



## **Edelbrock E-Force Supercharger**

**2017-2019 GM Truck and SUV 1500 5.3L and 6.2L**

**Part #15663, 15664, 156630 and 156640**



## **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.*



## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

### 2014-2019 GM SCT BDX Instructions



1. Begin by downloading the SCT device updater software:

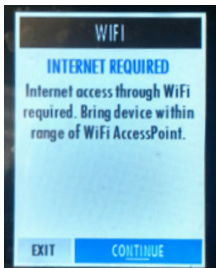
<http://cdn.derivesystems.com/software/SCTDeviceUpdater.exe>

2. With the device updater open connect the BDX to your PC with the supplied USB cable and verify it is up to date by selecting **AUTOMATICALLY CHECK FOR UPDATES**.

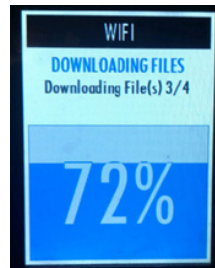
3. Once any updates have been completed, using the supplied OBD cable, connect the BDX to the vehicles OBD port.

4. Put the vehicles ignition into ACC mode but do not start the engine.

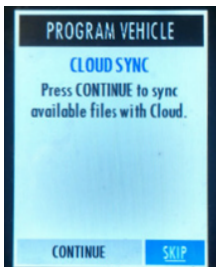
5. Select **PROGRAM VEHICLE**. You will then be prompted to confirm the VIN#. If the vehicles VIN# is displayed on the programmer screen, highlight and select **CONFIRM**. If the correct VIN# is **NOT** displayed select **CONNECT** to identify the vehicle.



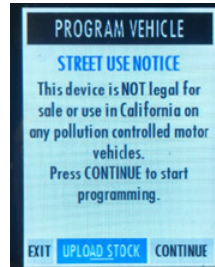
6. After verifying the VIN# you will be prompted to connect the BDX to WIFI.



7. Select the available WIFI network and follow the prompts to complete the connection. With a successful WIFI connection established, the programmer will begin updating files and firmware for the BDX.



8. Once all WIFI updates are completed, a **CLOUD SYNC** screen will appear. Select **SKIP**, as we will be emailing the E-Force calibration file to you.



9. After selecting **SKIP** for the **CLOUD SYNC**, the **STREET USE NOTICE** will appear. Select **UPLOAD STOCK** and follow the prompts to complete the upload of the stock (.sul) file.

- 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](mailto: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:



## **Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions**

### **INTRODUCTION**

Thank you for purchasing the Edelbrock Supercharger System for the 2014-2017 GM 1500 Trucks and SUVs. This system utilizes the same Eaton Gen VI TVS Supercharger rotors as the previous E-Force supercharger but housed inside a redesigned supercharger manifold. Paired with bolt-on runners, this new package will fit under the factory hood with no modifications to the stock body or hood. The supercharger retains the inverted design which expels air upward. Air pressure then builds in the plenum, before being drawn down through the twin intercooler cores.

This system features a cast water crossover to simplify intercooler hose routing. The water crossover is secured to the manifold, allowing the cooled 50/50 coolant mixture from the LTR (Low Temp Radiator) to cool down the twin intercoolers housed inside the manifold.

The supercharger is 50-state emissions legal (pending), and includes a 3-year 36,000 mile warranty, where applicable, so there are no worries when installing on a brand new vehicle.

### **TOOLS AND SUPPLIES REQUIRED**

- Jack and Jack Stands OR Service Lift
- Ratchet and Socket Set including but not limited to:  
7mm, 8mm, 10mm (standard, deep and swivel),  
11mm, 12mm, 13mm and 15mm
- Breaker Bar: 1/2"
- Allen Wrenches: 5mm, 6mm, 8mm
- Torx Drives: T15, T30
- Panel Puller
- Flat Blade & Phillips Screwdrivers
- Coolant Drain Bucket
- 50/50 Coolant Mixture (4.5 quarts)
- Side Cutters
- Angle Grinder, or equivalent
- 7/8" Fuel Line Removal Tools
- Drill
- 1-1/4" Hole Saw
- Torque Wrench
- Pliers OR Hose Clamp Removal Tool
- Blue, Green and Red Thread Retaining Compound
- O-ring Lube
- Masking Tape
- Shop Rags
- Wire Ties



**Edelbrock E-Force Supercharger System  
2014-2019 GM Truck & SUV 1500  
5.3L and 6.2L Installation Instructions**

**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 optional supplemental 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.



**Edelbrock E-Force Supercharger System**  
**2014-2019 GM Truck & SUV 1500**  
**5.3L and 6.2L Installation Instructions**

**IMPORTANT WARNINGS (CONTINUED)**

Please employ proper towing etiquette when towing steep grades. Turn off Air Conditioner and avoid aggressive towing behaviors to avoid any overheating that may occur. **DO NOT** exceed the manufacturer's maximum tow rating for the vehicle.



**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 also 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)

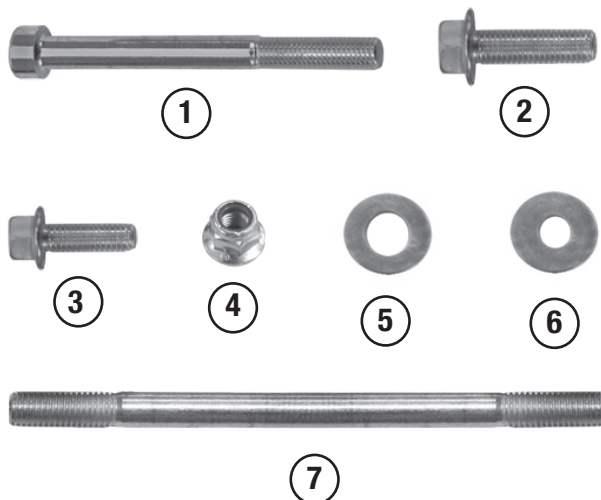
**Edelbrock Authorized Installer Disclaimer**

*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.*

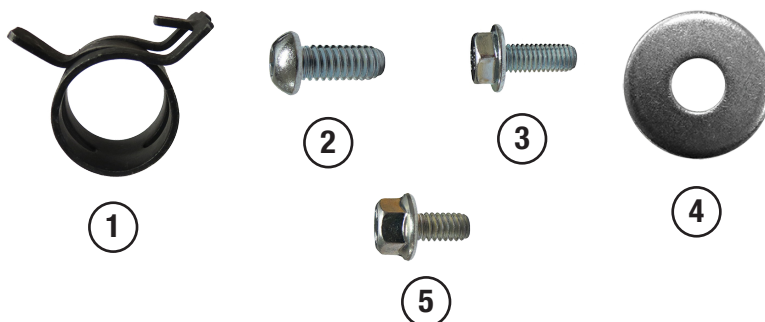
## INSTALLATION HARDWARE IDENTIFICATION GUIDE

(Parts Are Not To Scale)

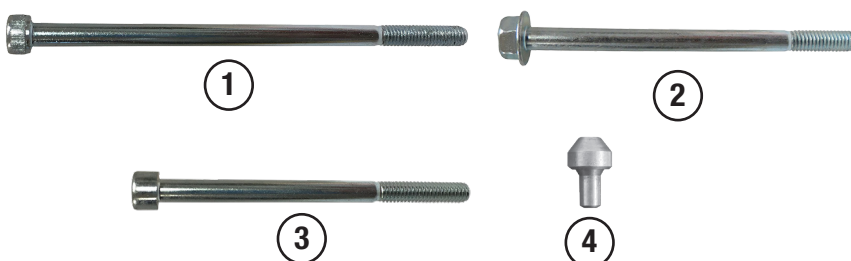
| BAG #1 - FEAD HARDWARE |         |      |                                |             |
|------------------------|---------|------|--------------------------------|-------------|
| Item                   | P/N     | QTY. | Description                    | Torque Spec |
| 1                      | 36-0195 | 3    | Bolt, SHCS, M8 x 130mm         | 22 ft-lbs   |
| 2                      | 36-0205 | 1    | Bolt, Hex Flange, M10 x 40mm   | 18 ft-lbs   |
| 3                      | 36-4011 | 1    | Bolt, Hex Flange, M8 x 25mm    | 18 ft-lbs   |
| 4                      | 60-1515 | 1    | Nut, Nylon Insert, M10 x 1.5mm | 18 ft-lbs   |
| 5                      | 82-0120 | 1    | Washer, M8                     | N/A         |
| 6                      | 82-0123 | 2    | Washer, M10                    | N/A         |
| 7                      | 36-1418 | 1    | Stud, M10 x 200mm              | N/A         |



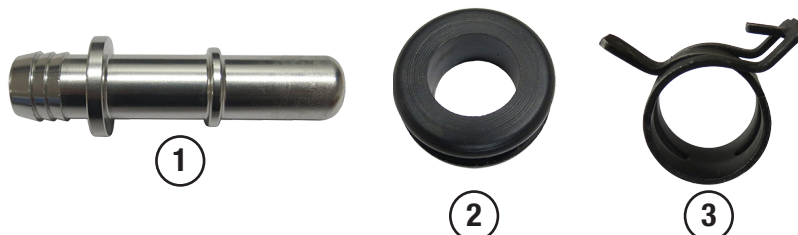
| BAG #2 - INTERCOOLER HARDWARE |         |      |                             |             |
|-------------------------------|---------|------|-----------------------------|-------------|
| Item                          | P/N     | QTY. | Description                 | Torque Spec |
| 1                             | 46-2155 | 8    | Hose Clamp, 3/4             | N/A         |
| 2                             | 36-5200 | 2    | Bolt, BHSC, M8 x 16mm       | N/A         |
| 3                             | 36-1507 | 2    | Bolt, Hex Flange, M6 x 16mm | N/A         |
| 4                             | 82-0120 | 2    | Washer, M8                  | N/A         |
| 5                             | 36-1552 | 8    | Bolt, Hex Flange, M6 x 10mm | N/A         |



| BAG #3 - MANIFOLD/RUNNER HARDWARE |         |      |                             |             |
|-----------------------------------|---------|------|-----------------------------|-------------|
| Item                              | P/N     | QTY. | Description                 | Torque Spec |
| 1                                 | 36-0155 | 6    | Bolt, SHCS, M6 x 120mm      | 8 ft-lbs    |
| 2                                 | 36-0198 | 12   | Bolt, Hex Flange, M6 x 85mm | 8 ft-lbs    |
| 3                                 | 36-1573 | 8    | Bolt, SHCS, M6 x 80mm       | 8 ft-lbs    |
| 4                                 | 70-3503 | 1    | Jet, Taper, .015"           | N/A         |



| BAG #4 - AIR INTAKE HARDWARE |         |      |                        |             |
|------------------------------|---------|------|------------------------|-------------|
| Item                         | P/N     | QTY. | Description            | Torque Spec |
| 1                            | 88-0620 | 2    | Barb, Intake Tube, 5/8 | N/A         |
| 2                            | 51-4130 | 2    | Rubber Grommet         | N/A         |
|                              |         |      | Hose Clamp,            |             |



### LTR BRACKET IDENTIFICATION GUIDE (BRACKETS FOR SUV ONLY)

*(Parts Are Not To Scale)*

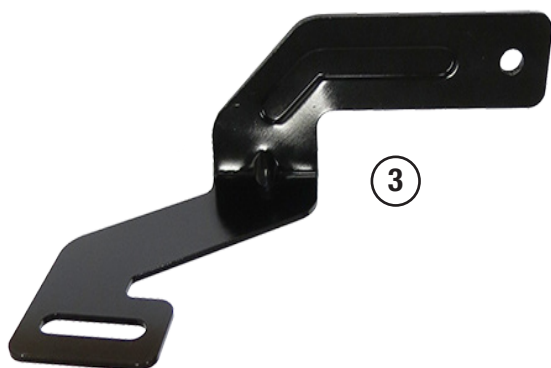
| SUV LTR BRACKETS |         |      |                               |             |
|------------------|---------|------|-------------------------------|-------------|
| Item             | P/N     | QTY. | Description                   | Torque Spec |
| 1                | 12-3022 | 14   | Aluminum Spacer               | N/A         |
| 2                | 36-1575 | 14   | Bolt, Hex Flange, M6 x 25mm   | N/A         |
| 3                | 38-0152 | 1    | Upper / Driver LTR Bracket    | N/A         |
| 4                | 38-0153 | 1    | Upper / Passenger LTR Bracket | N/A         |
| 5                | 38-0154 | 1    | Lower / Driver LTR Bracket    | N/A         |
| 6                | 38-0155 | 1    | Lower / Passenger LTR Bracket | N/A         |



