SUPERCHARGER INSTALLATION MANUAL

2010-2015 CHEVROLET 6.2L CAMARO

WHIPPLE SUPERCHARGERS
3292 NORTH WEBER AVE
FRESNO, CA 93722
TEL 559.442.1261
FAX 559.442.4153
www.whipplesuperchargers.com
A color PDF of this manual is available email
tech@whipplesuperchargers.com

PREMIUM FUEL ONLY (91 OCTANE OR BETTER ALWAYS) RON+MON/2

CALIFORNIA AIR RESCOURCE BOARD EXECUTIVE ORDER #D-231-48

COMPETITION BASED PRODUCT MAY BE USED SOLELY ON VEHICLES USED IN SANCTIONED COMPETITION WHICH MAY NEVER BE USED UPON A PUBLIC ROAD OR HIGHWAY

INTRODUCTION

Before beginning installation, please read this manual and important notes:

- Please read the installation manual and verify that all items are present. If you are missing hardware or have any questions, please contact your dealer or Whipple Superchargers.
- Premium fuel (US 91 octane) is required to prevent spark-knock/detonation under certain operating conditions. Other countries must meet US 91 octane standards, RON+MON/2. If fuel of less than 91-octane is present in the vehicle fuel tank, the tank must be completely drained and refilled with 91 or higher octane to 1/8th of a tank.
- Operating your engine without the Whipple PCM recalibration can result in engine damage or failure and will void your warranty.
- Stock airboxes are required for Whipple tuning. Aftermarket airboxes are not supported.
- Supply your stock calibration (along with gear ratio, transmission type, throttle body type and any changes to vehicle) to Whipple ahead of time so your unique PCM calibration can be built prior to the PCM being shipped or calibration emailed to minimize any down time.

COMPETITION BASED PRODUCT MAY BE USED SOLELY ON VEHICLES USED IN SANCTIONED COMPETITION WHICH MAY NEVER BE USED UPON A PUBLIC ROAD OR HIGHWAY, UNLESS PERMITTED BY SPECIFIC REGULATORY EXEMPTION (VISIT THE "EMISSIONS" PAGE AT HTTP://WWW.SEMASAN.COM/EMISSIONS FOR STATE BY STATE DETAILS.

COMPETITION BASED PRODUCT IS LEGAL IN CALIFORNIA ONLY FOR RACING VEHICLES WHICH MAY NEVER BE USED, OR REGISTERED OR LICENSED FOR USE, UPON A HIGHWAY.

IT IS THE RESPONSIBILITY OF THE INSTALLER AND/OR USER OF THIS PRODUCT TO ENSURE THAT IT IS USED IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

RECOMMENDED TOOLS AND SUPPLIES

The following items are not included in this supercharger kit and it is strongly recommended that they're used for ease of installation or maximum performance:

Extra Components
2 gallons distilled water, 2 gallons GM approved coolant, 4", 8" and 12" zip-ties. Competition kits: Fuel system, MAP sensor, calibration, spark plugs.

Tools
Torque wrench (1/4", 3/8", ½") Safety glasses, standard and metric wrench set, 1 ½" hole saw, ¼", 3/8", ½" assorted metric socket set, 3/8" assorted metric allen socket set, 3/8" assorted torx socket set, 8mm nut driver, screw driver set, pinch clamp tool, wire cutters and drain pan (for coolant).

Tie Straps
These will be useful for securing the wiring harness away from the installation area as directed in the instruction manual. They are inexpensive and will be very handy during installation.

Sealants
Blue Loctite™#242 or equivalent, Red Loctite™ #271 or equivalent, Green Loctite™ #648 or equivalent. All bolts that need Loctite™ are marked with: **☛Loctite™ (#242 blue) threads, ☛Loctite™ (#271 red) threads, ☛Loctite™ (#648 green)**. Thread sealant such as pipe Teflon must be used on all pipe threads.

Chemicals and lubricants
You will need some cleaner/degreaser such as carb cleaner. Motor oil and clear automotive-type grease will be useful as a lubricant and should be readily available during installation.

Clean Shop Towels
Use these to keep the installation area clean.

Symbol Key

Throughout this installation guide you will see the following symbols used:

➲ NOTE

Used to indicate tips and information to aid in installation, maintenance, or use of the supercharger.

!! CAUTION !!

Used to indicate precautions that must be taken to avoid damage to the supercharger and associated components.

⚠ WARNING!!

Used to indicate precautions that must be taken to avoid bodily injury as well as damage to the supercharger and associated components.

GLOSSARY OF TERMS

ABBREVIATION	DESCRIPTION
ACT	Air Charger Temperature
BHCS	Button Head Cap Screw
DTC	Diagnostic Trouble Code
ECT	Engine Coolant Temperature
EGR	Exhaust Gas Recirculation
ETC	Electronic Throttle Control
EVAP	Evaporative Emissions System
FHSCS	Flat Head Socket Cap Screw
HHFCS	Hex Head Flanged Cap Screw
IAT	Inlet Air Temperature
IC	Intercooler
ID	Internal Diameter
LB-IN	Pound-force inch
LB-FT	Pound-force foot
LTR	Low Temp Radiator
MAF	Mass Air Flow
MAP	Manifold Absolute Pressure
MY	Model Year
OBD	On Board Diagnostics
OD	Outside Diameter
PCV	Positive Crankcase Ventilation
PSI	Pound Per Square Inch
SC	Supercharger
SHCS	Socket Head Cap Screw
TPS	Throttle Pressure Sensor
TRQ	Torque

PRE-INSTALLATION CHECKLIST

Before installing your Whipple Supercharger Kit, complete the following checklist.

1. Verify Condition of Vehicle: Before the supercharger kit is installed, ensure the engine runs smoothly and that the factory malfunction indicator light (MIL) is off. Only install the supercharger kit if the engine runs smoothly *and* the MIL is off.

2. **!! CAUTION !! This product is intended for use only on STOCK, UNMODIFIED, WELL-MAINTAINED engines. Installation on a worn-out or modified engine is not recommended without factory computer and fuel system modifications. Custom engine configurations could require custom tuning and other supporting modifications. Whipple does not offer custom calibration services.**

3. Verify Fuel System: Supercharger systems should only be installed on vehicles that have new or clean fuel filters. High mileage vehicles may require a fuel pump change if fuel PSI cannot be properly maintained under high flow demand.

4. Proper Octane: Use only 91 octane fuel or higher, RON+MON/2. If fuel of less than 91-octane is present in the vehicle fuel tank, the tank must be completely drained and refilled with 91 or higher octane to 1/8th of a tank.

5. Assess Cleanliness of Installation Area: Make sure your work area and the under-hood area are free from debris. This supercharger is a high-quality, close-tolerance compressor and must not be subjected to contamination by dirt or any type of foreign material. If necessary, vacuum around engine to remove any foreign material.

6. **!! CAUTION !! DO NOT remove the protective seal on the supercharger prior to installation. Foreign material entering the supercharger will automatically void all warranties.**

7. Identify Supercharger Kit Components: Before beginning installation, identify all the components of your Whipple Supercharger Kit and ensure all items are present and undamaged.

8. **!! CAUTION !! Do not attempt to start the engine before adding the supplied Supercharger Oil to the supercharger!**

SAFETY PRECAUTIONS

CAREFULLY READ THE IMPORTANT SAFETY PRECAUTIONS AND WARNINGS BEFORE PROCEEDING WITH THE INSTALLATION!

Appropriate disassembly, assembly methods and procedures are essential to ensure the personal safety of the individual performing the kit installation. Improper installation due to the failure to correctly follow these instructions could cause personally injury or death. Read each step of the installation manual carefully before starting the installation.

- Always wear safety glasses for eye protection.
- Place the ignition switch in the off position.
- Always apply the parking brake when working on vehicle.
- Block the front and rear tire surfaces to prevent unexpected vehicle movement.
- Operate the engine only in well-ventilated areas to avoid exposure to carbon monoxide.
- Do not smoke or use flammable items near or around fuel system.
- Use chemicals and cleaners only in well-ventilated areas.
- Batteries can produce explosive hydrogen gas which can cause personal injury. Do not allow flames, sparks or flammable sources to come near the battery.
- Keep hands and any other objects away from the radiator fan blades.
- Keep yourself and your clothing away from moving parts when the engine is running.
- Do not wear loose clothing or jewelry that can be caught in rotating or moving parts.

WARNING

***NOTICE:** Installation of Whipple Supercharger products signifies that you have read this document and have agreed to the terms stated within.*

It's the purchaser's responsibility to follow all installation instruction guidelines and safety procedures supplied with the product as it's received by the purchaser to determine the compatibility of the product with the vehicle or the device the purchaser intends to install the product on.

Whipple Superchargers assumes no responsibility for damages occurring from accident, misuse, abuse, improper installation, improper operation, lack of reasonable care or all previously stated reasons resulting from incompatibility with other manufacturer's products.

There are no warranties expressed or implied for engine failure or damage to the vehicle in any way, loss of use or inconvenience or labor reimbursement. This includes merchantability and fitness.

The information contained in this publication was accurate and in effect at the time the publication was approved for printing and is subject to change without notice or liability. Whipple Superchargers reserves the right to revise the information presented herein or to discontinue the production of parts described at any time.

PRE-INSTALLATION CHECKLIST

Before you begin installing the Whipple SC system, make sure you have completed the **Pre-Installation Checklist**. Be sure you have:

1. ☐ Verified the condition of the vehicle.
2. ☐ Verified the fuel octane is 91 or higher.
3. ☐ Verified that the fuel system is clean.
4. ☐ Verified fuel pressure.
5. ☐ Assessed the cleanliness of the installation area.
6. ☐ Identified the supercharger kit components.
7. ☐ Read and understand the manual.

☐ Have you completed all items in the **Pre-Installation Checklist**?

SUPERCHARGER INSTALLATION INSTRUCTIONS

It is strongly recommended that you read through this guide **before** you begin installing the Whipple Supercharger.

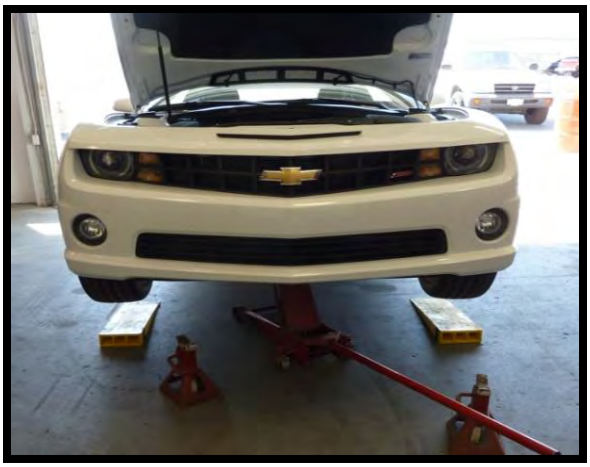
1. (Complete kits) Using the supplied flash tool, connect to the factory OBDII connector.

   - ☐ Your computer must have a stock unaltered file or programmer will not load. If you have a modified PCM, return it back to stock to avoid any corruption issues. If your car has been tuned you will need to return it to stock before proceeding.
   - ☐ If you're unable to return it to stock you will need to take it to a GM dealer and have them update the computer.
   - ☐ Use the flash tool instructions to continue reading stock PCM. Using the flash tool, read the stock file and supply to Whipple. This is highly recommended to do before the install begins to minimize any down time. Cals may take 24-48 hours.

2. Open the trunk and remove the trunk liner & Remove the battery cover by unscrewing the plastic lid retainer.


3. Remove the air compressor assembly and then remove the negative battery connector with a 10mm wrench. The battery cable must remain off for the remainder of the install.


4. Jack up the vehicle and remove both front tires. NOTE: Please install correct jack stands and be very careful.



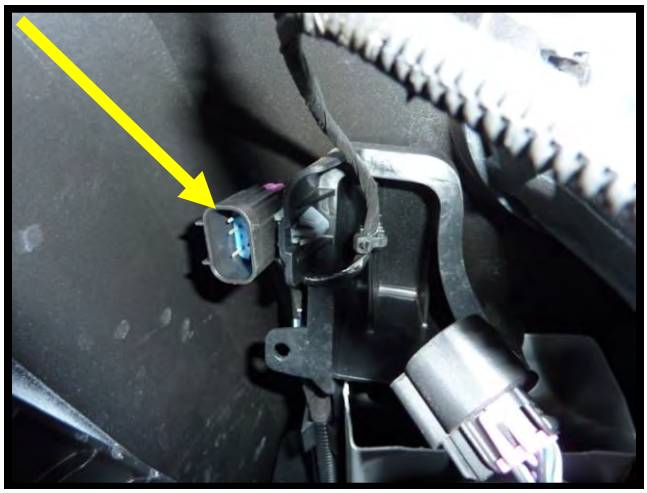
5. Remove both plastic inter fender wells to gain access to the front mounting bolts by removing screws and retainers. There are (5) torx screws and 5 push in retainers, 3 screws in front, 2 on the back side, 2 push-in retainers in front and 1 in top and 3 on the backside.

6. Remove 6 push-in retainers on the top of the fascia and 4-10mm bolts.

7. Remove the (2) 10mm bolts on bottom of the fascia.

8. Remove the (2) torx and (3) 10mm bolts on each side holding the fascia to the body.

9. Unplug the master electrical connector on the passenger side wheel well.



10. Remove the fascia by pulling straight forward (having some assistance will help). Place fascia in a safe place.

11. Remove the retainers from this shield. The shield and the retainers will not be reused.

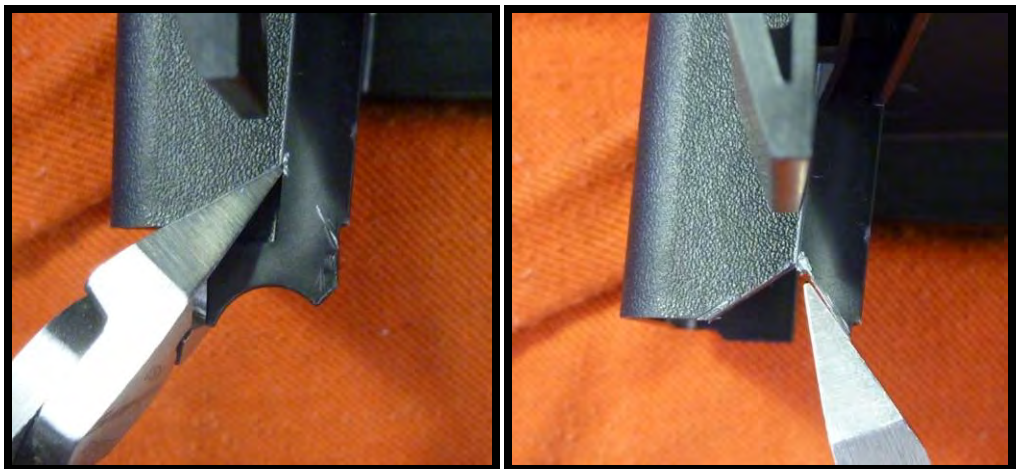
12. Install Intercooler harness, locate the electrical component bag and take out the intercooler harness mount relay as shown on right hand side of radiator support, with screws provided.

13. Connect red power lead to stud at front of fuse box.

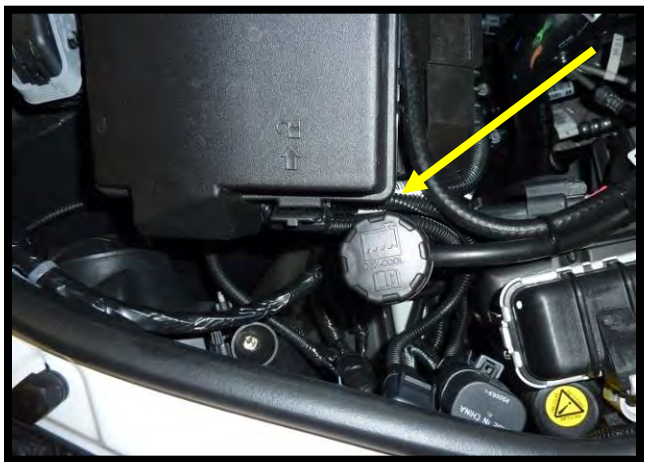
14. Remove fuse from position 15 and insert it into fuse tap then Insert fuse tap into position 15.

