



# **Edelbrock E-Force Supercharger**

**2015-17 CHEVY CORVETTE C7 Z06 LT4 6.2L**

**STAGE I**

**Part #15731, 157310, 15292**





## **WARNING!**

*The supercharger bypass valve is factory installed and adjusted intended to be vacuum operated only. DO NOT move the solenoid actuator lever by hand or adjust the stop point. Moving the lever manually will damage the solenoid and the system will not function properly. Damage to the bypass assembly from manual movement will not be covered under manufacture warranty.*





## IMPORTANT VEHICLE CALIBRATION DETAILS 2017+ Vehicles ONLY

### **USA CUSTOMERS ONLY:**

*In order to properly calibrate your vehicle for this supercharger kit, the ECM must be removed from the vehicle, packaged and shipped to Edelbrock. Your vehicles computer will be modified and or flashed for supercharger kit compatibility. **Part numbers 1529, 15291, 15292, 15294, 15295, 15296 15297, 1519 and 15192 contain a box for shipping the ECM to Edelbrock (USA Customers ONLY).** (See ECM removal procedure on the following page.)*

**NOTE:** *Please email your Name, Address, phone number and email address to [ECMCalibration@Edelbrock.com](mailto:ECMCalibration@Edelbrock.com) and a prepaid return label will be sent. Affix the label to the package and drop it off at any UPS Store in your area.*

*This process will take approximately 8-10 business days from the time your vehicle's computer is received. To avoid unplanned vehicle down time, we recommend that the computer be shipped out BEFORE beginning the supercharger installation.*

**INTERNATIONAL (NON-USA) CUSTOMERS PLEASE CALL EDELBROCK TECHNICAL SUPPORT AT (800)-416-8628.**



## 2017+ GM ECM Removal

The ECM on 2017 GM vehicles requires modification to support flash capability. Follow these instructions carefully to remove, package and ship the ECM to Edelbrock.

1. Disconnect the negative battery terminal and isolate the negative cable so it does not come in contact with the battery terminal or body of the vehicle.
2. Locate the ECM and remove the main harness connections.
3. Remove any hardware securing the ECM to its mounting location.
4. Fill out the provided ECM identification label with customer and vehicle information and apply directly to the ECM.
5. Place the ECM in the provided box with packing material so the ECM cannot move around in the box. Ship ECM to Edelbrock using the provided return shipping label.

**IMPORTANT:** *The ECM is returned calibrated and ready for reinstallation. DO NOT attempt to load any other calibrations into the computer without consulting the Edelbrock calibration department.*

***After supercharger installation is complete, install the provided OBDII cap on the vehicle's OBDII port to avoid accidental tampering by dealerships and other service centers.***



## Edelbrock E-Force Supercharger System 2015-17 Chevy Corvette C7 Z06 LT4 6.2L

### Installation Instructions

#### INTRODUCTION

Thank you for purchasing the Edelbrock Supercharger System for the 2015 Chevy Corvette C7 Z06 LT4. The Edelbrock E-Force Supercharger System for the 2015 Chevy Corvette utilizes a larger Eaton TVS2300 supercharger rotor group housed inside a low profile supercharger manifold. Paired with short, bolt-on runners, this new package will replace the smaller factory supercharger and still fit under the factory Z06 Corvette hood with no modifications to the stock body or hood. This supercharger upgrade will use all stock intercooler and PCV hoses making it a direct plug and play replacement upgrade.

The supercharger is 50-State emissions legal (pending), and includes a 3-year 36,000 mile warranty so that there are no worries when installing it on a brand new car.

#### TOOLS AND SUPPLIES REQUIRED

- Jack and Jack Stands OR Service Lift
- Radiator Coolant Exchange Machine
- Ratchet and Socket Set including but not limited to: 7mm, 8mm, 10mm (standard, deep and swivel), 12mm and 15mm
- Wrench Set including but not limited to: 8mm, 10mm, and 15mm
- Breaker Bar: 1/2"
- Compressed Air
- Allen Wrenches: 5mm
- Torx Drives: T30
- Panel Puller
- Drill
- Drill Bit: Step Bit and Q Size Bit
- Flat Blade & Phillips Screwdrivers
- 50/50 Dexcool Mixture, or equivalent
- Side Cutters
- Torque Wrench
- Pliers OR Hose Clamp Removal Tool
- Blue Thread Retaining Compound
- O-ring Lube
- Masking Tape
- Shop Rags
- Wire Ties



**IMPORTANT WARNINGS**

***Before beginning the installation, use the enclosed checklist to verify that all components are present in the box then inspect each component for damage that may have occurred in transit. If any parts are missing or damaged, contact Edelbrock Technical Support (800-416-8628), not your parts distributor.***



**WARNING:** Installation of this supercharger will result in a significant change to the performance characteristics of your vehicle. It is highly recommended that you take some time to familiarize yourself with the added power, and how it is delivered. This must be done in a controlled environment. Take extra care on wet and slippery roads, as the rear tires will be more likely to lose traction with the added power. It is never recommended to turn off your vehicles traction control system.

***Proper installation is the responsibility of the installer. Improper installation will void all manufacture's standard warranties and may result in poor performance and engine or vehicle damage.***

***Inspect all components for damage that may have occurred in transit before beginning installation. If any parts are missing or damaged, contact Edelbrock Technical Support, not your parts distributor.***

Due to the complexity of the Edelbrock E-Force Supercharging system, it is recommended that this system only be installed by a qualified professional with access to a service lift, pneumatic tools, and a strong familiarity with automotive service procedures. To qualify for the drivetrain warranty, it is necessary to have this system installed by a Certified ASE Technician at a licensed business, GM Dealership, or an Authorized Edelbrock Installer. Failure to do so will void and/or disqualify any and all optional supplemental warranties offered with this system. Please contact the Edelbrock Technical Support department if you have any questions regarding this system and/or how your installer of choice will affect any warranty coverage for which your vehicle may qualify.

***Any previously installed aftermarket tuning equipment must be removed and the vehicle returned to an as stock condition before installing the supercharger.***

Any equipment that directly modifies the fuel mixture or ignition timing of the engine can cause severe engine damage if used in conjunction with the Edelbrock E-Force Supercharger System. This includes, but is not limited to: OBDII programmers, MAF sensors, adapters and any other device that modifies signals to and/or from the ECU. Aftermarket bolt-on equipment such as underdrive pulleys or air intake kits will also conflict with the operation of the supercharger and must be removed prior to installation. Use of any of these products with the E-Force Supercharger could result in severe engine damage.





