

# MAGNUSON

## SUPERCHARGERS

### Installation Instructions for: 2009-2011 Chevy Colorado



Step-by-step instructions for installing the best in  
supercharger systems.

**\* PREMIUM GASOLINE FUEL REQUIRED \***

#### ATTENTION!

Your Magnuson Supercharger kit  
is sensitive to corrosion!

Use only vehicle manufacturer  
recommended coolant for your engine in  
the intercooler system as well.



Magnuson Superchargers  
1990 Knoll Drive, BLDG A, Ventura, CA. 93003  
(805) 642-8833

[magnusonsuperchargers.com](http://magnusonsuperchargers.com)

# INSTALLATION MANUAL

Magnuson Superchargers Kit  
2009-2011 Chevrolet Colorado Pickup  
GM 5.3 liter engines

We encourage you to read this manual thoroughly before you begin work, for a few reasons:

A quick parts check to make certain your kit is complete (see shipper parts list in this manual). If you discover shipping damage or shortage, please call our office immediately.
















Take a look at exactly what you are going to need in terms of tools, time, and experience.

Review our limited warranty with care.

**NOTE: This vehicle IS NOT compatible with E85 fuel. You can use ONLY premium gasoline fuel 91 octane or better. Ethanol is NOT compatible with the engine after supercharger install.**

When unpacking the supercharger kit DO NOT lift the supercharger assembly by the black plastic bypass actuator. This is pre-set from the factory and can be altered if used as a lifting point!

## Tools Required

-  Safety glasses
-  Metric wrench set
-  1/4" drill bit
-  1/4", 3/8", & 1/2" drive metric socket set (standard and deep)
-  8mm hex (Allen) wrench
-  3/8" and 1/2" drive, foot pound and inch pound torque wrenches
-  Belt tensioner wrench or 1/2" breaker bar
-  7/32" socket
-  Drill and 5/16" drill bit
-  Phillips and flat head screwdrivers
-  Fuel quick disconnect tools (included in kit)
-  E5 internal Torx socket
-  Small or angled 3/8" drill motor
-  Drain pan
-  Compressed air

# Important

Our Magnuson Supercharger kits are designed for stock engines, with stock components, in good mechanical condition only. Installation on worn or damaged engines is not recommended and may result in engine failure, for which we naturally can't be responsible. Magnuson Superchargers is not responsible for the engine or consequential damages.

**Magnuson Superchargers kits are designed for use on stock vehicles. To that end, the alteration or modification of the fuel system, drive train, engine, and/or supercharger outside of stock parameters in any way can result in engine damage or failure for which Magnuson Superchargers is NOT responsible and will void Magnuson Superchargers warranty and CARB certification. Aftermarket engine recalibration devices that modify fuel and spark curve (including, but not limited to programmers) are not recommended and may cause engine damage or failure. Use of non-Magnuson Superchargers approved programming will void all warranties. If you have any questions, call us.**



Caution: Relieve the fuel system pressure before servicing fuel system components in order to reduce the risk of fire and personal injury. After relieving the system pressure, a small amount of fuel may be released when servicing the fuel lines or connections. In order to reduce the risk of personal injury, cover the regulator and fuel line fittings with a shop towel before disconnecting. This will catch any fuel that may leak out. Place the towel in an approved container when the job is complete, and of course, no smoking.

Magnuson Superchargers strongly recommends the following:

- Clean your engine compartment before starting any engine disassembly.
- You must have a clean fuel filter - check and replace as needed before installation.
- You must have a clean air filter - replace every 10,000 miles.
- OE type / Stock spark plugs and stock plug gap is recommended.

**Start with and use ONLY 91 octane gasoline fuel or higher in the tank.**

Please remember to follow all safety rules that apply when working, including:



Wear eye protection at all times.



Do not work on a hot engine.



Be careful around fuel - use shop towels to catch any spills and dispose of towels properly.

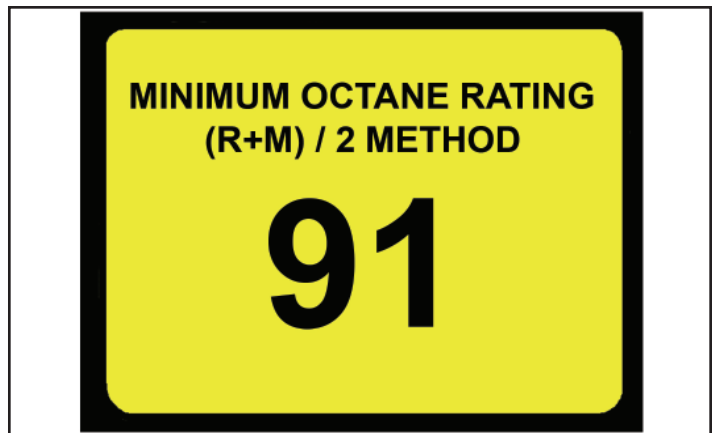
1. **If your kit has a provided handheld tuner follow the instructions in the provided pamphlet to install your tune. Your handheld tuner may not match the one shown.**



2. Have some GM Approved coolant on hand for refilling your radiator. You will be draining your coolant system and might need some when refilling.



3. Your system requires the use of minimum 91 Octane gasoline fuel. This system is not compatible with E85 fuel.



4. Disconnect the battery negative (-) terminal using a 10mm wrench. Insulate the connection with a rag or wrap with electrical tape.



5. Relieve the fuel system pressure by taking off the fuel cap.



6. Pull out on the PCV vent hose fitting on the passenger side of the intake to disconnect.



7. Use a flathead screwdriver or 8mm nut driver to remove the air tube clamp on the throttle body.



8. Use a flathead screwdriver or 8mm nut driver to remove the air tube clamps from the air box.



9. Remove the factory air inlet by pulling up on the tube to free it from the grommet mounting pins.



10. Use a small screwdriver or awl to press on the fuel rail pressure relief valve to release the fuel rail pressure.



11. Disconnect the throttle body control plug.



12. Remove the PCV vent pipe by opening the release clips on the passenger side barbs on the valve cover (below the Oil fill spout) and the OEM intake manifold, this will not be reused.



13. Unplug the Mass Air Flow sensor from the air box.



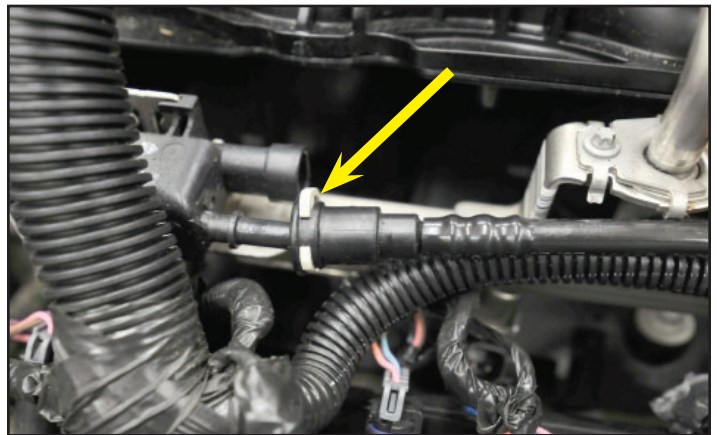
14. Disconnect the injector plugs from the eight injectors by pulling out on the release clip and pulling the injectors free.



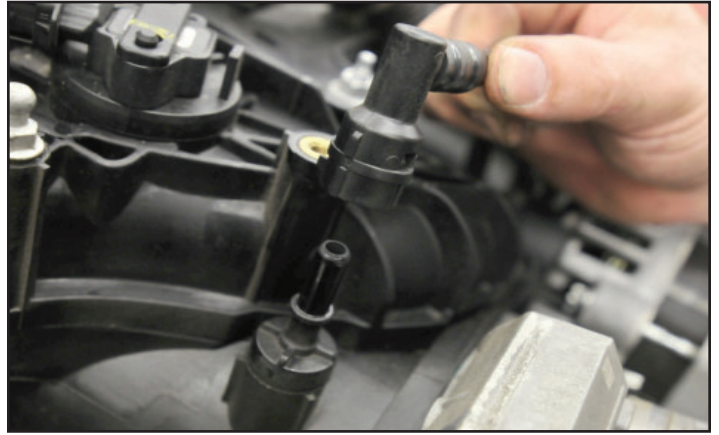
15. Disconnect the control plug from the EVAP Solenoid.



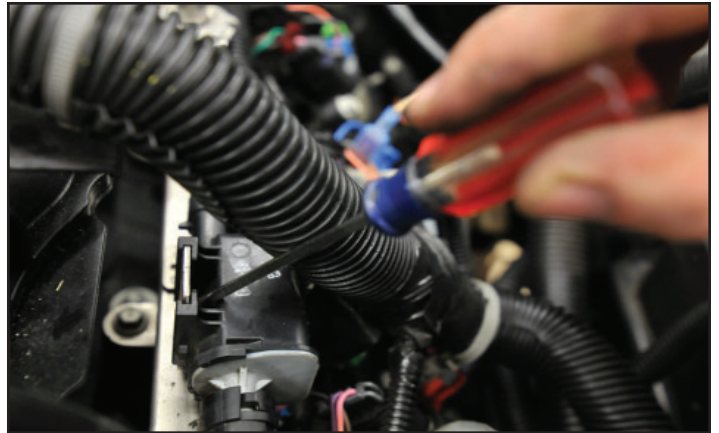
16. Disconnect the rear EVAP Solenoid hose by depressing the release clip and pulling the line free.



17. Disconnect the EVAP Solenoid hose from the top of the OEM intake manifold.



18. Use a small screwdriver to depress the locking clip of the EVAP Solenoid mounting bracket and pull the EVAP Solenoid up off the bracket.



19. Pull the blue tab on the MAP sensor plug sideways to release the lock, then push down on the black tab and pull the connector off the MAP Sensor.



20. Remove the PCV hose from the hose barb at the rear of the driver side valve cover.





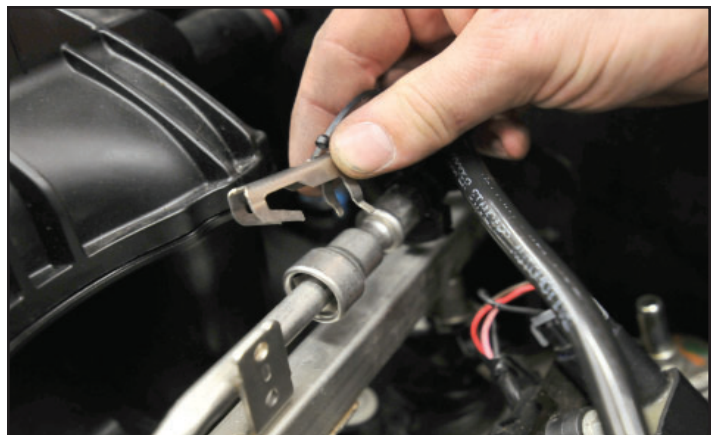
21. Rotate the PCV hose 90° clockwise and pull up on the intake manifold PCV connector to remove the line from the Intake Manifold.



22. Remove the brake booster check valve by pulling it out of the mounting grommet.



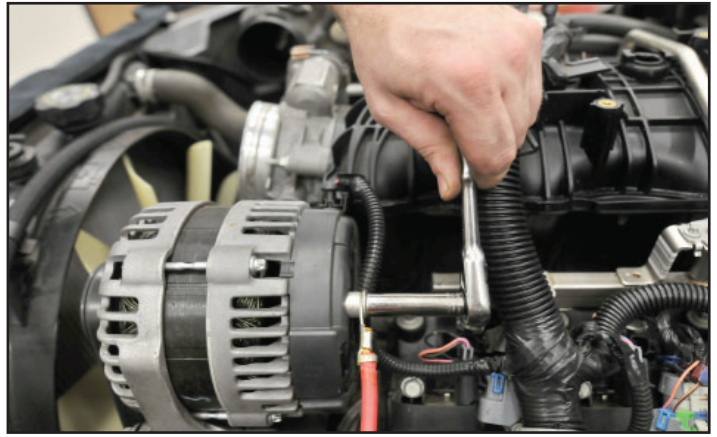
23. Pull up on the rear of the fuel line safety clip and remove the clip.



24. Use the provided fuel line removal tool to remove the fuel line from the fuel rail. First spread the tool onto the fuel line barb, press the fuel line into the barb while pushing the tool into the fuel line to release the locking ring, then pull the fuel line free. Be sure to place some shop rags below the fuel line connection to collect residual fuel and dispose of rags properly. **It's a good idea to wear eye protection while doing this, as well as to cap the fuel rail barb and put a stopper on the fuel line to prevent dribbling fuel.**



25. Use a 10mm wrench to remove the alternator power connector cable.



26. Disconnect the alternator voltage gauge connection.



27. Use a 15mm wrench to spring the tensioner pulley, slacken the drive belt and remove the serpentine belt from the vehicle, this will not be reused.



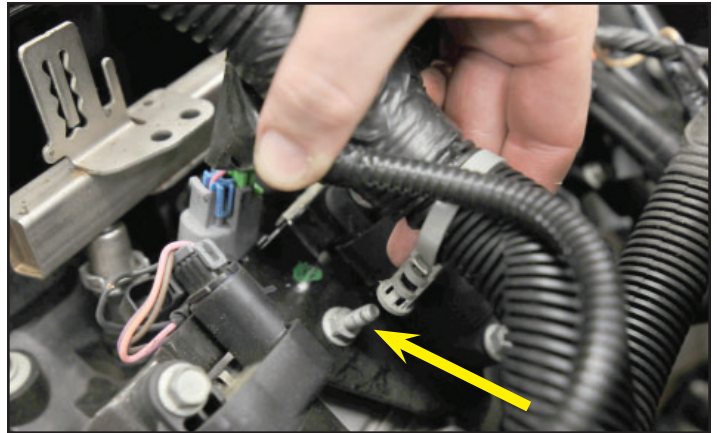
28. Use a 15mm socket to remove the alternator mounting bolts and remove the alternator from the vehicle, set aside for later install.



29. Remove the bolt holding the wire harness to the top of the OEM intake manifold, using a 10mm wrench.



30. Pull the wiring harness off the mounting studs of the coil packs on both sides of the engine.



31. Use an 8mm wrench to remove the ten bolts securing the OEM intake manifold to the heads.



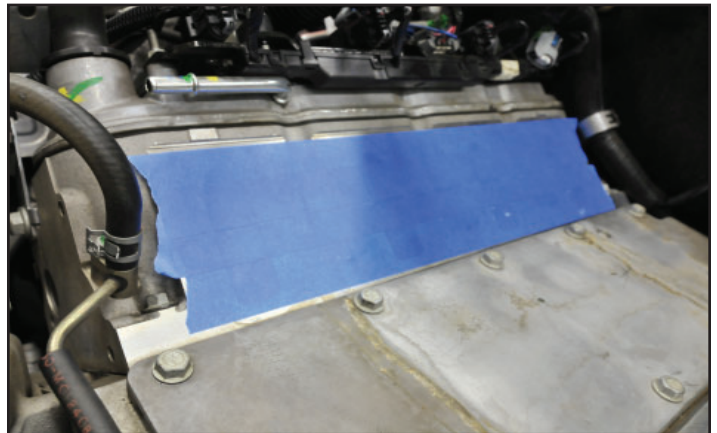
32. Carefully remove the OEM intake manifold from the engine and set aside. Some parts will be removed later for installation on the new supercharger assembly.



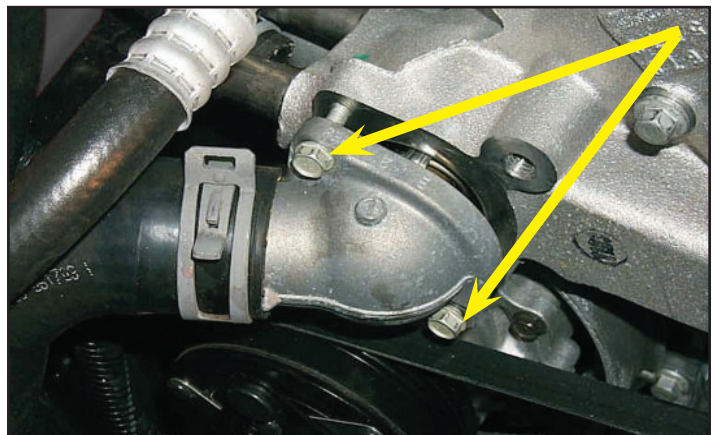
33. Carefully vacuum the debris from the ports and valley cover. Be careful to not allow any debris to fall into the exposed ports.