15. Route ground lead along frame rail then up onto engine on right hand side to ground stud above thermostat and bolt down.

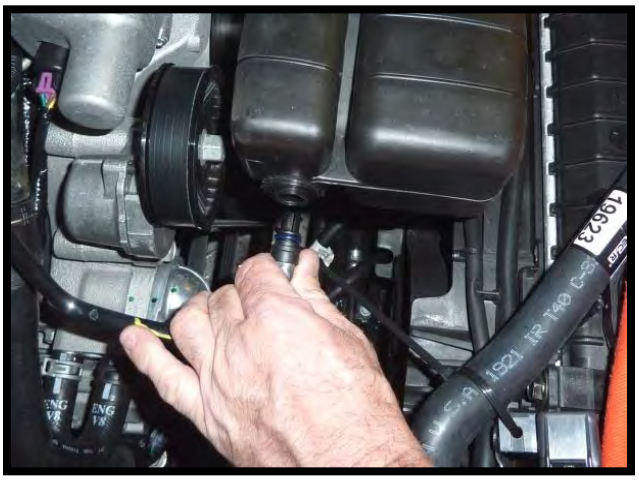
16. Notch out the edge of the fuse box lid so the wires can pass through



17. Intercooler harness complete.



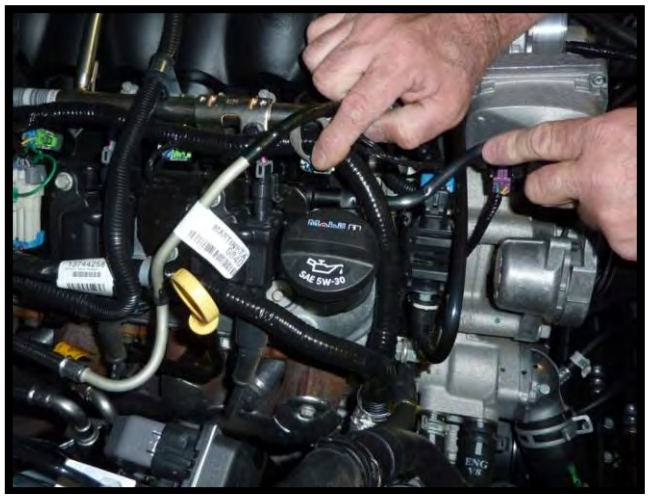
18. Unplug the PCV vent tube from the air duct. Pull straight out on the tube.



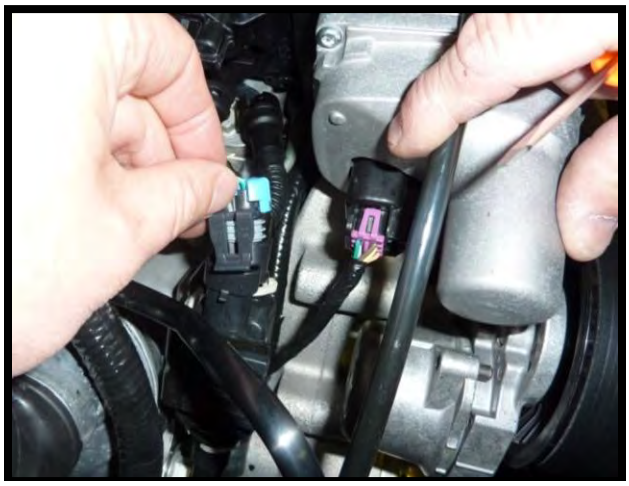
19. Remove the plastic duct by loosening the 2-5/16 hose clamps. This will not be reused.

20. Remove the upper air box. By unsnapping the 2 plastic tabs. Remove the air filter, it will be replaced with a high flow filter, remove the lower air box by removing the (2) 10mm nut and pulling the box up. NOTE: Be careful not to tear the foam around the inlet.

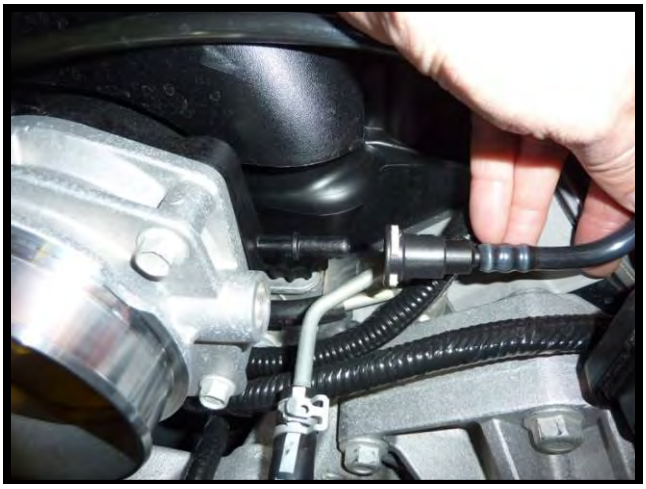
21. Remove the PCV vent tube by unclipping the release tab. This tube will not be reused. Pull the release tab down to allow the connector to release.



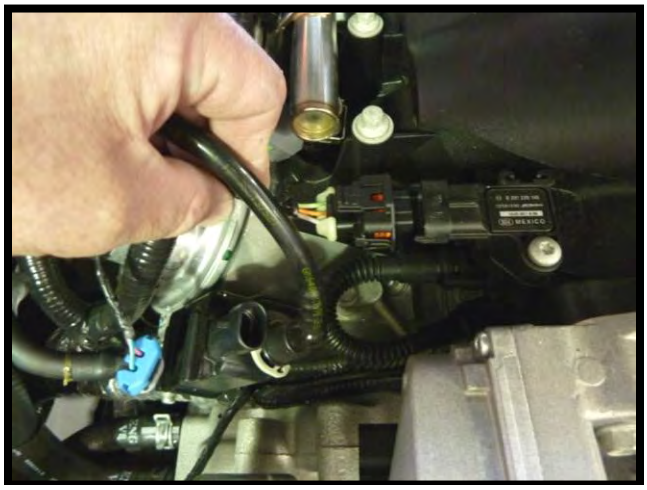
22. Unplug the purge solenoid, MAP sensor and the electronic throttle control connectors.



23. Unplug the purge vacuum hose. Push in the lock tab to release the connector, then unplug the other side of the vacuum hose from the intake manifold. This hose will be reused.



24. Unplug the purge tank vacuum hose assembly. Put this vacuum hose over by the Antilock Brake Module for now.



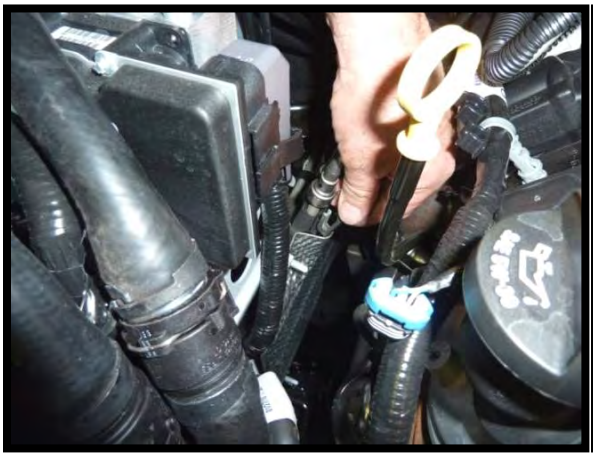
25. Remove the 10mm nut that retains the fuel line.

26. Remove the plastic retainers from the fuel line. Remove the secondary lock retainer.

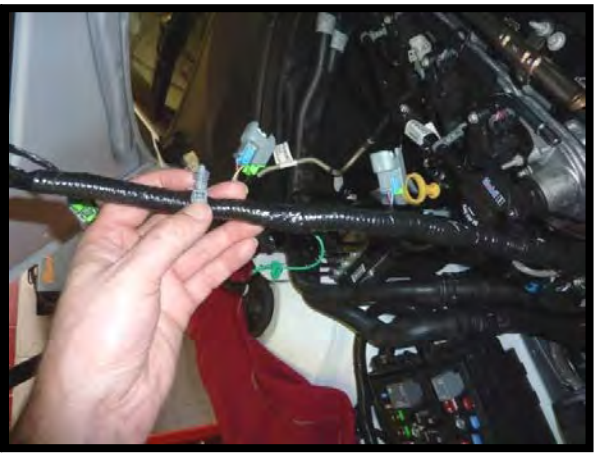
27. Install the 3/8 plastic rail tool on the fuel line.

28. With a rag to retain the spilled fuel, push the fuel release tool into the connector and release the connector. **NOTE:** This fuel is under high pressure, be careful.

29. Remove the secondary lock from the chassis fuel line. Install the fuel line release tool and release the connector **NOTE:** Place a rag to retain spilled fuel form the line, remove the line it will not be reused.

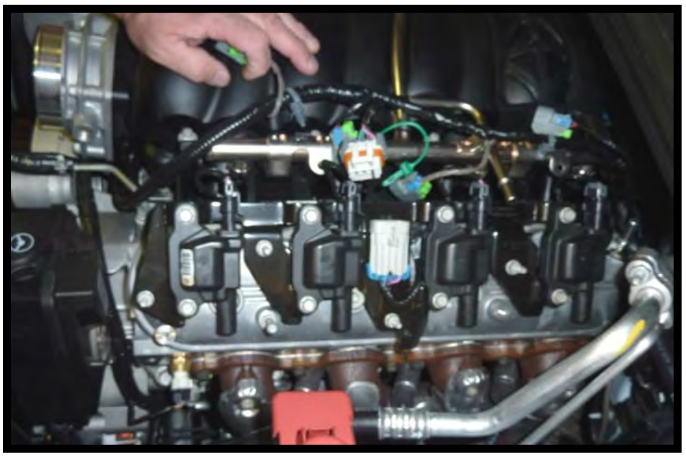



30. Remove the (2) injector harness retainers from the fuel rails then unplug the passenger side 2,4,6 and 8 injectors by pulling up on the secondary lock then depress the middle tab. Swing the harness out of the way for now.

31. Release the 2 harness retainers on bank 1 and unplug drivers side 1,3,5 and 7 injectors.

32. Unplug the main coil electrical connector and remove the sparkplug wires from coils on bank 1. **NOTE:** Be careful not to damage the sparkplug wire. Remove (5) 10mm bolts from the coil pack mounting points and remove the coil pack from the engine.



33. Remove the main coil electrical connector from bank 2. Remove the (5) 10mm bolts, remove all the sparkplug wires and remove the coil pack.

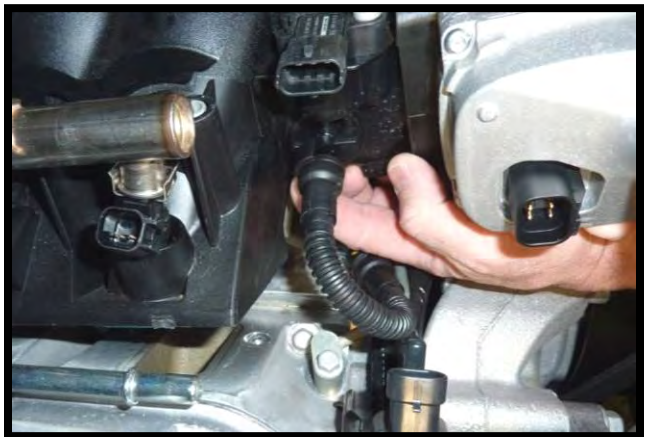
34. Remove the brake hose vacuum check valve from the brake booster.

35. Remove all (10) of the intake manifold retaining bolts. (8mm socket)

36. Remove the 10mm retaining nut from the engine cover mounting bracket and remove the bracket.

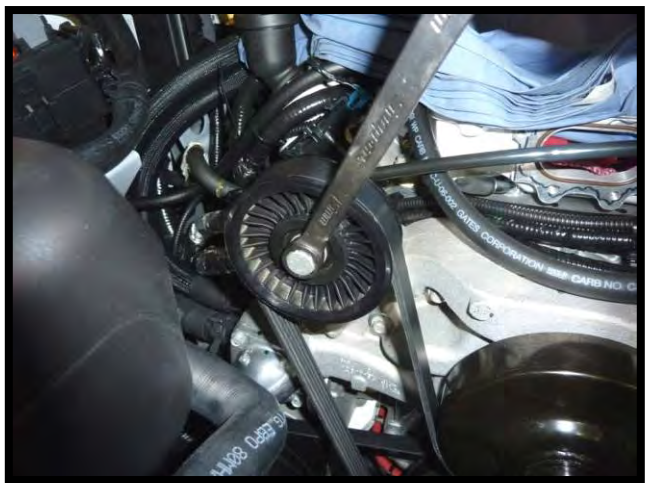
37. In the supercharger kit there is (2) small pieces of conduit to install on the rear (2) bolts to allow them to be removed with the intake manifold. NOTE: There is not enough room to remove the bolt from the manifold and if you leave the bolt in it will hang on the cylinder head when you remove the intake manifold.

38. Remove the lower vacuum hose by releasing the tab on the hose connector. It's on the bottom of the hose.



39. Remove the intake manifold by swinging the manifold to the driver's side and holding the brake vacuum hose. NOTE: Do not allow the hose to get caught on the oil pressure sensor in the rear of the engine.

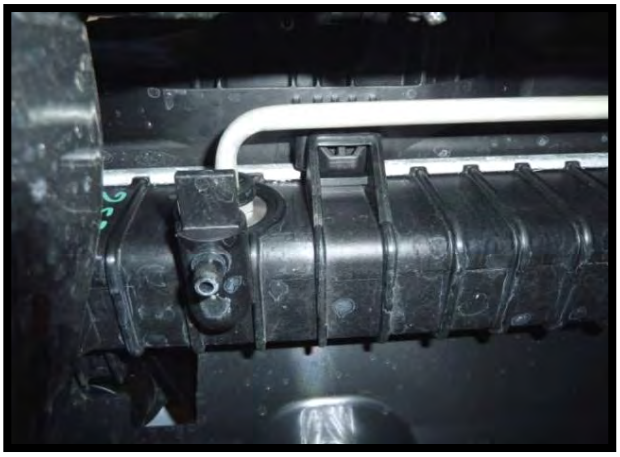
40. Remove the stock drive belt & belt tensioner by removing the (2) 15mm bolts. The bolts, tensioner and belt will not be reused.



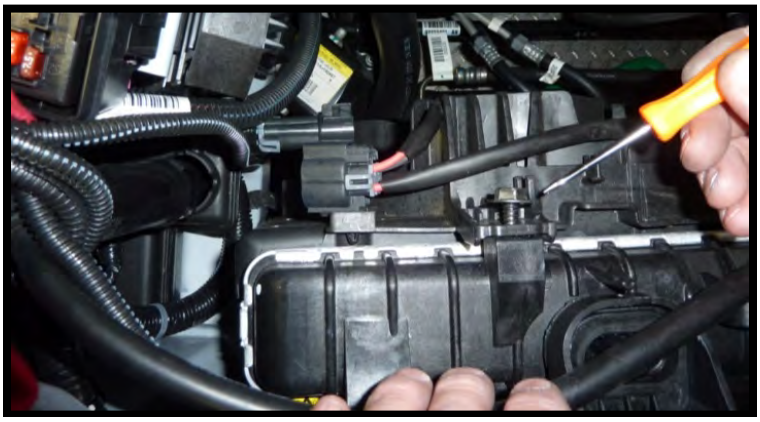
41. Remove the valley vacuum hose and tape up all the intake ports.

42. Remove all the stock spark plugs & replace with the NGK Iridium IX TR7IX. These come pre-gapped at .051", using a feeler gauge (not a spark plug adjuster tool), **gap the spark plugs at .035"**. Torque the sparkplug to 11 foot pounds as per GM manual. NOTE: Apply a small amount of anti-seize on the threads.

