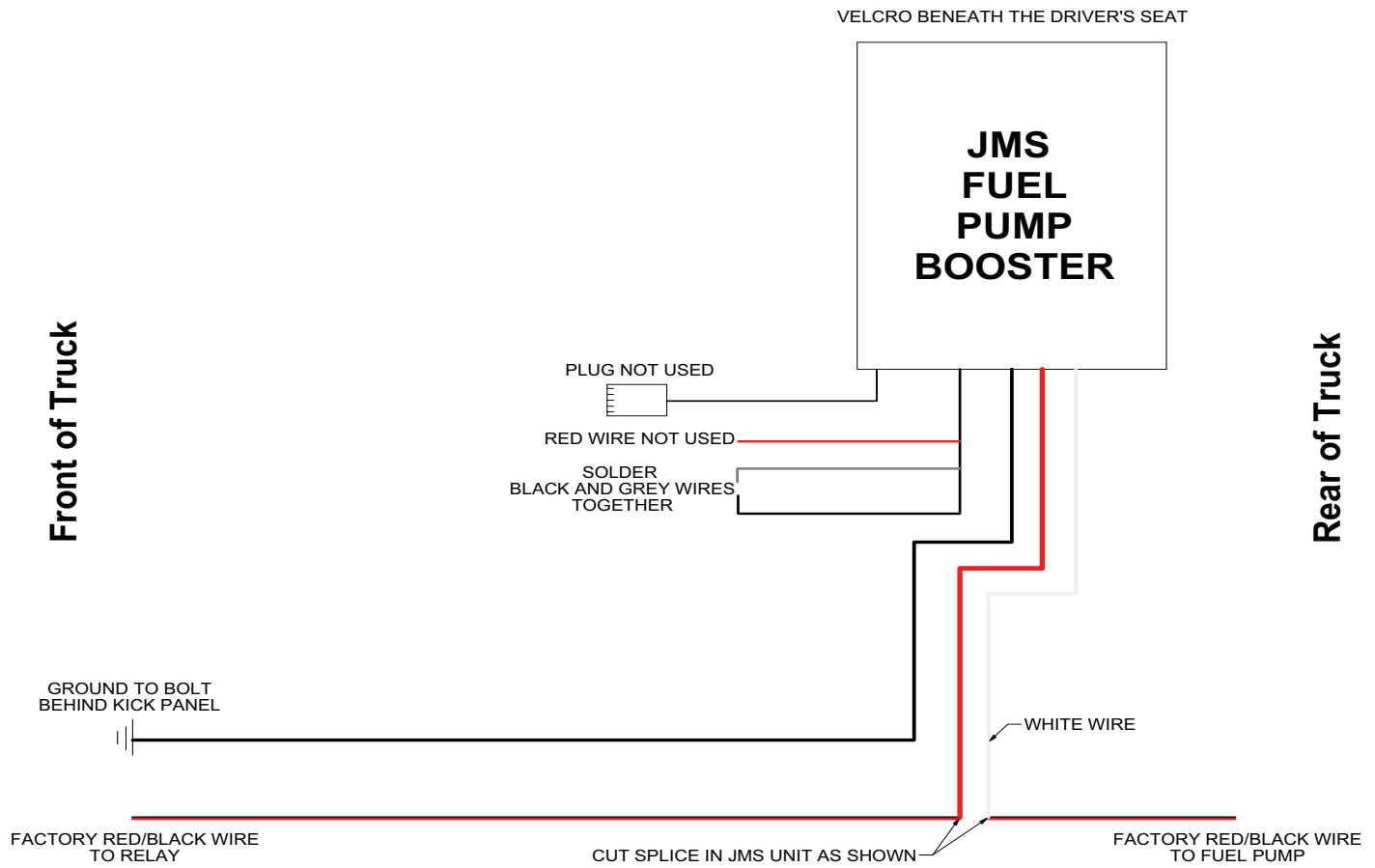
- 5 Press the 5/8" 90° plastic fitting into the drilled hole in the 3.75" 90° rubber coupler as shown.
- 6 Insert tube 4" to 3.5" coupler into the 3.75" 45° rubber coupler. Secure with a #64 hose clamp.
- 7 Slide the air filter over 4" to 3.5" coupler. Tighten the hose clamp.



Air Filter Installed

✓ **Tech Tip:** Adjust the tube and coupler on the blower if clearance is needed for the filter.

## FUEL PUMP BOOSTER



JMS Wiring Schematic

- 1 Remove the step panel on the driver's side of the truck by pulling upward on both ends.