**IMPORTANT WARNINGS CONT'D**



**91 octane or higher gasoline is required at all times. If your vehicle has been filled with anything less, it must be run until almost dry and refilled with 91 or higher octane gasoline twice prior to installation.**

**Any failures associated with not using premium 91 octane gasoline or higher, will be ineligible for warranty repairs.**

**It is recommended that you check the Edelbrock Tech Center Website for any updates to this installation manual. Please refer to the lower right hand corner to verify that you have the latest revision of this installation manual before beginning the installation.**

***Tech Center: [http://www.edelbrock.com/automotive\\_new/misc/tech\\_center/install/index.php](http://www.edelbrock.com/automotive_new/misc/tech_center/install/index.php)***

**Edelbrock Authorized Installer Disclaimer**

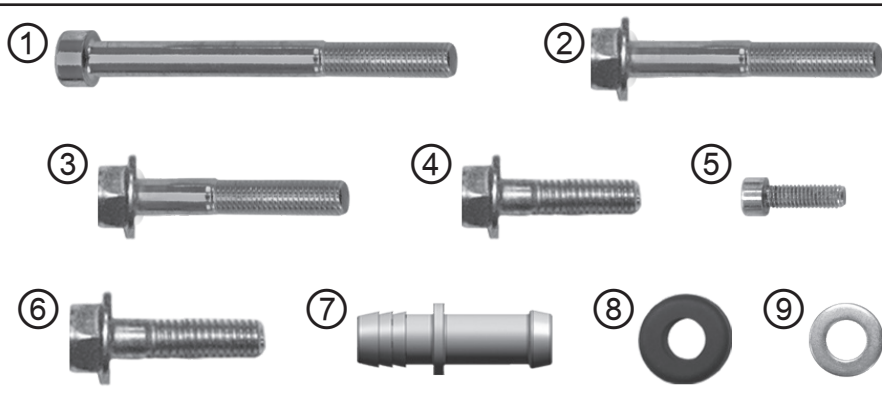
*Authorized installers of Edelbrock products are independent companies over which Edelbrock has no right of control. Edelbrock LLC makes no claims regarding the abilities, expertise or competency of individual employees of any authorized installer. Each authorized installer is an independent company and makes its own independent judgments. Edelbrock LLC specifically disclaims any responsibility to any party including third parties for the actions, or the failure to act, of individuals, agents or a company authorized in the installation of Edelbrock LLC products.*

### Installation Instructions

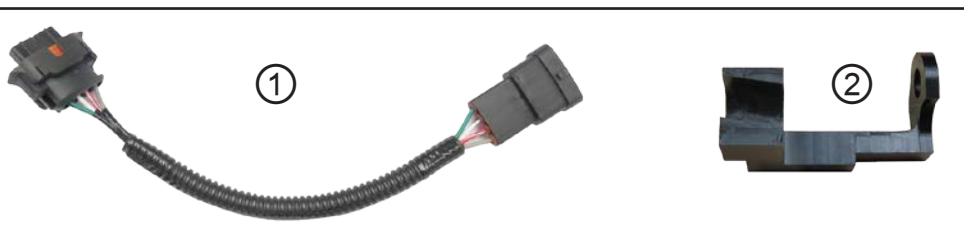
#### INSTALLATION HARDWARE IDENTIFICATION GUIDE

(Parts Are Not To Scale)

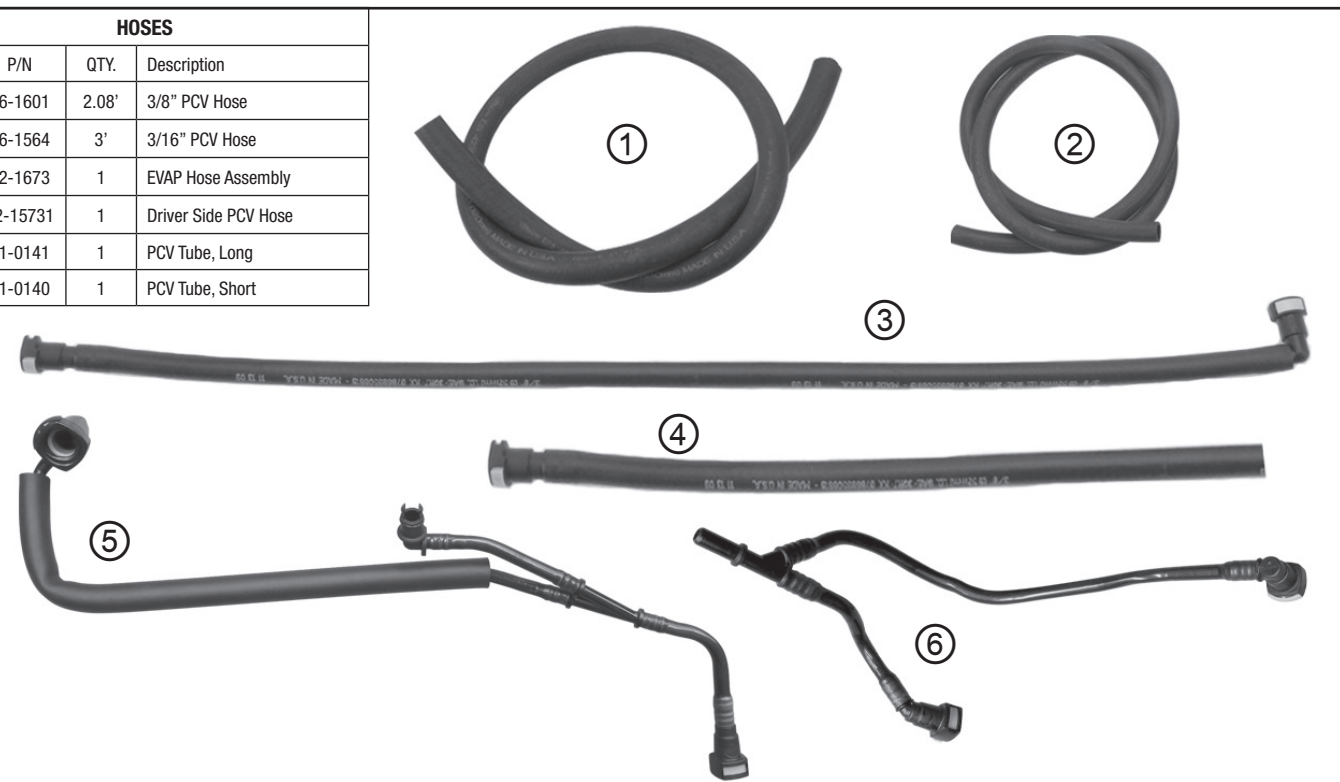
MANIFOLD/RUNNER HARDWARE				
Item	P/N	QTY.	Description	Torque Spec
1	36-1573	14	Bolt, SHCS, M6 x 80mm	8 ft.-lbs.
2	36-1535	10	Bolt, Hex Flange, M6 x 45mm	8 ft.-lbs.
3	36-4053	4	Bolt, Hex Flange, M6 x 40mm	N/A
4	36-1575	2	Bolt, Hex Flange, M6 x 25mm	8 ft.-lbs.
5	36-4042	1	Bolt, SHCS, M6 x 20mm	N/A
6	36-1518	2	Bolt, Hex Flange, M8 x 30mm	8 ft.-lbs.
7	51-7056	1	Fitting, 10mm Quick Connect	N/A
8	72-1541	1	Grommet, 5/16" Hole	N/A
9	82-7230	1	Washer, 3/8" ID, CAD Plated	N/A