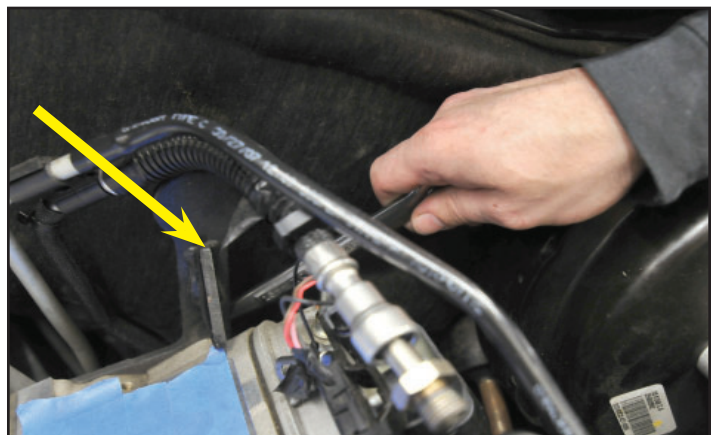
34. Use a non-petroleum based solvent (alcohol, lacquer thinner etc.) to wipe the port surfaces clean and cover the exposed ports with tape or shop rags to prevent contamination by debris. **There will be some grinding in later steps, so be sure to cover the ports completely.**



35. It will be necessary to drain some coolant from the system because the steam vent pipe will be replaced. Loosen the two bolts that secure the thermostat assembly with a 10mm wrench. Catch the coolant in a clean drain pan for reuse. Re-tighten the thermostat bolts after draining is complete, torque the bolts to 106 in-lbs. Verify your torque wrench settings.



36. Use a 15mm wrench to remove the black bracket from the rear of the driver side head.



37. Pull up on the gray locking clip and remove the oil pressure sensor plug from the rear of the valley cover.



38. Use a 1-1/16" wrench to remove the Oil Pressure Sensor from the valley cover.



39. Use a 13mm wrench to remove the eleven valley cover bolts.



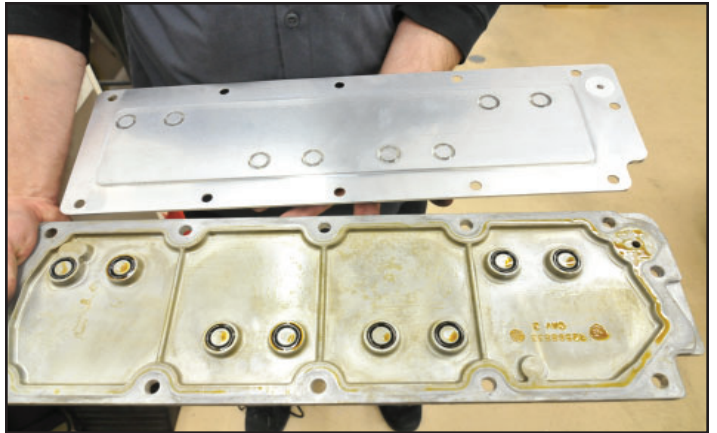
40. Remove the OEM valley cover. The valley cover gasket will be reused. Sometimes the gasket will stick to the OEM valley cover, if so, carefully remove, inspect and clean for reinstallation.



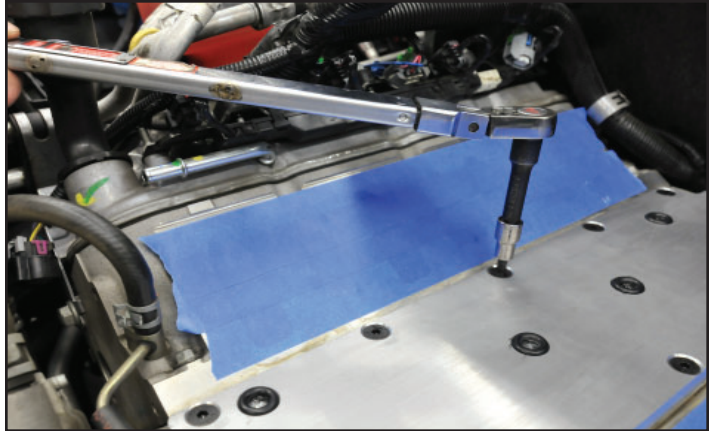
41. Use a small screwdriver or awl to pry the O-rings from the OEM valley cover.



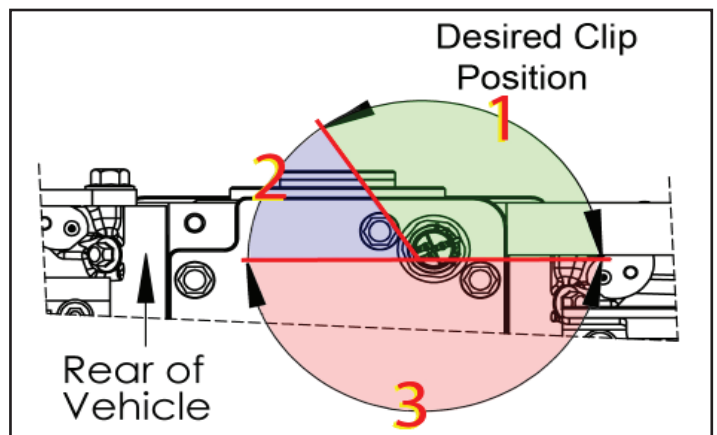
42. Press the removed O-rings into the same location grooves of the supplied valley cover.



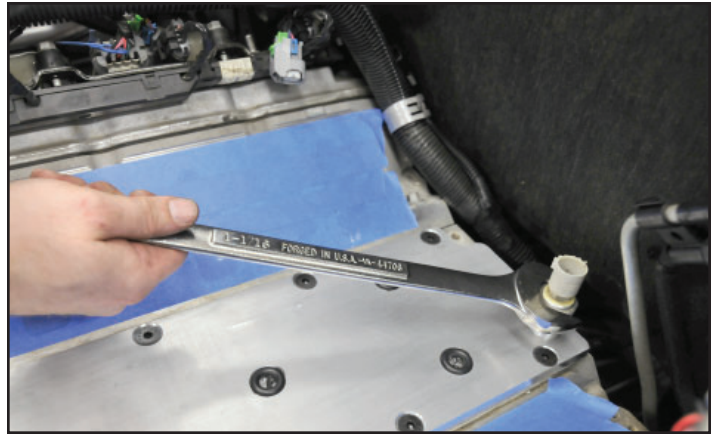
43. If you had to remove the valley cover gasket from the OEM valley cover, reinstall on the valley at this time. Use a 5mm Allen socket to install the provided eleven countersunk Allen bolts and torque to 18 ft-lbs. Verify your torque wrench settings. Press the supplied O-rings into the top surface of the new valley cover, a small dab of Black RTV silicone will hold the O-rings in place.



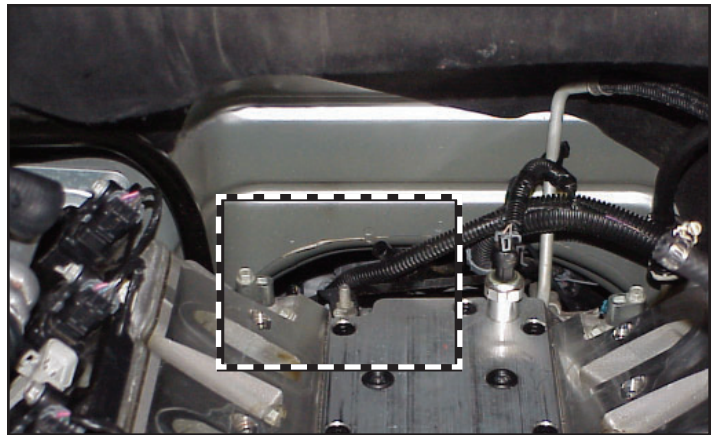
44. The locking clip of your Oil Pressure Sensor may cause interference with the supercharger assembly. If the locking clip is not in position #1, you will need to re-clock it (rotate). If the secondary locking clip lands in position #2, you may increase the installation torque to rotate it into position #1. You should not have to exceed 24 ft-lbs. If the secondary locking clip lands in position #3, remove the sensor and add the supplied copper shim.



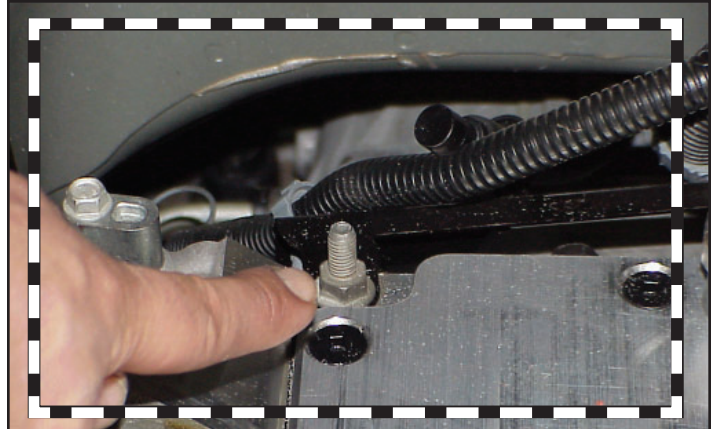
45. Use Teflon tape or paste on the Sensor threads and torque the Oil Pressure Sensor to between 15 ft-lbs and 24 ft-lbs maximum.



46. **IMPORTANT!** If your vehicle comes with this stud-nut mount by your valley cover, cut the stud off flush with the top of the nut, or replace the stud with a bolt. See close up in next step.



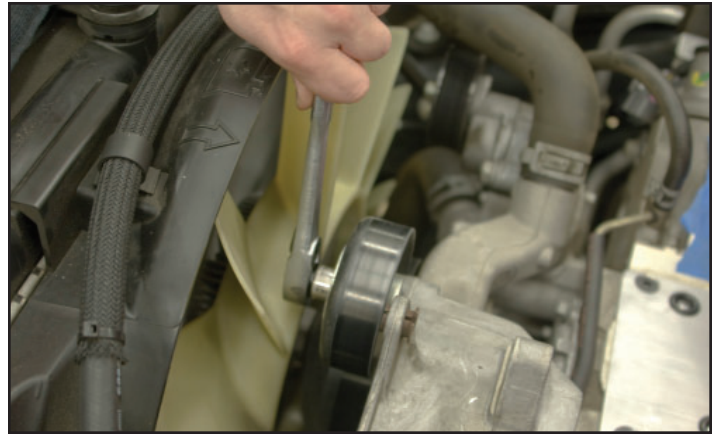
47. This is a close-up image of the potential stud-nut location by the rear-passenger side of the valley cover.



48. Connect the Oil Pressure Sensor plug.



49. Use a 15mm wrench to remove the Idler Pulley from the mounting boss on the alternator bracket. Set aside for install later. You will need to align your pulley with a wide-spread blade section of the fan to remove the pulley. **Rotate the fan and you will notice the spread of the blades is NOT equal.**



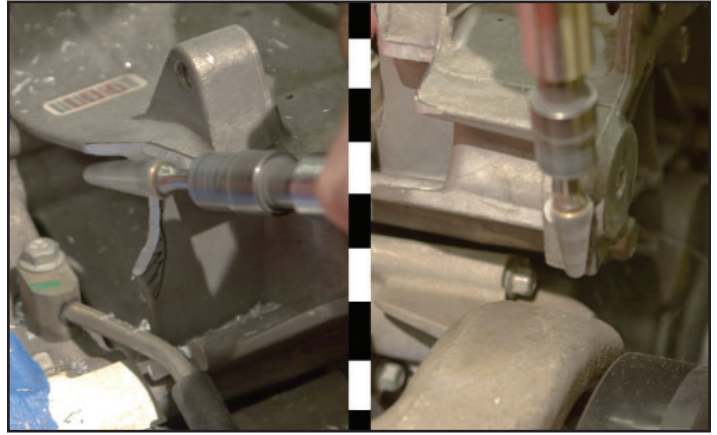
50. It will be necessary to create clearance on the OEM alternator mount casting for the new manifold and tensioner mounting bracket to fit properly. The new manifold and bracket should not touch the existing alternator mounting bracket. Modifications can easily be done with the alternator mounting bracket in place. These are the alteration areas necessary and you can see the parts to be removed marked in the following step:
- On the top surface, the inside edge angles bend back past the rear alternator mounting boss.
  - From the back corner of the alternator mounting boss, adjust the angle cut to pass the vertical support of the casting by about one inch.
  - The vertical support of the casting top surface needs to be trimmed down parallel to the existing edge to the point the piece starts to bend back outward.
  - The outside curve of the Idler Pulley mounting boss needs to have approximately 1/4" off following the curve.

51. Using a marking pen, delineate the areas that need to be removed as shown in this image. Use shop blankets or towels/rags to minimize the spread of debris.

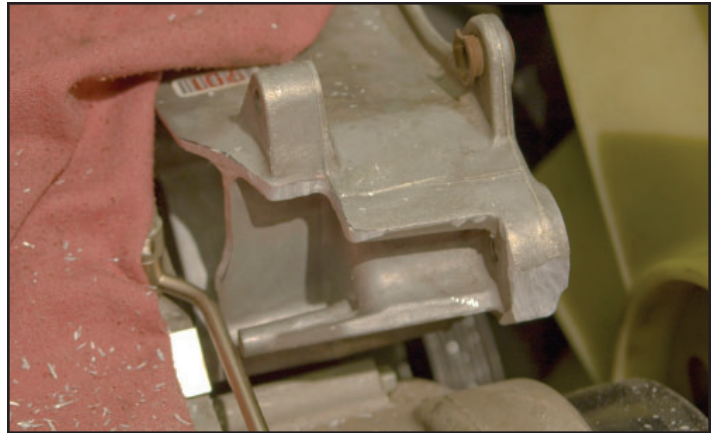




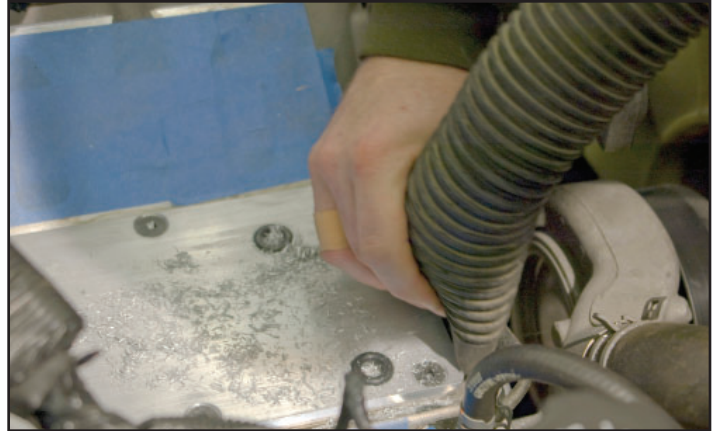
52. You can start your cuts with a reciprocating saw or cutting wheel, and finish off with a grinding wheel. These pictures show the two areas of concern. Take note that the pulley mounting boss needs cutting both on the inside edge and into the bottom curve. Test fit with the new Tensioner Mounting Bracket.



53. Your finished alternator mounting bracket should look something like this. Again, test-fit your progress using the provided new Tensioner Mounting bracket and make any modifications necessary.