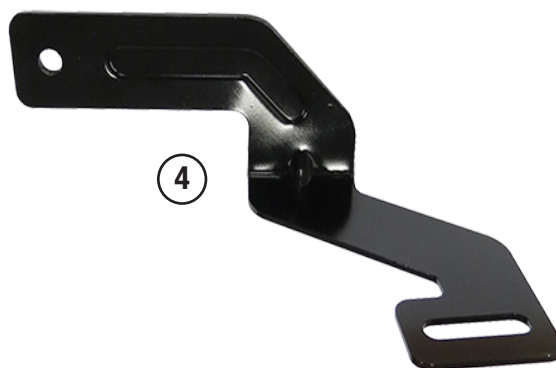
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## LTR BRACKET AND FEAD IDENTIFICATION GUIDE (BRACKETS FOR TRUCK ONLY)

(Parts Are Not To Scale)

| LTR BRACKETS AND FEAD HARDWARE<br>(BRACKETS FOR TRUCK ONLY) |          |      |                               |             |
|-------------------------------------------------------------|----------|------|-------------------------------|-------------|
| Item                                                        | P/N      | QTY. | Description                   | Torque Spec |
| 1                                                           | 51-3999  | 1    | Grooved Pulley                | N/A         |
| 2                                                           | 51-7093  | 2    | Smooth Idler Pulley           | N/A         |
| 3                                                           | 42-2162  | 1    | Water Pump Isolator           | N/A         |
| 4                                                           | 38-2949  | 1    | Upper / Driver LTR Bracket    | N/A         |
| 5                                                           | 38-2948  | 1    | Upper / Passenger LTR Bracket | N/A         |
| 6                                                           | 38-2947  | 1    | Recovery Tank Bracket         | N/A         |
| 7                                                           | 38-2946  | 1    | Water Pump Bracket            | N/A         |
| 8                                                           | 38-2951  | 1    | Lower / Driver LTR Bracket    | N/A         |
| 9                                                           | 38-2950  | 1    | Lower / Passenger LTR Bracket | N/A         |
| 10                                                          | 27-1584  | 1    | Small Pulley Adapter          | N/A         |
| 11                                                          | 24-1562  | 1    | Large Spacer                  | N/A         |
| 12                                                          | 24-15694 | 1    | FEAD Bracket                  | N/A         |



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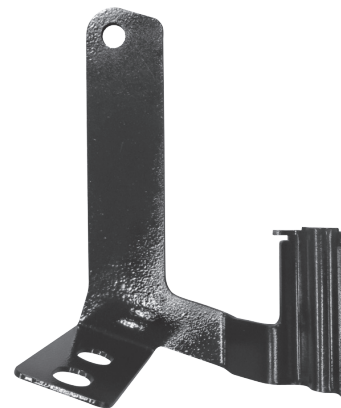
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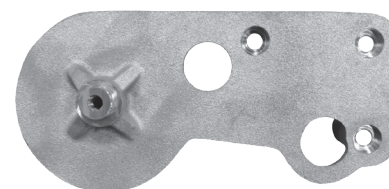
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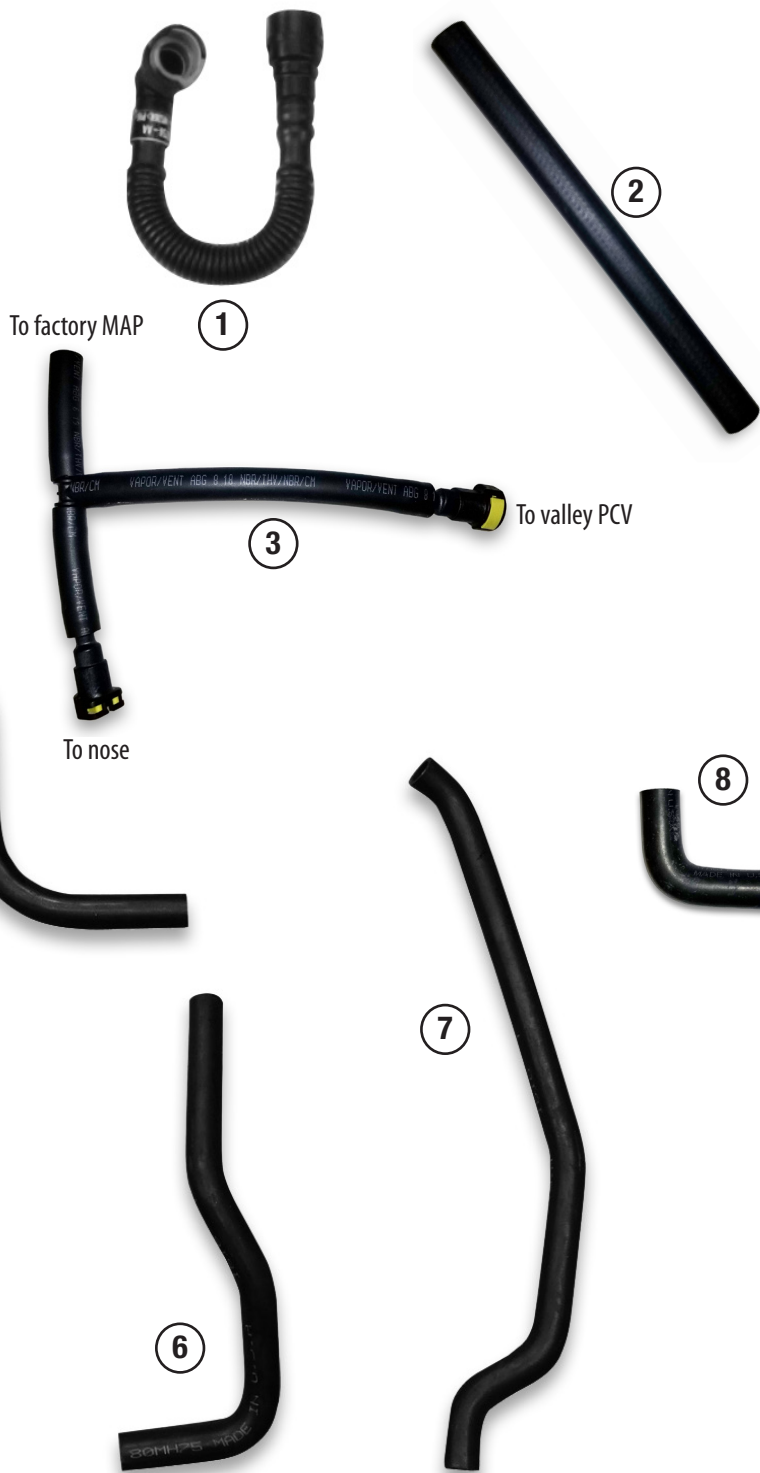


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## HOSE IDENTIFICATION GUIDE

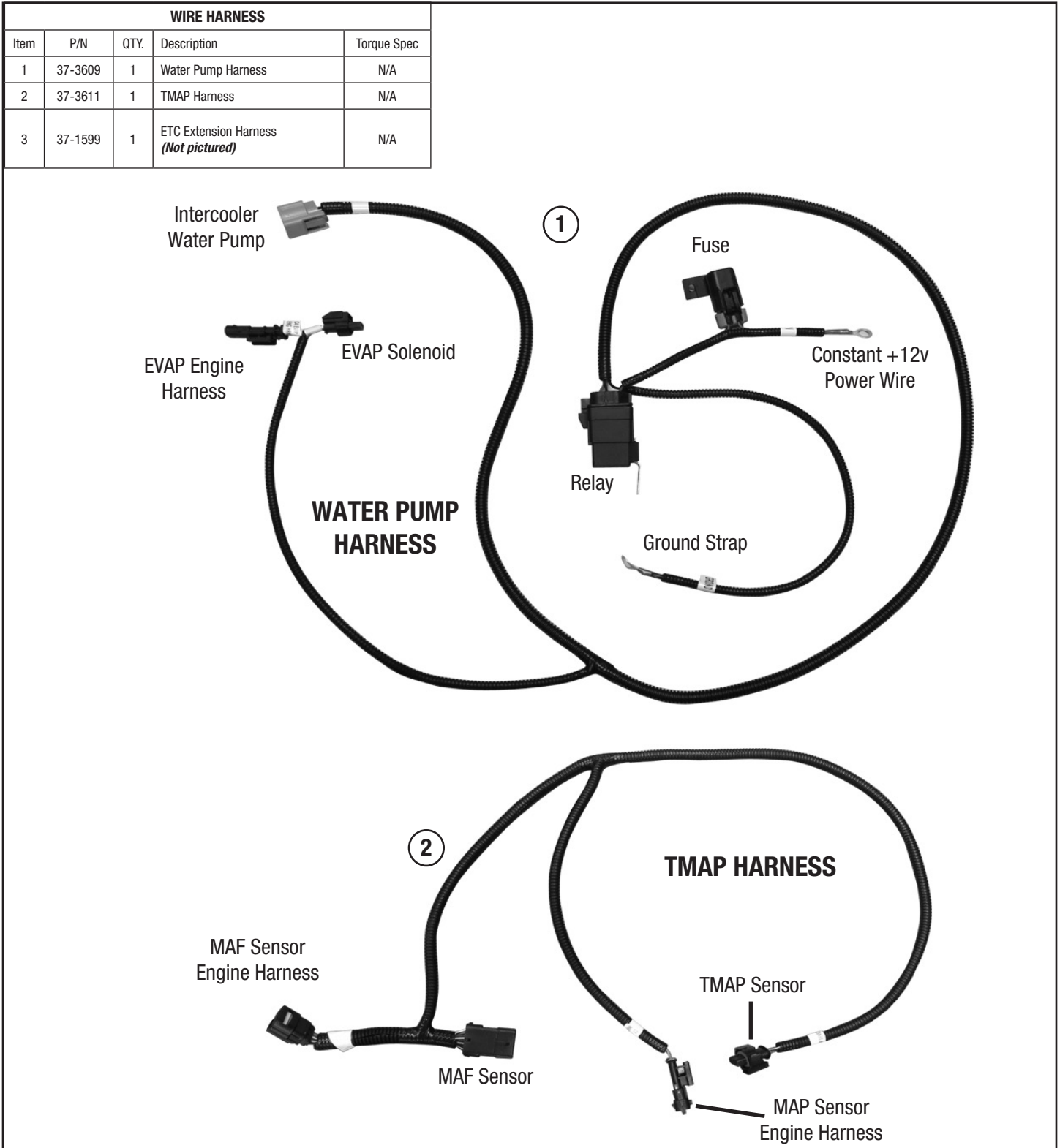
(Parts Are Not To Scale)

| AIR INTAKE AND INTERCOOLER HOSES |         |      |                                 |
|----------------------------------|---------|------|---------------------------------|
| Item                             | P/N     | QTY. | Description                     |
| 1                                | 51-7090 | 2    | PCV Hose                        |
| 2                                | 56-1650 | 1    | 5/8" Hose (11")                 |
| 3                                | 22-1675 | 1    | MAP to Nose to Valley PCV Hose  |
| 4                                | 51-4193 | 1    | Manifold to LTR Hose            |
| 5                                | 51-4190 | 1    | Manifold to Recover Tank Hose   |
| 6                                | 51-4192 | 1    | Water Pump to LTR Hose          |
| 7                                | 51-4191 | 1    | Recover Tank to Water Pump Hose |
| 8                                | 51-4169 | 1    | 90° Adapter hose (Optional)     |