43. Remove the radiator cap then drain the radiator from the petcock into a clean drain pan.



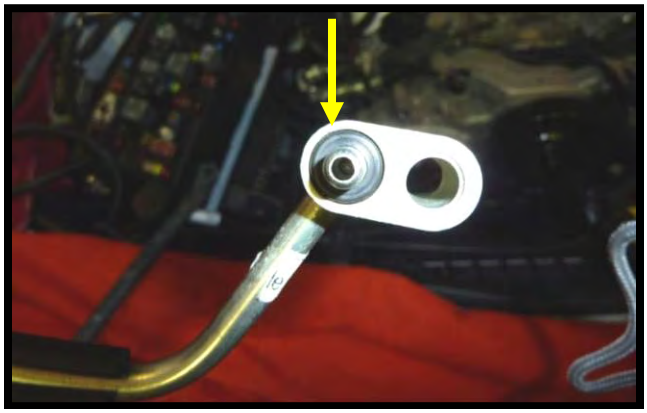
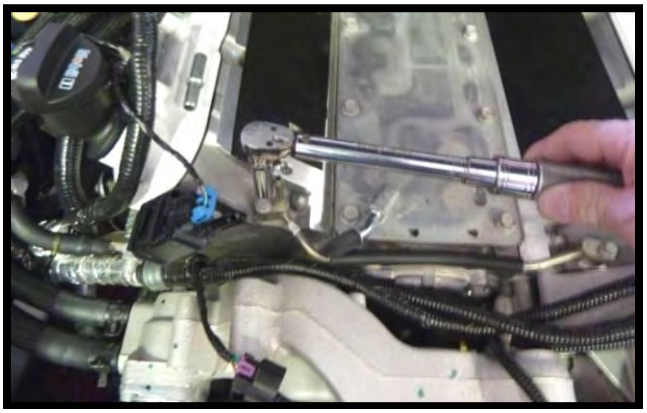
44. Remove both the upper coolant fan assembly screws. (13mm socket).



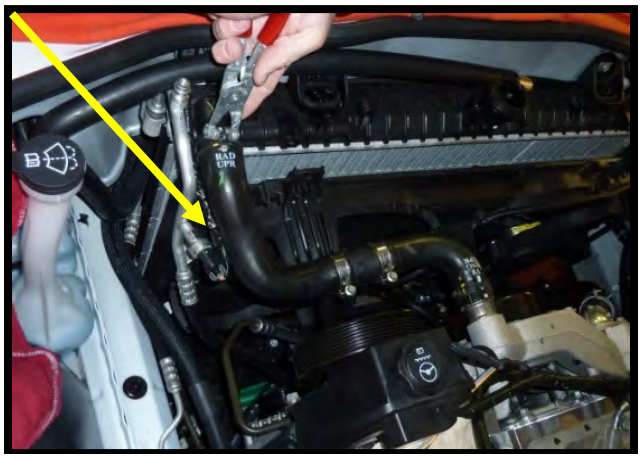
45. Remove both of the upper hoses from the filler neck. Remove this hose from both outlets. It will be reused later in the install.


46. Remove both 10mm bolts from the water crossover tube and remove stock coolant air bleed pipe. The stock pipe will not be reused.

47. The replacement coolant air bleed pipe has an oring in each end, make sure that the oring is in the groove before you install the coolant air bleed pipe. Place coolant air bleed pipe on engine block and install both bolts torque each end to 106 inch pounds.

48. Remove the upper radiator hose from the radiator. This makes clearance so you can remove the fan assembly.



49. Unplug the fans electrical connector and remove the fan assembly.

50. Remove the factory bolt from the harmonic balancer (24mm socket). This bolt is very tight. You may need to heat the area around the head of the bolt (not the head of the bolt) with a propane torch. NOTE: Be very careful of an open flame around the engine and the chassis.

51. After removing the bolt clean the area with a solvent and blow dry with air.

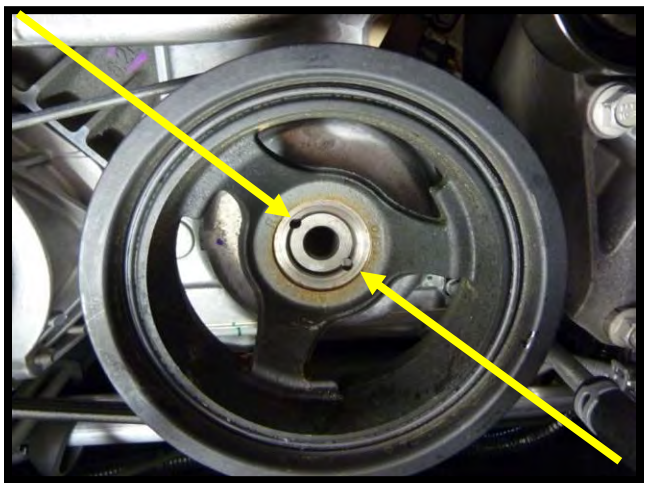
52. In the supercharger kit you will find a Harmonic Balancer Pin Kit. Install the 14mm allen bolt into the drill guide and tighten the bolt hand tight


53. With the provided 2.0" x 14mm HEX stock and a 14mm ½" drive socket, tighten to 35 ft-lbs.

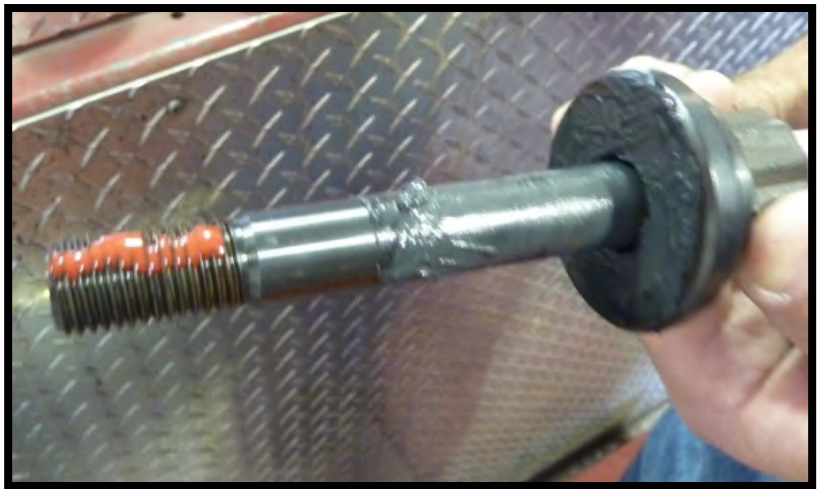
54. Using the provided .250 drill bit, drill the hole until the collar touches the drill guide. **NOTE:** Clear the chips when drilling the hole, after drilling both holes blow all the chips out of the holes. **NOTE:** USE EYE PROTECTION.

55. Remove the drill guide and again blow away any loose chips then clean the area with solvent and blow dry.

56. Install both .251" dowels into the holes. NOTE: Make sure that when the dowel is installed it is lower than the harmonic balancer. The dowel should not touch the harmonic balancer when installed

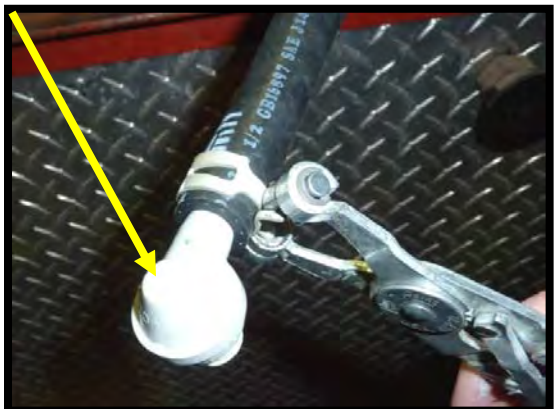


57. Install new ARP balance bolt Lube the washer and under the head of the bolt with APR assembly lube. Apply lube to both sides of the washer. Apply a .020" bead of red Loctite to the clean threads.



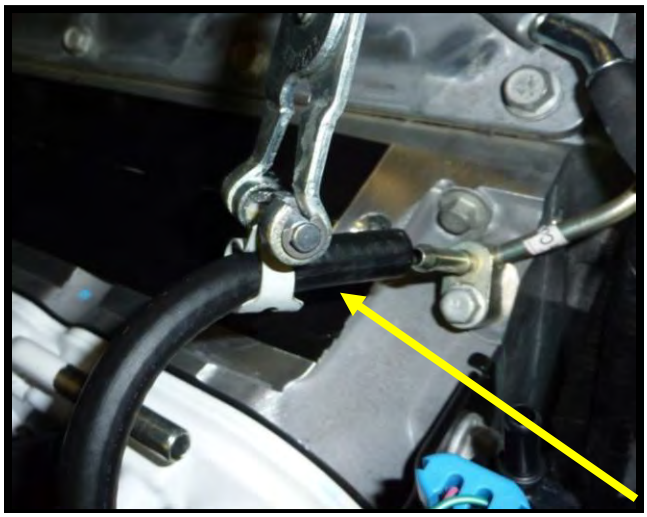
58. Install the M16-20 ARP bolt using a 1 1/16" 12-point socket. Torque to 240 foot pounds. **NOTE:** On the 6-speed manual car, apply parking brake, shift car into 4th gear and have an assistant apply the brakes to torque the bolt. On the automatic transmission car unbolt the starter and install GM Kent-Moore #J42386-A flywheel holding tool to torque bolt.

59. When done with pin kit, re-install fan assembly. Make sure you plug in the power.
60. Reinstall upper radiator hose.
61. Remove the Brake vacuum check valve from the stock vacuum hose. This will be reused.



62. Remove the stock throttle body from the factory intake manifold. **NOTE:** Clean the throttle body on both the inlet and outlet sides using carb cleaner.

63. Install ¼" hose (F) on the Coolant Air Bleed pipe.



64. Route the hose down the factory harness and over behind the ECM. And back across the top of the fan assembly.

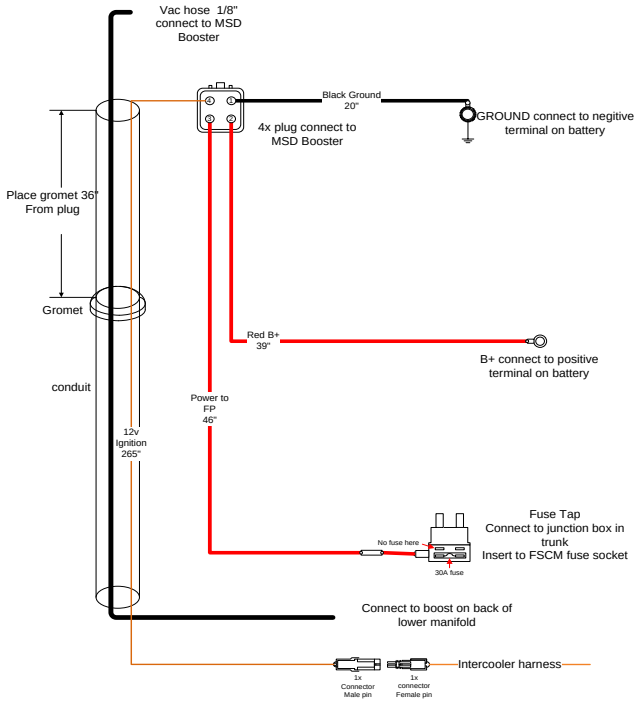
65. Hose (F) has a coupler in the end of the hose. Attach the factory water fill neck hose to the coupler. Attach the factory coolant reservoir hose back to the water fill neck.

66. Connect the Electronic Throttle Control extension cable to the factory connector and route along wires over water pump towards driver's side.

67. Complete kits: (**2013-2015 Manual transmission**) Skip the fuel pump booster instructions. Replace the fuel pump and fuel pump module with the supplied reprogramed module for the extra fuel demand.

68. Complete kits: (**2010-2015 Auto Transmission and 2010-2012 Manual**) Proceed with fuel pump booster instructions.

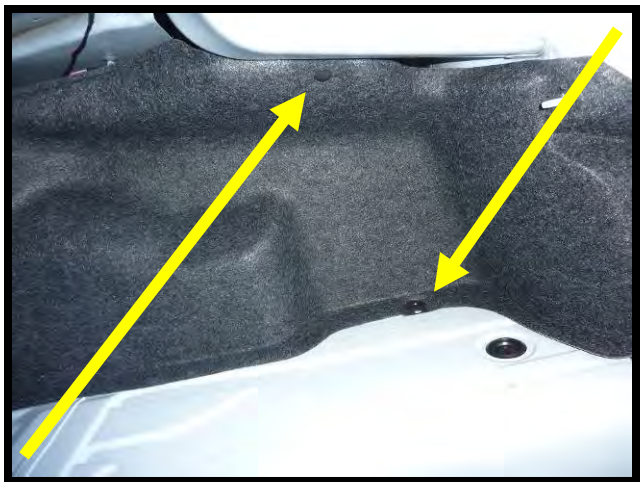
69. Locate box with MSD fuel pump booster there will be the booster module, a mounting bracket, wire harness and bolt bag.



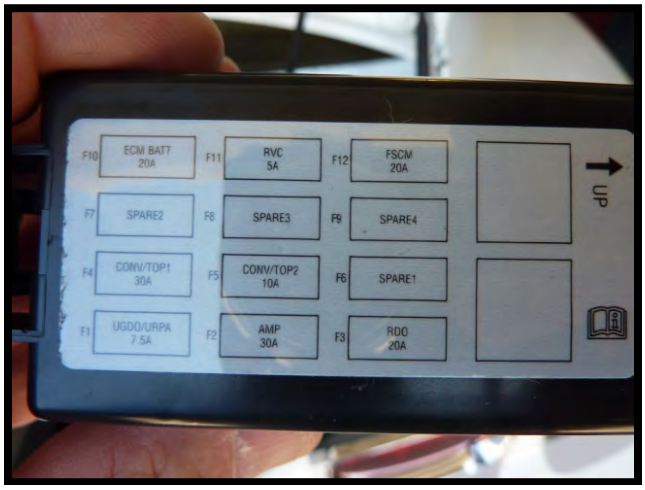
70. Remove the 6 cargo net attaching retainers. (Only hand tight).


71. Carefully pull up the weather strip molding on the trunk. Pull only the part covering the top of the panel. Remove the panel.

72. Remove these 2 plastic retainers from the panel.

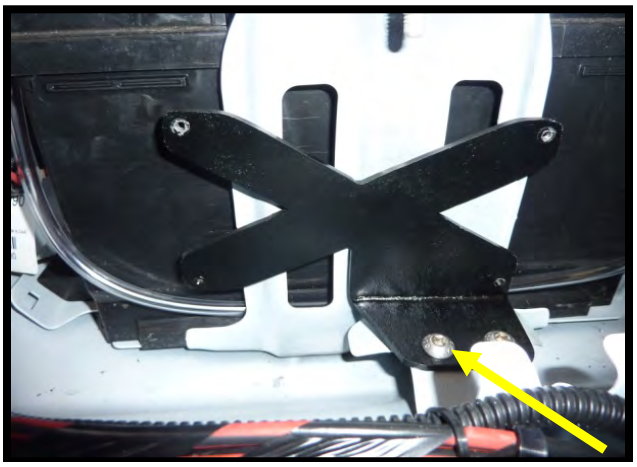


73. Pull panel out and push panel forward to gain access to the rear fuse panel. Remove the cover. On the top of the cover it shows you the fuse layout.