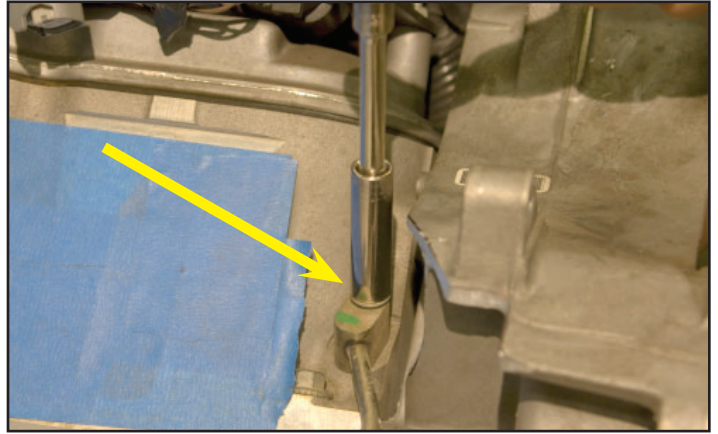
54. Remove any protective blankets, and thoroughly vacuum the grinding debris from your engine compartment. Use compressed air to blow any remaining debris from the engine compartment and surrounding body components of the vehicle.



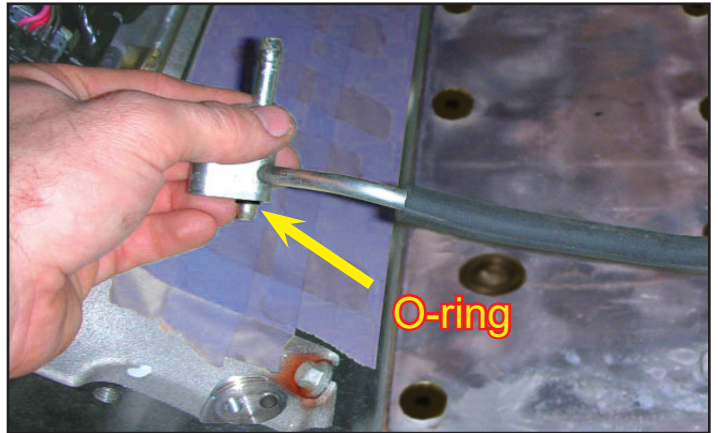
55. Remove the Steam Vent hose from the hose barb by squeezing the spring clamp to release the hose, then pull free.



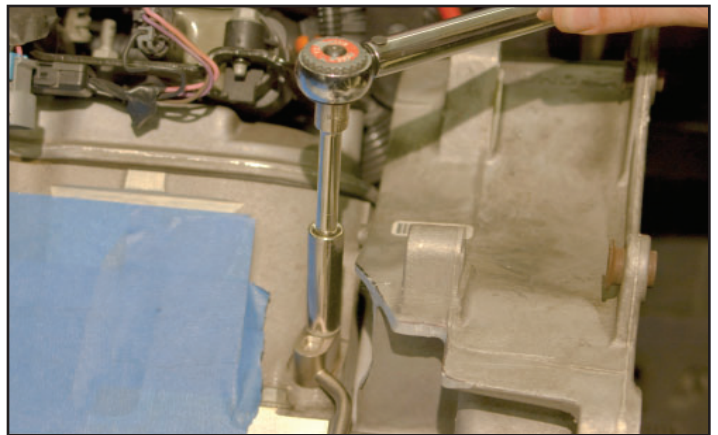
56. Use a 10mm socket wrench to remove the two coolant vent pipe bolts.



57. Remove the OEM vent pipe assembly. Make sure that the O-rings did not stick to the cylinder heads, if so, remove them.



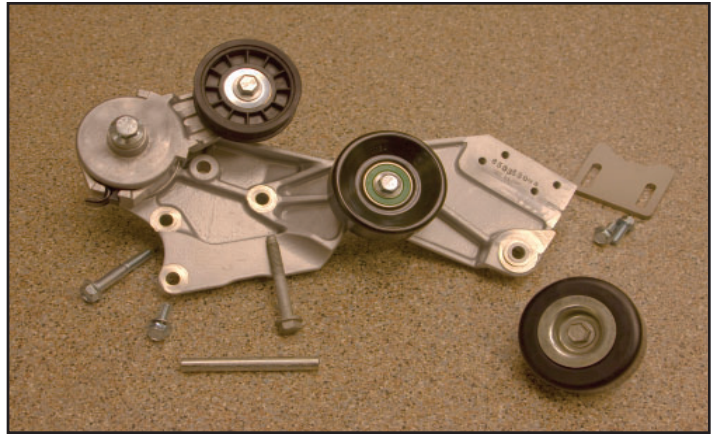
58. Place the provided O-rings on the new provided Steam Vent line assembly. Secure the new Steam Vent assembly using the OEM mounting bolts and torque to 106 in-lbs. Verify your torque wrench settings.



59. Remove the OEM belt tensioner assembly using a 15mm wrench.



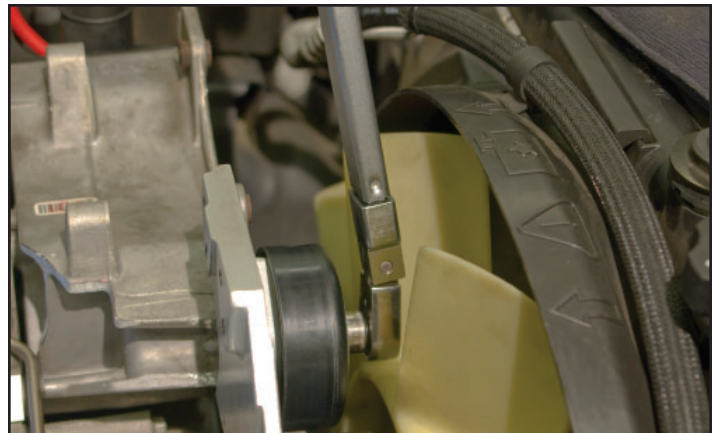
60. Here are the new belt tensioner and supercharger nose support bracket assemblies.



61. Pry off the retaining clip and remove the spacer from the OEM Idler Pulley that was removed from the alternator mount earlier.



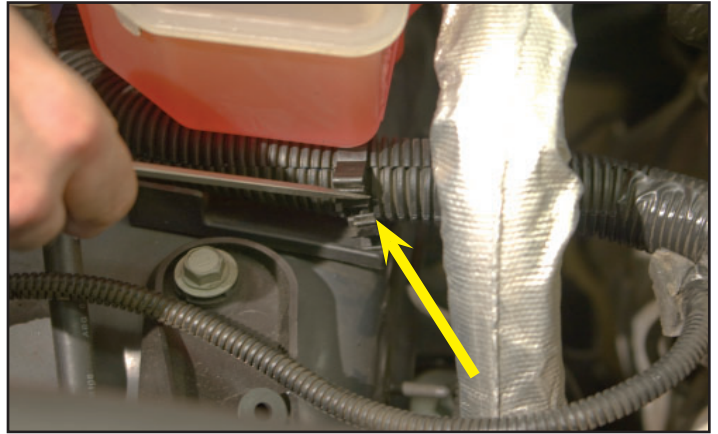
62. Mount the new tensioner bracket using the three 15mm and one 13mm bolt (on the bottom bracket hole). The removed idler pulley goes back in the original location without the spacer. Torque the bolts to 40 ft-lbs. Verify your torque wrench settings.



63. Cut the tape/zip ties holding OEM wiring harness mounting bracket (that was bolted to the top of the OEM intake manifold) to the wiring harness, this will not be used.



64. Temporarily disconnect the clip anchoring the wiring harness to the passenger side wheel well, just in front of the coolant reservoir.



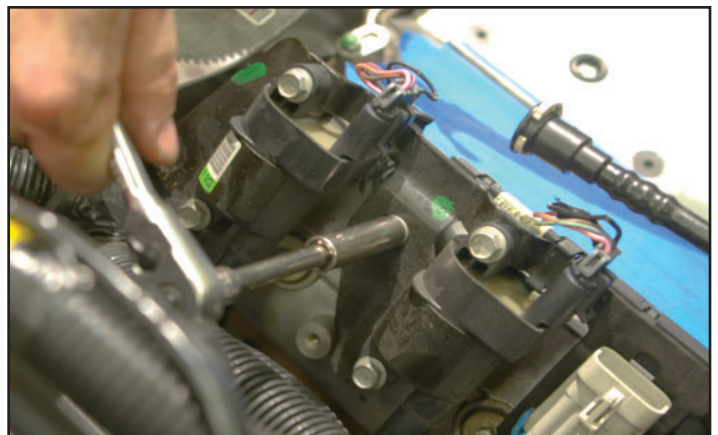
65. Disconnect the main coil pack connection from both of the coil packs.



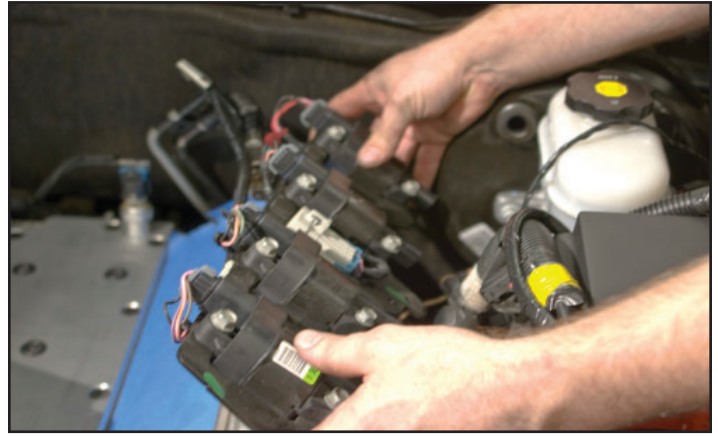
66. Disconnect all eight plug wires from the coil packs.



67. Unbolt the coil packs to the valve covers using a deep 10mm wrench on the five (each side) mounting bolts/studs.



68. Remove the coil packs from the engine for modification.



69. Use a small screwdriver to lever the locking clip securing the OEM MAP Sensor to the OEM intake manifold, and pull the sensor free.



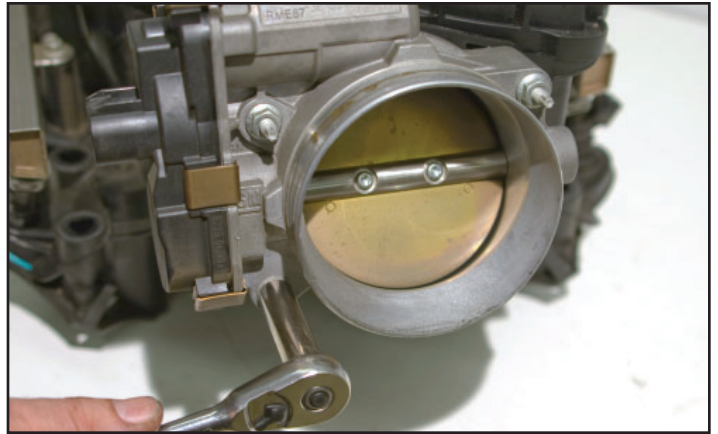
70. Place a bead of the provided Lubriplate lubricant on the MAP Sensor O-ring.



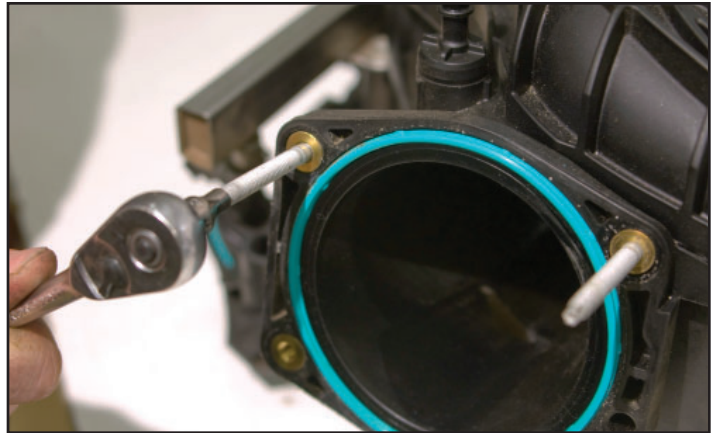
71. Use a 4mm Allen wrench to remove the MAP Sensor hold down clip behind the supercharger on the driver side. Press the lubricated MAP Sensor into the mounting hole and replace the mounting clip, tighten the clip using a 4mm Allen wrench.



72. Remove the throttle body from the OEM intake manifold using a 10mm wrench.



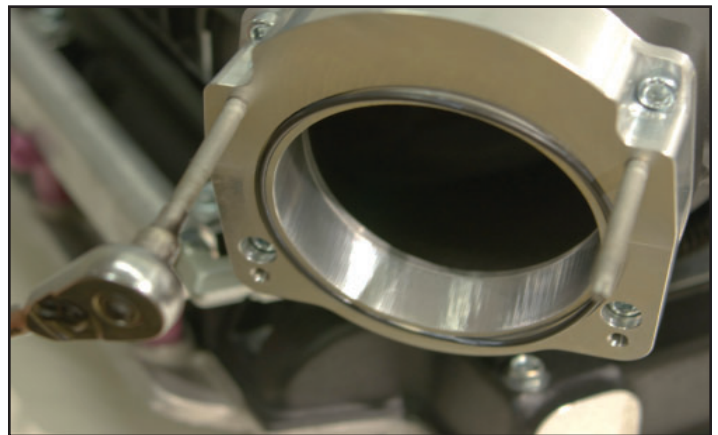
73. Remove the two studs from the OEM intake manifold using a #5 internal Torx socket.



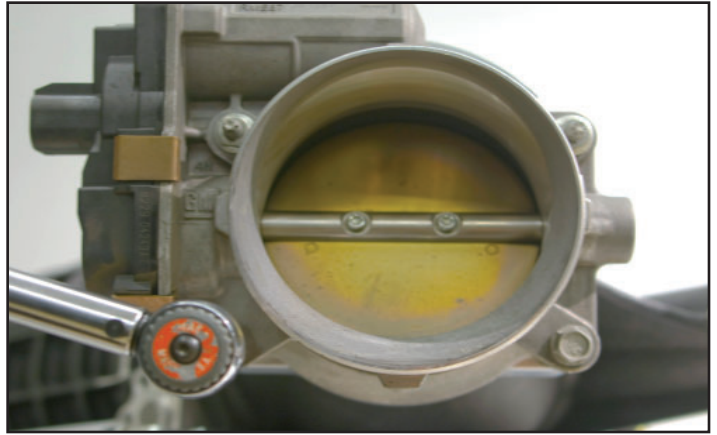
74. Place a bead of the provided Lubriplate lubricant in the groove of the new supercharger inlet and press the provided O-ring into place.



75. Install the two studs removed from the OEM intake into the top mounting holes of the new supercharger inlet. Tighten with a #5 internal Torx.



76. Ensure that the Throttle Body gasket is in place and using the original hardware, mount the OEM Throttle Body to the new supercharger inlet. Use a 10mm wrench to torque the bolts and nuts to 106 in-lbs. Verify your torque wrench settings.



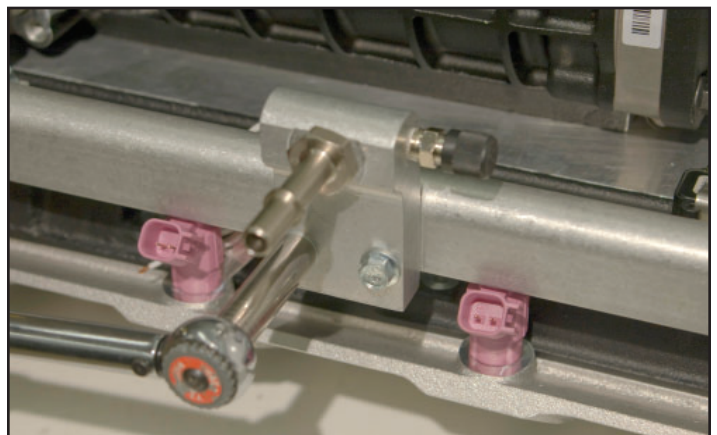
77. Place a bead of the supplied Lubriplate lubricant on the fuel rail O-ring supplied and press into the receiving groove on the fuel rail.