HARNES AND BRACKET			
Item	P/N	QTY.	Description
1	37-1573	1	TMAP Extension Harness
2	38-0179	1	Bracket, Fuel Extension Line



HOSES			
Item	P/N	QTY.	Description
1	56-1601	2.08'	3/8" PCV Hose
2	56-1564	3'	3/16" PCV Hose
3	22-1673	1	EVAP Hose Assembly
4	22-15731	1	Driver Side PCV Hose
5	51-0141	1	PCV Tube, Long
6	51-0140	1	PCV Tube, Short





Installation Instructions

**E-MAIL EDELBROCK YOUR STOCK VEHICLE CALIBRATION AND VEHICLE INFORMATION**

**PLEASE COMPLETE THIS PROCEDURE PRIOR** to starting the installation of your E-Force supercharger system. This will allow our calibration team to complete your calibration file while the installation of your supercharger system is being completed. Manufacturers regularly update the factory calibration, as a result, there is the possibility for delays due to not having access to your current calibration file. This can normally be resolved in 1 business day.

**FAILURE TO PROVIDE ALL OF THE INFORMATION BELOW WILL DELAY THE COMPLETION OF THE CALIBRATION FILE FOR YOUR VEHICLE. TO LIMIT VEHICLE DOWN TIME, PLEASE SEND US THE REQUESTED INFORMATION BEFORE STARTING THE SUPERCHARGER INSTALL.**

Please e-mail the requested information below to calibration@edelbrock.com with the E-mail Subject as “**Calibration Update**”. We will complete your calibration and e-mail it back to you as soon as possible. MOST calibration updates will be sent back the same business day. In rare cases, it could take up to 1-2 business days to complete. Please contact our **Tech Hot Line at (800)416-8628** if you have any questions or if you need assistance with this procedure.

- Begin by downloading the SCT device updater software to your computer; it can be downloaded from: <http://www.sctflash.com/software/SCTDeviceUpdater.exe>
- Put the vehicle into ACC mode but do not start the engine.
- Connect the supplied PCM cable from the programmer to the OBD-II connector.
- Select PROGRAM VEHICLE, use the arrow keys to highlight UPLOAD STOCK and press SELECT. Follow the prompts on the screen.
- If the upload fails, you will be asked to AUTO DETECT. Press SELECT and follow the prompts on the screen. If the auto detect fails, please contact Edelbrock Tech Support @ 800-416-8628.
- Once the stock calibration has loaded to the handheld programmer, disconnect the programmer from the OBD-II connector and connect it to your PC using the supplied USB cable.
- Open the SCT software and select the button on the lower left hand side that reads GET STOCK FILE FROM DEVICE. Follow the instructions on the screen. **NOTE: The stock calibration file will automatically be labeled using your VIN number followed by “.sul “ (XXXXXXXXXXXX.sul)**
- Once the download is complete, you can E-mail your stock vehicle calibration along with the vehicle information below to calibration@edelbrock.com or call 800-416-8628 and our Tech Support staff will assist you with E-mailing the file. **NOTE: The subject line of your E-mail should read “Calibration Update”.**
- Once we have the stock calibration file, along with the requested information below, we can update the calibration to work with your application. We will E-mail you the custom calibration which may be used until the release version of the calibration is available.

**INFORMATION NEEDED:**

E-Mail Address:

Vehicle Year:

Vehicle Make:

Vehicle Model (Specify if Z06, Z51, etc.):

Engine Size:

Transmission:

Fuel Octane (91 or 93 ONLY):

Supercharger System Part Number:

Supercharger Serial Number:

Programmer Serial Number:

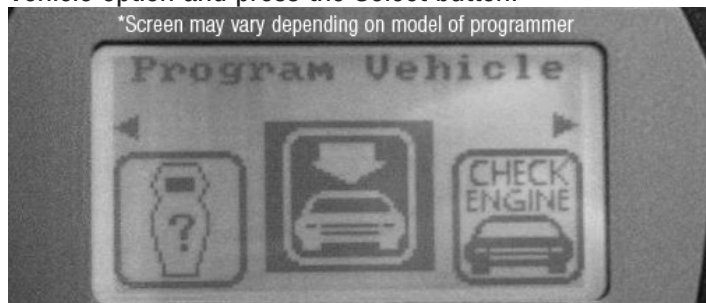
### Installation Instructions

#### SUPERCHARGER INSTALLATION

**WARNING: Battery must be sufficiently charged before starting the PCM flashing procedure.**

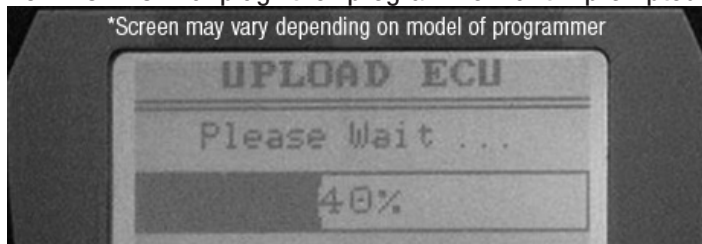
**Only begin the PCM flashing procedure when you have downloaded the updated calibration file to the handheld programmer. Do not flash the PCM until you are ready to install the supercharger. Once the PCM is flashed, DO NOT START the engine until the installation of the E-Force supercharger is complete.**

1. Put the car into ACC mode, but don't start the vehicle.
2. Connect the supplied PCM cable on the handheld programmer to the OBD-II connector located below the steering wheel, and to the left of your knee.
3. Use the directional pad to highlight the Program Vehicle option and press the Select button.



4. Use the directional pad to highlight the Pre-programmed Tune option and press the Select button.
5. Read the disclaimer then press Select to continue.
6. Verify that the ignition is in the 'Key On' position and that the engine is not running, then press Select.
7. Use the directional pad to highlight your vehicle and transmission combination then press Select.
8. Use the directional pad to highlight the Begin Program option then press Select.
9. Depending on your specific drivetrain configuration, several separate operations may take place during this step. Completion of each operation will cause the progress bar to reset to zero.