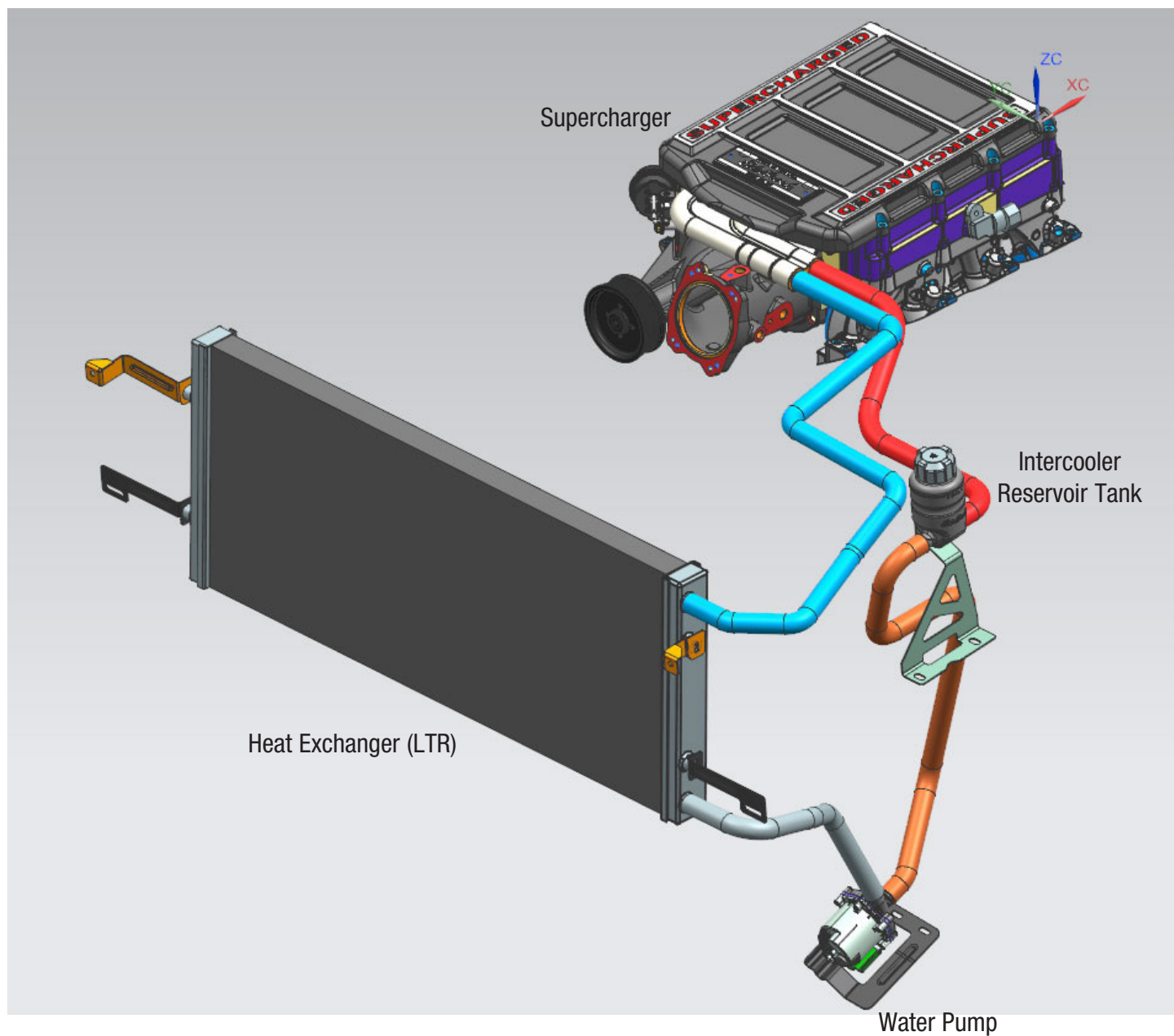


### WIRE HARNESS GUIDE

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## HOSE ROUTING DIAGRAM

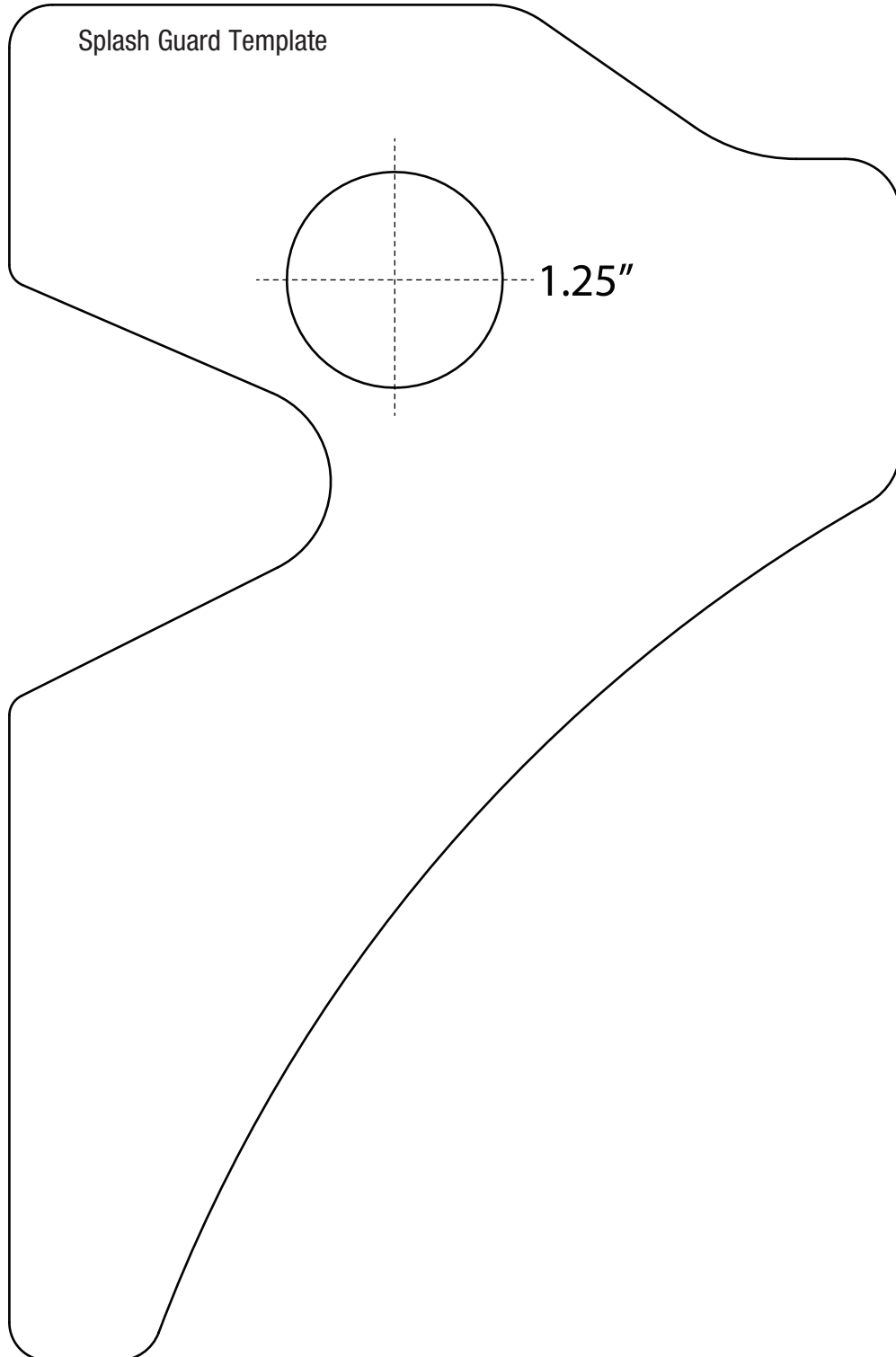




**Edelbrock E-Force Supercharger System**  
**2014-2019 GM Truck & SUV 1500**  
**5.3L and 6.2L Installation Instructions**

**TEMPLATE**

*(DO NOT SCALE TEMPLATE WHEN PRINTING)*





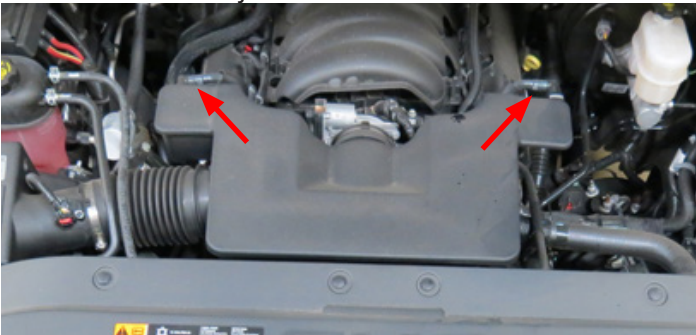
## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

### SUPERCHARGER INSTALLATION

1. Using a 10mm socket, disconnect the negative battery terminal.



2. Disconnect the driver and passenger PCV hoses from the air inlet tube assembly and from the valve covers.



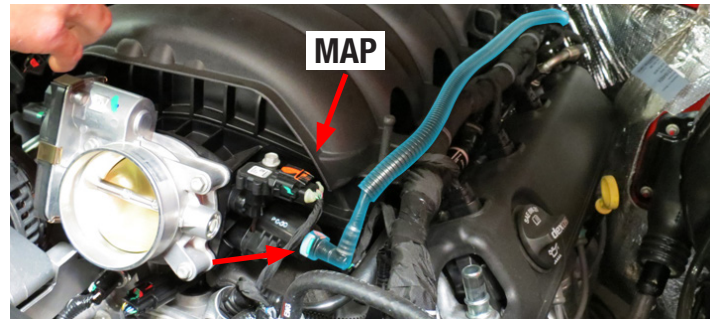
3. Using a flathead screwdriver, loosen the worm clamps on the air inlet tube and remove the assembly from the throttle body and airbox.



4. Unplug the throttle body harness connector from the throttle body assembly.



5. Unplug the MAP harness connector from the MAP sensor. Remove the EVAP hose from the EVAP solenoid and unplug the EVAP harness connector. **TIP: EVAP solenoid is located under the MAP sensor.**



6. Detach the PCV hose located on the valley plate. On 5.3L applications the hose connects to the driver side of the intake manifold. On 6.2L applications, it connects to the front of the intake manifold.





## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

7. Detach the engine harness from the sides of the manifold cover using a panel puller. OPTIONAL: The wire ties securing the harness to the manifold cover can be removed altogether.



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



9. Using a panel puller, disengage four (4) Christmas tree push pins securing the engine harness to the rear of the manifold cover. With Christmas trees removed, carefully remove the intake manifold.



10. Remove the foam insulation from the valley cover and discard. Clean the intake port surfaces with a shop rag. Cover the ports with protective tape to keep out debris.

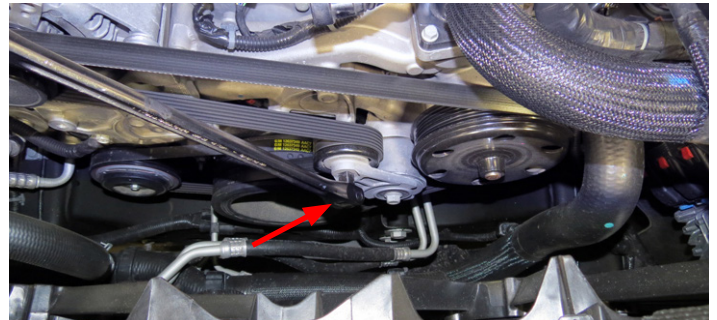


11. Drain the coolant by removing the petcock located on the passenger side of the radiator.

12. Remove the two heater hoses located on the passenger side firewall. Please towels or rags underneath the hoses to prevent the coolant from getting into the cylinder.



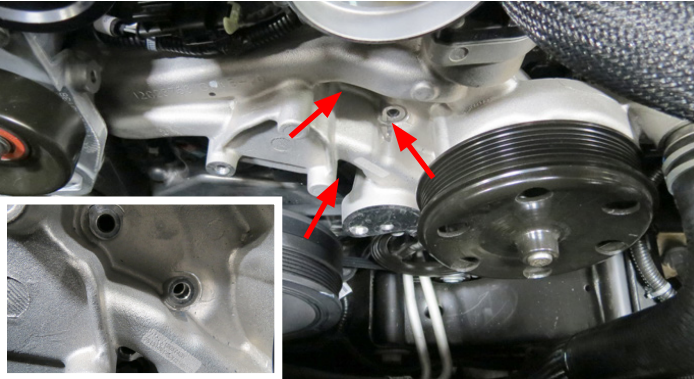
13. Using a 1/2" breaker bar, rotate the tension counterclockwise and remove the stock drive belt.