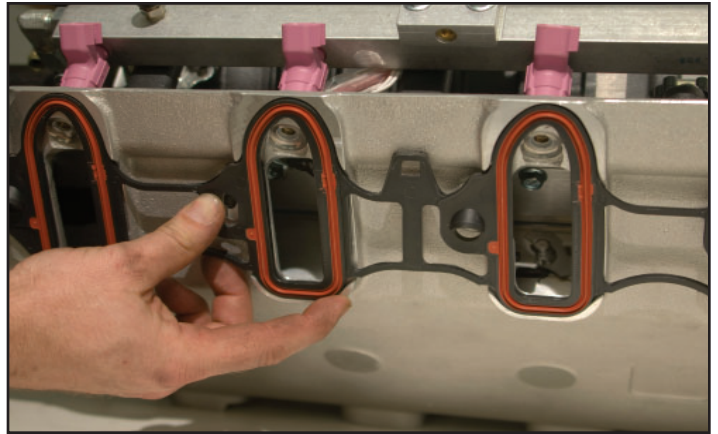
78. Mount the fuel manifold to the fuel rail using the provided hardware ensuring that the O-ring stays seated.



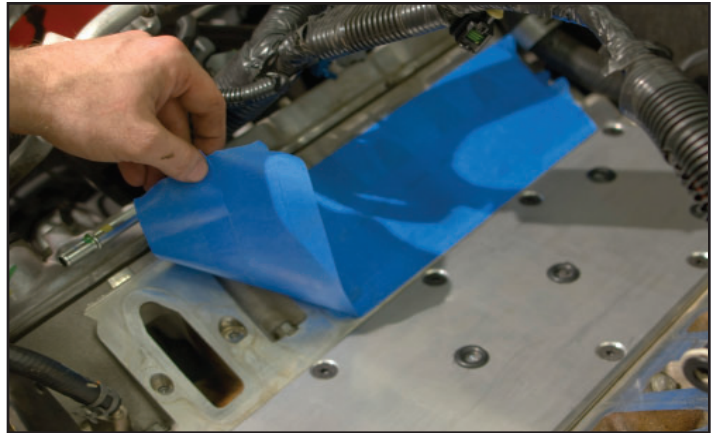
79. Torque the mounting bolts to 106 in-lbs using a 10mm wrench. Verify your torque wrench settings.



80. Snap the provided intake manifold gaskets into place on the supercharger tub.



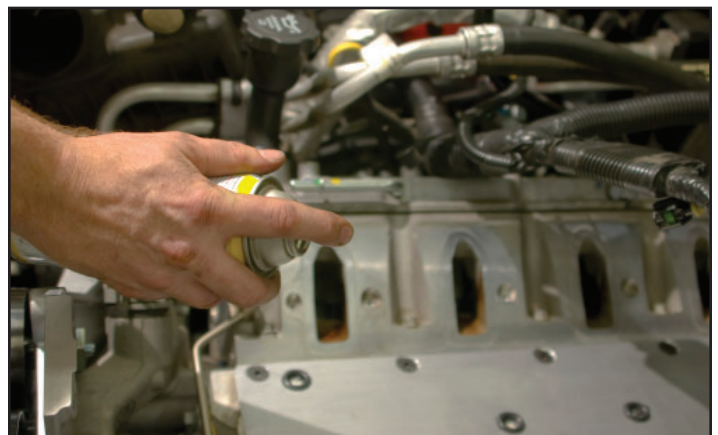
81. Verify that your valley cover area is clean and remove the tape or rags you have used to cover the intake ports of the heads.



82. Wipe the surfaces clean using a non-petroleum based solvent (alcohol-lacquer thinner, etc).

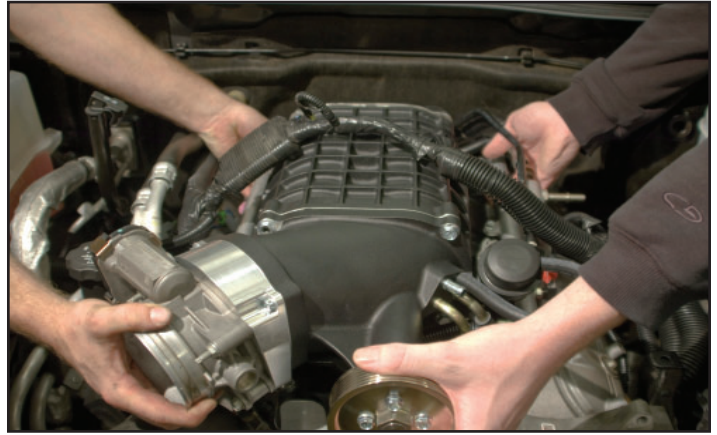


83. Spray a mist of silicone lubricant or mild soapy water on the port surfaces to facilitate the supercharger install.

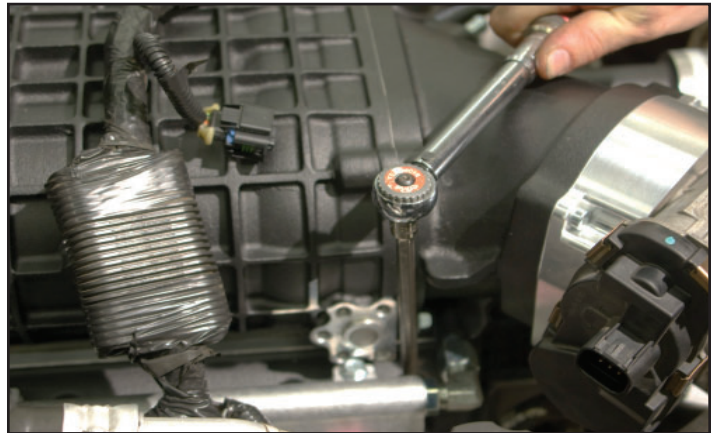




84. With the help of an assistant, lift the supercharger assembly into place going under the existing wire harness, ensure that the gaskets stay in place and align with the mounting holes.



85. Use a 10mm wrench to anchor the new intake to the heads with the ten provided M6x65mm bolts. Tighten using a center-out, criss-cross pattern and torque to 106 in-lbs. Verify your torque wrench settings.



86. Remove the plastic loom covers from the coil pack harness using a small screwdriver to release the locking tabs of the four hold down clips.



87. Split the covers from the bases again using a small screwdriver on the ten locking tabs. Remove the covers completely, these will not be reused.



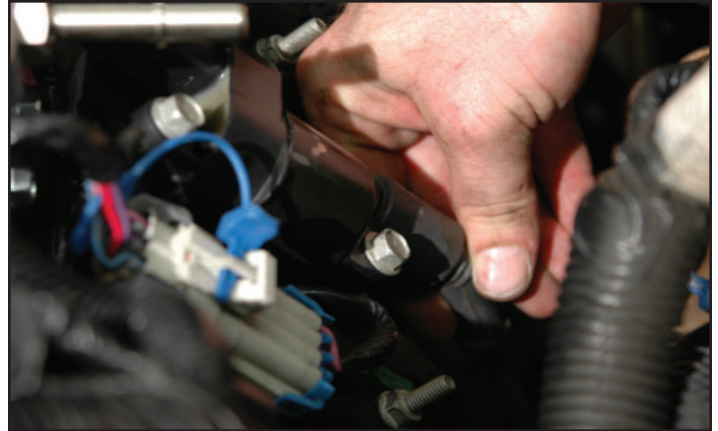
88. Your coil packs should look like this with the covers removed. Cover any exposed wires with electrical tape for protection.



89. Replace the modified coil packs back in position and secure using the original hardware. Torque the bolts down to 106 in-lbs. Verify your torque wrench settings.



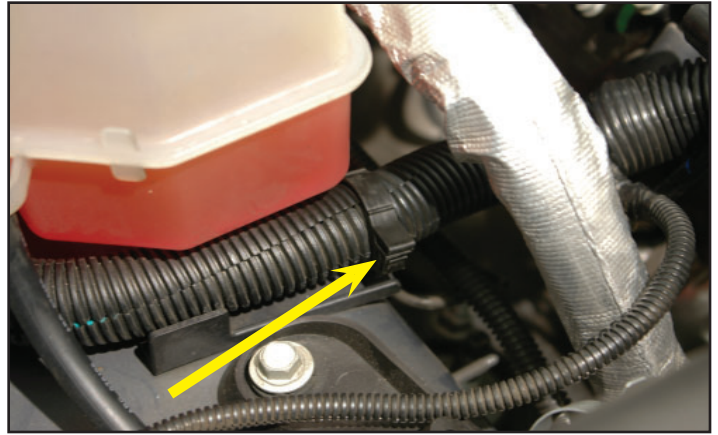
90. Re-connect the male coil pack connectors, and plug wires to the coils.



91. Connect the injector control wires to the injectors of the new supercharger intake manifold.



92. Re-connect the main harness clip on the passenger side wheel well, just in front of the coolant reservoir.



93. Use a knife or dykes to remove the wiring harness clip on the driver side of the engine that used to hold the wiring harness to the coil pack mounting stud.



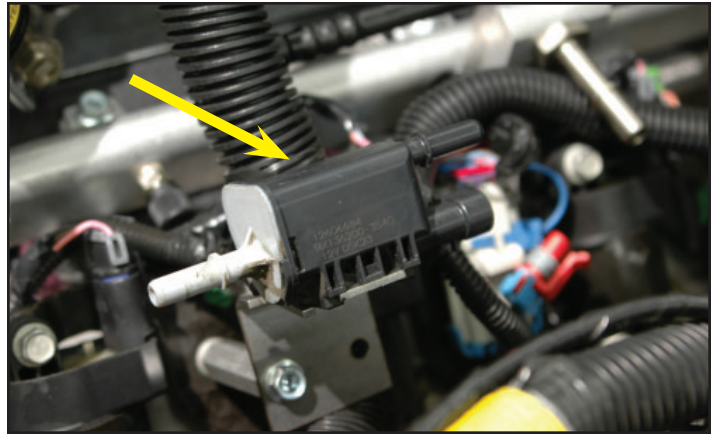
94. Install the provided spacer on the second from the front, driver-side, coil pack mounting stud using a 13mm wrench.



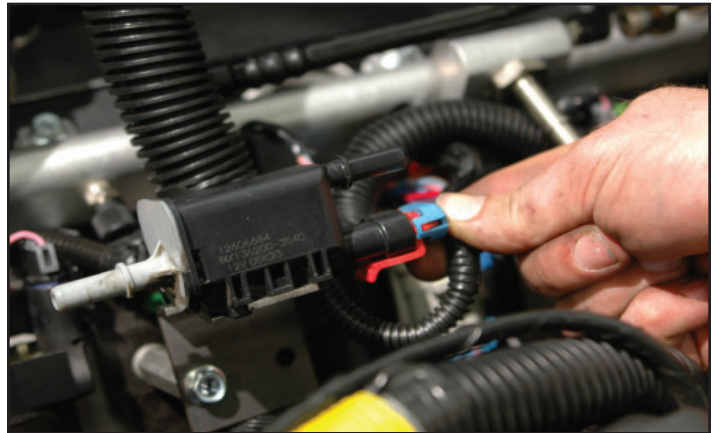
95. Install the provided EVAP Solenoid mounting bracket on the spacer just installed using the provided 10mm bolt as shown.



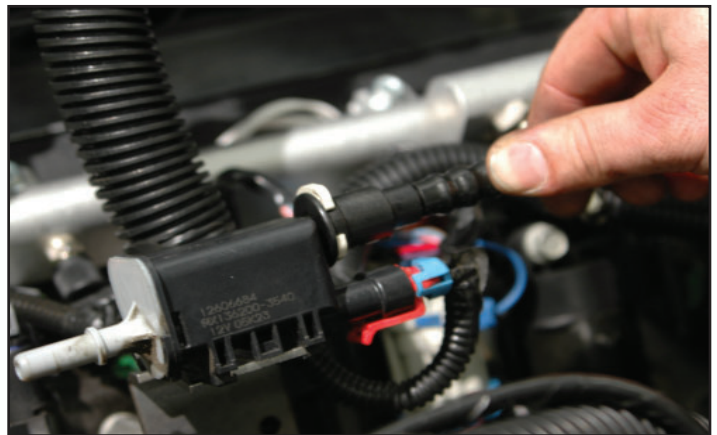
96. Install the EVAP Solenoid with the electrical connection pointing to the rear onto the just installed mounting bracket.



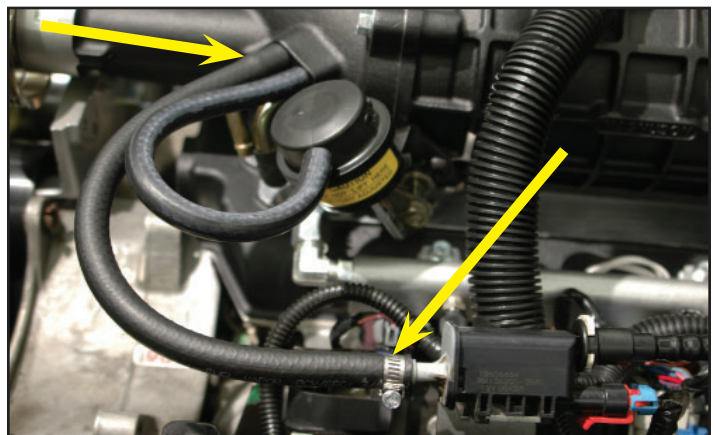
97. Connect the EVAP Solenoid electrical connector to the EVAP Solenoid.



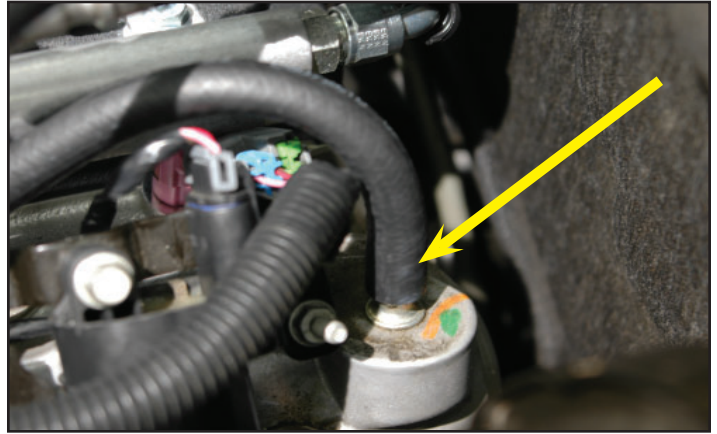
98. Connect the rear EVAP Solenoid tube to the EVAP Solenoid.



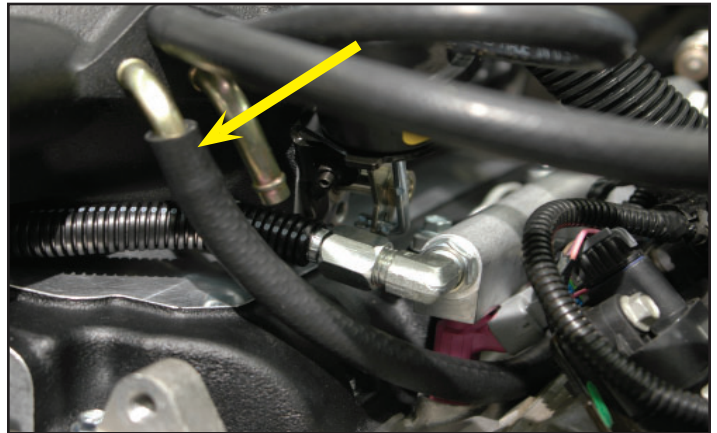
99. Cut a section of the provided 3/8" hose to 12-1/2" in length. Attach one end to the forward pointing EVAP Solenoid barb using a provided worm gear clamp and route the other end to the hose barb adjacent to the Bypass Actuator hose as shown.