Remove Step Panel



- 2 Remove the foot rest by pulling upward on the edges.



Remove Foot Rest

- 3 Unscrew the plastic push nut from the floor.

- 4 Remove the side kick panel by sliding it backward parallel with the truck.



Remove Kick Panel

- 5 Cut away a piece of the plastic wire loom as shown. This will allow you to identify a factory wire.

**Warning:** Be careful not to damage any wires within the plastic loom.



Factory Wire Loom

## Fuel Pump Booster

- 6 Identify the black with red wire in the loom as shown. Cut the wire so it can be spliced into.



Factory Black/Red Wire

- 7 Put the driver's seat all the way.
- 8 Run the larger gauge black, red, and white wires through the hole in the carpet beneath the seat to the identified black with red wire.



Run Wires Under Carpet

- 9 Connect the larger gauge red wire to the relay side of the factory black with red wire using the supplied solder connector. This will be the side going towards the front of the vehicle.
- 10 Connect the larger gauge white wire to the pump side of the factory black with red wire using the supplied solder connector. This will be the side going towards the back of the vehicle.

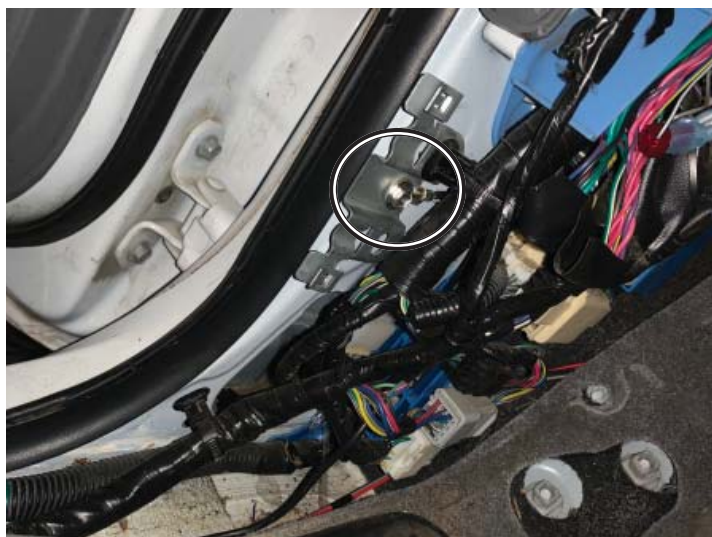


Cut and Splice

✓ **Tech Tip:** Use the wiring schematic if there is any confusion.



- 11 Using a 10mm, remove the (1) bolt shown to the right. Route the larger gauge black ground wire with eyelet terminal to the bolt. Reinstall the bolt securing the ground wire.



Ground Wire Bolt

- 12 Within the other loom coming from the JMS unit, splice the black and grey wire together using the supplied solder connector. The red wire will not be used.



Black and Grey Wire

- 13 Use the provided velcro and secure the JMS unit beneath the driver's seat as shown.

- 14 Secure/hide all wires.

- 15 Put the interior panels back as they were removed.



JMS Unit Secured



# FINAL ASSEMBLY

- 1 Assemble the provided upper radiator hose as shown using tube #167. Install it on the vehicle, make sure to position it such that there is clearance from the belt. Secure the hose with the (4) #20 hose clamps.
- 2 Reinstall the headlights, bumper cover, or any other trim pieces removed.
- 3 Trim the mounting nub bracket on the back of the front grille as shown. The nub on the bottom should measure 1/2" long after trimming.
- 4 Screw the provided hex spacer using a 1/2" wrench over the driver's side engine cover mounting stud.



Upper Radiator Hose Installed

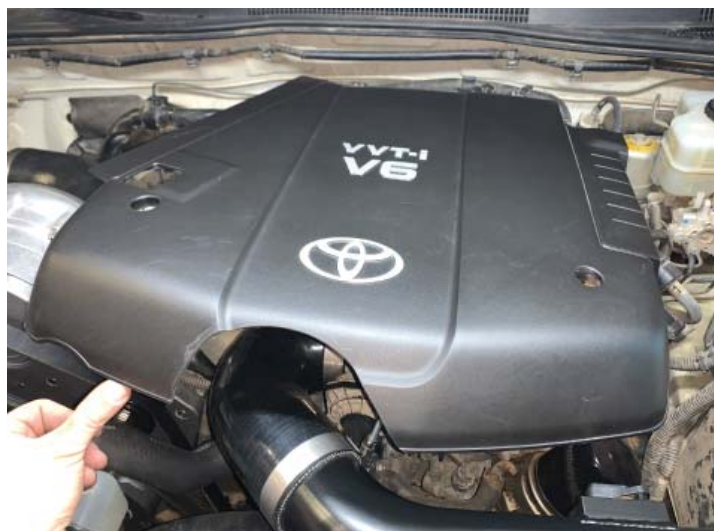


Front Grille Trimmed



Engine Cover Spacer

- 5 Re-install the engine cover and carefully trim the engine cover shown until it rests on the installed hex spacer.