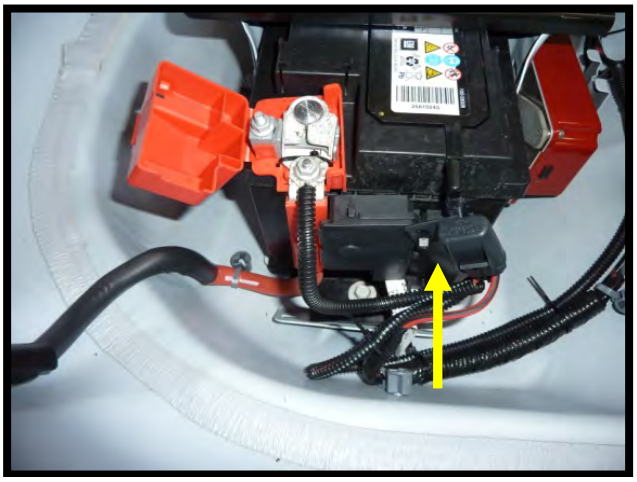


74. Remove the FSCM fuse. It will not be reused. Place it in F9 as a spare.

75. Install the FPVB (Fuel Pump Voltage Booster) support bracket on side of battery with (4) Allen bolts (9/64" Allen wrench).



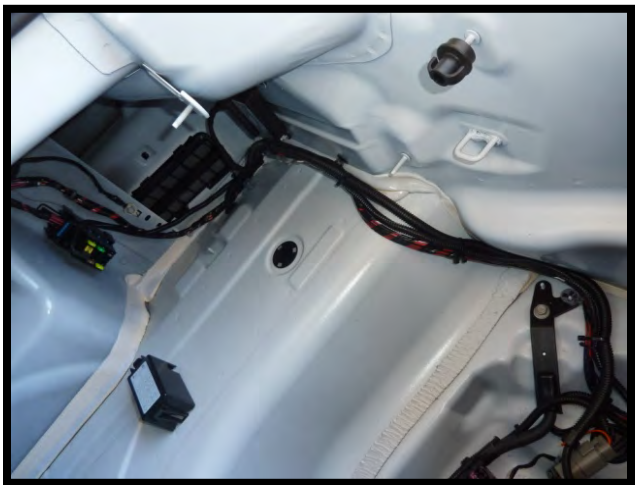
76. Lay the entire FPVB harness in the trunk. Plug in the FPVB harness into the FPVB. Including the 1/8" vacuum hose.



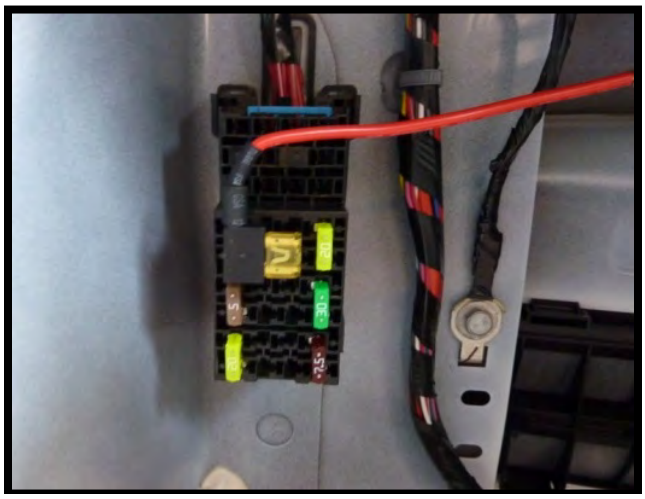
77. Attach the fuse holder red cable (positive battery terminal) and wire-tie the fuse holder to the battery fuse panel. Run the down the battery harness and wire tie. Notch the cover so the conduit will fit under it.

78. Route the negative (-) harness down the negative battery cable and attach to the battery terminal and wire-tie.

79. Route the remainder of the harness along the factory harness and wire-tie.



80. Remove the FSCM fuse (do not insert into new fuse holder) insert fuse tap from MSD as shown, it will not work turned the other way around.



81. Notch the fuse cover to allow the harness the cover to snap into its factory location. The notch is ¾" x ½".

82. Remove the plastic body plug and route the vacuum/boost hose and the orange wire into the opening.

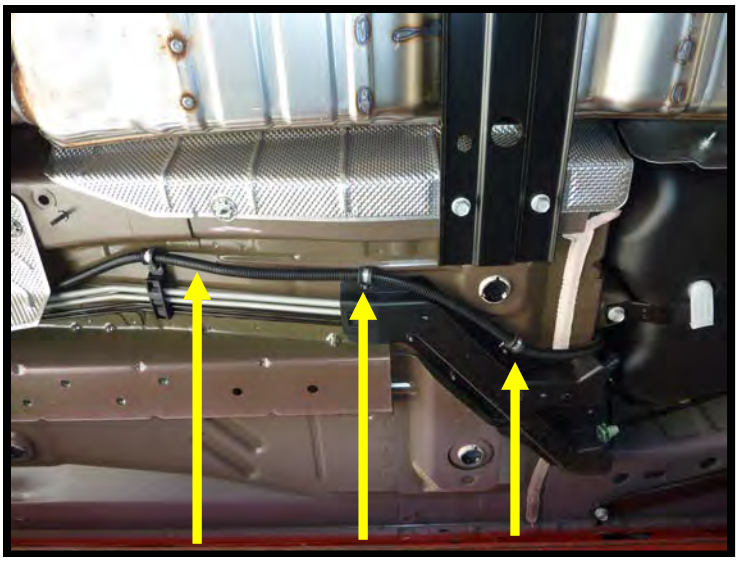
83. Install the harness down to the grommet, snap the grommet in place. The factory plug will not be reused.

84. Route the harness on top of the fuel fill lines and behind the factory shield. Wire tie harness to the fill tubes.

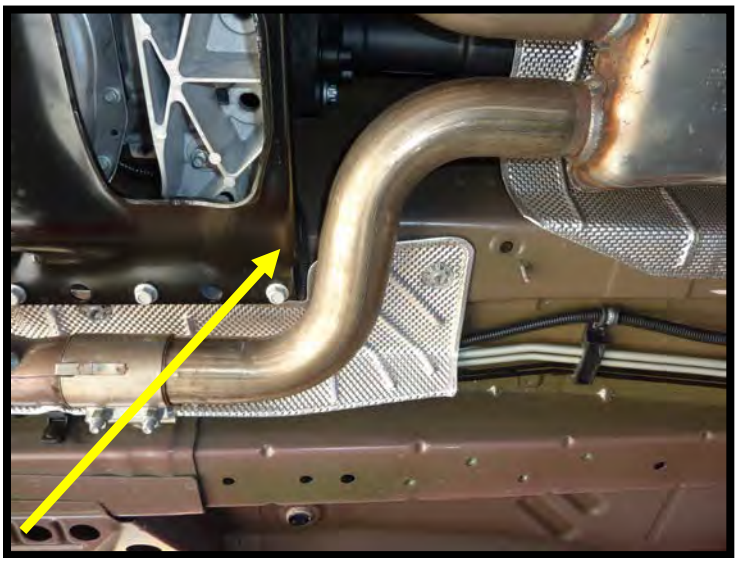
85. Route the harness down the large fill tube and wire-tie to it.

86. Route the harness down the fuel tank electrical harness.

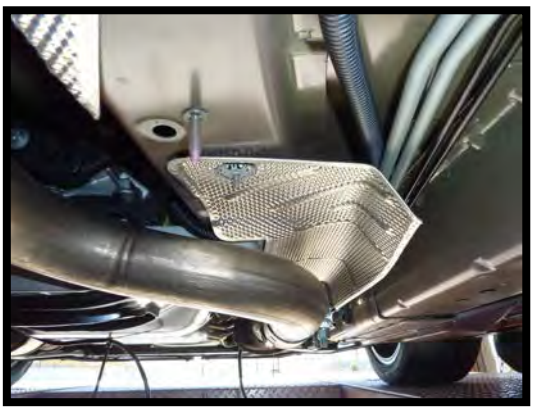
87. Remove the (3) plastic 10mm nuts and route the harness alongside of the fuel lines with adel clamps.



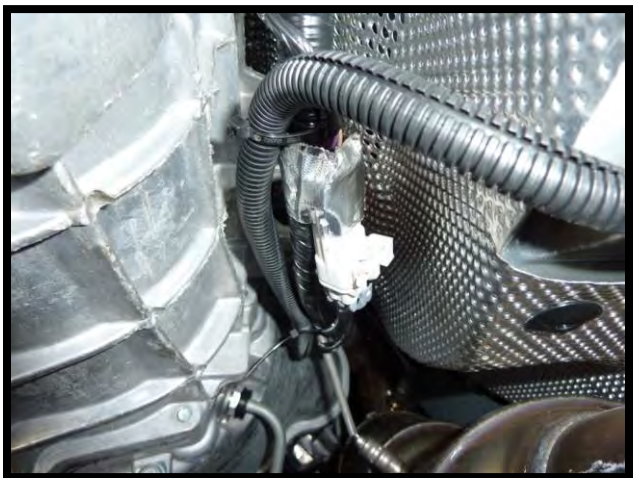
88. Route the harness **BEHIND** the heat shield on right hand side of tunnel.



89. Remove the clip retaining the heat shield and route the harness through the opening and reinstall the retaining clip.



90. Route the harness over top of transmission to back of intake manifold.

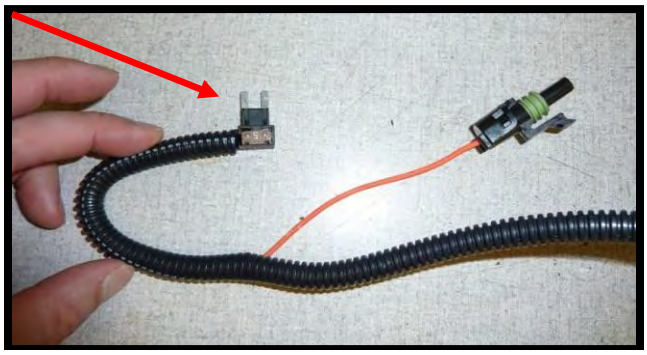


91. Route the harness over the right hand rear of the engine. Vacuum hose will be connected to port on back of new lower manifold later.

92. Route the harness along the factory harness along valve cover, then down onto frame rail.

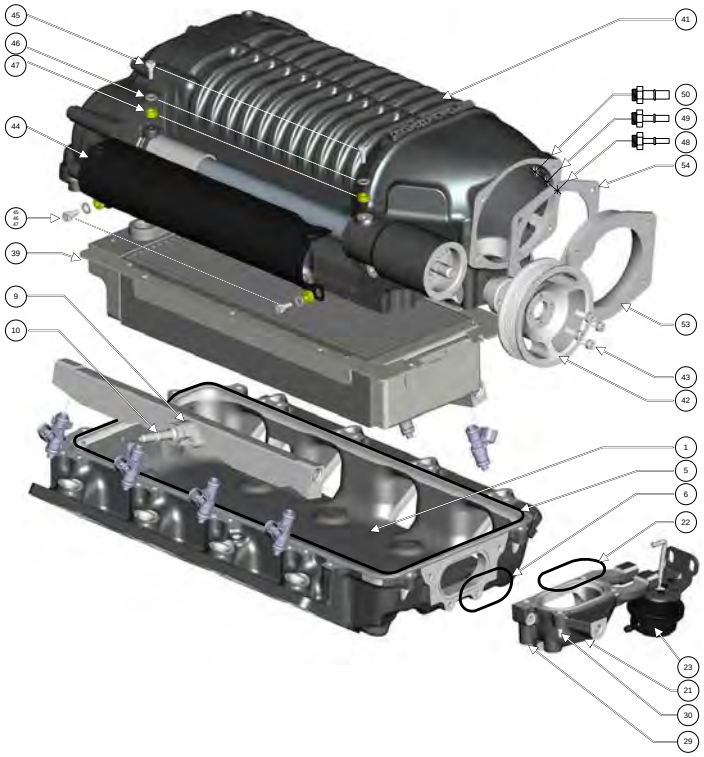
93. Route along factory harness under the ECM.

94. Plug 1x connector into intercooler harness 1x pigtail.

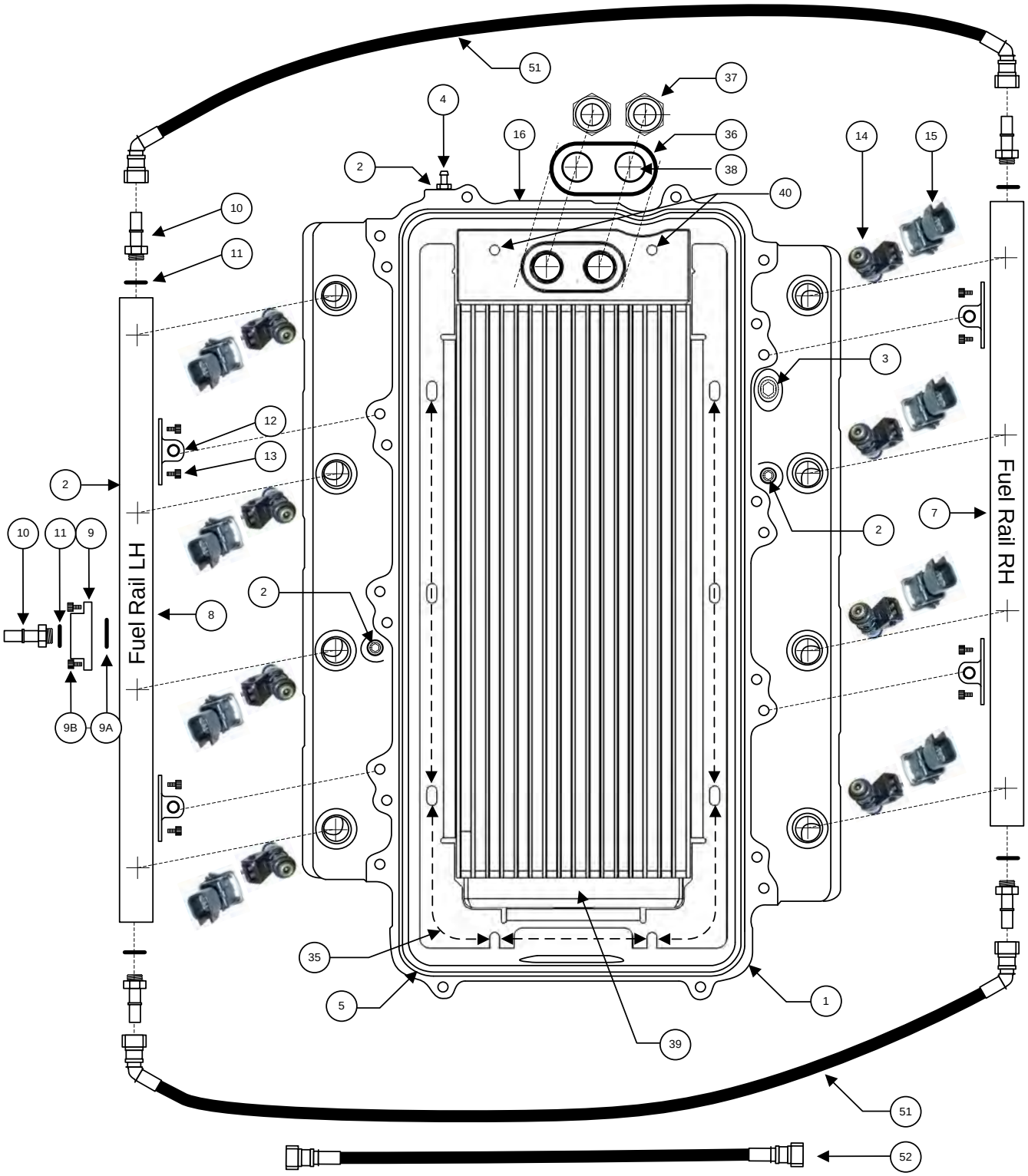


95. Oil pressure sensor needs to be oriented so the connector release tab is facing the back of the motor. This is to clear the lower manifold. Using a 1 1/6" open ended wrench, remove the oil psi sensor from the back of the engine. Install 1 or 2 of the supplied copper washers under the sensor to index it to the correct position.