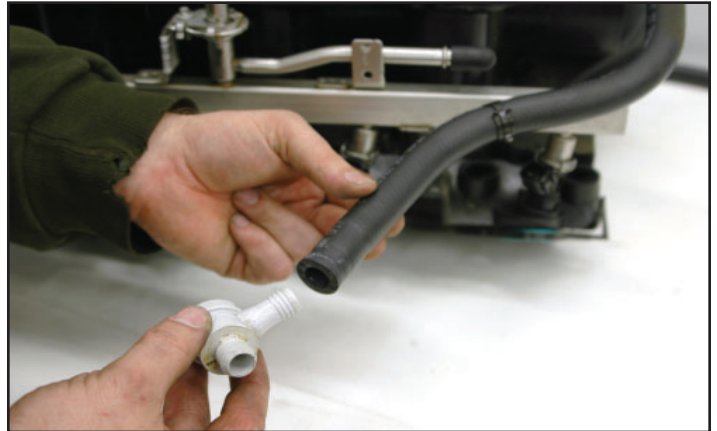
100. Cut a section of the remaining 3/8" hose to 24" in length. Connect one end to the rear driver side hose barb from the valve cover.



101. Route the hose forward, below the injector plug connections and connect to the forward hose barb at the supercharger inlet as shown.



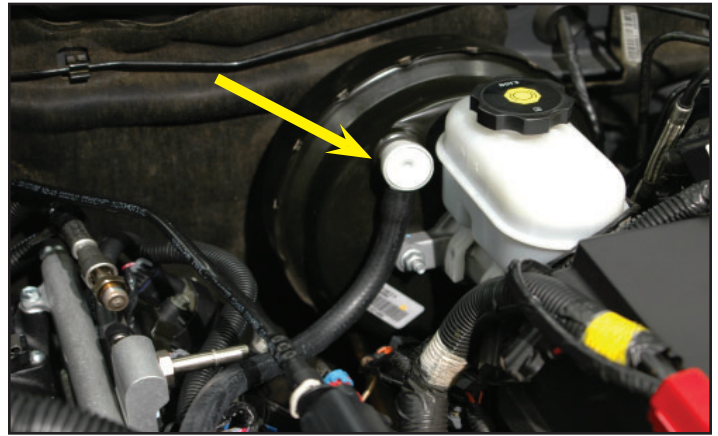
102. Remove the OEM brake booster check valve from the end of the hose on the OEM intake manifold.



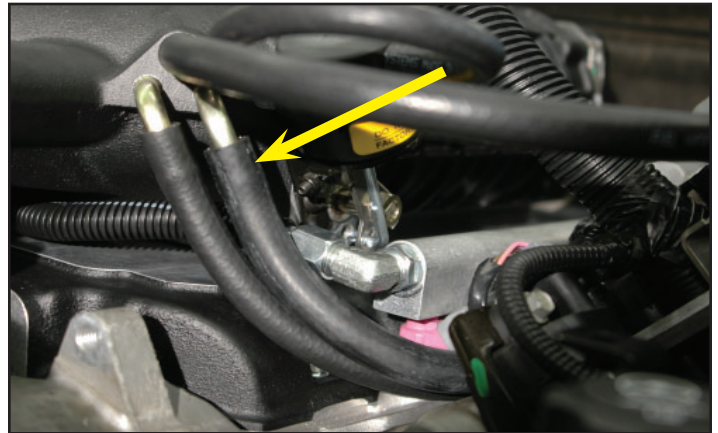
103. Push the removed brake booster check valve into one end of a 24" section of the provided 11/32" hose. **Lubricate the valve, this is a tight fit!**



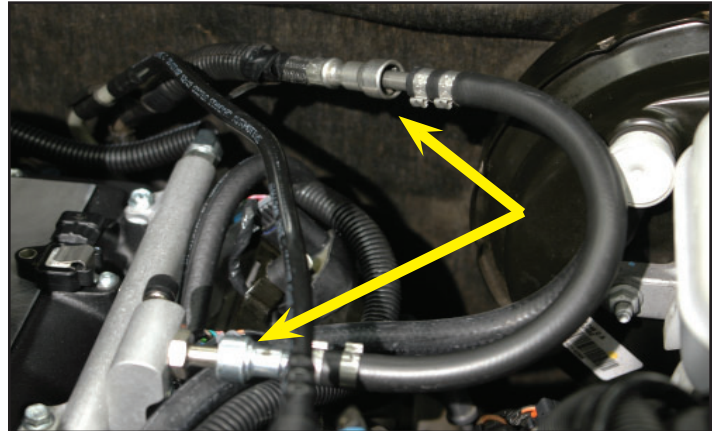
104. Plug the brake booster check valve into the grommet of the brake booster.



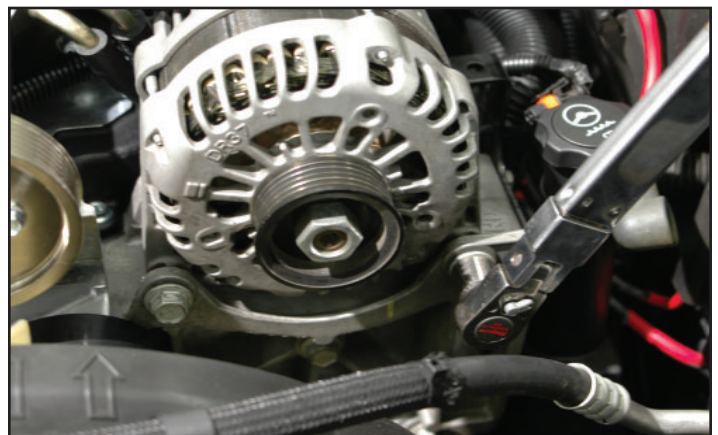
105. Route the other end of the hose forward and connect to the remaining supercharger inlet hose barb, trim as necessary.



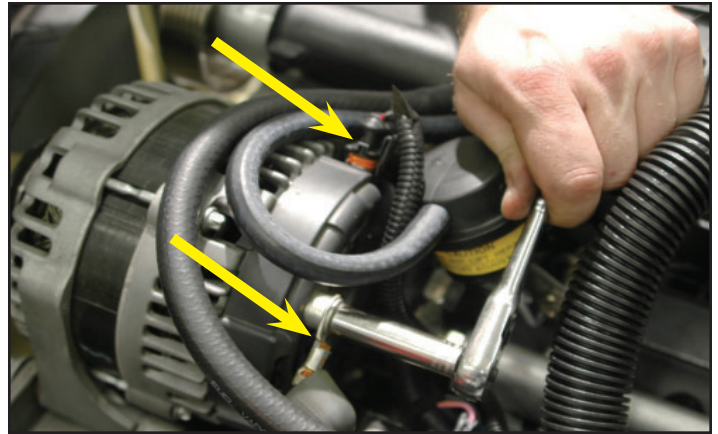
106. Connect the provided fuel line extension to the OEM fuel line hose. Connect the end of the extension to the driver side fuel rail manifold as shown.



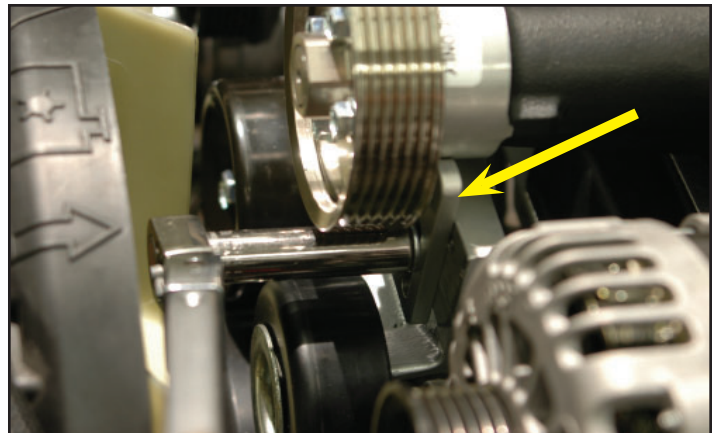
107. Mount the OEM alternator back onto the mounting bracket utilizing the stock components. Use a 15mm wrench to torque the mounting bolts to 40 ft-lbs. Verify your torque wrench settings.



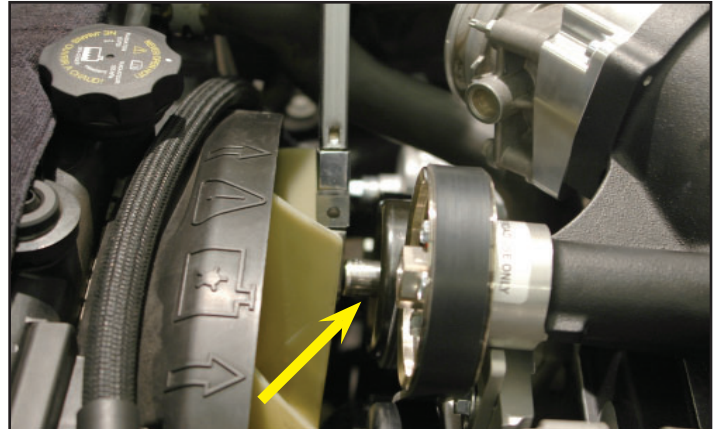
108. Connect the alternator control and hot lead wire to the alternator using the stock components.



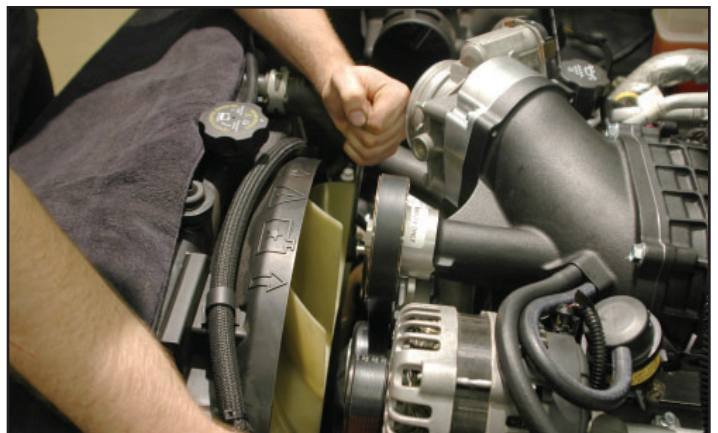
109. Attach the supplied nose cover support bracket to the tensioner bracket assembly using the provided 12mm bolts. Press up firmly under the nose cover and torque to 18-20 ft-lbs, verify your torque wrench settings.



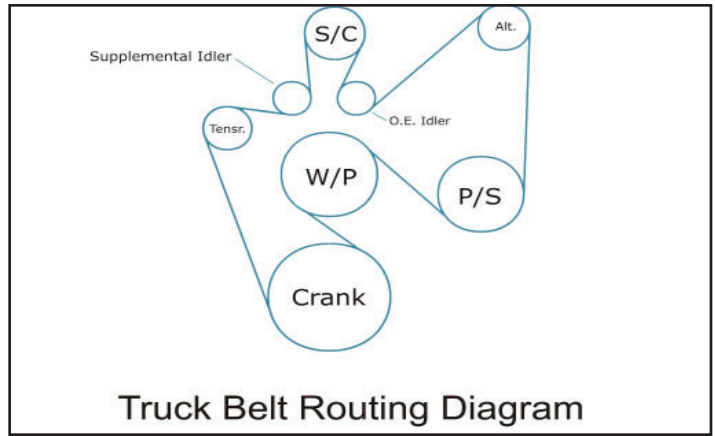
110. Slide the slotted idler pulley up to the top and torque using a 15mm wrench to 40 ft-lbs.



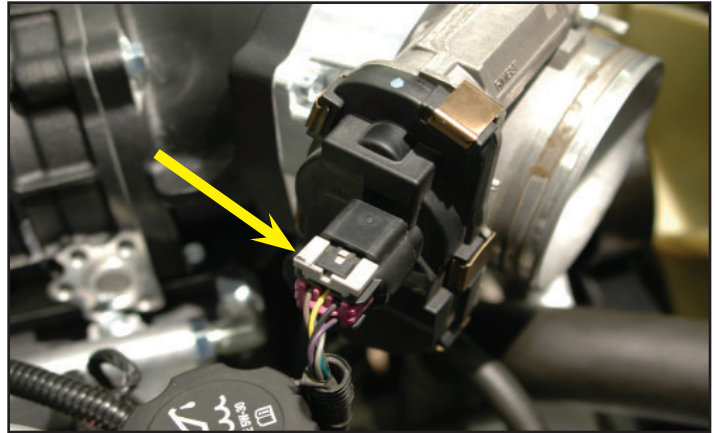
111. Use a 15mm wrench to spring the tensioner and install the drive belt using the following belt routing diagram.



112. This is the belt routing diagram.



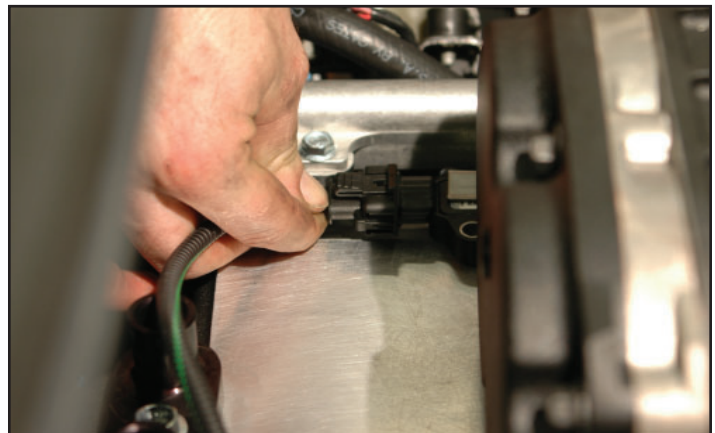
113. Connect the throttle body control plug to the throttle body.



114. Connect the plug of the provided map sensor extension harness to the plug located on the top of the OEM harness now located on top of the passenger side of the supercharger.

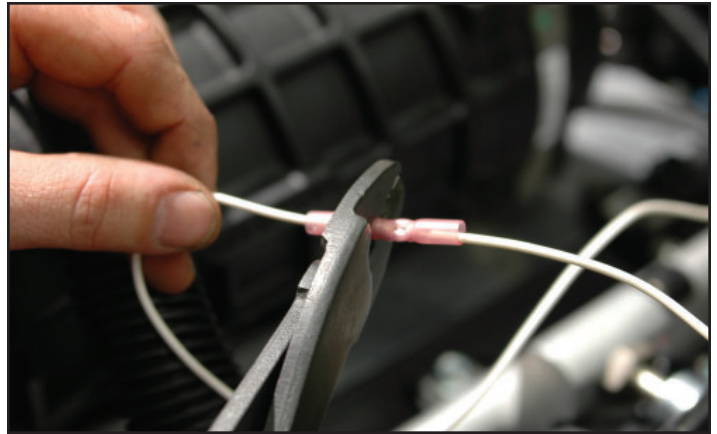


115. Route the other end of the provided harness behind the supercharger and connect to the MAP sensor.

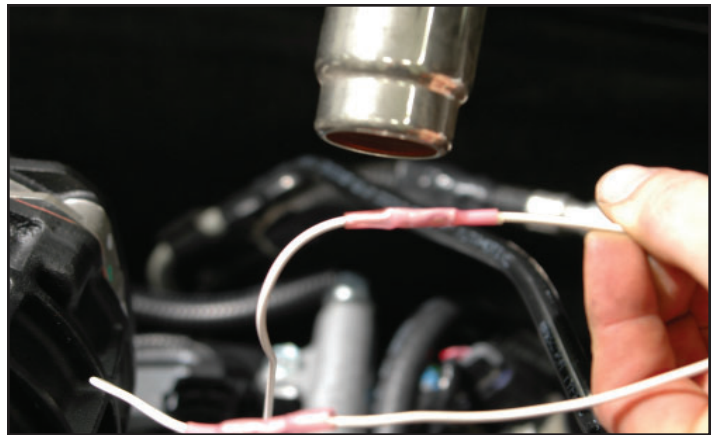




116. Crimp on the provided IAT sensor wire extensions to the wires exiting the supercharger lid near the center of the supercharger on the driver side.



117. Heat-shrink your connections using a heat gun or hair dryer set on high. **It is NOT adequate to just crimp the wires together.** The provided crimp connectors also seal the connections to prevent moisture contamination. Slide the wires into the provided split loom and route forward, under the supercharger intake over to the passenger side of the engine under the throttle body. Do not cut the split loom at this time, it will continue past these wire ends.