Engine Cover Trimmed

- 6 Once successfully trimmed secure the engine cover using a 10mm to tighten the M6 bolt.



Engine Cover Installed





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

## ProCharger Oil Change Intervals

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

### ProCharger Oil Level

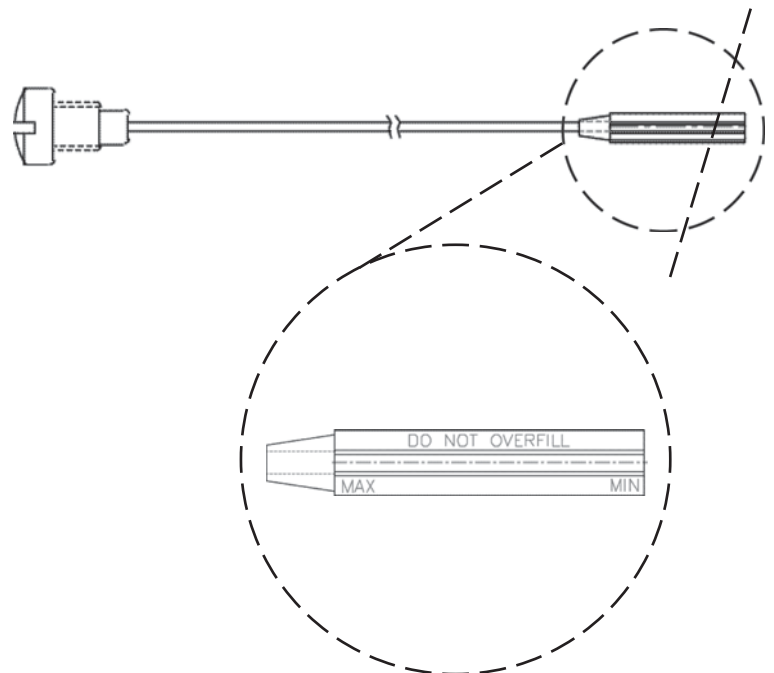
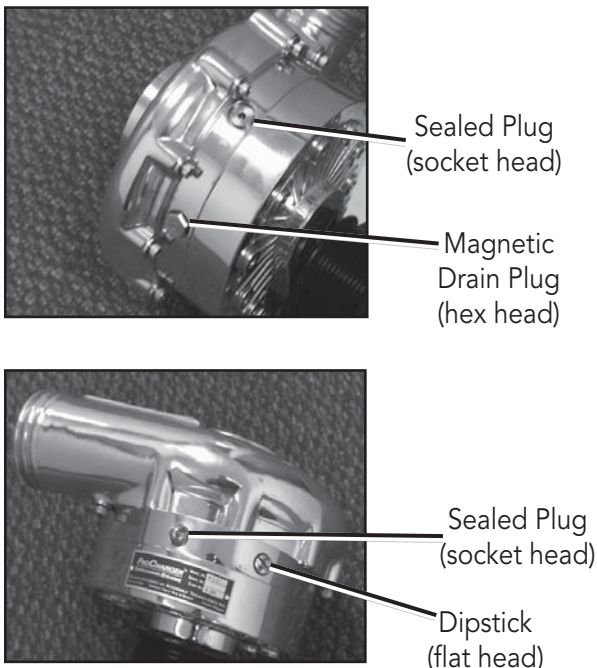
The ProCharger supercharger's oil level must be checked periodically to ensure the proper lubrication. The dipstick can be loosened using a flat blade screwdriver or a coin. When installed, the oil level should remain between the minimum (MIN) and maximum (MAX) indicators at all times.

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

### General

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

**Warning:** The supercharger contains no oil from the factory. The unit must be filled prior to use. Use only ATI supplied oil in your ProCharger. The ATI oil has been specially formulated for the bearings in the ProCharger and use of oil other than that supplied by ATI will void your warranty.



## LIMITED WARRANTY

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

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

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

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

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

Phone ATI (913-338-2886) and provide us with the following information:

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

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

**Include the following information inside the box with your product:**

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

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

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



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

**Accessible Technologies, Inc.**  
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**Part Number PMTB1A-001 Rev. E**