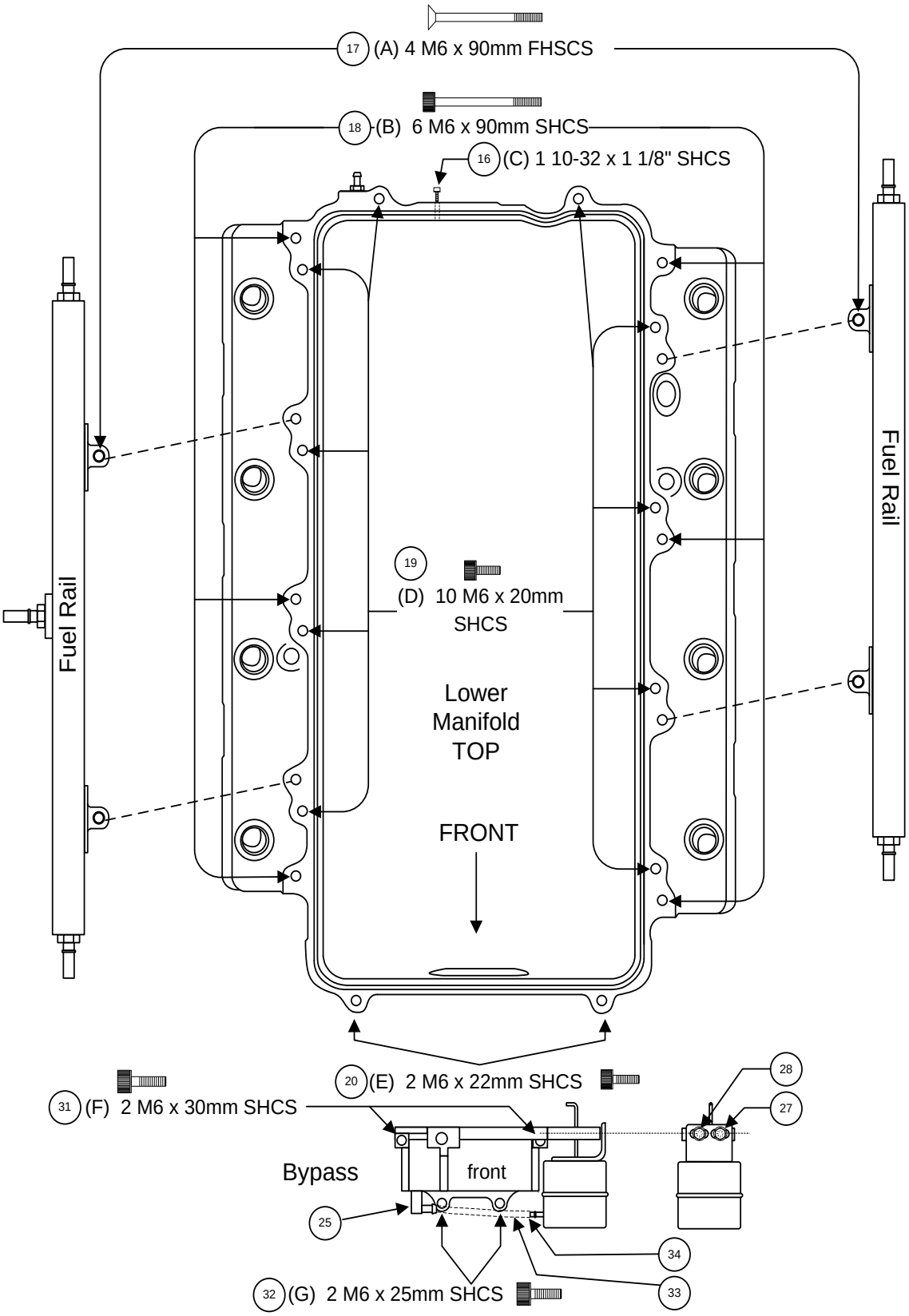
96. **NOTE:** The supercharger assembly is shipped to the customer assembled. The installer will disassemble the supercharger from the lower manifold. The bypass actuator is left loose so the lower 2 front mounting socket head cap screws (allen) can be installed.



See packing list for number descriptions:

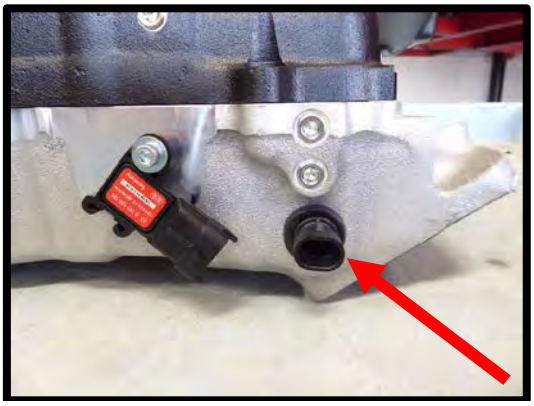
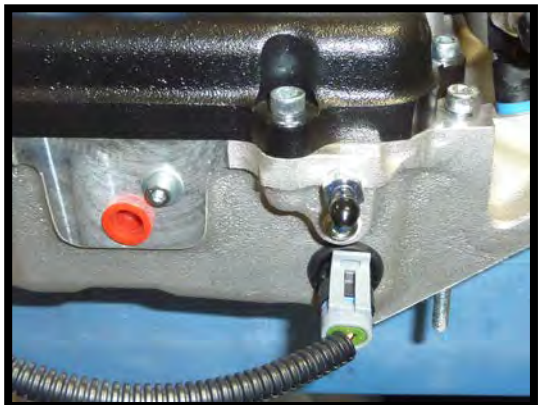


Camaro manifold bolts
Torque M6 bolts to 130 inch pounds



97. Install supplied 3-Bar MAP sensor (**PN# 12592525**) too back of manifold using the supplied (1) 10-32 x 7/8" SHCS bolt, apply light amount of blue Loctite to threads. Pre-install MAP pigtail to sensor. **NOTE:** Competition based kits are not supplied with MAP sensors, contact your tuner for properly sensor recommendation.


98. Install the supplied air temp sensor into Whipple manifold using the supplied rubber grommet. Connect the supplied IAT pigtail to IAT sensor.

99. Install the lower intake port O-rings, when the O-ring is installed correctly it will lay flat in the groove. Note: if you twist the O-ring it will cause a vacuum leak. (DTC P0171 OR DTC P0174 or both).

100. Remove the tape from the ports, clean the ports with a clean cloth and spray the cylinder head intake surface with silicone or soapy water. It will allow the Lower Intake manifold to slide around. Place the lower intake manifold on the cylinder heads. DO NOT install any bolts.

101. Install the (4) fuel fittings and oring to the fuel rails. Torque to 25 lb-ft.

102. Install the billet fuel feed adapter to the fuel rail using the supplied (2) 6mm x 20mm SHCS. Torque to 50 lb-in.

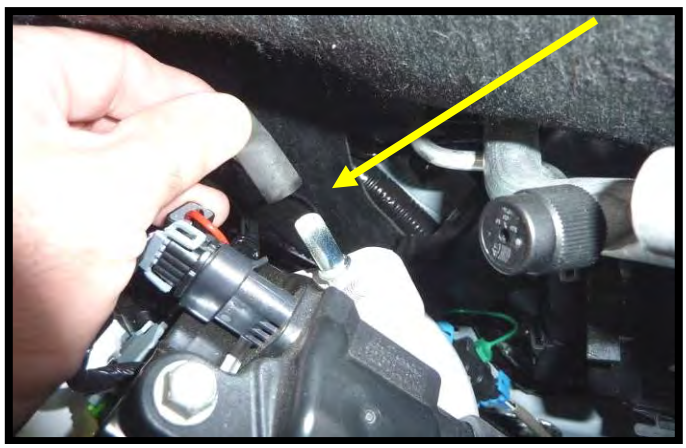
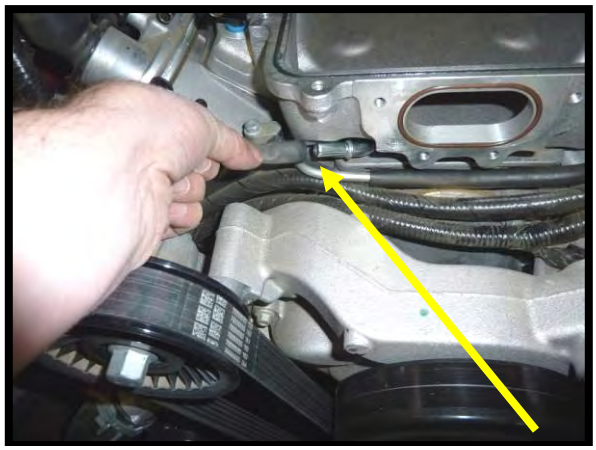
103. Install the fuel feed fitting to the fuel feed billet adapter. Torque to 25 lb-ft.

104. Apply generous amount of grease to injector orings. Install the fuel injectors into the intake manifold. Install the fuel rails to the injectors. The fuel feed fitting must be on the passenger side.

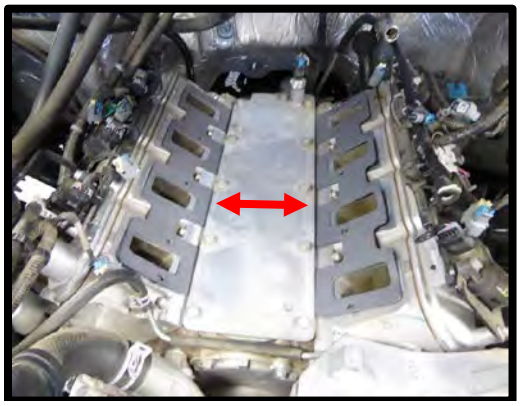
105. (Applications with fuel pump booster) Connect vacuum line from BAP to nipple on back of blower manifold trim as necessary.

106. Due to the placement of the PCV orifice tube in the valley cover plate the lower intake relief sometimes comes in contact. Insert a cross point (Phillips) screwdriver into the tube and very carefully move the tube away from the contacting point on the lower manifold.

107. Remove the vacuum plug from the bank1 (driver side) valve cover (in the rear). Install it on the tube.

108. Install the supplied intake gaskets to cylinder heads.

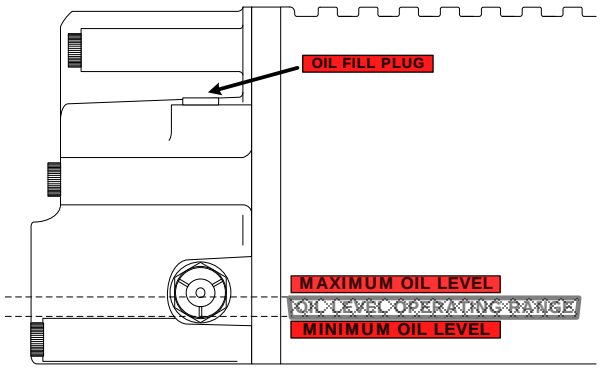


109. Install the lower retaining bolts (A) (4) M6 x 90mm FHSCS through fuel rail brackets and (B) 6 M6 X 90mm allen in the lower manifold and torque first pass in sequence to 44 lb-in, second pass to 90 lb-in. **NOTE:** Torque bolts from side to side, starting from the middle bolts. Cover the intake with a clean drop cloth.


110. The supercharger must be filled with oil prior to use. This supercharger is shipped without oil inside. The oil is in a separate bottle supplied with your kit.

Severe damage to the compressor will occur if you overfill the supercharger rear gear case.

- ☐ Make sure the SC is sitting on a flat surface.
- ☐ Remove -6AN allen plug (1/4" allen wrench) and fill SC with **WHIPPLE SC OIL ONLY!!**
- ☐ Fill to the middle of the sight glass. Tip from side to side then with flat check oil again add as necessary. NOTE: The W175FF compressor takes a maximum of 8 fl/oz and a minimum of 7.5 fl/oz.
- ☐ Reinstall -6AN allen plug.
- ☐ NOTE: After running the SC, the oil level will lower due to oil filling the bearings. The proper level while **not running** should be between the bottom of the sight glass and the middle and will vary when running and not running.
- ☐ Change SC oil every 100,000 miles and only use **WHIPPLE SC OIL ONLY!!**



111. Pre fill intercooler core through water fitting before installing on manifold this will make it easier to get bubbles out of system.

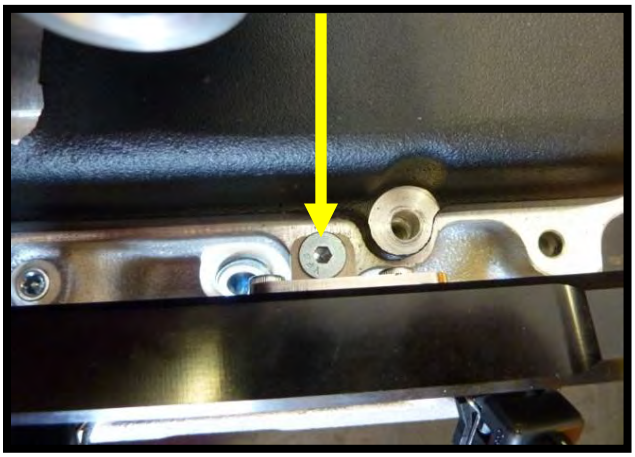
112. Install the coil pack assembly and torque the bolts to 106 inch pounds. **NOTE:** DO NOT forget to plug in the coil connectors.

113. Plug in fuel injectors. **NOTE:** some injectors will have connector adapters already installed.

114. Rest S/C assembly on front of lower manifold and attach intercooler lines (D) & (E) to back. Use 1" wrench.

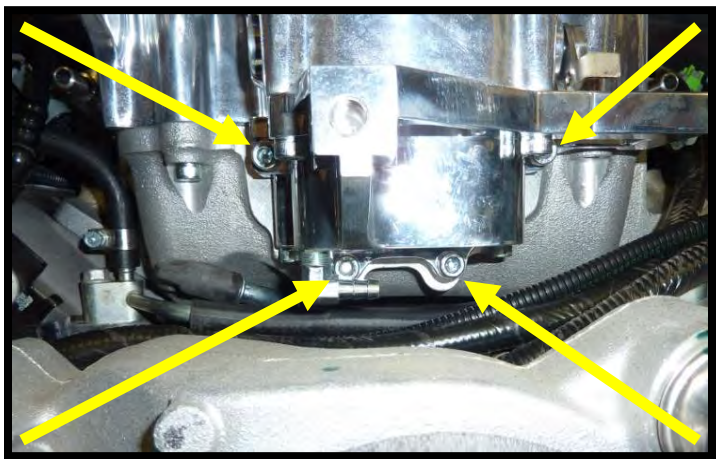
115. Carefully set blower in position and slide under cowl. (Note it may be necessary to pick up cowl slightly).

116. Once S/C assembly is down slide back until bypass is against front of lower manifold (Note if S/C won't slide back all the way you may need to lift rear up slightly while you slide it back to get it over the rear fuel rail bolts.

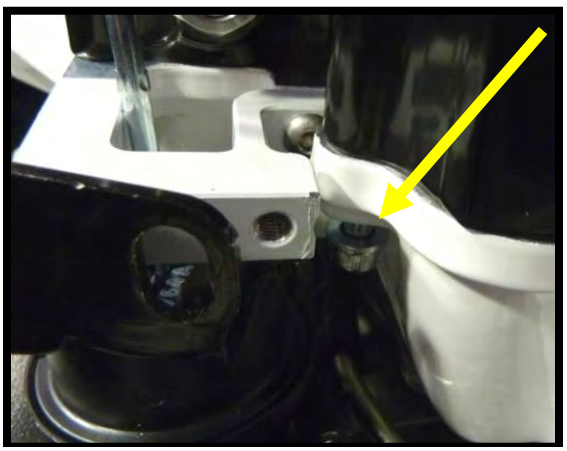


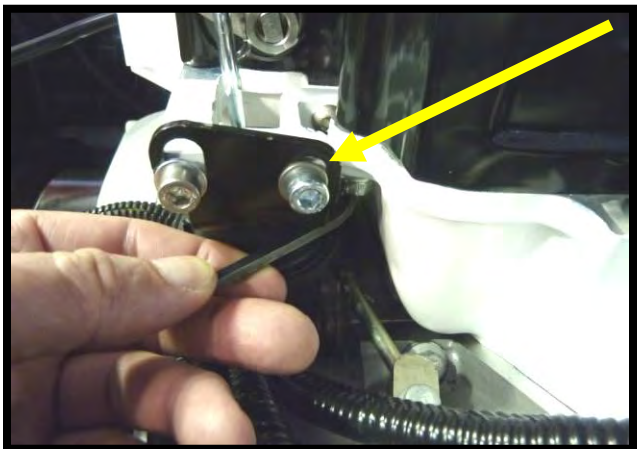
117. **NOTE:** Make sure that the vacuum actuator does not contact the water pump when you install the supercharger. Remove the (2) M6 SHCS from the actuator bracket & loosen clamp on vacuum line. This is to gain access to the (2) attaching bolts from the bottom of the lower manifold.