118. Cut the solid black and solid blue wires about 2" from the plug of the MAF sensor removed from the air box earlier. The short ends are abandoned and can be taped off.



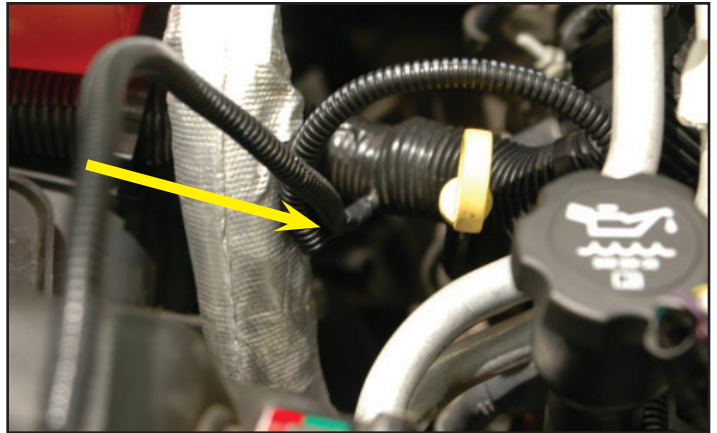
119. Pull the solid black and solid blue wires out of the MAF split loom back to the junction at the main wiring harness. Route these wires over to meet the two white wires from the IAT sensor on the driver side. Using the provided crimp connectors, join the wires together. It does not matter which wire goes to which.



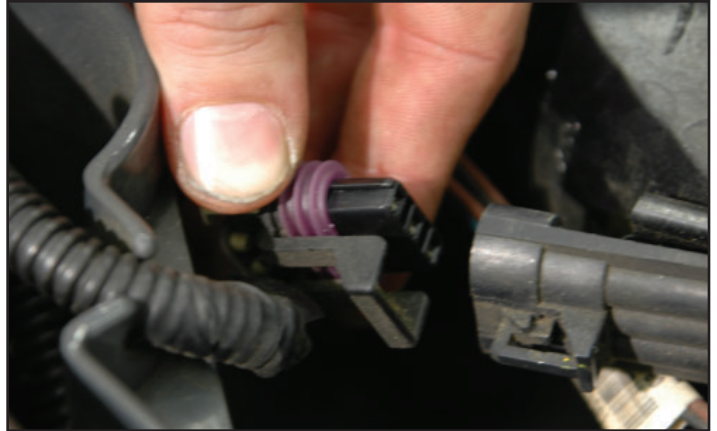
120. Once again, heat-shrink your connections using a heat gun or hair dryer set on high.



121. Continue the split loom to cover the solid blue and solid black wires back to where they join the main wire harness. Use tape to secure the split loom to the existing harness.



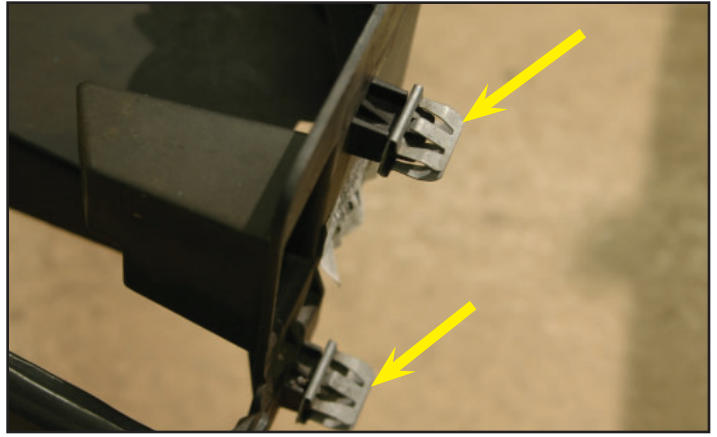
122. If your vehicle has a radiator cowl cover, remove it. Then disconnect the turn signal wire plug from the turn signal assemblies on both sides of the vehicle.



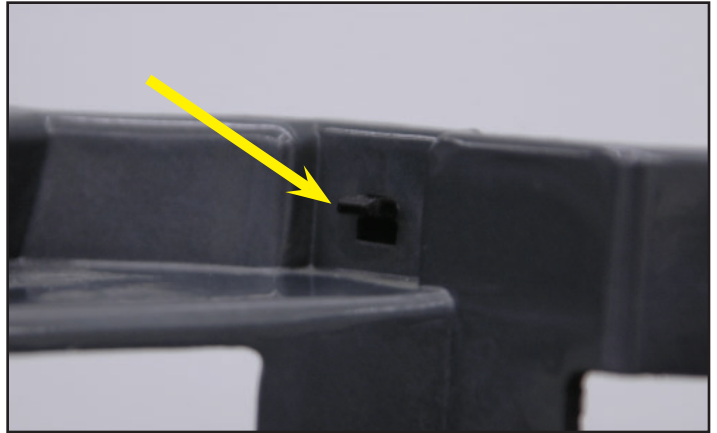
123. The turn signal assemblies pivot on the inside edge and lock to the mounting frame on the outside. Use a long screwdriver to push the locking tab free on the back-side of the assembly as shown. Swing the outside forward on the pivot and pull the lights out for later reinstall.



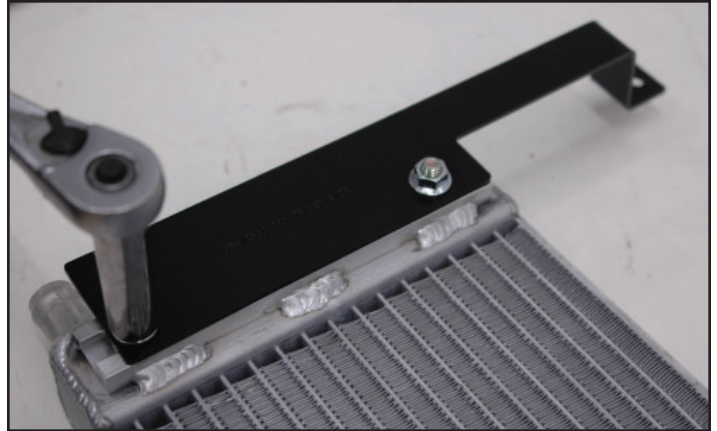
124. Remove the grill section from the vehicle. There are seven metal pinch clips that press into slots of the mounting frame. Carefully lever these clips out using a long screwdriver. Be careful of what you use for a fulcrum. This picture shows you a close up of the pinch clips.



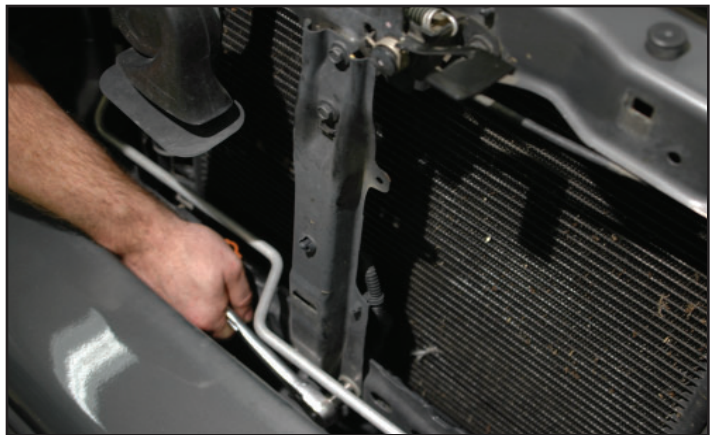
125. In addition to the seven metal pinch clips, there are four plastic spring clips along the top of the grille. These pinch clips release by just pressing the small tab down a bit and pulling the section forward.



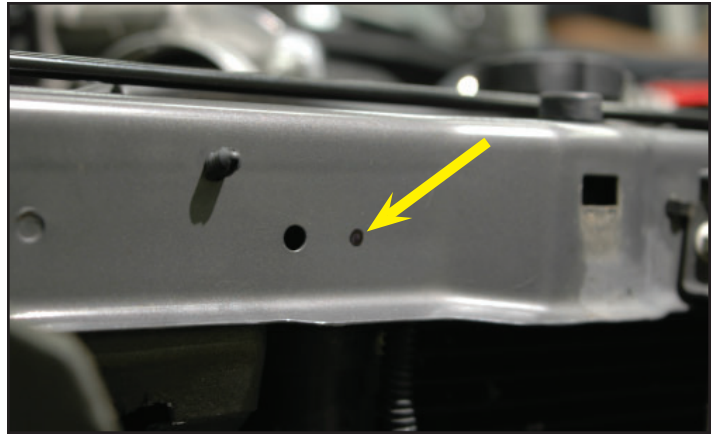
126. Attach the provided heat exchanger mounting brackets to the heat exchanger using the provided carriage bolts in the slots. Align the brackets with the top edge of the slots as shown and tighten securely.



127. Remove the four bolts holding the center vertical brace to the upper and lower cross frame members. The bottom bolts are 13mm and the upper ones are 10mm. Lay the disconnected vertical brace down over the AC cross-over line.



128. Slide the heat exchanger behind the horn assembly and up so the brackets touch the face of the upper cross frame member. Using the existing hole on the driver side for one heat exchanger mounting location, make a new mark for a hole to attach the bracket on the passenger side. This should be level with an existing hole as shown.



129. Drill a ¼" hole for the passenger side heat exchanger mounting bracket. Be careful to not penetrate the wire loom running behind the flange, or the AC tube also behind the flange.



130. Mount the heat exchanger using the new and existing holes with the provided 10mm bolts and nuts. Tighten securely.



131. Remove the wire loom clip on the vertical brace removed earlier. This hole will be used to attach the lower heat exchanger mounting bracket.



132. Apply the provided sticky-back rubber strip inside the channel of the provided lower heat exchanger mounting bracket.



133. Holding the vertical brace in stock position, using the vacated wire loom hole as a reference, press the lower heat exchanger bracket over the heat exchanger bottom surface, stud facing forward. Replace the original bolts in their proper location and mount the vertical brace back between the upper and lower cross frame members. Incorporate the lower mounting bracket in the vacated hole and tighten securely with the provided nut. Verify all five bolts/nuts are secure.



134. Remove the factory air box using a 13mm wrench on the two hold-down bolts and pull free.



135. For ease of access follow the owner's manual directions for raising the vehicle and supporting it to remove the front wheel on the passenger side.



136. Remove the passenger side headlamp assembly using a 10mm wrench. Disconnect the wire harness plugs and remove the headlamp assembly.



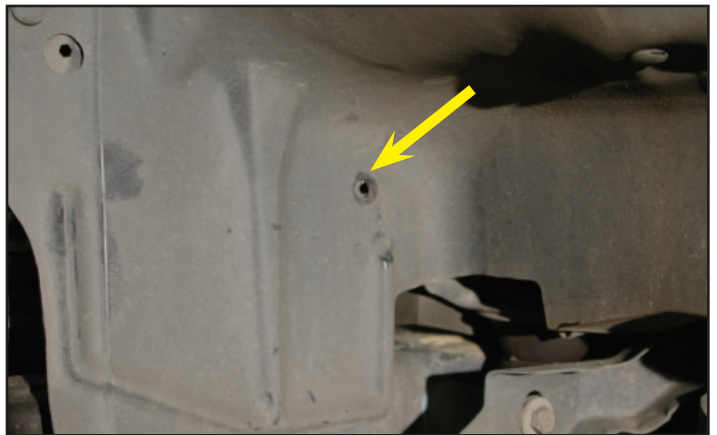
137. Using a 1-1/2" hole saw, cut a hole through the foam and fascia framework at the passenger side adjacent to the headlight. Align the bottom with the existing AC line push clamp, about 1-1/2" from the mount as shown.



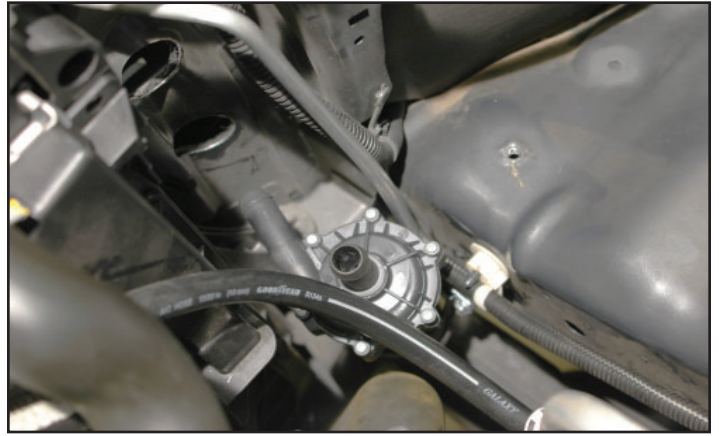
138. Drill a second hole above the first one, centered on the existing depression. Clean up your edges with a rat-tail file or grinding wheels.



139. Remove the forward push pin rivet above the vertical flap bend of the passenger side wheel well. This is near where the wheel well begins to turn toward the forward face as indicated in this picture.



140. Assemble the intercooler pump mounting bracket in this sequence: Provided bolt through Adel clamp with pump inserted, Adel clamp leg pointing back, on the opposite side of the discharge barb. Next is the provided spacer, followed by a provided washer. Press this assembly through the hole just vacated by the push pin into the wheel well with the pump inlet pointing up and the discharge barb pointing forward as shown.



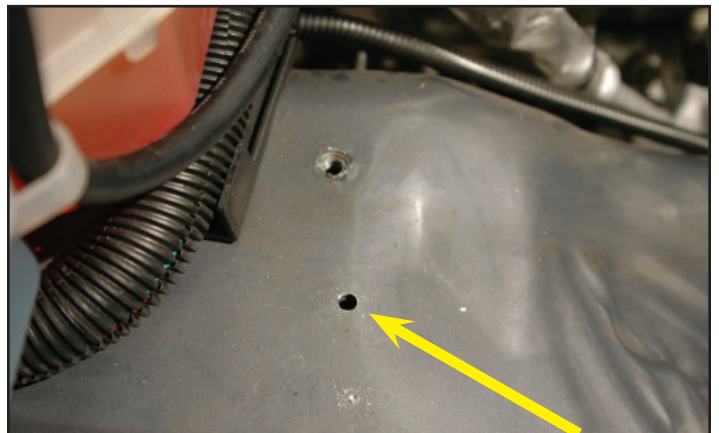
141. On the inside wheel well side place a washer and the provided nut. Tighten the nut securely. This will be pinching between two layers of sheet metal as well as the plastic wheel well.



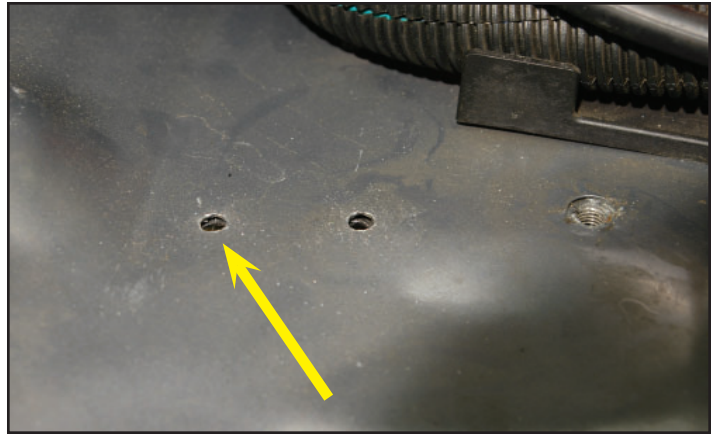
142. Drill a second  $\frac{1}{4}$ " hole in the provided intercooler reservoir mounting bracket as shown.