10. DO NOT unplug the programmer until prompted.



11. Turn the vehicle off when prompted to do so by the handheld programmer.
12. Read the parting message from programmer then press Select to continue.
13. Unplug the programmer cable from the OBD-II port. This concludes the PCM flashing procedure. DO NOT start the engine until the supercharger installation is complete.
14. Open the trunk and lift up the carpet on the passenger side of the vehicle to access the battery. Using a 10mm socket, disconnect the negative battery terminal.



15. Using a 7mm socket, remove four (4) bolts securing the factory air duct. Remove the air duct and set aside.



### Installation Instructions

16. Remove the PCV hose from the driver side valve cover and from the sump tank line.



19. Using a panel puller, remove the PCV hose from the passenger side valve cover.



17. Remove the brake booster hose from the throttle body fitting adjacent to the water crossover.



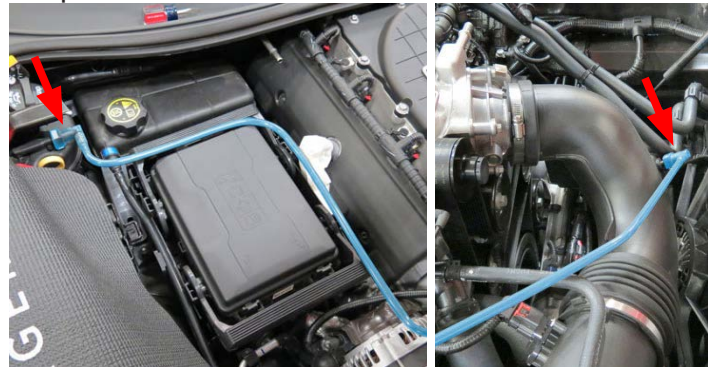
20. Remove the PCV hose from the passenger side valve cover and from the sump tank.



18. Remove the EVAP hose from firewall fitting and from the EVAP solenoid.



21. Remove the PCV hose from the air inlet tube and the sump.



### Installation Instructions

22. Remove the PCV line from the sump reservoir. *NOTE: For installers with larger hands, it may be required to remove the fender vent in order to access the quick connect on the PCV line.*



23. Install the supplied PCV line to the sump reservoir and the rear upper fitting as shown.



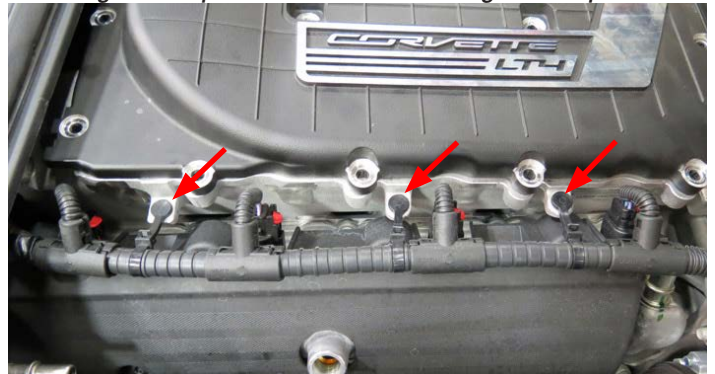
24. Using a small flathead screwdriver, remove the locking clip securing the cap from the water crossover. Using a coolant exchange machine, remove the coolant from the supercharger cooling system.



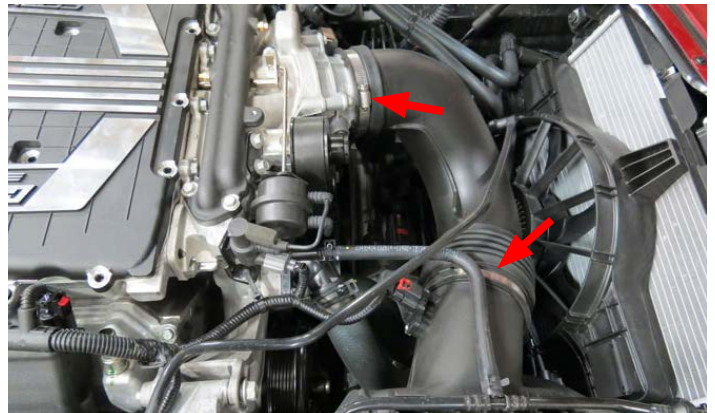
25. Using a small flathead screwdriver, remove the locking clips securing the coolant hoses to the water crossover and remove. Place lines into a small container to prevent coolant leakage.



26. Using a panel puller, remove the harness retaining tree clips from both sides of the supercharger housing. *TIP: The retaining tree clips can be removed altogether if preferred.*



27. Using a flathead screwdriver, loosen two worm clamps securing the air inlet tube to the throttle body and air box. Remove the air inlet tube.



### Installation Instructions

28. Using a 15mm wrench, rotate the drive belt tensioner counterclockwise to release the tension from the drive belt and remove.



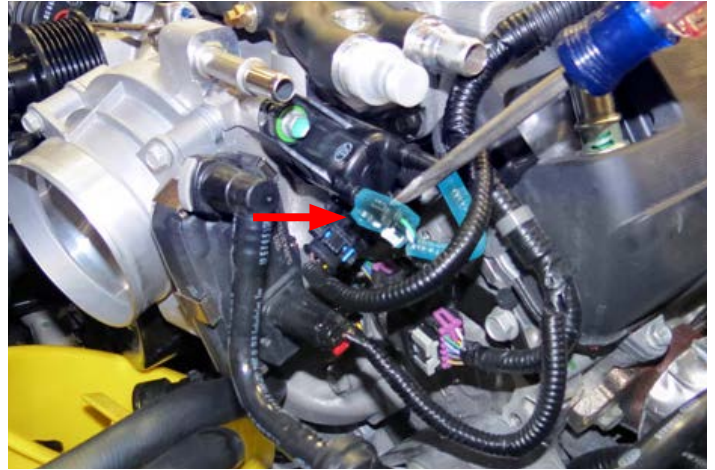
29. Disconnect the actuator solenoid connector.