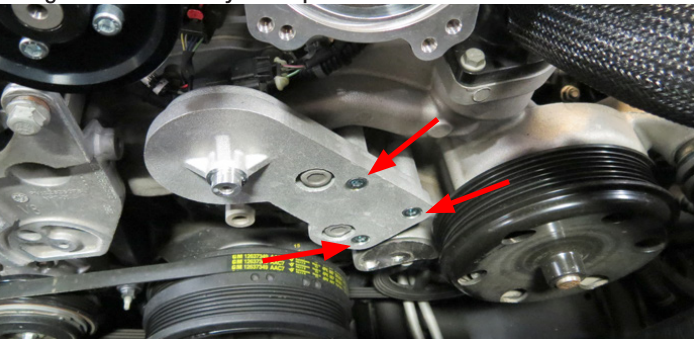
## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

14. Using a 15mm socket, remove the factory tensioner.

15. Remove three (3) bolts from the water pump using a 13mm socket.



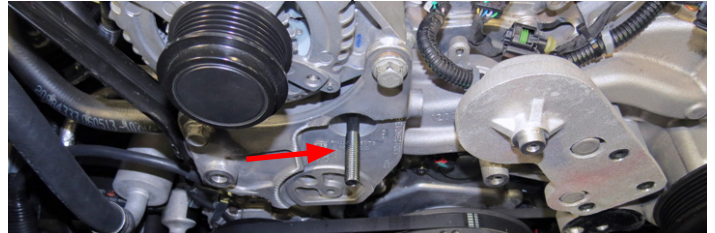
16. Using Blue thread locker and three (3) M8 x 130mm SHCS bolts from Bag #1, secure the FEAD bracket to the water pump using a 6mm Hex key. Torque bolts to 22 ft-lbs.



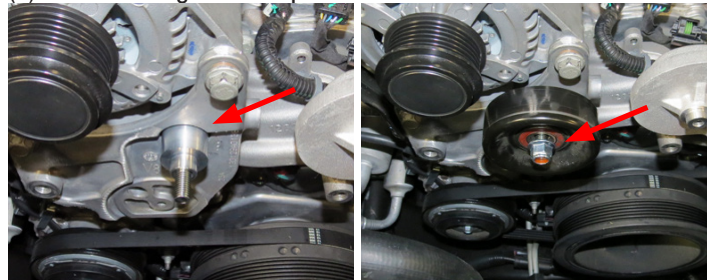
17. Remove the factory bolt securing the alternator bracket using a 15mm socket.



18. Apply Blue thread locker to one end of the M10 Stud from Bag #1. Thread the stud, by hand, into the alternator bracket. Using the supplied M10 nut from Bag #1, continue threading the stud into the bracket until it stops. Remove the M10 nut.



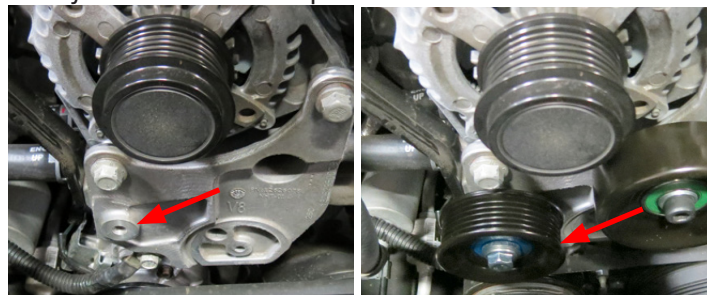
19. Place the large spacer onto the M10 Stud and secure the smooth idler pulley to the stud with one (1) M10 Washer and one (1) Nut from Bag #1. Torque nut to 18 ft-lbs.



20. Insert the small pulley adapter to the backside of the supplied grooved idler pulley.



21. Using one (1) M10 washer and one (1) M10 x 40mm Hex Flange bolt from Bag #1, install the grooved idler pulley to the factory FEAD bracket. Torque bolt to 18 ft-lbs.





## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

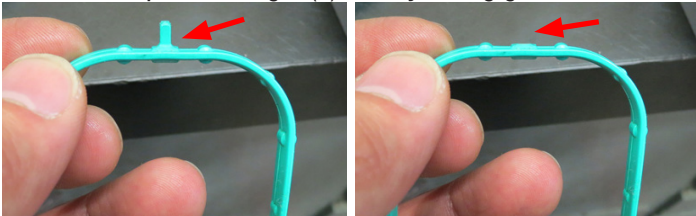
22. Using one (1) M8 washers and one (1) M8 x 25mm bolts from Bag #1, install the other smooth idler pulley to the FEAD bracket with a 12mm socket. Torque bolt to 18 ft-lbs.



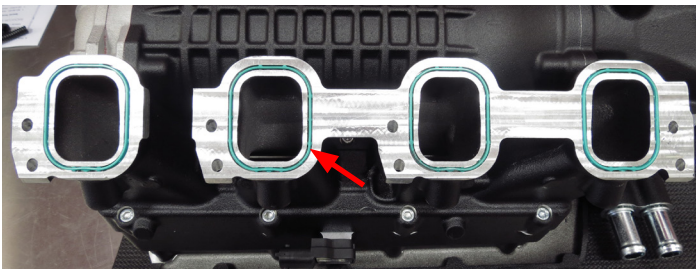
23. Remove the O-ring gaskets from the factory intake manifold.



24. Clean and inspect the O-ring gaskets and replace torn or damage O-rings as needed. Using a razor blade, or equivalent, remove the tips off all eight (8) factory O-ring gaskets.



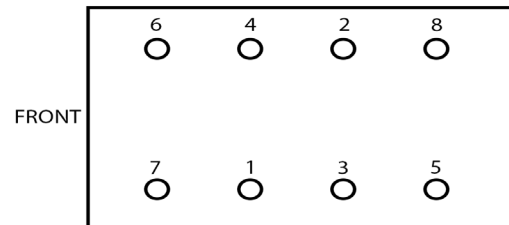
25. Install the eight (8) modified O-ring gaskets onto the runners.



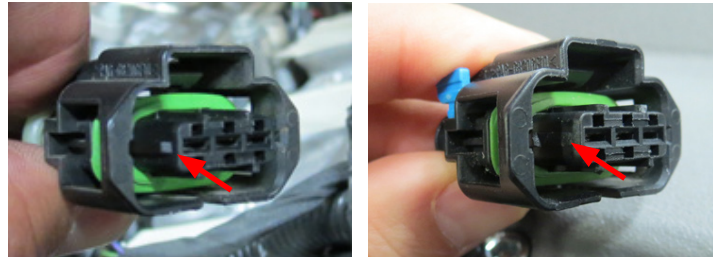
26. Connect the TMAP harness to the TMAP sensor located on the driver side of the manifold.



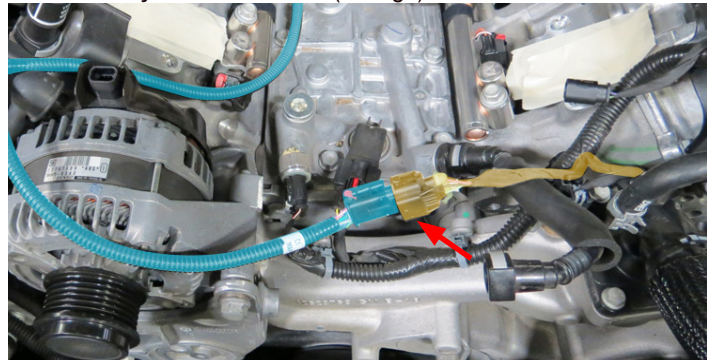
27. Remove the protective tape from the cylinder head. Apply Blue thread locker to the eight (8) M6 x 40mm hex flange bolts from Bag #3. Using a 10mm socket, secure the manifold to the engine using the torque sequence below. Torque bolts to 4 ft-lbs. and then to 8 ft-lbs.



28. Using a cutting tool, trim the inner left tab off the factory MAP connector.



29. Route the MAP connector, on the TMAP harness (Blue), over towards the front of the valley plate. Connect the TMAP harness to the factory MAP connector (Orange).

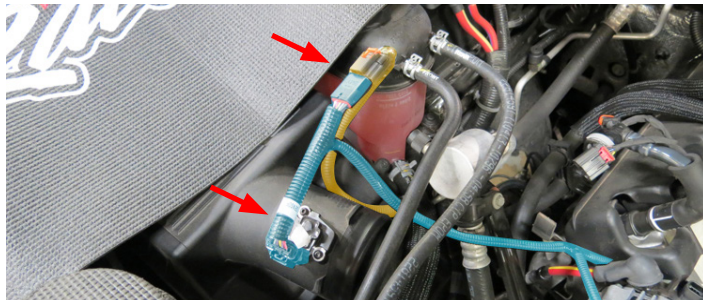




## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

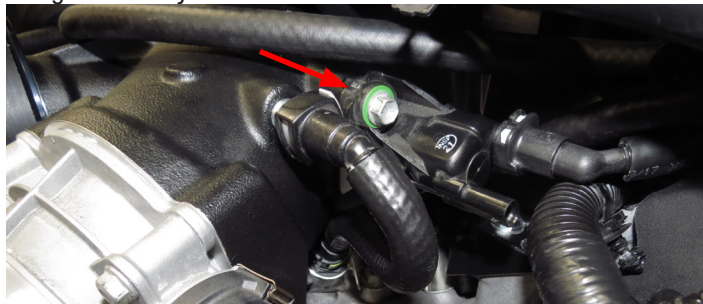
30. This system includes a reusable drop-in air filter which can be installed at this time. To do so, remove the lid on the air box using an 8mm socket.

31. Route the MAF connectors (Blue), on the TMAP harness, over towards the airbox assembly. Connect the TMAP harness to the factory MAF connector (Orange) and to the factory MAF sensor.



32. Secure the TMAP harness to existing wire looms and/or hoses away from moving components and sharp edges.

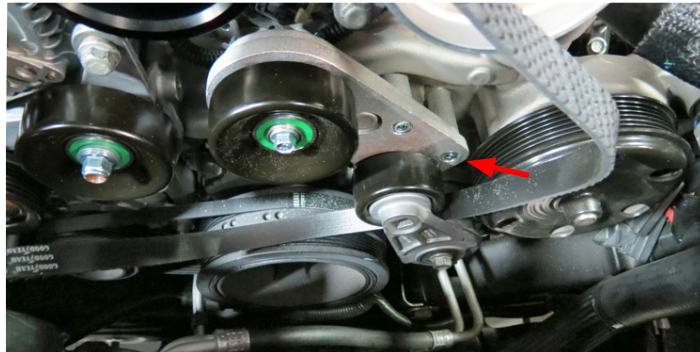
33. Using a 10mm socket, remove the factory EVAP solenoid on the intake manifold and install it to the supercharger manifold using the factory bolt.