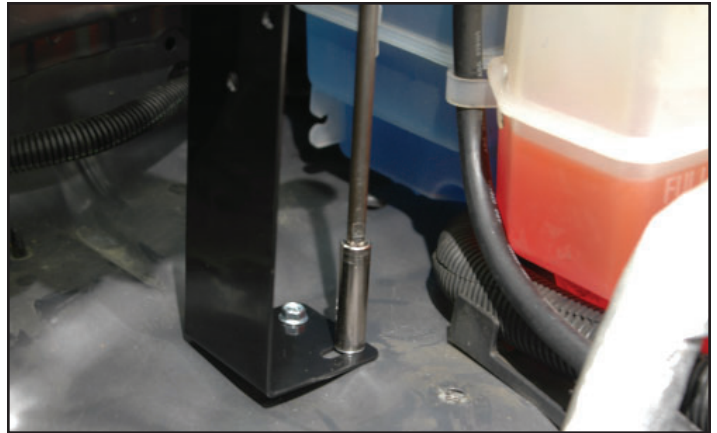
143. Drill one  $\frac{1}{4}$ " hole through the top of the passenger side wheel well in front of the coolant reservoir. This hole is 2-1/4" toward the passenger side fender, and 3/8" forward of the existing air box mounting hole. The flange of the reservoir mounting bracket points toward the rear of the vehicle. Use the first hole as a reference to mark a second hole.



144. Drill the second  $\frac{1}{4}$ " hole through the wheel well as shown. Make sure both holes go through the plastic wheel well liner as well.



145. Using the provided 10mm bolts and nuts, secure the reservoir mounting bracket to the wheel well as shown. Tighten securely.



146. Attach the intercooler reservoir to the mounting bracket with the provided 10mm bolts, tighten securely.

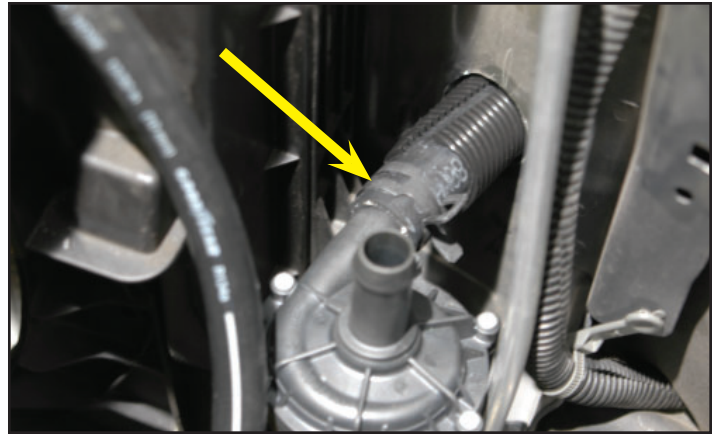


147. Use one of the short 4" x 18" x  $\frac{3}{4}$ " 90° elbow hoses, cut the short end to fit the hose so that it centers in the 1-1/2" hole prepared earlier with a connection to the lower heat exchanger barb. Using a provided spring clamp, secure this short end to the lower heat exchanger barb.

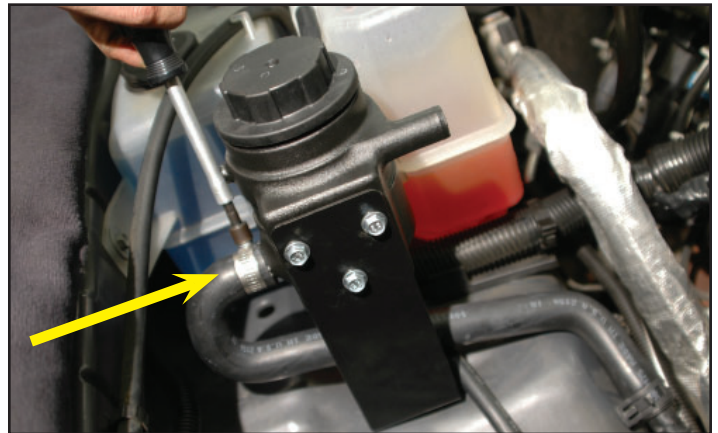




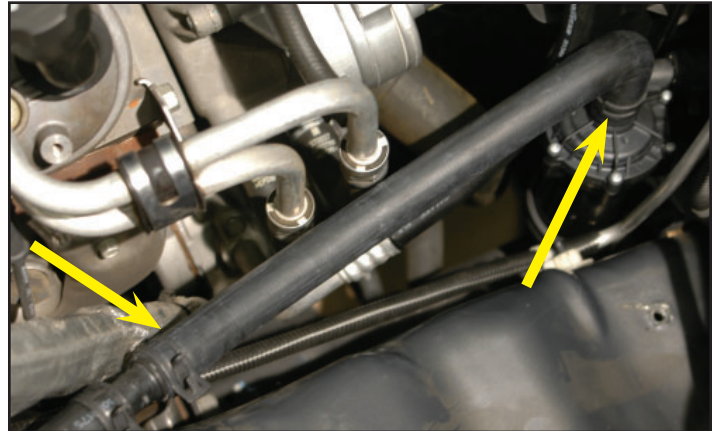
148. Cut the hose to fit so that it connects to the discharge barb of the intercooler pump and secure with a provided spring clamp. Slide a section of the provided split loom over the hose to protect it from chaffing at the pass through hole as shown.



149. Trim 1" off the short end of the molded "U" hose. Attach the provided hose coupling (mender) to the long end of the hose using a provided spring clamp. Route the hose under the intercooler reservoir bottle and up to connect the modified short end to the intercooler reservoir using a provided WORM GEAR clamp. **IMPORTANT: Clamps on the reservoir must be WORM GEAR!**



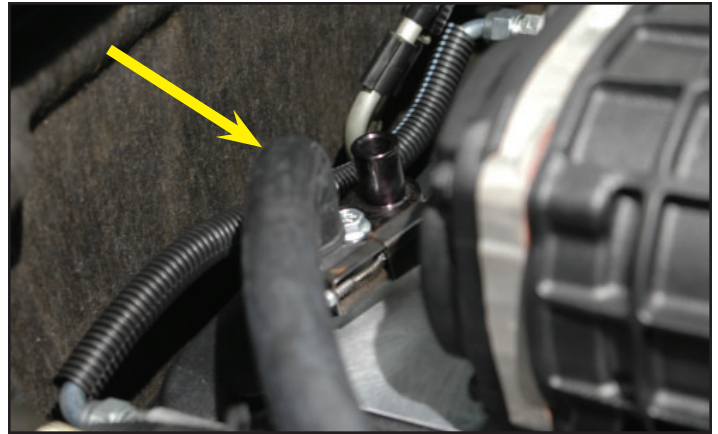
150. Cut 1-1/2" off the short leg of another provided 4" x 18" x 3/4" 90° elbow hoses and attach the short leg to the inlet barb of the intercooler pump. Route the hose back to join the coupling of the "U" hose just installed. Cut to fit and secure with a provided spring clamp.



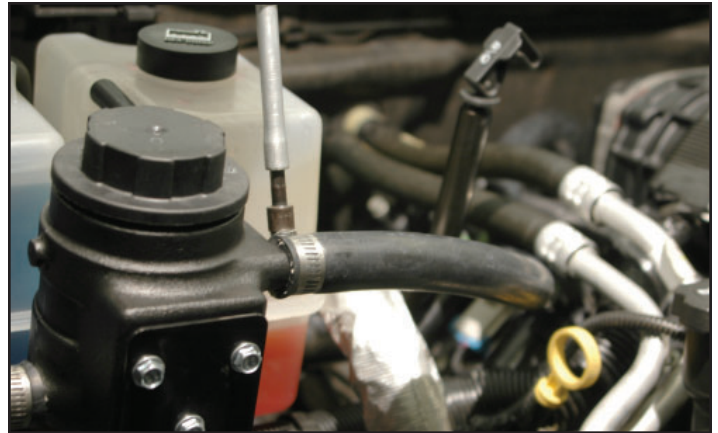
151. Put a section of the provided split loom over the hose just installed to protect it from chaffing against the air box and adjacent AC condenser lines. Use provided zip ties to anchor to adjacent lines as shown.



152. Cut 1-1/2" off the short leg of a provided 4" x 36" x 3/4" 90° elbow hose. Using a provided spring clamp attach the short leg to the passenger side hose barb rising from the lid behind the supercharger. The hose points to the passenger side fender.



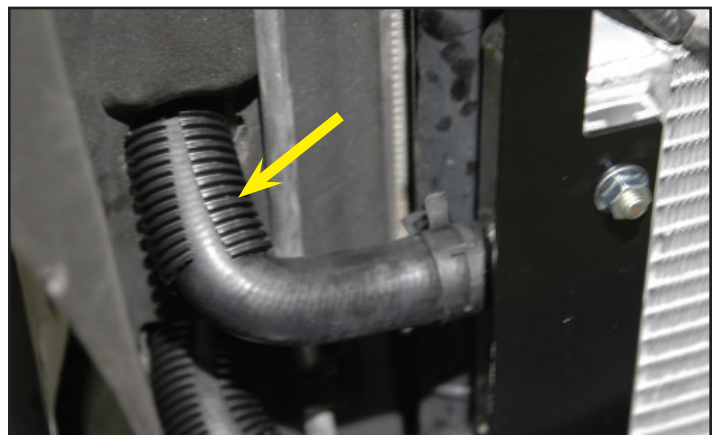
153. Route the hose over the wire loom, under the AC condenser lines and over to the intercooler reservoir. Cut to fit, and secure to the reservoir inlet barb using a provided WORM GEAR clamp. **IMPORTANT: Clamps on the reservoir must be WORM GEAR!**



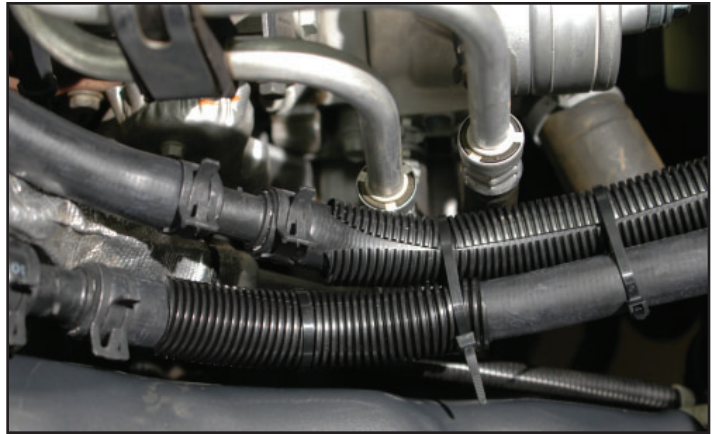
154. Cut 1-1/2" of the short leg of the other provided 4" x 36" x 3/4" 90° elbow hose. Attach the modified short leg to the driver side hose barb exiting the lid behind the supercharger. Route the hose toward the passenger side fender parallel to the just installed hose then down toward the intercooler pump.



155. Using the remaining 4" x 18" x 3/4" 90° elbow hose, cut the short end of the hose to center the hose as it passes through the framework as it mounts to the upper heat exchanger hose barb. Secure the hose with a provided spring clamp on the heat exchanger hose barb, and cover the hose as it passes through the fascia framework with a section of the provided split loom to protect it from chaffing.



156. Attach a provided hose coupling (mender) to the long end of the 4" x 18" x 3/4" 90° elbow hose just installed and secure with a provided spring clamp. Route this hose to meet the driver side intercooler hose barb behind the supercharger you installed earlier. Cut the hose to fit and join the two hoses together at the coupling, secure in place with provided spring clamps, cover the hoses at points of chaffing with provided split loom and tie together loosely with provided zip ties as shown.



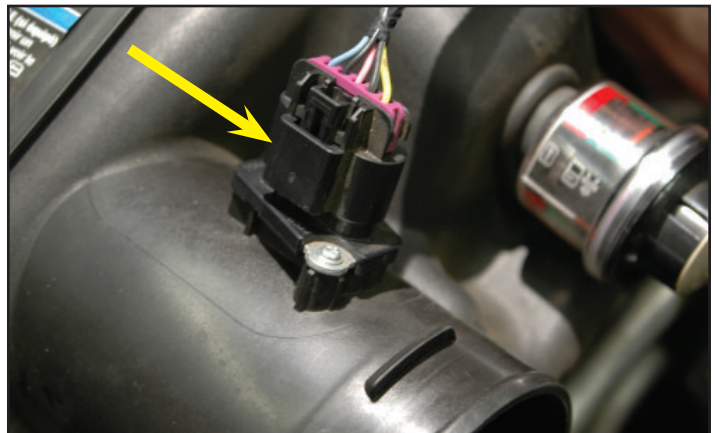
157. Swap out the stock air filter with the provided K&N filter.



158. Install the air box back in its original location with the stock hardware. Tighten down using a 13mm wrench.



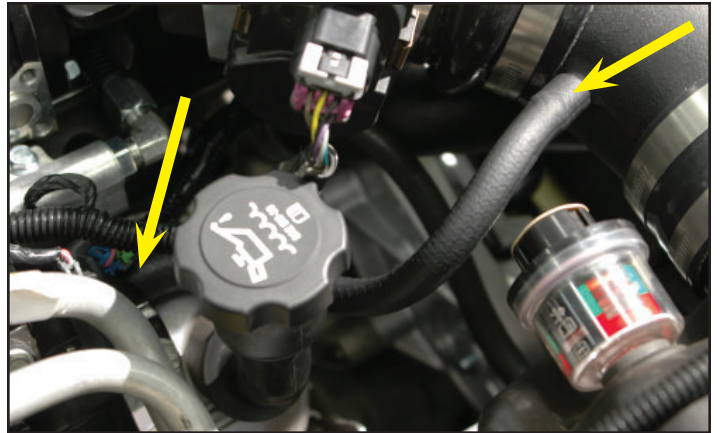
159. Connect the MAF plug back on the air box.



160. Assemble the air tube components with the hump hose toward the throttle body and secure in place with the provided worm gear clamps.



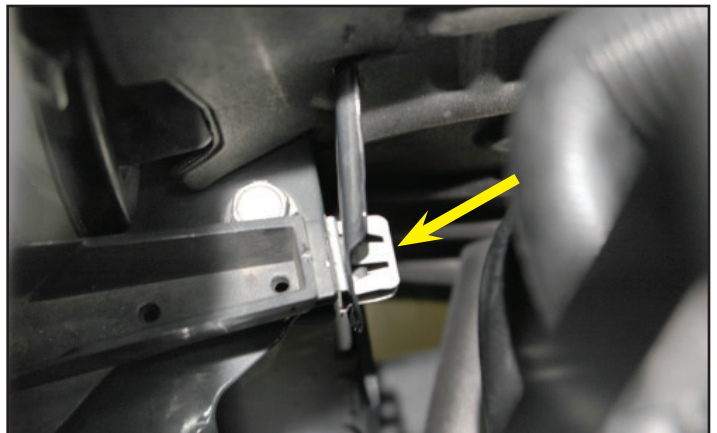
161. Connect the provided 3/8" hose to the passenger side PCV barb pointing forward below the oil fill spout on the valve cover. Route the hose up to the air tube barb, cut to fit and press onto the barb, no clamps are necessary.



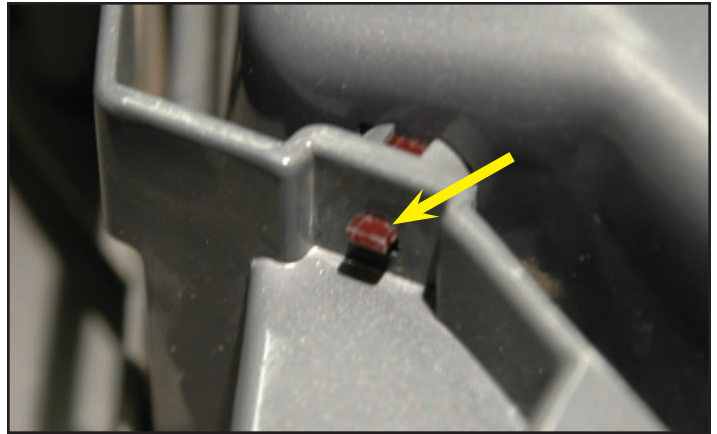
162. Reattach the passenger side headlamp plugs and mount in place with the original hardware.