30. Using a panel puller, remove the harness retaining tree clip from the actuator solenoid bracket.



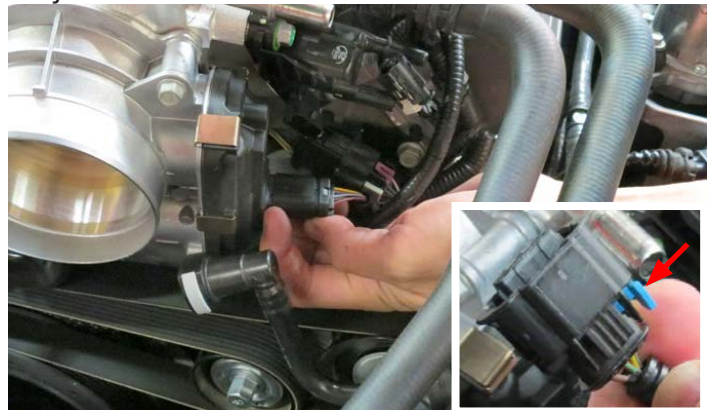
31. Disconnect the EVAP solenoid connector.



32. Disconnect the connector from the MAP sensor located under the EVAP solenoid.

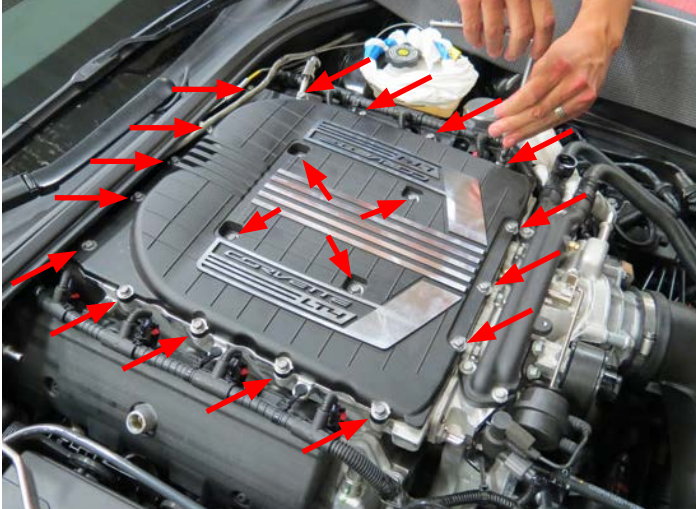


33. Release the blue locking clip on the electronic throttle body connector and remove the connector from the throttle body.



### Installation Instructions

34. Using a 10mm socket, remove twenty (20) bolts securing the supercharger lid to the manifold.



35. With all the bolts removed, carefully lift up the supercharger lid and remove.



36. Using a 10mm socket, remove ten (10) bolts securing the supercharger manifold to the cylinder heads.



37. Carefully position the supercharger manifold forward to access the TMAP sensor. Disconnect the TMAP sensor connector.



38. With the help from an assistant, carefully remove the supercharger manifold and set aside.



39. Tape off the cylinder head ports to prevent foreign debris from dropping into the ports.

40. Remove the foam insulator from the valley.

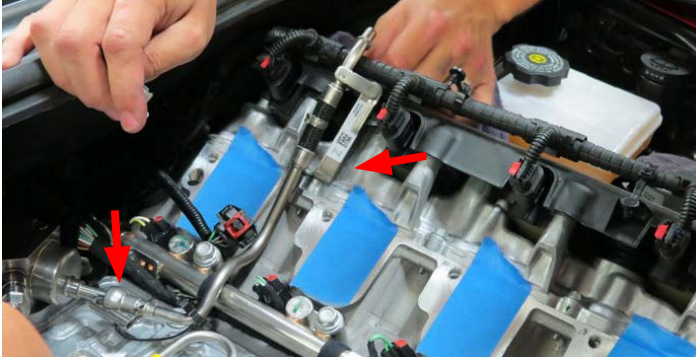
41. Remove the fuel line retaining clip and use a 3/8" fuel line tool to disconnect the fuel feed line. **CAUTION: Place a shop rag around the fuel line to prevent fuel from spraying.**





### Installation Instructions

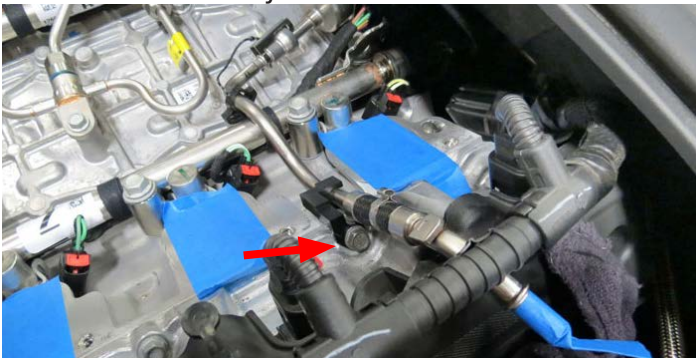
42. Using a 10mm socket, remove the bolt securing the fuel line extension to the valve cover. Remove the fuel line retaining clip and use a 3/8" fuel line tool to disconnect the fuel feed line from the mechanical fuel pump.



43. Using masking tape, cover the ends of the fuel line extension to prevent debris from contaminating the fuel line. Using a hacksaw, remove the bracket from the fuel line. Deburr the fuel line as needed.



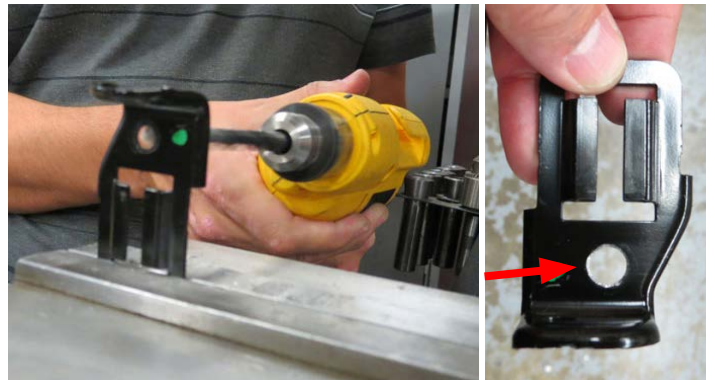
44. Reattach the fuel line extension to the mechanical fuel pump. Using the supplied fuel line bracket, re-secure the fuel line to the valve cover using the factory bolt. Do not reconnect the fuel feed line at this time. Reinstall the foam insulator into the valley.



45. Using a 10mm socket, remove the actuator solenoid and the bracket from the factory supercharger.



46. Remove the solenoid from the solenoid bracket. Using a Q size drill bit, open up the mounting hole on the solenoid bracket. Deburr the bracket as needed.



47. Using the M8 x 30mm bolt and the 3/8" CAD washer from the hardware bag, secure the actuator bracket to the front of the passenger side cylinder head. Location is adjacent to the thermostat housing.