118. Install front bypass bolts (2) M6 x 25mm SHCS bolts top position (F) and (2) M6 x 22mm SHCS bolts in the lower position (G). Torque to 106 inch pounds.

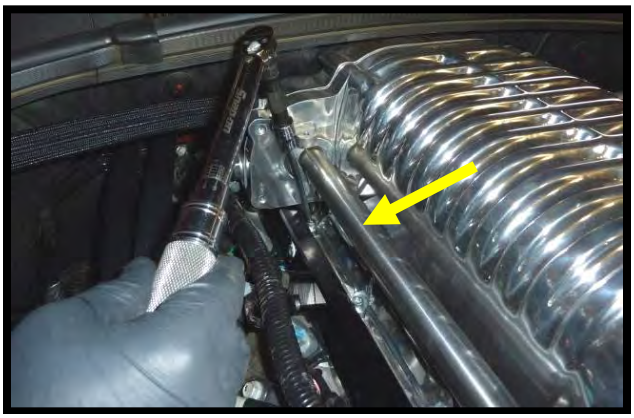


119. Install (2) M6 x 25mm SCHS (E) bolts on both sides tighten with a 5mm Allen wrench.

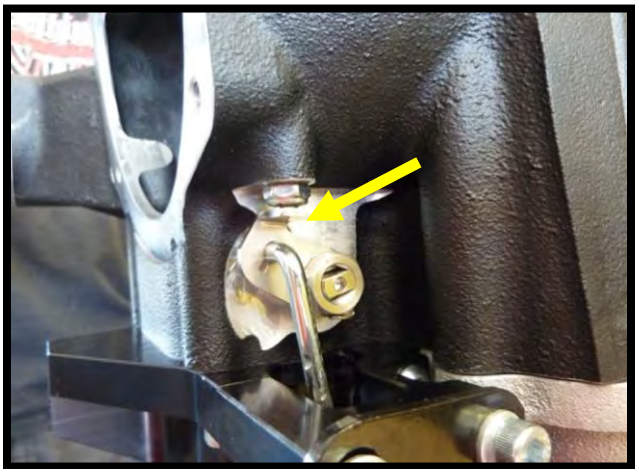




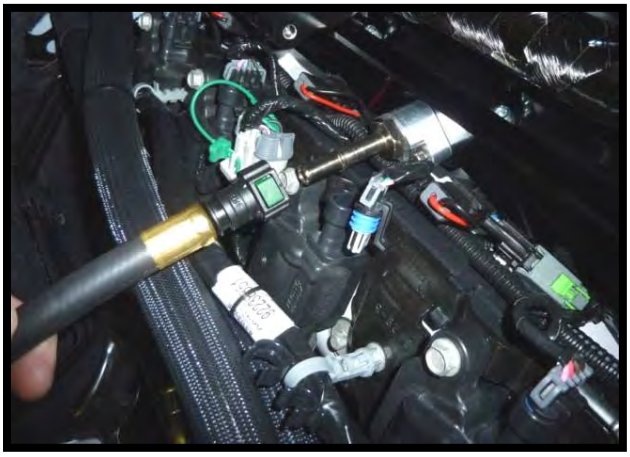
120. Install 10 M6 x 20mm bolts (D) bolts installing the attaching bolt that is under the gear case housing is installed with mechanical fingers. Tighten with a 5mm ball allen. Torque to 106 inch pounds. Torque all perimeter bolts to 106 inch pounds.



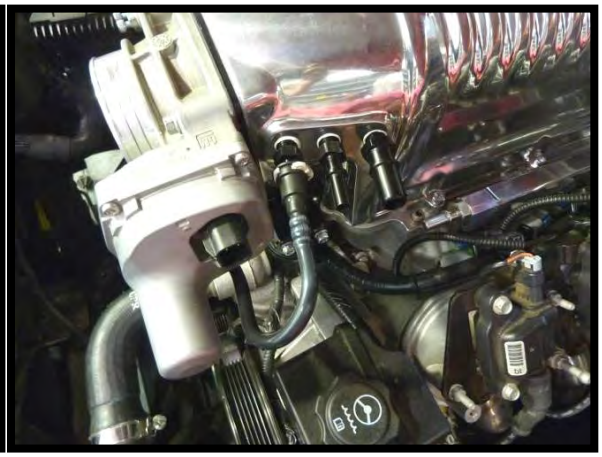
121. Adjust the actuator by pulling up on the bottom so that the lever is against the stop. Torque the bolts to 106 inch pounds. NOTE: After adjusting, open the bypass with your finger by pulling the bypass lever down. If the lever is stuck bend the lever up slightly, just enough to not stick. If you bend it too much it will bleed off boost. This is not common so notify Whipple if this is found.

122. Install the Fuel Feed Hose between chassis and engine. Install front fuel line around front of blower to fuel rails (AVON CADbar 9000 series hose).



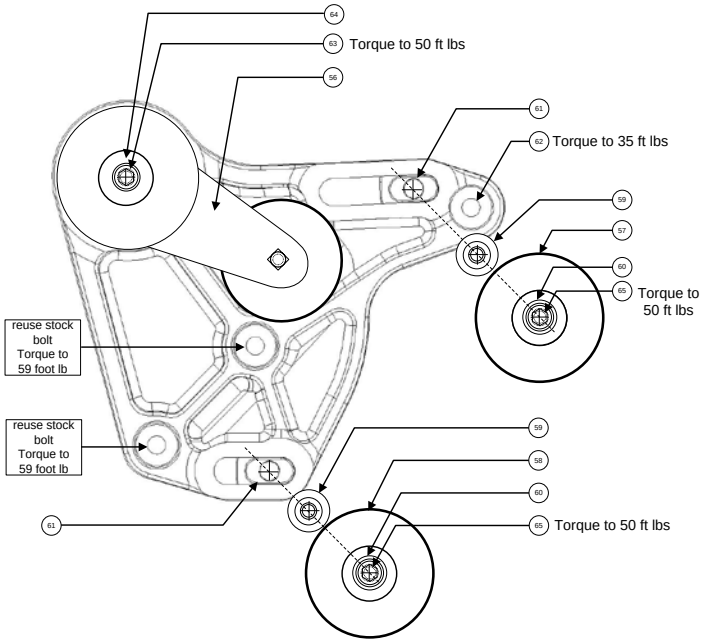

123. Attach the OE Purge hose from Purge Solenoid to the 5/16" quick disconnect fittings. **NOTE:** Route the OE line under the throttle body. Reinstall the OEM Purge hose from tank.

124. Install the brake vacuum check valve and clamp in the 11/32" hose with the quick disconnect fitting. Plug into the brake booster and route line to supercharger inlet and connect quick connect.

125. Install the 3/8" PCV quick disconnect fitting on the rear of the driver side valve cover, install the other connector at the supercharger inlet on the middle port.

126. Install the tensioner plate by installing the OEM bolts and M10 X 20mm hex head flange bolt (62). This bracket bolts where the OE tensioner was located. Bolt (62) is installed in the bypass adapter. Torque both OE bolts to 59 foot pounds and the socket cap bolt (62) to 35 foot pounds.

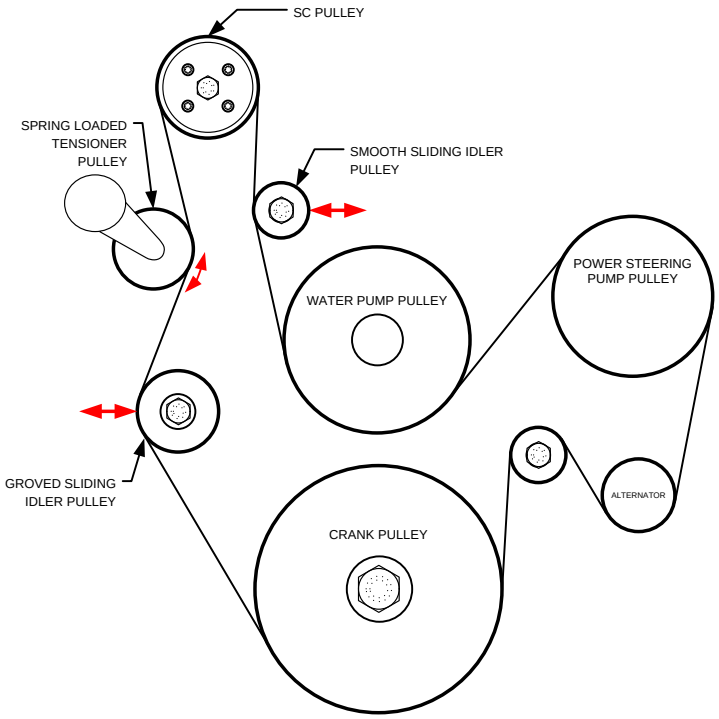


127. Install the smooth idler and the ribbed idler with the bolt and sliding (TEE) nut. **NOTE:** Leave bolts loose until belt install. Install tensioner and torque bolt to 50 foot pounds.

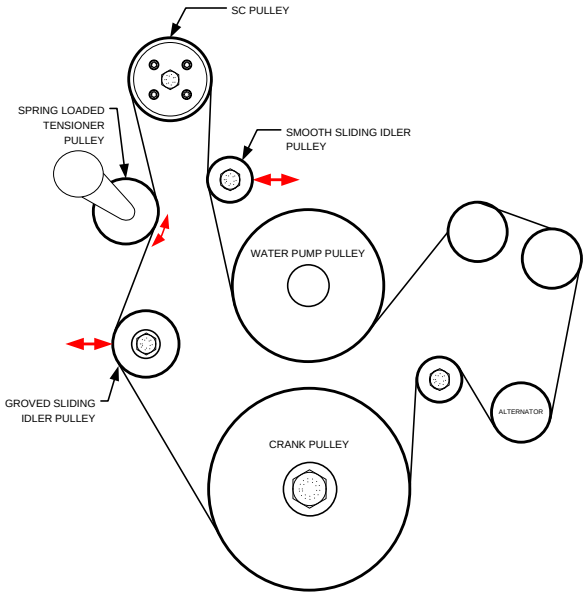
128. Install the supercharger pulley using the (4) 6mm x 12mm SHCS. Using a 5mm allen socket, torque to 119in/lb. Use the 6-rib belt to help hold the SC pulley from rotating during torqueing.

129. Install belt wrap belt per illustration. Using a ½" breaker bar, open the tensioner to its max position and slip belt onto water pump pulley.

2010-2011 BELT ROUTING
K060962 (96.2") BELT



2012 AND UP (WITH ELECTRIC POWER STEERING)
K060928 (92.8") BELT



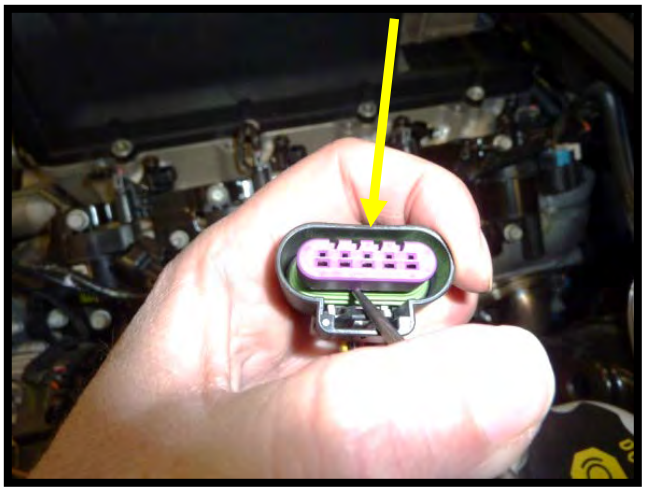
130. Adjust the ribbed sliding idler so that the there is a 2" gap on the spring loaded tensioner stop, after 25 miles re-adjust the belt tension with both idlers. Torque bolts to 50 foot pounds.

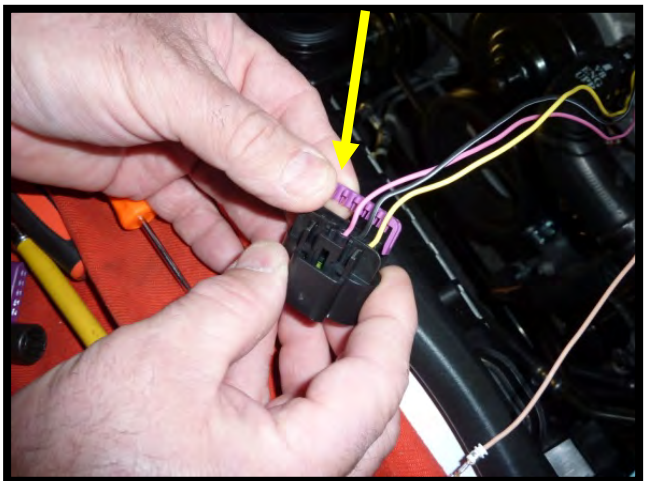
131. Install the throttle body (with billet venturi and gaskets) with the provided (4) M6 X 50MM SHCS bolts and torque to 89 inch pounds.

132. Plug in Electronic Throttle Control (ETC) extension connector.

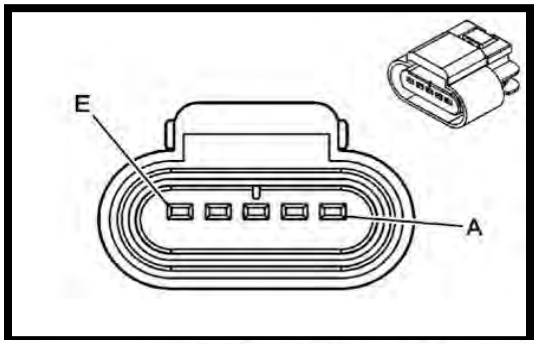
133. Find MAF sensor main plug, remove tape and pull back conduit to expose about 10” of wire.

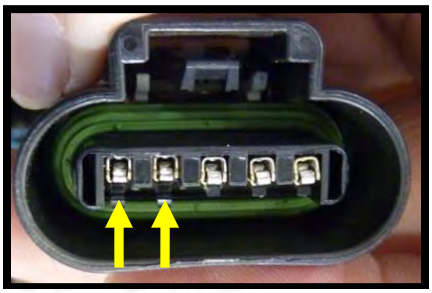
134. Remove pin retainer on front and back of plug.





135. Pull IAT sensor pins D & E out the back of plug, use a pick to pull tab away from terminal to release and push terminal out the back.