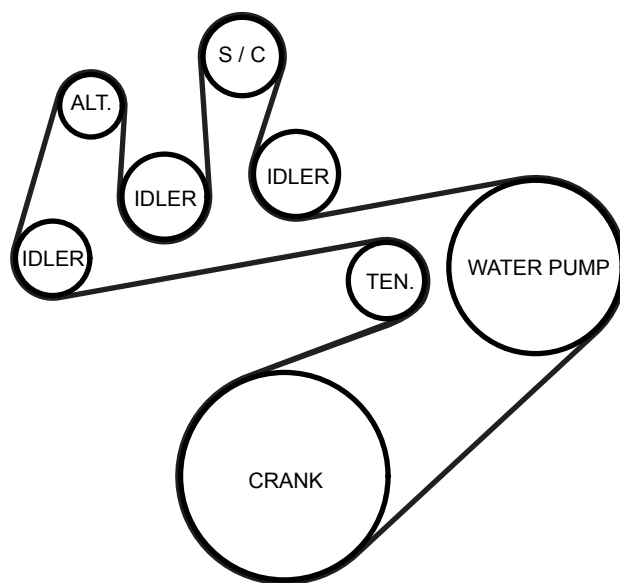
34. With the help from an assistant, carefully lower the supercharger into the vehicle. Align the manifold to the engine before proceeding. **(NOTE: Do not hold onto the bypass actuator when lowering the supercharger onto the runners).**

35. Apply Blue thread locker on the threads of four (4) M6 x 80mm SHCS bolts and four (4) M6 X 120mm hex flange bolts from Bag #3. Place the bolts into their provisions as pictured in the diagram below. Remove the masking tape from the other bolts. Using a 5mm hex drive and a 10mm socket, secure the manifold to the runners using the torque sequence below. Torque bolts in two steps to 4 ft-lbs. and then to 8 ft-lbs.

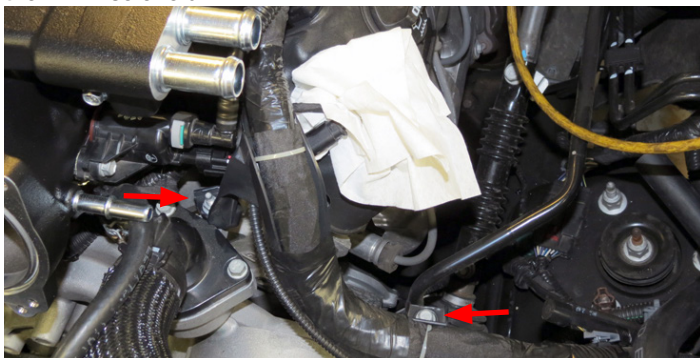
36. Position the supplied drive belt onto the factory tensioner pulley. Using a 15mm socket, reinstall the tensioner. Torque tensioner bolt to 37 ft-lbs



37. Using a breaker bar, rotate the tensioner counterclockwise and install the drive belt using the routing diagram below.



38. Using a 10mm socket, remove a bolt and nut securing the engine harness support right of the new EVAP location. Carefully lift up the harness support and temporarily relocate it to access the EVAP solenoid.



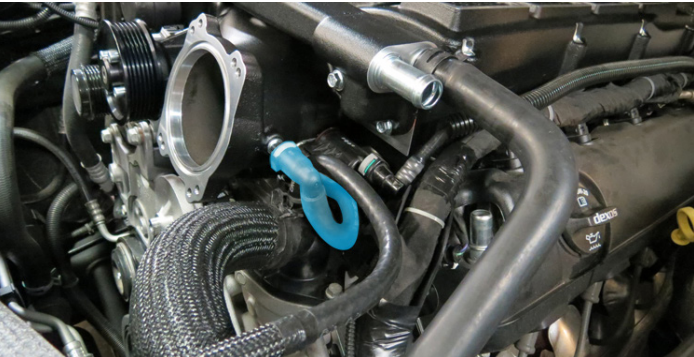


## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

39. With the engine harness temporarily relocated, connect the factory EVAP hose to the EVAP solenoid.



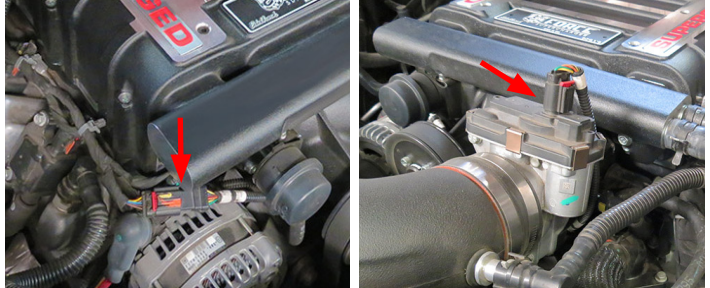
40. Install the straight fitting on the Valley to Nose PCV hose to the quick connect fitting located at the front of the valley plate. Connect the 90° end to the quick connect fitting on the manifold nose.



41. Using a 10mm socket, remove the throttle body from the stock manifold and install it onto the supercharger manifold using the factory bolts and the supplied throttle body O-ring gasket.  
**NOTE: Throttle body flange is tapped for both 5.3L and 6.2L throttle bodies. Verify proper alignment before securing the throttle body.**

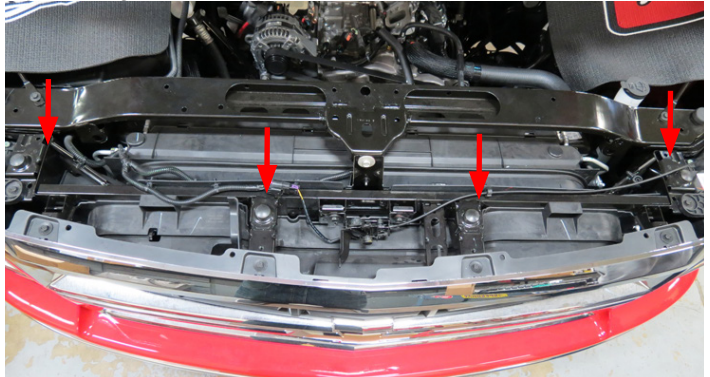


42. Connect the supplied ETC extension harness to the factory throttle body connector. Route the harness under the supercharger nose and connect to the throttle body. Secure the ETC extension harness to existing wire looms and/or hoses away from moving components and sharp edges.



**NOTE: Steps 43-48 will outline the procedure to remove the front fascia on Truck applications. Disregard and skip to Step 49 if installing on SUV applications.**

43. Using a 10mm socket, remove four (4) bolts securing the top of the grill assembly.



44. Vehicles equipped with fender guards, use a 7mm socket and a Torx T15 to remove the front two bolts.





## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

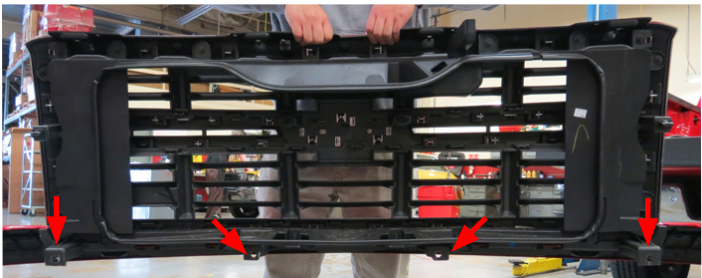
45. Carefully disengage the fender guard by dislodging the front plastic retaining clips. **TIP:** Fender guard does not have to be fully removed.



46. Using a 7mm socket, remove four (4) bolts (two per side) securing the grill assembly. **TIP:** Fender lining doesn't have to be removed, but will simplify this procedure.



47. Remove four (4) additional bolts securing the grill assembly using a 10mm socket. **TIP:** These need to be removed from the bottom of the vehicle.

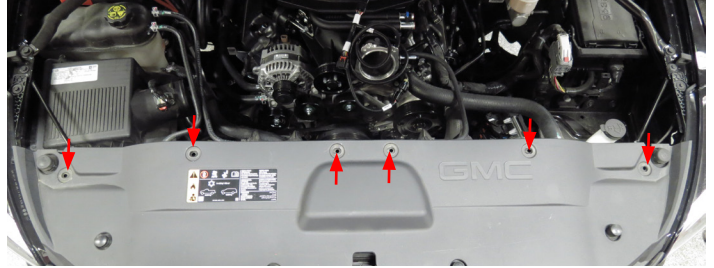


48. With the help from an assistant, carefully disengage the front fascia assembly and remove. **TIP:** Grill will detach with the fascia as an assembly.

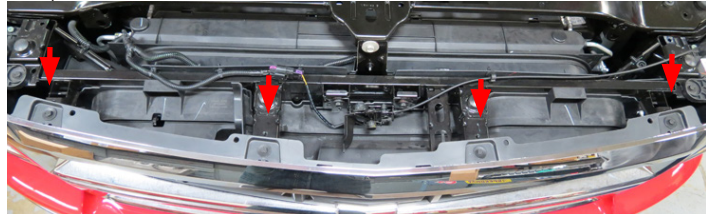


**NOTE:** Steps 49-60 will outline the procedure to remove the front fascia on SUV applications. Disregard otherwise.

49. Using a panel puller, remove six (6) push pins securing the top shroud. Carefully lift the shroud up and remove the six clips from the front of the shroud.



50. Using a 10mm socket, remove four (4) bolts securing the top of the grill assembly. Some applications with have two (2) more bolts located between the headlight and grille (one per side).



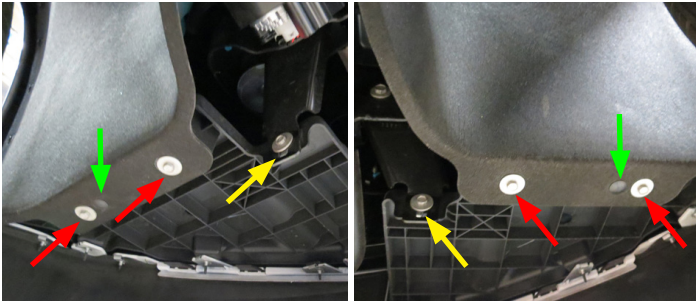
51. Using a 7mm socket remove six (6) screws, per side, securing the wheel well liner to the fascia. The wheel well liner does not have to be completely removed.





## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

52. Using a panel puller, remove two (2) push pins (GREEN ARROW) securing the wheel well liner to the bottom of the fascia. Using a 10mm socket, remove four (4) bolts (RED ARROW) securing the wheel well liner to the bottom of the front fascia and two (2) bolts (YELLOW ARROW) securing the fascia to the chassis.



53. Using a 10mm socket, remove two (2) additional bolts securing the front fascia to the chassis.



54. With the help from an assistant, carefully disengage the front fascia assembly and remove. **TIP:** Grill will detach with the fascia as an assembly.



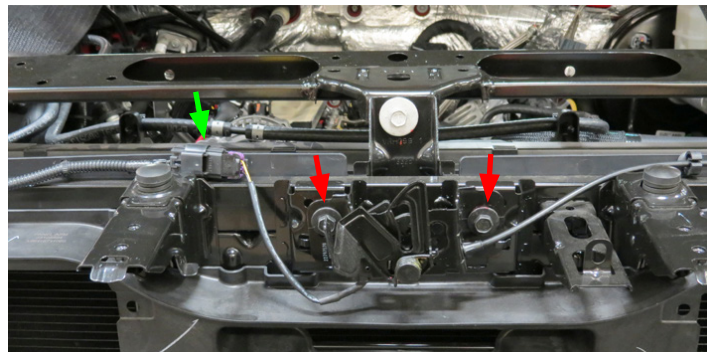
55. Using a 10mm socket, remove four (4) bolts securing the driver side headlamp.



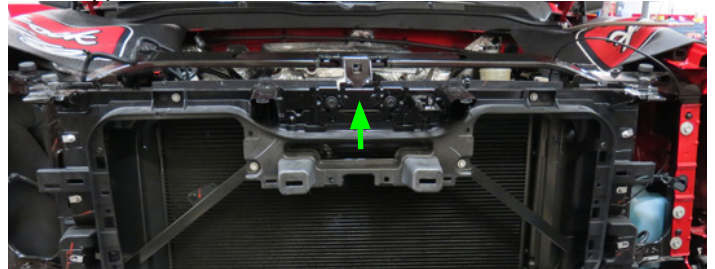
56. Carefully rotate the headlamp forward and disconnect the headlamp power connector. Repeat headlamp removal procedure for the passenger side headlamp.



57. Unplug the ambient temperature sensor connector (GREEN). Using a 13mm socket, remove two (2) bolts securing the hood latch assembly. Remove the hood latch assembly and move aside.