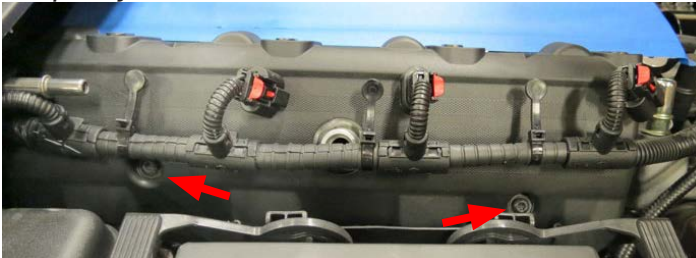


### Installation Instructions

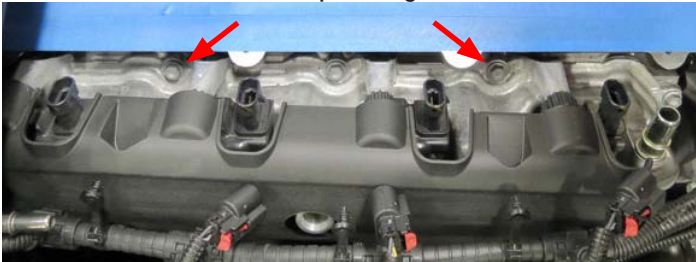
48. Reconnect the actuator solenoid connector and reattach the solenoid to the solenoid bracket.



49. Loosen the two screws securing the passenger side coil cover using a T30 Torx bit. *TIP: It's not necessary to completely remove the coil covers.*



50. Using a 10mm socket, remove the upper 2nd and 4th valve cover bolts from the passenger side valve cover.



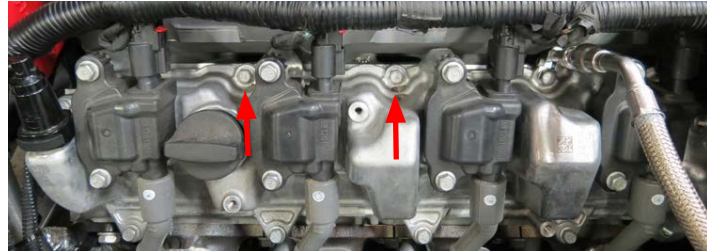
51. Install the supplied rubber supports onto the side cover brackets as shown.



52. Using a 10mm socket and the stock valve cover bolts, install the side cover brackets to the passenger side valve cover. Re-secure the passenger side coil cover.



53. Using a T30 Torx bit, remove the driver side coil cover. Remove the two upper center bolts from the driver side valve cover with a 10mm socket.



54. Using a 10mm socket and the stock valve cover bolts, install the side cover brackets to the driver side valve cover.

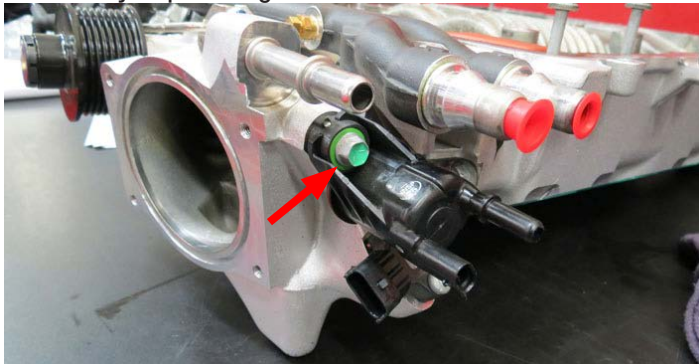


55. Using an appropriate cutting tool, trim the driver side coil covers to better route the engine harness. *TIP: This is not required, but will making the harness routing more aesthetically pleasing.* Reinstall the driver side coil cover and reconnect the fuel feed line.

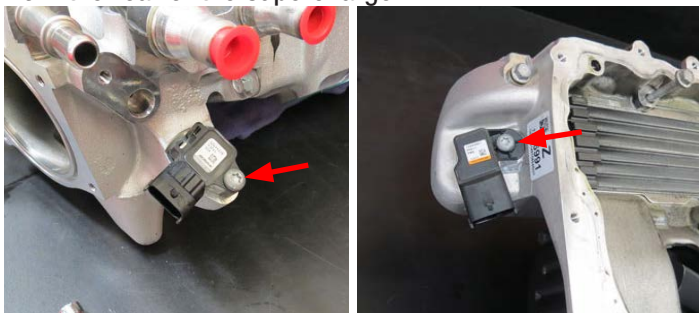


### Installation Instructions

56. Using a 10mm socket, remove the EVAP solenoid from the factory supercharger.



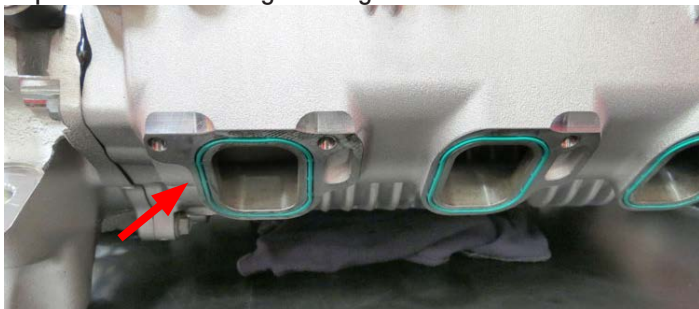
57. Using a T30 Torx screwdriver, remove the MAP sensors from the front of the supercharger and the TMAP sensor from the rear of the supercharger.



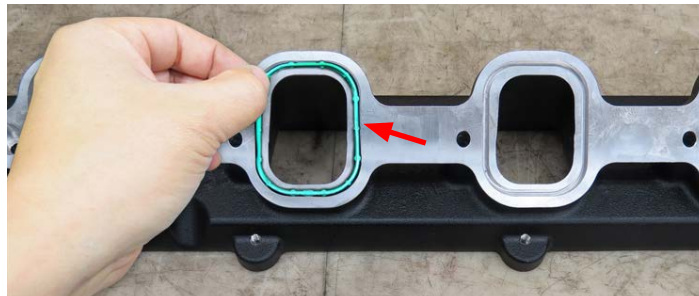
58. Using the M6 x 20mm bolt from the hardware bag, secure the TMAP sensor to the passenger side runner.



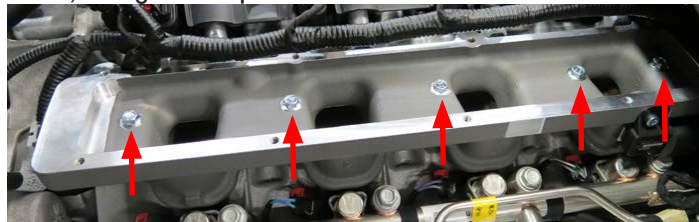
59. Remove the O-ring gaskets from the factory supercharger. Clean and inspect the O-ring gaskets. Replace torn or damage O-rings as needed.