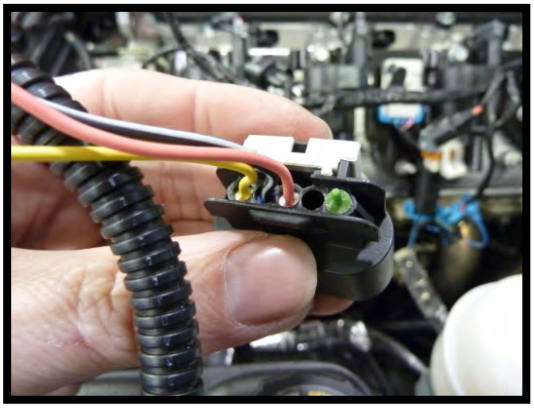




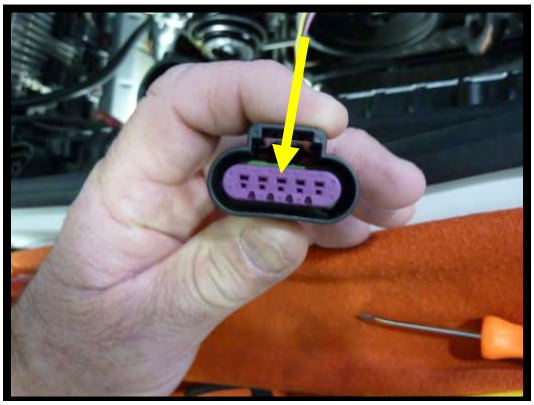
B75B Mass Air Flow/Intake Air Temperature Sensor (L99 or LS3)

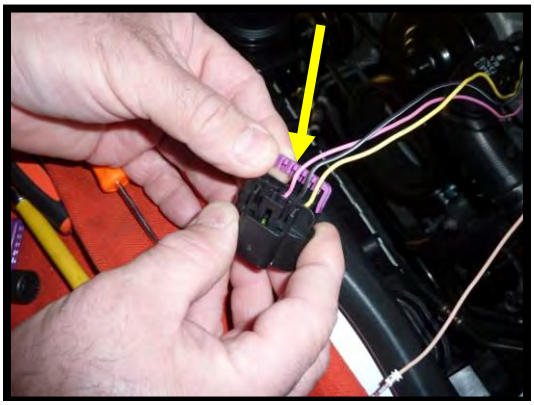
Pin	Wire	Circuit	Function
A	0.5 YE	492	MAF Sensor Signal
B	0.5 BK/WH	451	Ground
C	0.5 PK	239	Ignition Voltage
D	0.5 TN	2760	Low Reference
E	0.5 L-BU	6289	Intake Air Temperature Sensor Signal

136. Insert green cavity plugs provided into empty holes (D and E).



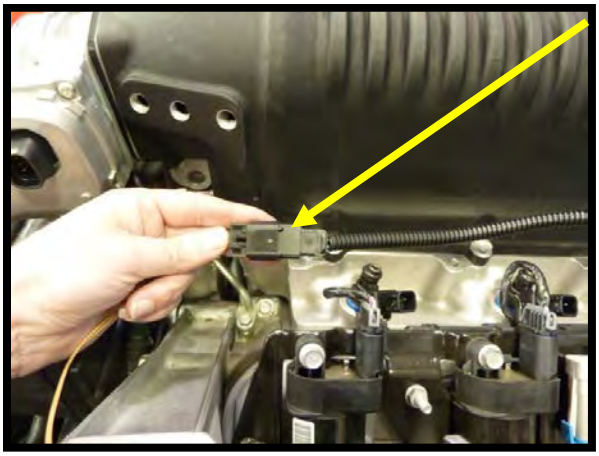
137. Reinstall pin retainers on front and back of MAF plug.





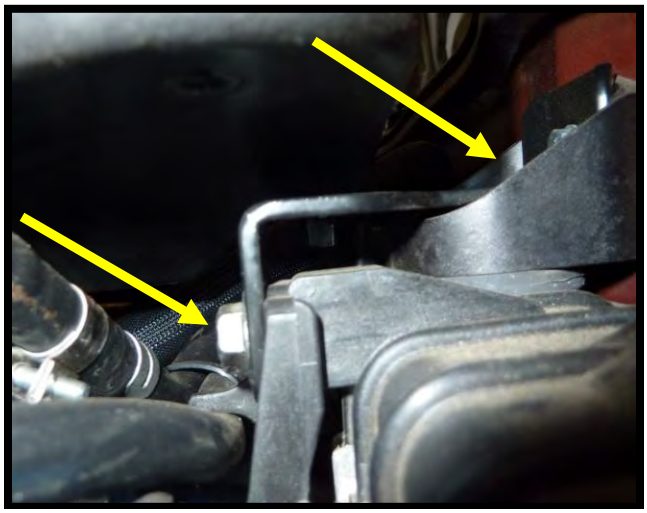
138. Insert IAT pins into the back of new 2 pin plug that came with IAT extension harness (they should click in), then push purple pin retainer clip down to lock pins in.

139. Fold IAT wires over and run back towards the IAT extension then recover wire harness with conduit. Plug in IAT extension.



140. Remove right hand upper fan shroud bolt and radiator support bolt.

141. Place intercooler bracket on radiator mounts as shown, then reinstall bolts.



142. Locate all the heat exchanger parts. (2) heat exchanger brackets, water pump, heat exchanger assembly, all hoses (all hoses are precut and the clamps are on the ends) and the pump electrical relay assembly.

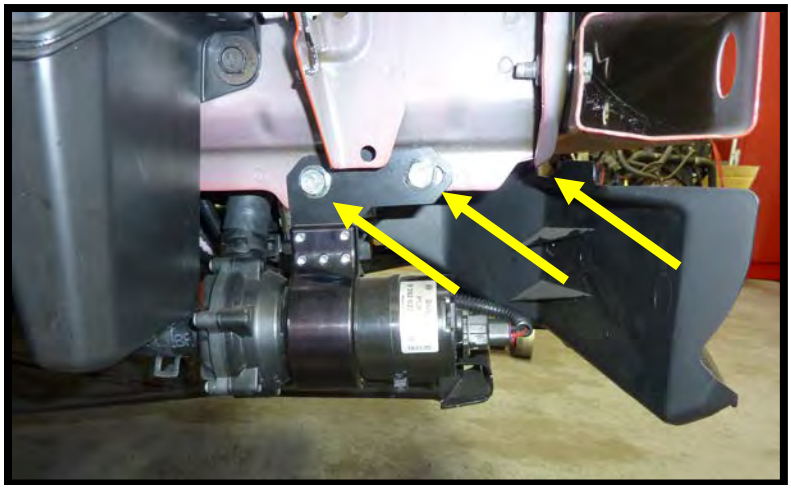
143. Remove bumper reinforcement bar.

144. (Convertible) Remove radiator core support brace (note: do not reinstall).

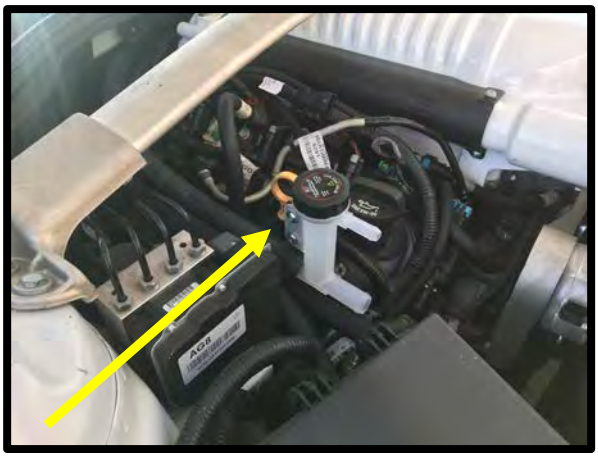
145. Mount the heat exchanger to brackets with (4) counter sunk (M8 x 35mm) bolts and washers and flange nuts. NOTE: There are (2) sizes of outlets on the heat exchanger 5/8" and ¾" the 5/8" end goes on the driver side.

146. Reinstall bumper support with new intercooler brackets sandwiched in between.

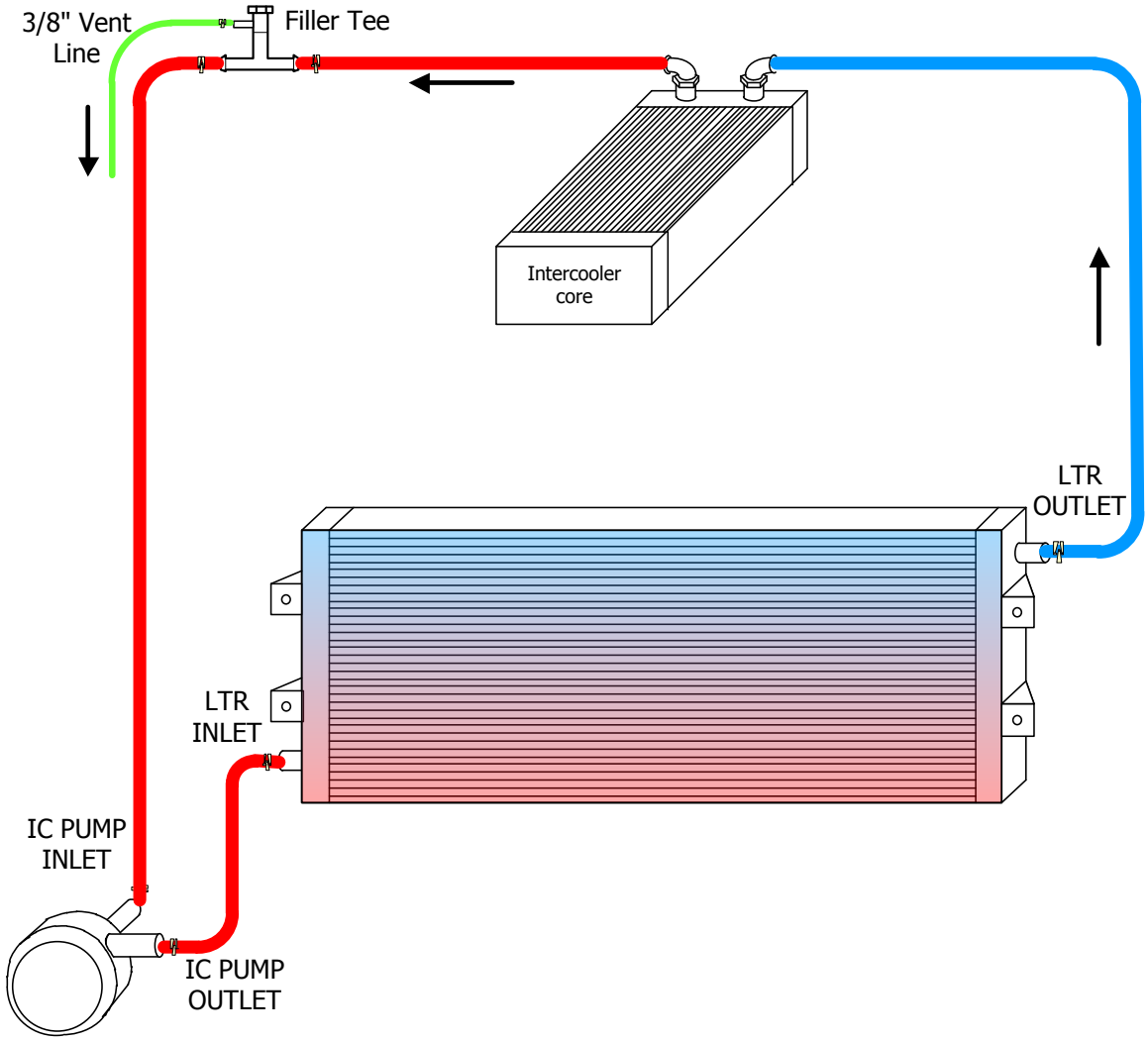
147. Install intercooler pump drill (2) 5/16" holes in pinch weld to hold pump. Drill first hole 1.900" from end drill second hold 4.360" from end. Bolt pump on with (2) 8mm bolts &flange lock nuts torque to 18 ft-lb.



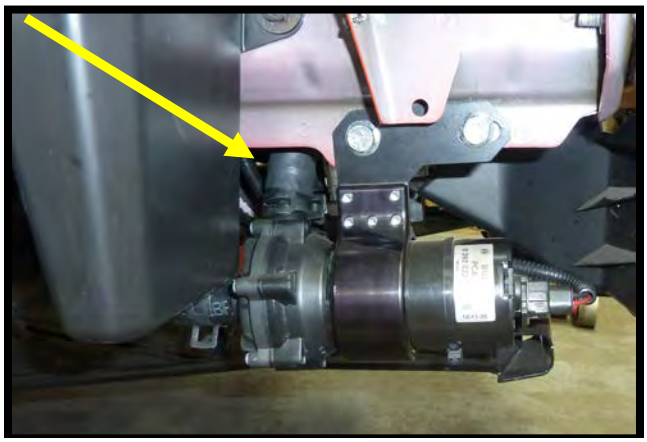
148. Install intercooler filler tee to passenger side, #2 coil forward bolt. Use the supplied bracket,1.26" spacer and the (1) 6mm x 60mm SHCS. Remove the factory bolt/stud from valve cover, install the spacer then bracket, secure with the 6mm SHCS. Mount filler tee with 3/8" barb fitting facing forward, using the (2) 6mm x 12mm flanged BHCS (4mm allen socket).



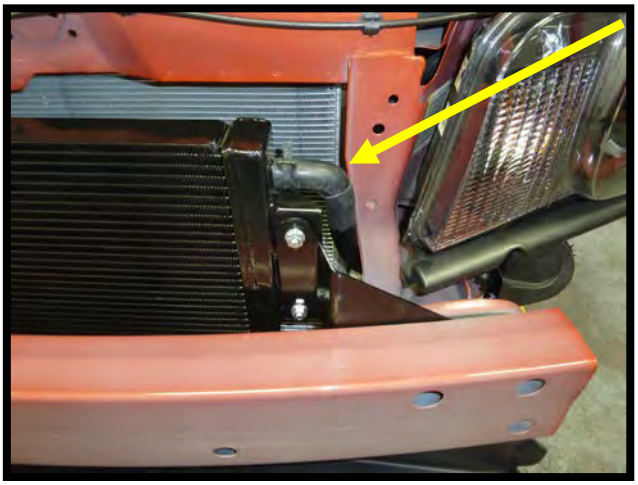
CAMARO INTERCOOLER HOSE ROUTING DIAGRAM



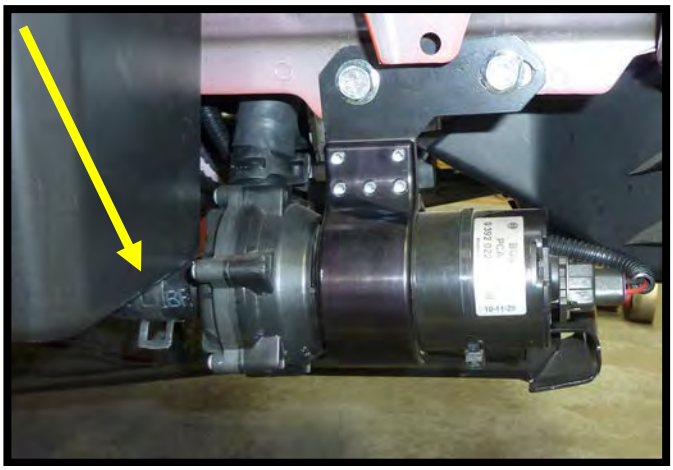
149. Install the passenger side ¾" hose to the IC pump outlet barb. Connect straight end to pump outlet and connect 90-deg end to LTR inlet. Secure both ends with pinch clamps supplied.



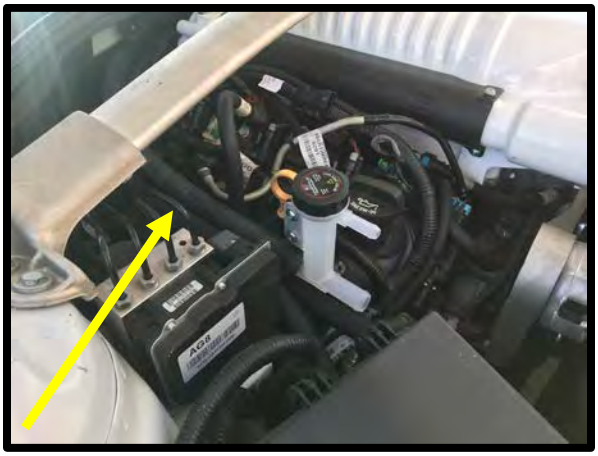
150. Connect the 5/8" to ¾" hose to the LTR outlet, route to the driver side, on the inside of the AC line (do not route on outside as airbox will not fit afterwards. This hose will be connected at a later step to IC core. Secure LTR end with supplied pinch clamp.




151. Connect the ¾" hose to the IC pump inlet, route to passenger side of engine. Secure other in to IC filler tee outlet barb. Secure both ends with supplied pinch clamps.