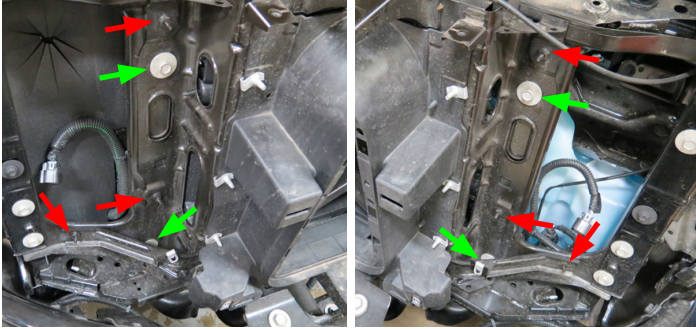
58. Using a 13mm socket, remove three (3) bolts securing the front support brace to the chassis.



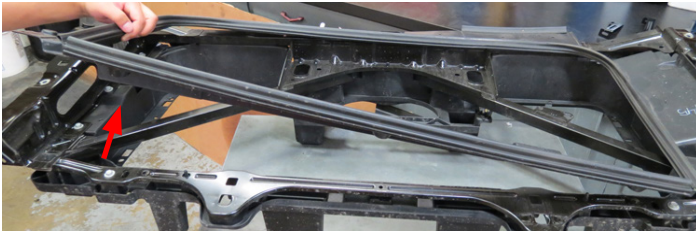


## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

59. Use a deep 10mm socket to remove six (6) nuts (RED) and a 13mm socket to remove four (4) bolts (GREEN) securing the sides of the support brace. Carefully remove the support brace.

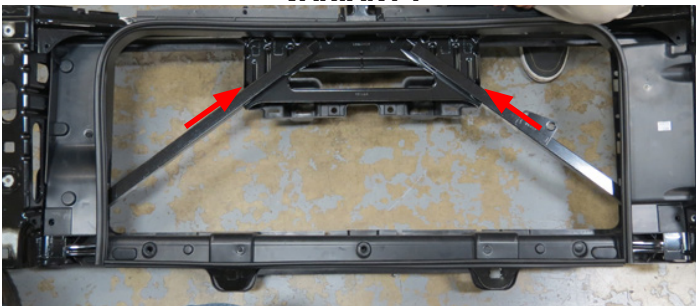


60. Using a panel puller, remove twelve (12) push pins securing the plastic shroud to the support brace. Remove shroud and set aside.

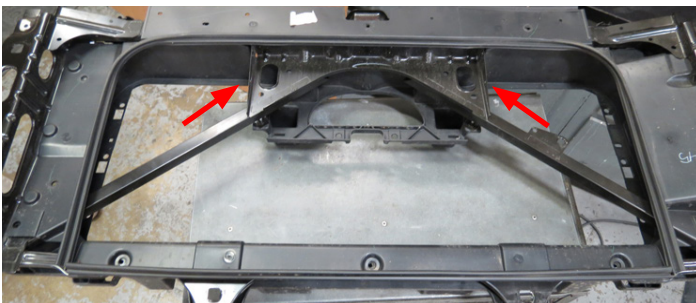


**NOTE:** There are two variants of the front support brace. Variant I has a flat support plate while Variant II has a support plate with raised sides. If you have variant II, proceed to Step 61. Otherwise disregard and proceed to Step 62.

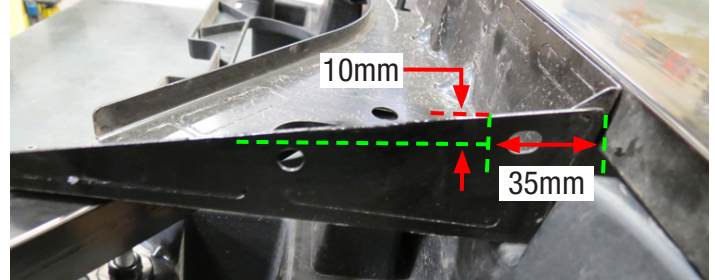
### VARIANT I



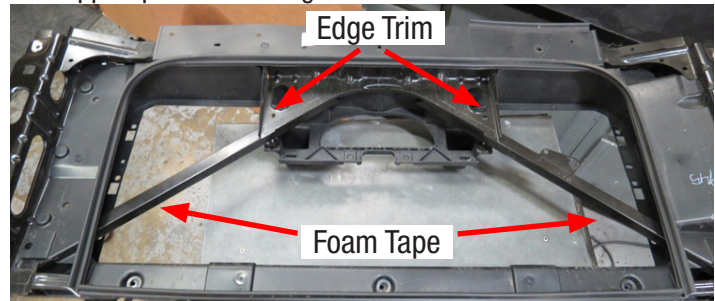
### VARIANT II



61. Using a right angle grinder, or equivalent, trim the sides of the support plate 35mm from where the plate meets the brace. The depth of the relief needs to be approximately 10mm. Deburr all sharp edges with a file and touch up relief with black paint.



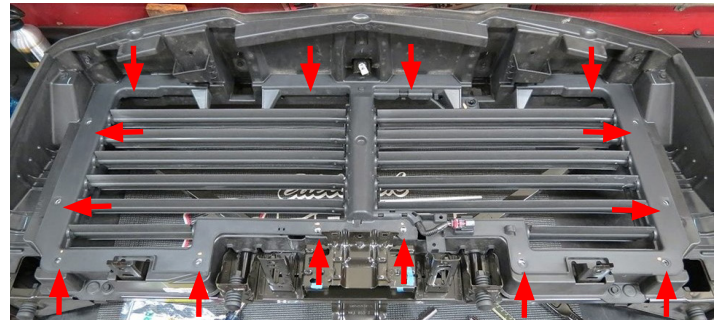
62. Apply 3-4" of foam tape to the support bars to prevent LTR and brace contact. Vehicles with Variant II type braces apply the supplied edge trim to the reliefs on the support plate. Trim edge trim as needed.



**NOTE:** Steps 63-72 will outline the procedure to secure the Low Temp Radiator (LTR) on SUV applications. Proceed to Step 73 for Truck applications.

**Steps 63 and 64 only apply to vehicles with electronic vent louvers for needed LTR clearance. Disregard otherwise.**

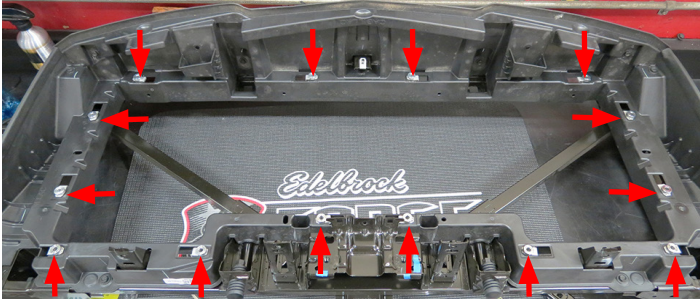
63. Using a 10mm socket, remove fourteen (14) bolts securing the electronic vent louvers to the support brace. Remove the louvers and move aside.





## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

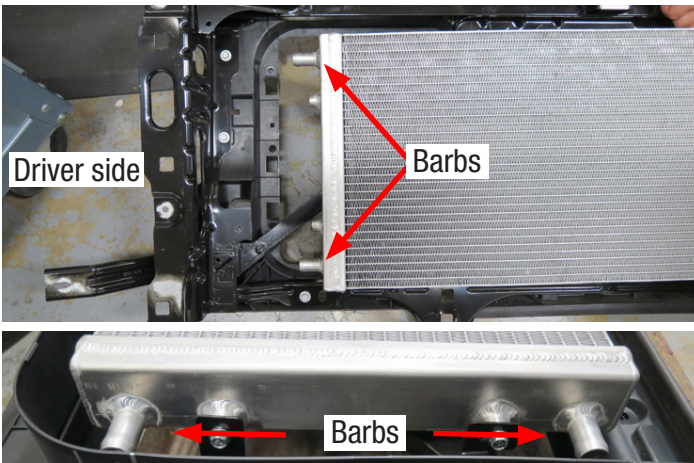
64. Place fourteen (14) aluminum spacers supplied with the SUV LTR brackets over the bolt holes the vent louvers were secured to. Place and align the vent louvers over the spacers and secure them with the fourteen (14) M6 X 25mm hex flange bolts supplied with the SUV LTR brackets.



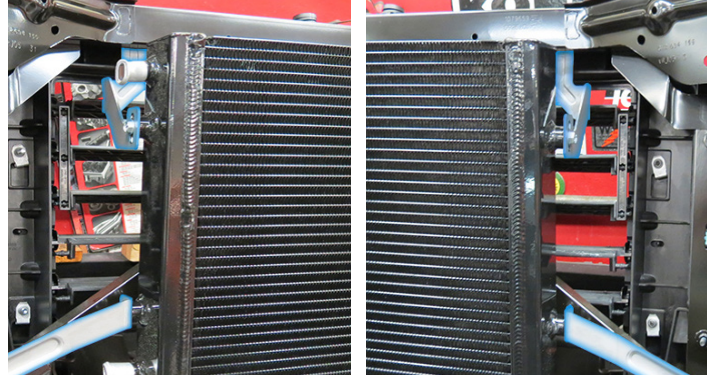
65. Using a panel puller, remove two (2) lower push pins, one on each side of the support brace.



66. Position the Low Temp Radiator (LTR) on the backside of the support brace with the barbs pointing towards the driver side of the vehicle and the barbs closer towards the front of the vehicle.



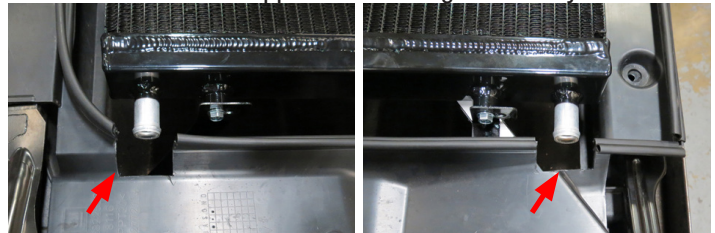
67. Using the SUV LTR brackets and four (4) M6 x 10mm bolts from Bag #2, loosely secure the top LTR brackets to the LTR.



68. Place the shroud back onto the support brace and pull back the rubber weather guard. Using a marker, mark the relief cutouts for the LTR hoses. Reliefs should be approximately 1.5" wide and 1/2" below the LTR barbs. Fit the lower brackets to the LTR and mark cuts for reliefs in the shroud.



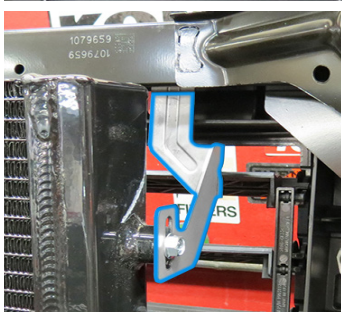
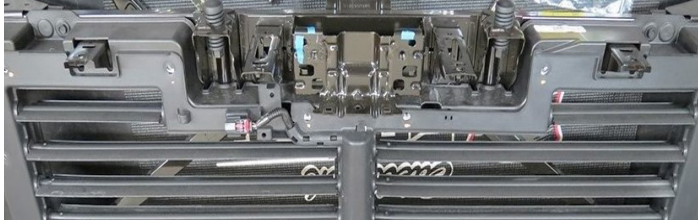
69. Trim the shroud using an appropriate cutting tool. Test fit the LTR hoses to verify proper shroud to hose clearance. Reinstall the weather guard and trim the rubber weather guard as needed. Re-secure shroud to support brace using the factory fasteners.



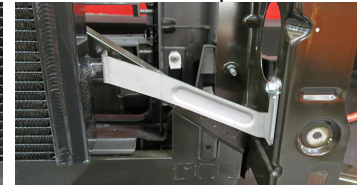
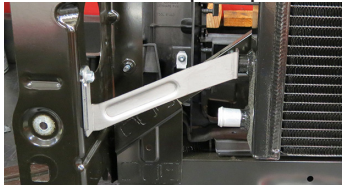


## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

70. Using a 10mm socket, remove two (2) bolts securing the top of the shroud to the support brace. Position the upper SUV LTR brackets between the support brace and the shroud. Loosely secure them using the stock bolts.