60. Install four O-ring gaskets onto the passenger side runner. **NOTE: Passenger side runner is the one with the MAP sensor.**



61. Remove the protective tape from the cylinder heads. Install the passenger side runner onto the cylinder head using the dowel pin for alignment. Apply Blue thread locker to the threads of five (5) M6 x 45mm Hex bolts from the hardware bag. Torque the bolts to 4 ft-lbs. and then to 8 ft-lbs, using the sequence below.



⑤      ②      ①      ③      ④

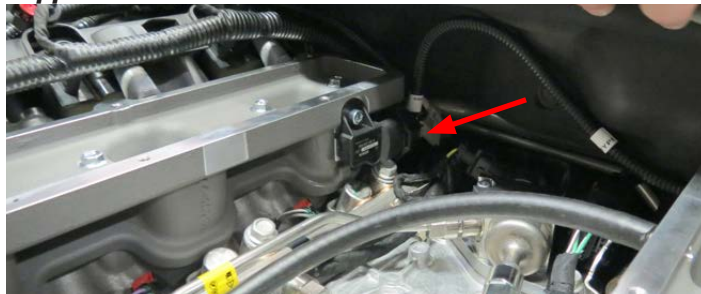
62. Repeat steps 60-61 to install the driver side runner.

63. Connect the supplied 3/16" hose to the actuator barb on the driver side runner. Route the hose over towards the passenger side runner and towards the actuator solenoid. Connect the hose to the lower solenoid fitting. **TIP: Make sure to tuck the hose along the bottom of the passenger side runner as to clear the supercharger manifold.**



### Installation Instructions

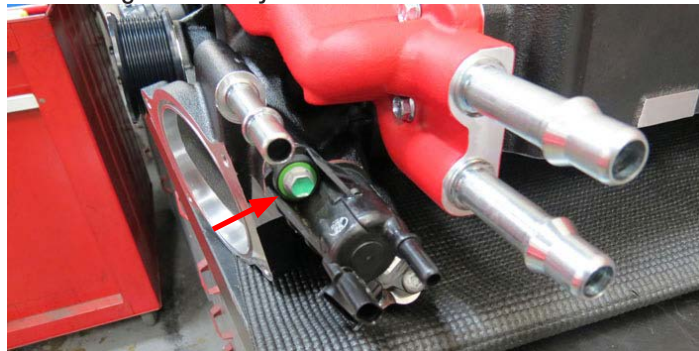
64. Reconnect the TMAP sensor connector to the TMAP sensor. **NOTE: Earlier model years will have to use the supplied TMAP sensor extension harness.**



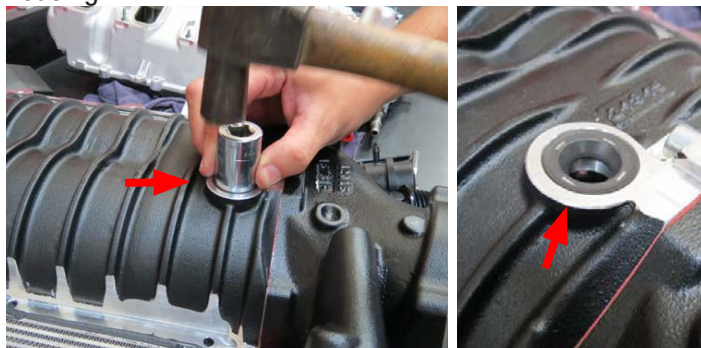
Using a pry tool with smooth edges, remove the factory PCV seal from the bottom of the factory supercharger. **TIP: It's best to pry the seal on the metal base as to not tear the upper rubber portion.** **NOTE: In the event this PCV Seal is missing or damaged contact Edelbrock Tech Support @ 800-416-8628 to purchase a replacement seal P/N 51-4301.**



67. Install the EVAP solenoid to the side of the supercharger nose using the factory bolt and a 10mm socket.



65. Using a hammer and a socket that is roughly the same diameter as the PCV seal, gently tap in the seal into the E-Force supercharger until the seal is flush with the housing.



68. Place the supplied Manifold to Runner gaskets onto the runners. Note that the passenger side gasket will be slightly longer than the driver side gasket. **TIP: You can use a dab of gasket maker to help hold the gasket in place while installing the manifold.**



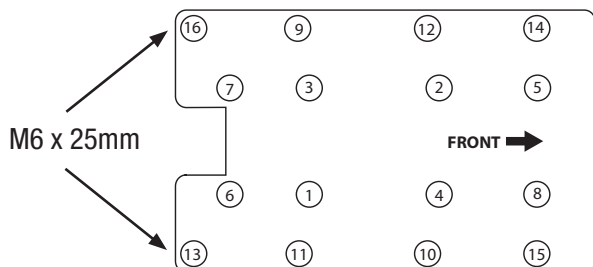
69. Carefully lower the supercharger onto the runners. Align the gaskets as needed.

70. Apply Blue thread locker to the fourteen (14) M6 x

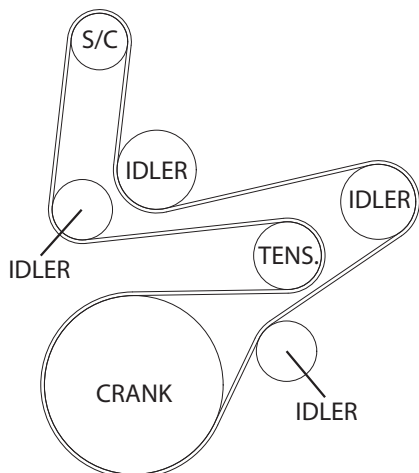
66. Using a Torx T30 screwdriver, install the MAP sensor to the E-Force supercharger nose using the factory bolt.

### Installation Instructions

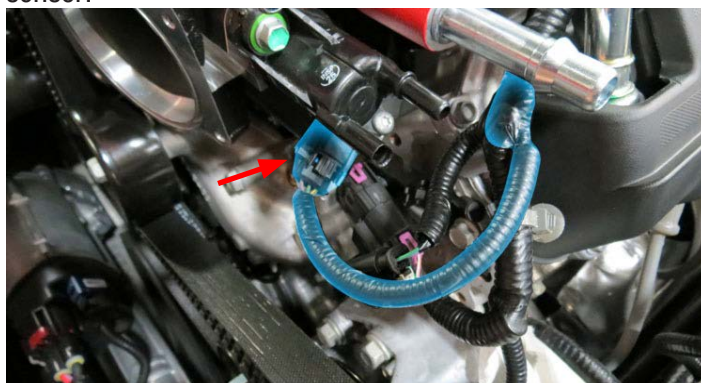
80mm SHCS bolts and two (2) M6 x 25mm Hex bolts from Bag #3. Place the bolts into their provisions noting locations 13 and 16 will use the M6 x25mm bolts. Using a 5mm Hex drive and a 10mm socket, secure the manifold to the engine using the torque sequence below. Torque bolts to 4 ft-lbs. and then to 8 ft-lbs.