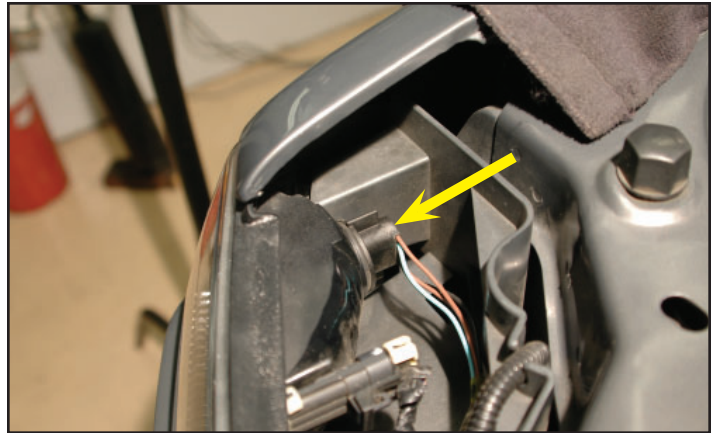
163. Snap the grille back into place using the seven OEM snap connections in the appropriate receiving slots.



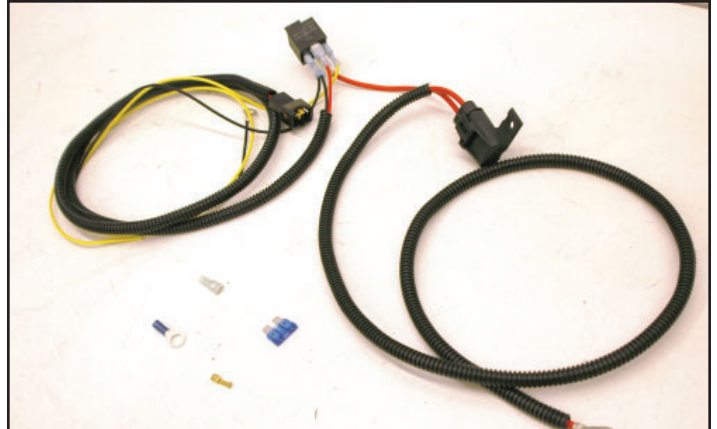
164. Pull up on the small tab of the four upper locking clips to secure the grille.



165. Reconnect the turn signal electrical plugs and snap the lamps back into position.



166. These are the intercooler pump wiring components.



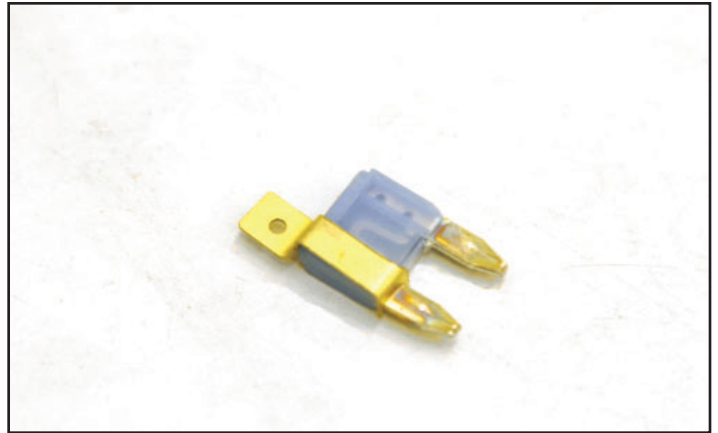
167. Remove the fuse box cover.



168. Remove the 15A "IGN" fuse. This fuse is in the forward bank, second fuse from the fender. **Verify the fuse by name, you want a fuse that is active only when the engine is running.**



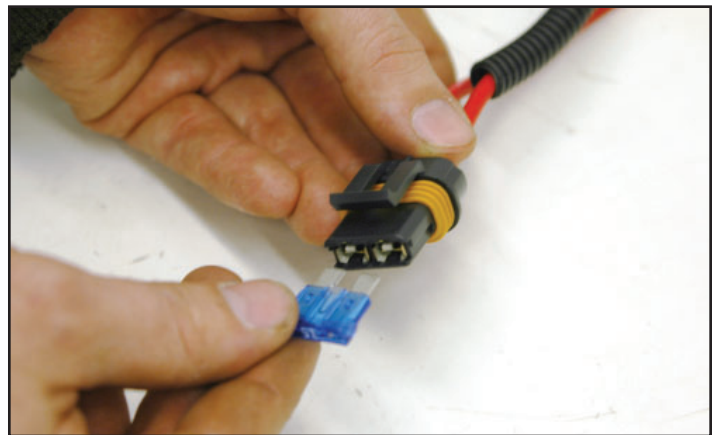
169. Add the provided fuse tap to one leg of the fuse.



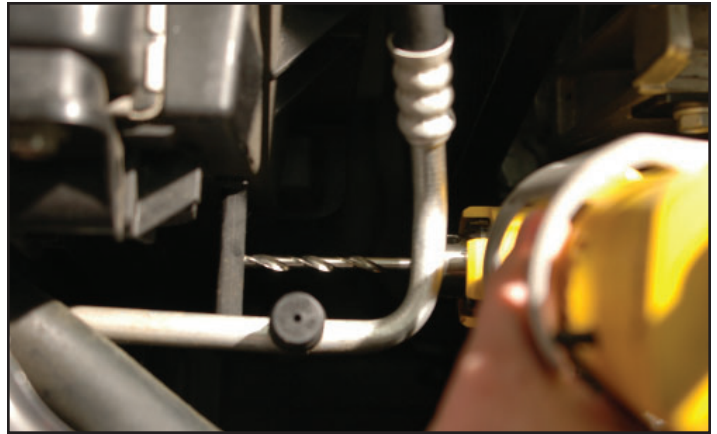
170. Insert the modified fuse back into the slot from whence it came.



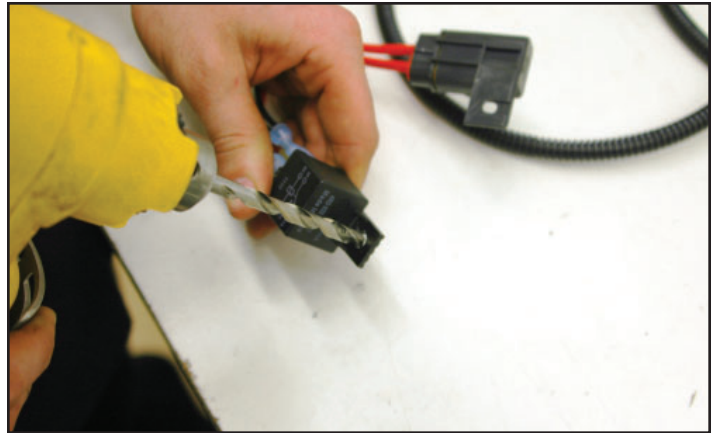
171. Insert the provided 15A fuse in the intercooler pump harness fuse holder and replace the cap.



172. Drill a 1/4" hole in the upper driver side fan shroud flange below the AC cross-over line.



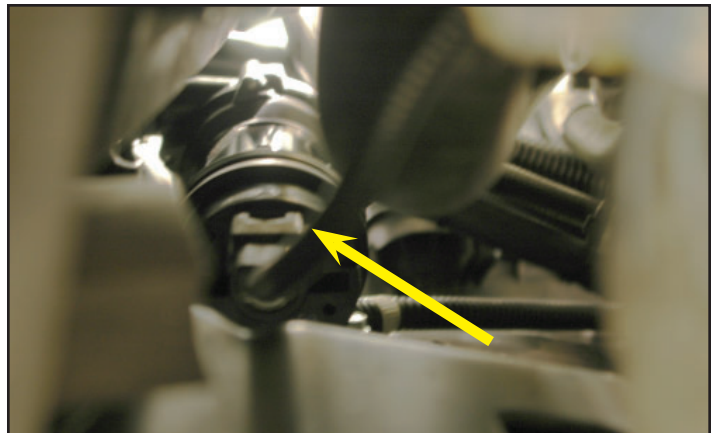
173. Open up the holes on the intercooler pump harness fuse holder and relay with the 1/4" bit.



174. Use the provided bolt and nut to mount the fuse center and relay to the new hole in the fan shroud flange.



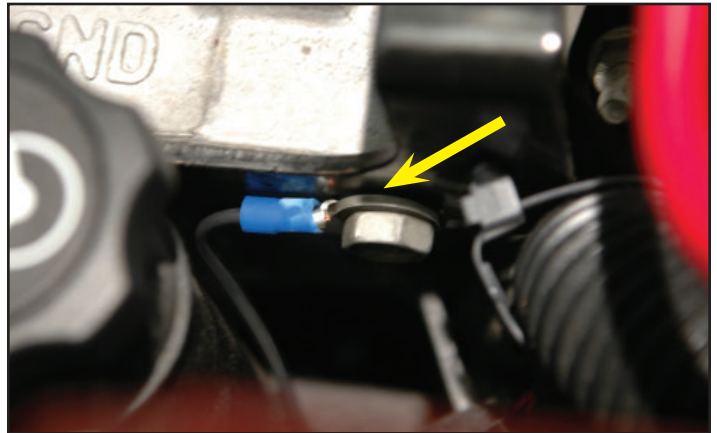
175. Route the intercooler pump plug harness down along the radiator shroud, and over to the passenger side. Anchor the harness to the lower power steering line with zip ties, then plug the connector into the receptacle on the bottom of the intercooler pump.



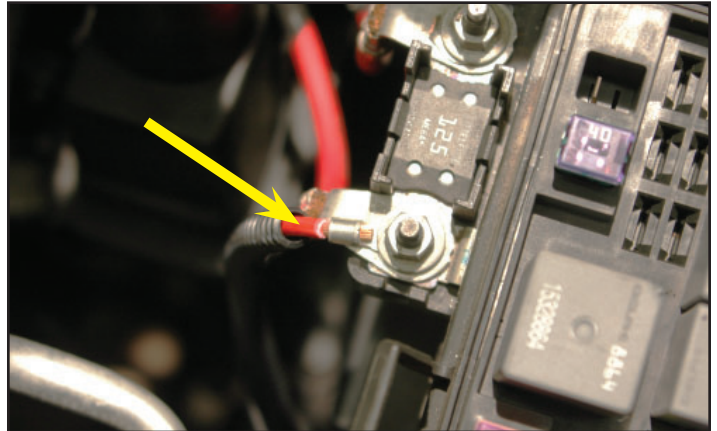
176. The black ground wire will route over to the alternator mounting bracket beside the driver side power steering fill spout. Cut the wire to fit to the rear mounting bolt and crimp on the supplied eyelet shown.



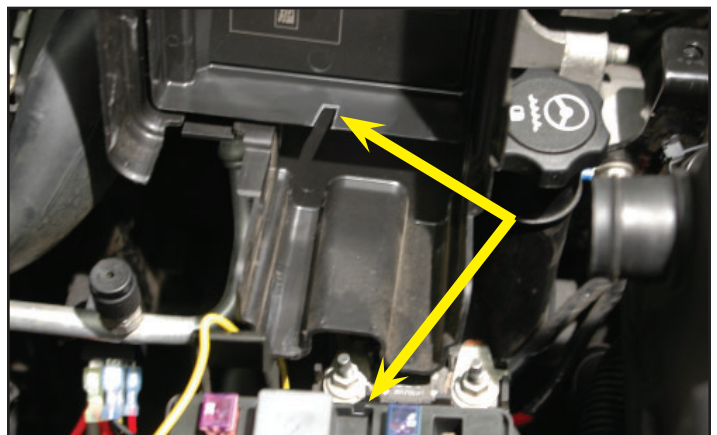
177. Remove the rear alternator mounting bolt and replace incorporating the black ground wire.



178. Remove the 10mm bolt from the forward hot terminal of the fuse center and replace incorporating the red eye terminal of the intercooler pump wiring harness. Tuck the excess harness in front and to the side of the fuse center.

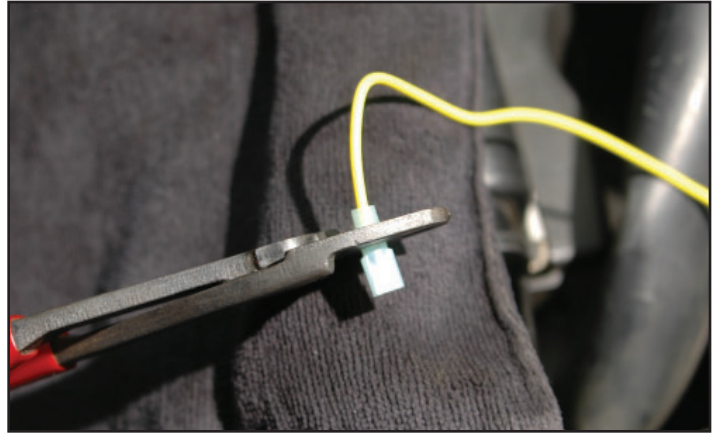


179. Route the yellow wire of the intercooler pump wiring harness over adjacent to the red "hot" wire just installed. Mark both the lid and the base of the fuse center to create a NO-PINCH access for the yellow wire to enter the fuse center.





180. Route and cut the yellow wire to meet the fuse tap installed earlier. Crimp on the blade connector supplied.



181. Connect the yellow wire to the fuse tap installed earlier.



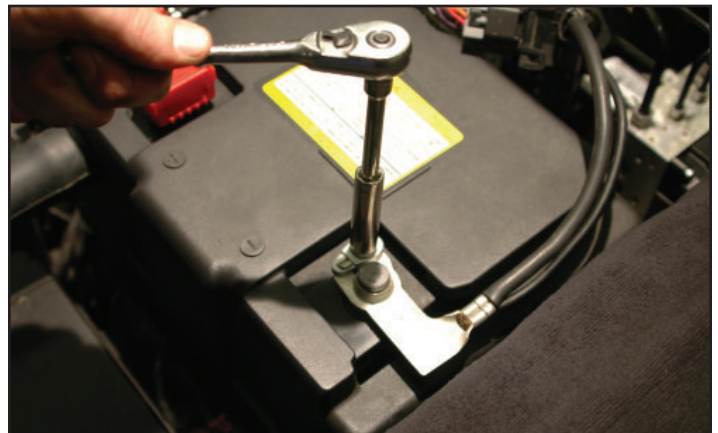
182. Replace the fuse center cover.



183. Reconnect the battery negative (-) terminal and tighten with 10mm wrench.



**Make sure that you have followed step #1 in this manual to load the proper supercharger calibration to your vehicle's ECM.**



184. Top off your coolant as necessary and fill your intercooler reservoir with the OEM recommended coolant mixture.



185. Put a section of split loom over the area where the wiring harness mounting bracket was located and tape to the existing split loom.



186. Affix the “premium fuel only” sticker on the gas cap door.



187. Attach the routing diagram and “premium fuel only” stickers on a conspicuous location under the hood.



188. Start your vehicle for a few seconds and shut off checking for leaks and fan-supercharger belt alignment. Check radiator and intercooler reservoir levels.



189. Test drive the vehicle for the first few miles under normal driving conditions. **Do not perform any wide open throttle runs.** Listen for any noises, vibrations, engine misfiring, detonation (pinging) or anything that does not seem normal. The supercharger does have a slight whining noise under boost conditions. This is normal.



190. Re-check the intercooler reservoir level regularly over the first 1000 miles, top level off as necessary.

191. After initial test drive, gradually work the vehicle to wide open throttle runs. Listen for any engine detonation (pinging). If engine detonation is present let up on the throttle immediately. Most detonation causes are low octane gasoline still in the tank.



If you have questions about your vehicle's performance, please check with your installation facility.

**After you finish your installation and road test your vehicle, please fill out the warranty registration. This can be found on our website.**

**This supercharger system requires the use of only premium gasoline fuel, 91 octane or better. It is NOT compatible with E85, Ethanol, Flex Fuels.**

# NOTES

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Please enjoy your Magnuson Supercharged performance responsibly!

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***NOTE: Your supercharger system is sensitive to corrosion. You must use the GM specified coolant mixture in the intercooler system as well as your radiator.***

**MAGNUSON**  
*SUPERCHARGERS*