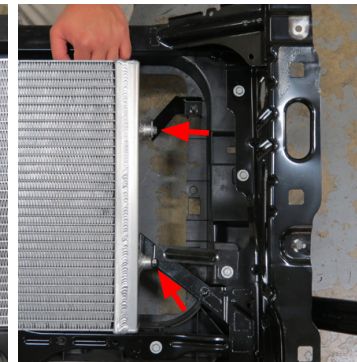
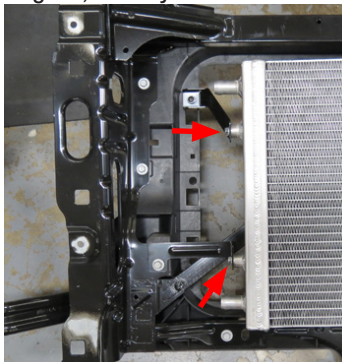
71. Using two (2) M6 x 16mm hex flange bolts from Bag #2, loosely secure the lower LTR brackets to the support brace where the push pins were removed from Step 65.



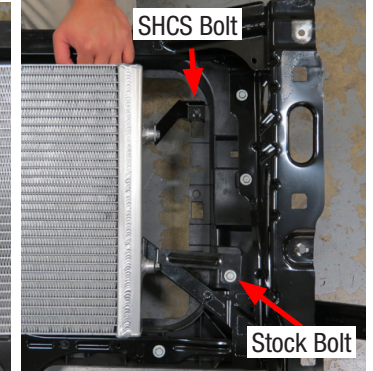
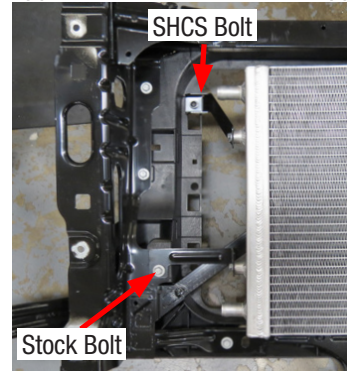
72. Adjust the LTR as needed. With the LTR properly aligned, securely fasten all LTR bolts.

**Steps 73-75 will outline the procedure to secure the Low Temp Radiator (LTR) on Truck applications.**

73. Using the LTR brackets and four (4) M6 x 10mm bolts from Bag #2, loosely secure the LTR brackets to the LTR.

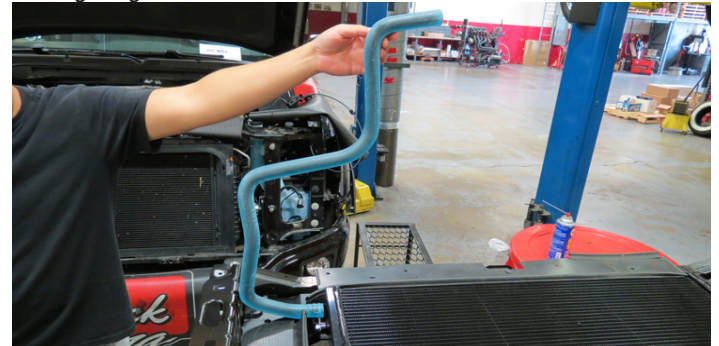


74. Using a 10mm socket, remove two (2) lower bolts on the support brace. Using the same bolts, loosely secure the lower LTR brackets to the support brace. Using two (2) M8 x 16mm BHCS bolts and two M8 washers from Bag #2, loosely secure the upper LTR brackets to the support brace.

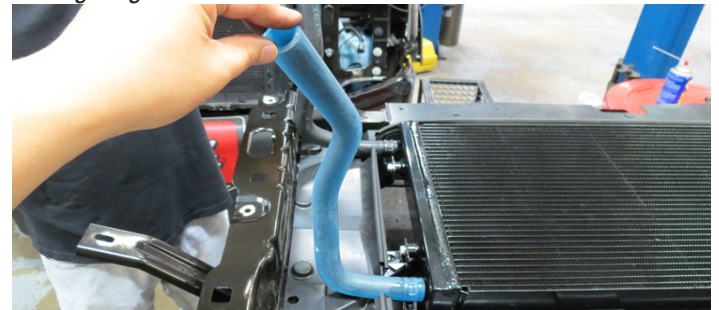


75. Place the shroud back onto the support brace and adjust the LTR as needed. With the LTR properly aligned, remove the shroud and securely fasten all LTR bolts.

76. Install the LTR to Manifold hose to the top LTR barb and secure with a hose clamp from Bag #2. **TIP:** Use the hose routing diagram to reference how to clock these hoses.



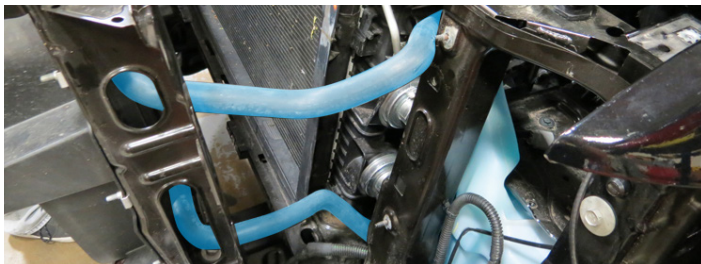
77. Install the LTR to Water Pump hose to the lower LTR barb and secure with a hose clamp from Bag #2. **TIP:** Use the hose routing diagram to reference how to clock these hoses.



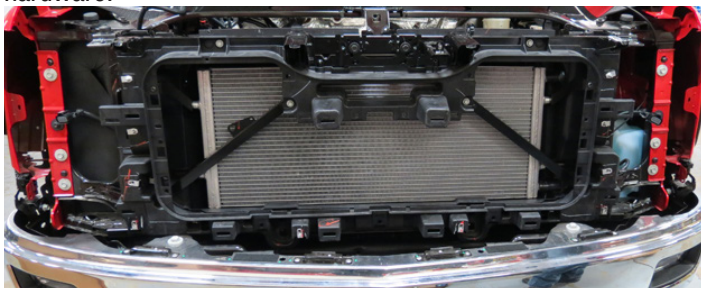


## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

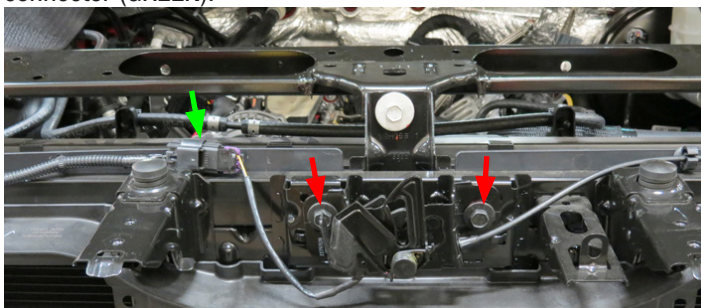
78. With the LTR secured to the support brace, carefully reposition the support brace by feeding the LTR hoses through the cavity between the radiator and the windshield washer fluid tank.



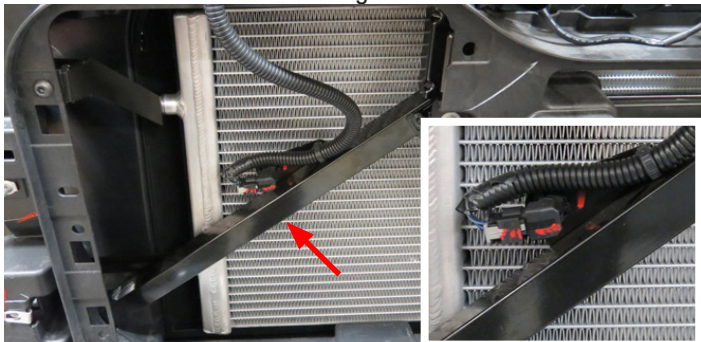
79. Re-secure the support brace to the chassis using the factory hardware.



80. Using a 13mm socket, reinstall the hood latch using the factory hardware. Reconnect the ambient temperature sensor connector (GREEN).

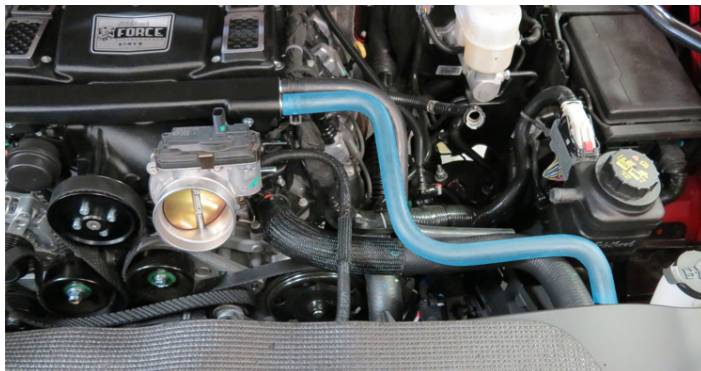


81. Reattach the ambient temperature sensor to the support brace so that the sensor is facing the LTR.

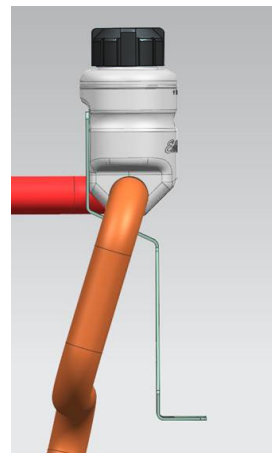


82. Reinstall the front grill assembly using the factory hardware.

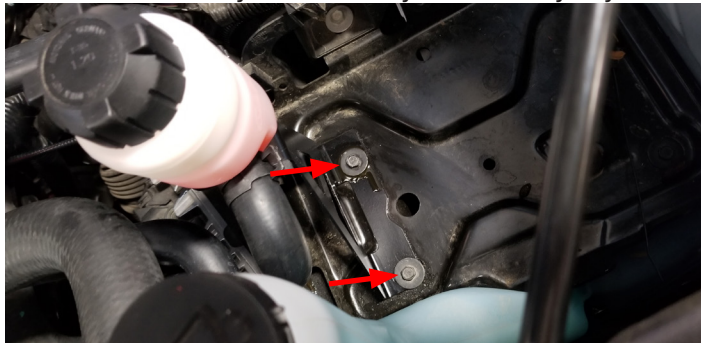
83. Using a hose clamp from Bag #2, secure the LTR to Manifold hose to the front barb on the water crossover.



84. Using a 10mm socket and two (2) M6 x 10mm Hex Flange bolts from Bag #2, secure the recovery tank bracket to the recovery tank. Install the Recovery Tank to Water Pump hose to the side barbs on the recovery tank and secure with a hose clamp from Bag #2.



85. Using a 10mm socket, remove two inner bolts securing the battery tray. Route the Recovery Tank to Water Pump hose down towards the ECU splash shield. Use the factory hardware to secure the recovery tank assembly to the battery tray.





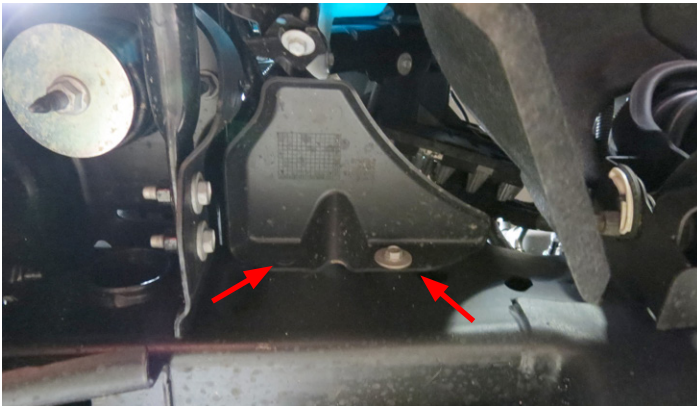
## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

86. Using two hose clamps from Bag #2, secure the Manifold to Recovery Tank hose to the rear barb on the water crossover and to the recovery tank.



**NOTE:** The following steps demonstrate how to route the hoses to the LTR water pump. Some vehicles are equipped with a plastic shield while others will have a steel brace. If you have a steel brace, skip to step 89.

87. Remove the ECU splash guard using a 10mm socket and a panel puller. **TIP:** Splash guard located next to the front driver chassis mount.