152. Route the supplied ¾" hose from the filler tee inlet to the IC core outlet (passenger side). Secure both ends with pinch clamps. Secure the hose away from exhaust along with any possible chaffing or kinking, use zip-ties to secure.



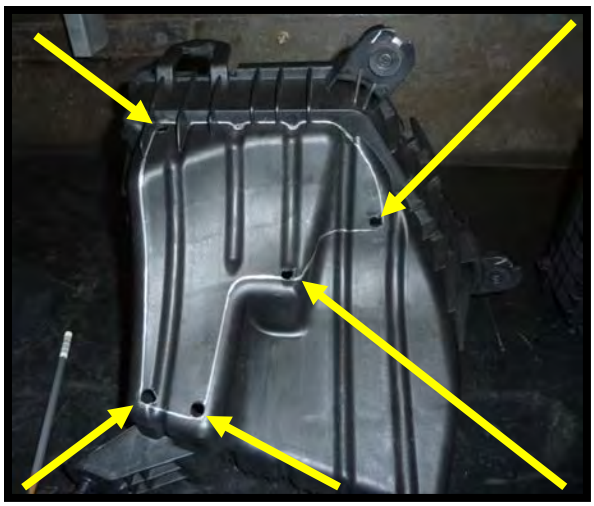
153. Connect the previously routed LTR outlet hose to the driver side intercooler core inlet fitting. Secure pinch clamp. Secure the hose away from exhaust along with any possible chaffing or kinking, use zip-ties to secure.

154. Install the supplied 3/8" line to the filler tee vent. Route down towards suspension. Secure end with pinch clamp, secure hose so it can't splash the exhaust and or any other engine item.

155. Reinstall the front bumper fascia assembly.
    - ☐ Torque the front fender support bracket screw to (62 inch pounds).
    - ☐ Torque the front bumper fascia outer bracket nut to (62 inch pounds).
    - ☐ Torque the front bumper fascia bolt to (27 inch pounds).
    - ☐ Torque the front bumper fascia lower bolt to (62 inch pounds).
    - ☐ Torque the front bumper fascia lower screw to (62 inch pounds).
    - ☐ Reinstall the 6 push in retainers.
    - ☐ Note: Don't forget the 2 lower 10mm bolts.

156. Modification to the lower air box. (This is a 25 horsepower and a 1.2 psi boost increase. (At 70 degrees).

157. Starting at the corners using a 3/8 drill bit, drill the lower corners of the air box. Here is the lay out of the drilled holes:



158. Drill hole from inside right in corner of ribs.

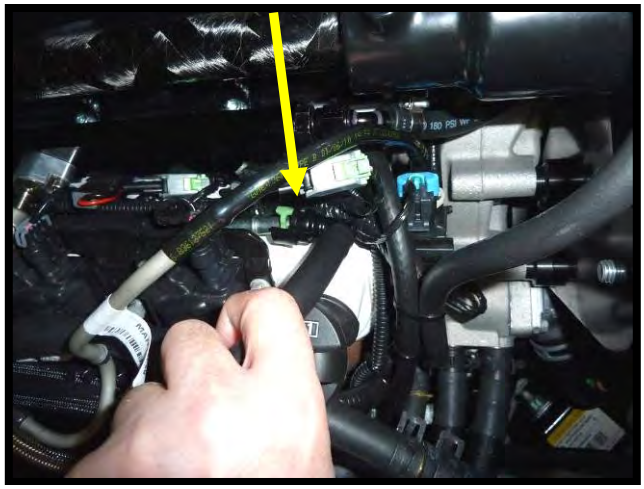
159. With the hand hacksaw provided (or power saw) cut connecting the dots. If necessary double drill holes at beginning of cut to make room for saw blade to start.

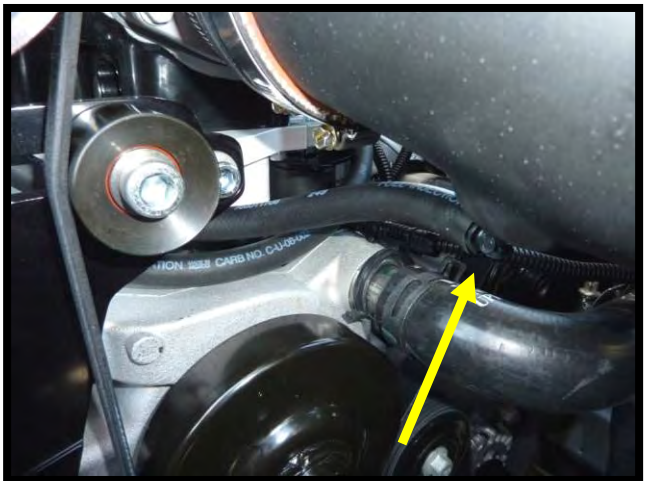
160. Remove the cut out portion of the box. Using a hand file smooth all the rough edges.

161. Using 120 grit sandpaper smooth all the edges. Blow clean when done.

162. Install the lower air box, high flow filter, upper air box, hoses and intake duct. **NOTE:** The hump hose installs on the MAF side and the reducer hose installs on the throttle body. Tighten the hose clamps. DO NOT CRUSH the air intake by over tightening the clamps.

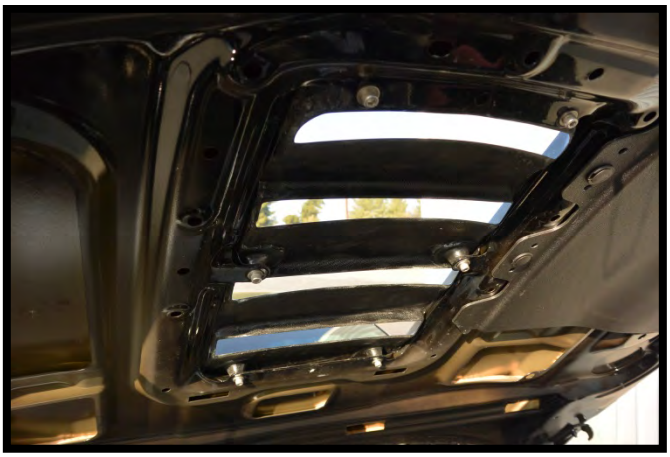
163. Install the PCV Vent line (snaps in place) on passenger side valve cover then install other end to the 90-degree fitting in the grommet on the air duct between the throttle body and the MAF. Route the PCV vent hose parallel to the radiator hose so the hose will not come in contact with the drive belt.





164. Install the plastic jackshaft cover by using the supplied (4) 5mm BHCS, 4 rubber grommets and 4 stainless steel bushings, use a 3mm allen socket.

165. (**2014-2015**) Install the supplied hood vent using the (6) 6mm SHCS and (6) 6mm AN washer using a 5mm allen wrench.



166. Refill the Engine coolant. Verify that your coolant drain is closed, and use a filter/strainer to pour the recycled coolant/water mixture that you drained from the radiator. If necessary top off with a **GM approved engine coolant**. Whipple also recommends running 2 bottles of Redline Water Wetter which can be found at most automotive parts stores. **⚠ WARNING!! DO NOT USE TAP WATER OR ANY NON GM APPROVED ENGINE COOLANT, THIS WILL CAUSE CORRISION IN THE SYSTEM.** Start engine to completely fill system.

The electric water pump used on the Whipple SC system has a built-in micro-processor that will vary pump cycle speed when air bubbles are present in the system. If a significant amount of air is trapped in the system, the pump may cycle at a lower speed and pulsations are likely to occur resulting in poor cooling performance.

For the best result, it is highly recommended to use a Radiator Cooling System Vacuum Purge and Refill Kit to properly evacuate the air from the intercooler system before filling the 50/50 mixture of coolant and distilled water. If one is not available, the following procedure will be adequate.

167. Using a Lisle 24680 Spill-Free Funnel, or equivalent, secure the appropriate filler neck adapter to the filler neck/surge tank.

168. Attach the funnel and fill with a 50/50 mixture of coolant and distilled water until the funnel is half full. Whipple recommends Zerex G-05 to match the stock color. The Whipple IC system is compatible with all common types of antifreeze, it is customer preference. Note: Whipple also recommends 1 bottle of Red Line Water Wetter or equivalent. Never use tap water, this will cause corrosion and destroy the system.

169. Turn the ignition to the ON position and listen for the pumps electric motor to cycle. Air bubbles will begin to purge from the system as the coolant level drops. Add coolant to the funnel as necessary. Note: Do NOT let the coolant level in the funnel run empty as this may introduce air into the system.

170. To build more pressure in the intercooler system, try squeezing the intercooler hoses while the pump is cycling. Building pressure in the system will help purge the trapped air from the intercooler system. It can also help to lift the filler neck 4”-8” higher than its mount to help purge the air.

171. Cycle the ignition OFF and wait a few seconds for the pump to stop.

172. Cycle the ignition to the ON position again and repeat until the sound of the electric pump is continuous without any pulsation. Hold the start button down for 10 seconds for diagnostic mode, this will run the pump constant for help filling. ***NOTE: During water pump start-up, it is normal for a slight pulsation to occur. Once the pump has reached its maximum cycle speed, no pulsations should be present. Pulsations mean air bubbles, relieve the system of air before driving. Hot temps can destroy an engine.***

173. Periodically inspect the water pump flow after a few drive cycles and re-fill the intercooler system as necessary.

174. Several drive cycles may be required to completely purge the air from the intercooler system. During a drive cycle, the intercooler system will build up pressure as the supercharger temperature increases. Any residual air trapped in the system will gradually bleed out of the surge tank when the cap is removed. Use a rag when removing in case there is excess pressure. **Do not go WOT or dyno test until the system is properly relieved of air. Note: The pump will cavitate when there's air, this is a sign that it needs to be bled more.**

WARNING: ***Always avoid removing the filler neck cap when the system is hot. The hot coolant is under pressure and may spray out causing burns.***

175. Attach the negative cable to the battery and tighten.

176. Turn the Ignition key on do not start the engine (this will turn on the fuel pump for 2 seconds) Inspect for leaks such as fuel, coolant, and intercooler coolant, correct as required.

177. Start the engine and let it idle. The engine should idle normally between 600-800 rpm. Inspect for leaks. After running for 2 minutes turn off engine and inspect the level in the engine radiator and the Intercooler tank. With the key in the on position, engine off, inspect the coolant in the intercooler tank, the coolant should flow in the tank. If it does not the coolant circuit has an air pocket trapped in it. To remove the air pocket insert an air blow nozzle in the top of intercooler tank and wrap a clean cloth around the end of the nozzle and around the top of the tank and slightly pressurize the tank, this will force the trapped air out of the system. Add coolant to fill the system.

178. Before driving make sure that you have 91 or higher octane fuel in the system. Not ½ tank of 87 and ½ tank of 91, all 91 or better fuel in the system. Do not use octane boosters in the fuel.

179. Do not use aftermarket air filters with the supplied Whipple calibration. The Whipple calibration is designed to work with the factory air box, factory MAF and Whipple air inlet duct and nothing else. Changes to the air inlet system will require a custom tune which Whipple does not provide.

180. Attach the "Use Premium Fuel Only" decal to the gas tank fill cap or door.

181. Install the supplied 50-state legal sticker to factory radiator shroud. Clean surface with acetone to remove any unwanted oil.

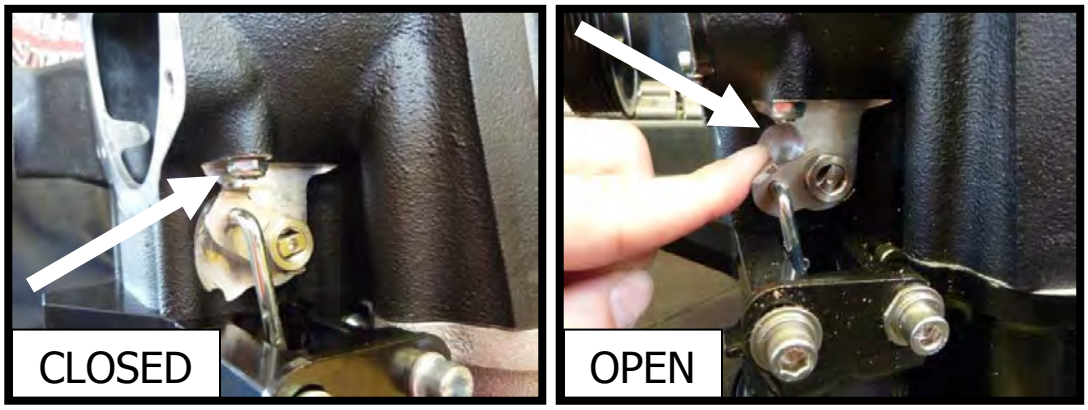
182. Test drive vehicle for the first few miles under normal driving conditions. Listen for any noises, vibrations, engine misfire or anything that does not seem normal. The supercharger does have a slight whining noise under boost conditions, which is normal.

183. Re-check the radiator and intercooler reservoir coolant level regularly over the first 1,000 miles, top off level as needed.

184. After the initial test drive, go through the belt tensioner process again. When next you start driving, 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.

185. If you have questions about your vehicles performance, please check with your installation facility or call Whipple Superchargers at 559.442.1261, Monday through Friday from 8am to 5:00pm, pacific time or email questions to tech@whipplesuperchargers.com.

⚠ WARNING!! Verify the bypass actuator is working properly. To monitor, look at the bypass arm when the motor is not running. Start engine and verify that the actuator arm has opened. This arm will be extended when the engine is above 1" of vacuum (boost) and will be open when there is more than 1" of engine vacuum.



MAINTENANCE AND SERVICE

Be sure to follow the maintenance and service recommendations below to optimize the life and performance of your Whipple Supercharged vehicle. For best performance and continued reliability, it is essential to adhere to the following:

1. Use only premium grade fuel (91-octane or higher). (RON+MON)/2. Euro should use 95 or higher RON.
2. Always listen for any sign of spark knock or pinging. If present, discontinue use immediately and consult your vehicle owner's manual.
3. Do not operate the vehicle at large throttle opening if the MIL lamp is on steadily. This indicates an electronic engine control malfunction: reduce throttle opening and consult your vehicle dealer.
4. Check the supercharger oil level at every engine oil change. Add Whipple SC oil to the supercharger if required. Do not overfill the supercharger rear gear case.
5. Change the oil in the supercharger every 100,000 miles. Use Whipple SC oil only. ***Severe damage to the compressor will occur if you overfill the supercharger rear gear case.***
6. Do not operate the vehicle at large throttle opening if the MIL lamp is on steadily. This indicates an electronic engine control malfunction: reduce throttle opening and consult your vehicle dealer.
7. Inspect and clean your high-flow air filter element every 7,500 miles.
8. Inspect and replace spark plugs every 20,000 miles. Only run specified plugs such as NGK TR7IX.
9. Follow your factory service intervals for oil changes and other typical maintenance items.
10. Check the supercharger/accessory drive belt. Adjust or replace as required.
11. Never alter your vehicles PCM calibration, serious engine/transmission damage may occur.

CONGRATULATIONS

Your new Whipple Supercharger is engineered to significantly increase your engines power across a broad range of RPM's. It is Whipple's goal to improve your driving experience for many miles and years to come.

Whipple Superchargers operate as an air pump and contain internal rotors that are driven by the engine's crankshaft and serpentine belts. The supercharger compresses outside air and channels it into the engine's intake ports. Because of their design, superchargers may generate some additional noise over the standard, normally aspirated induction system.

At idle, you may hear a medium-pitch rattle from the supercharger main housing. This will diminish at about 400-500 rpm above idle. You may also experience a muffled high-pitched whine during acceleration. This is caused by the pumping action of the supercharger compressing air and only occurs during boost conditions. It is inaudible during part-throttle acceleration. These are normal noises associated with any supercharger and have no effect on supercharger performance or engine durability.

Your supercharger is warranted by Whipple Superchargers, please see your terms and conditions on the back of your invoice for more information in regards to the limited warranty. NOTE: Whipple Superchargers will not authorize any warranty repair work or supercharger replacement for normal noise