71. Install the supplied drive belt using the belt routing diagram below.

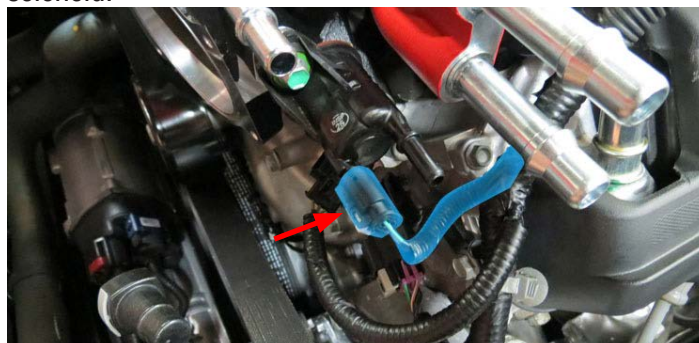


72. Connect the factory MAP connector to the front MAP sensor.



73. Connect the factory EVAP connector to the EVAP

solenoid.



74. Connect the supplied long PCV tube to the passenger side valve cover and then to the short PCV tube previously installed.



75. Connect the supplied EVAP hose to the EVAP solenoid. Route the hose under the supercharger nose and over towards the fitting on the firewall.



### Installation Instructions

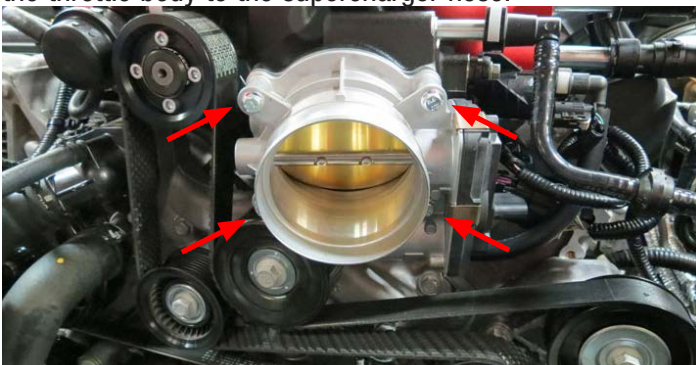
76. Connect the actuator hose to the top fitting on the actuator solenoid.



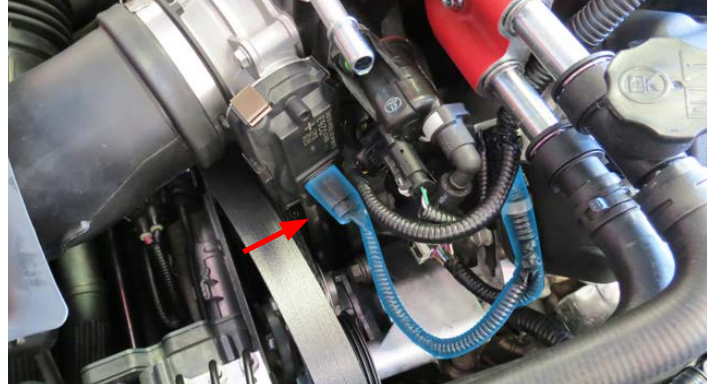
77. Connect the factory coolant hoses to the fittings on the water crossover.



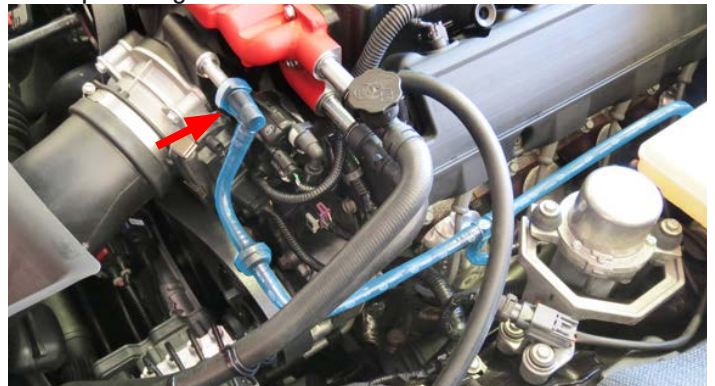
78. Remove the factory throttle body and O-ring using a 10mm socket. Inspect and replace the O-ring as needed. Using the M6 x 40mm bolts from the hardware bag, install the throttle body to the supercharger nose.



79. Connect the throttle body electronic connector to the throttle body.



80. Connect the factory brake booster hose to the fitting on the supercharger nose.



81. Using a step drill bit, drill a 9/16" hole into the air inlet tube. The hole location should be approximately an inch below the parting line and three inches right of the damper. Install the supplied grommet and fitting barb to the inlet tube as shown.



82. Reinstall the air inlet tube using the factory hardware.

### Installation Instructions

83. Reinstall the factory air inlet tube PCV hose to the sump.



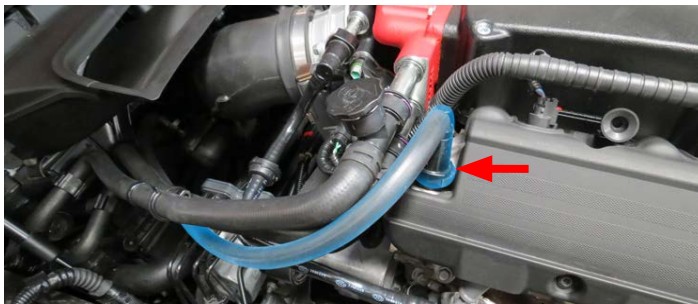
84. Route the other end to the air inlet tube and connect to the air inlet tube fitting.



85. Using a razor blade, or equivalent, carefully remove the 90° quick connect fitting from the passenger side PCV hose.



86. Install the 90° quick connect fitting onto the supplied driver side PCV hose. Connect the 90° fitting to the driver side valve cover.



87. Route the hose towards the fitting on the air inlet tube. Secure hose to the coolant lines as needed.



88. Reinstall the front air duct using the factory hardware.

89. Remove the cap from the coolant line and fill the system with the appropriate GM recommended Dexcool mixture.

90. Install the supplied support barbs onto the side covers with a 10mm socket.



91. Install the side covers onto the side cover brackets.



92. Reconnect the battery and switch ignition to the ON position, **DO NOT START THE ENGINE**. With the ignition switched on, check for any coolant or fuel leaks. Repair all leaks before proceeding. If no leaks are present the installation is complete.