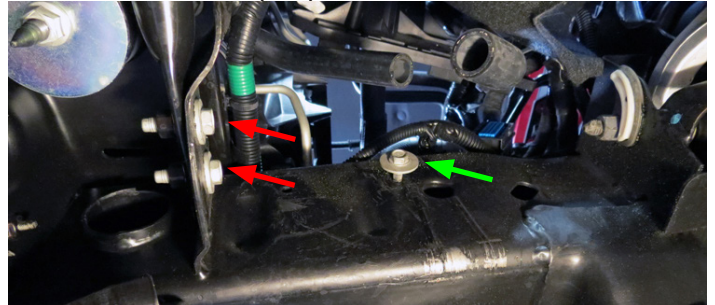
88. Cutout the supplied template and place it onto the splash guard. Using a drill with a 1.25" hole saw bit, drill out the opening in the splash guard.



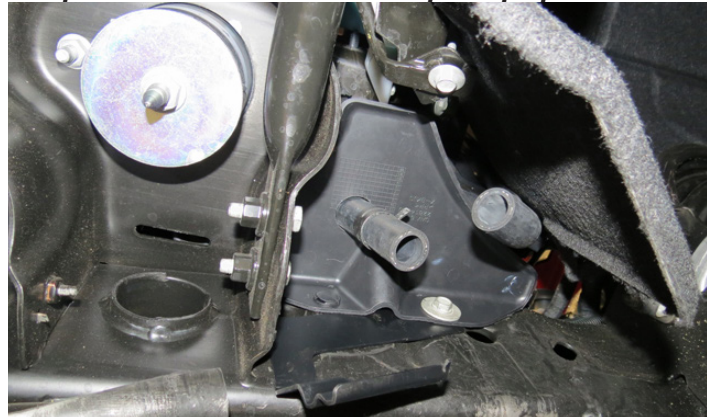
89. Install the water pump isolator onto the water pump bracket.



90. Using a 13mm socket, remove two bolts securing the bumper support brace. **TIP:** These two bolt locations plus the bolt securing the ECU splash shield (GREEN) are the mounting locations for the water pump bracket.



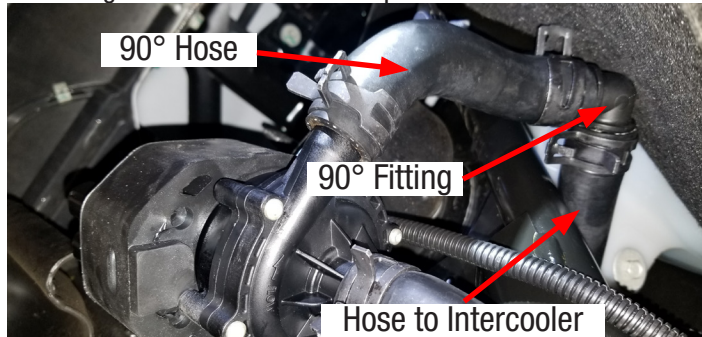
91. Insert the LTR to Water Pump hose through the opening of the splash guard and reinstall the splash guard using the push pin. **If vehicle has a steel brace, skip to step 92.** Position the water pump bracket in between the frame and splash guard and secure the assembly with the factory hardware. **NOTE: Water pump bracket shown in first picture is without insulator for photo purposes.**





## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

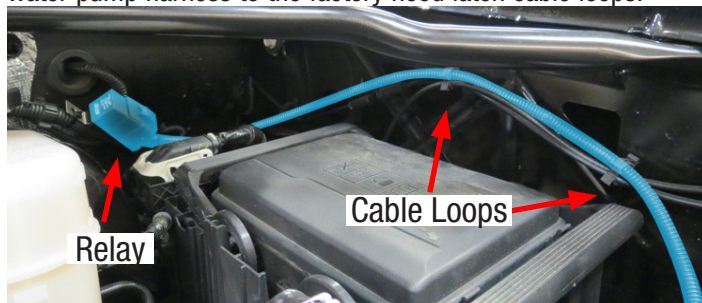
92. If the vehicle is equipped with a steel brace, route the hoses through and around the brace as shown. Use the 90° fitting and the short 90° hose provided in the kit.



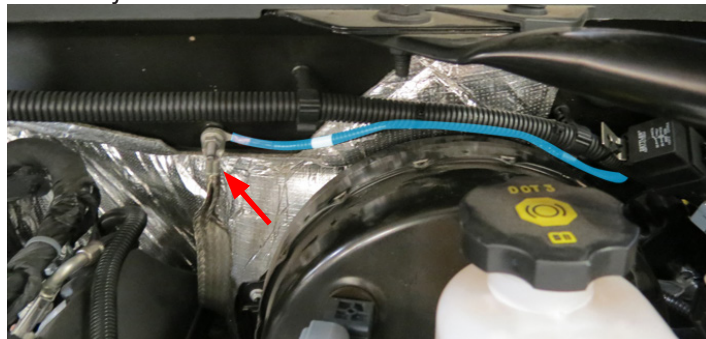
93. Install the LTR to Water Pump hose to the barb protruding out the side of the water pump. Install the Recovery Tank to Water Pump hose to the barb protruding out the top of the water pump. Secure LTR hoses with hose clamps from Bag #2. Securely install the water pump to the water pump isolator.



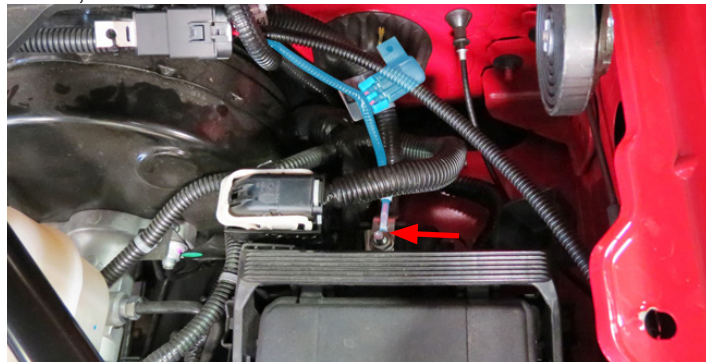
94. Using wire ties, or equivalent, secure the relay on the water pump harness to the vehicle harness mounted on the driver side firewall. Route the EVAP and water pump connectors towards the front of the vehicle following the hood latch cable. Secure the water pump harness to the factory hood latch cable loops.



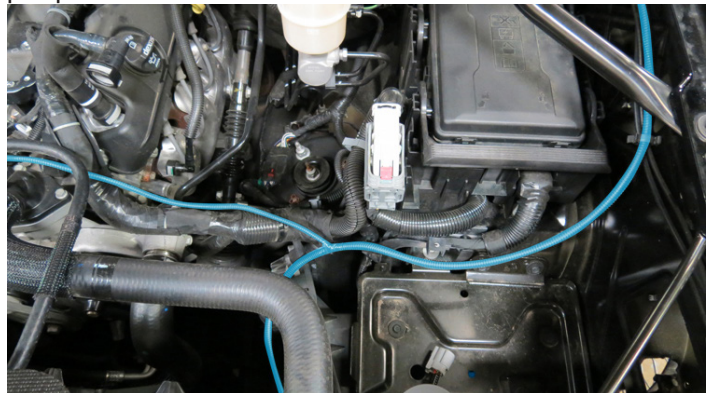
95. Using a 10mm socket, remove the nut securing the factory ground strap left of the brake booster. Install the GROUND wire on the water pump harness to the ground strap stud and reinstall the factory nut.



96. Route the POWER wire on the water pump harness to the power terminal located behind the fuse box. Using a 13mm socket, secure the POWER wire to the terminal.



97. Route the water pump connector down towards to water pump and the EVAP connector over towards the EVAP.





## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

98. Connect the factory EVAP connector (ORANGE) to the water pump harness (BLUE) and connect the water pump harness to the EVAP solenoid on the supercharger nose.



99. Re-secure the engine harness using the factory hardware.

100. Connect water pump harness to the water pump.



101. Secure the water pump harness to existing wire looms and/or hoses away from moving components and sharp edges.

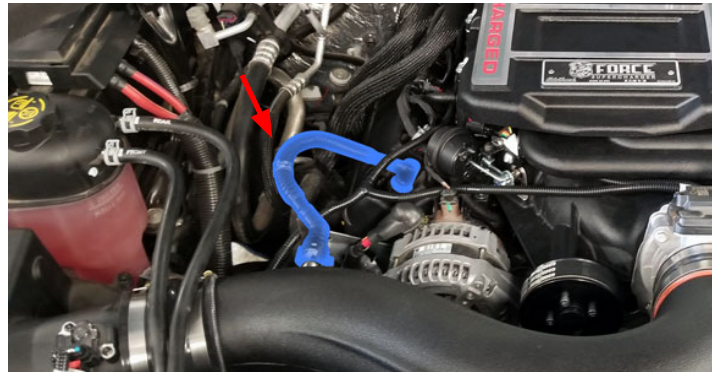
102. Install the supplied grommets and Quick Disconnect fittings from Bag #4 onto the supplied air inlet tube.



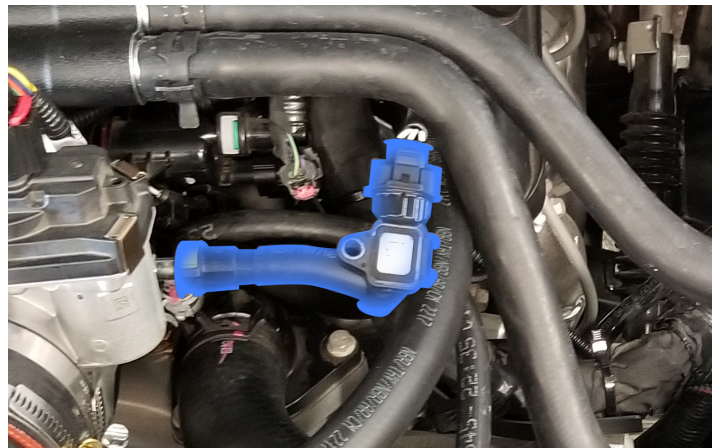
103. Install the hump coupler onto the airbox. Install the air inlet tube onto the airbox and then onto the throttle body using the straight coupler (6.2L) or the reducer coupler (5.3L). Secure air inlet tube with the supplied worm clamps.



104. Install the 90° end of the supplied PCV hose to the passenger side valve cover. Install the other end to the fitting on the air inlet tube.



105. Using hose assembly #3 (Page 7), install the long end to the valve cover, the short fitting end to the supercharger nose, and insert the factory MAP sensor into the short, straight hose end. Secure the MAP sensor with the supplied hose clamp. Connect the MAP to the harness.





## Edelbrock E-Force Supercharger System 2014-2019 GM Truck & SUV 1500 5.3L and 6.2L Installation Instructions

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106. Install the 45° end of the supplied PCV hose to the driver side valve cover. Install the 90° end to the fitting on the air inlet tube.



107. Fill the supercharger recovery tank with 50/50 coolant blend. See “How to prime the Edelbrock E-Force intercooler system guide at the end of these instructions.

108. Top off coolant in the vehicle engine radiator according to factory specs.

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

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Congratulations on the successful installation of your new Edelbrock E-Force Supercharger System. If you have any questions, please call our Technical Support hotline at 800-416-8628 and one of our technicians will be happy to assist you.

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## How to Prime the Edelbrock E-Force Intercooler Systems.



***The electric water pump used on this Edelbrock E-Force Supercharger 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 slower 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 with a 50/50 mixture of coolant and distilled water. If one is not available, the following procedure will be adequate.

1. Using the Lisle 24680 Spill-Free Funnel, or equivalent, secure the appropriate filler neck adapter to the surge tank.
2. Attach the funnel and fill with a 50/50 mixture of coolant and distilled water until the funnel is half full.
3. Turn the ignition to the ON position and listen for the pump's 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.***
4. 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.
5. Cycle the ignition OFF and wait a few seconds for the pump to come to a stop.
6. Cycle the ignition ON again and repeat until the sound of the electric pump is continuous without any pulsation. ***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.***
7. Periodically inspect the water pump flow after a few drive cycles and re-fill the intercooler system as necessary.
8. 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 as the system reaches a pressure above 5psi.

***WARNING: Always avoid removing the surge tank cap when the engine is hot. The hot coolant is under pressure and may spray out causing burns.***