



# Alpha Performance Audi S6 Boost Cooler System



The goal of Alpha Performance is to provide the highest quality, best performing products available. By utilizing research and development, and rigorous testing programs Alpha Performance will never compromise the quality or performance of our products. In addition, Alpha Performance will only provide the finest customer service offering only parts and advice that are in the best interests of the customer. Alpha Performance was built on a foundation of integrity. This is who we are; this is what you can count on.

A vehicle modified by the use of performance parts may not meet the legal requirements for use on public roads. Federal and state laws prohibit the removal, modification, or rendering inoperative of any part or element of design affecting emissions or safety on motor vehicles used for transporting persons or property on public streets or highways. Use or installation of performance parts may adversely affect the drivability and reliability of your vehicle, and may also affect or eliminate your insurance coverage, factory warranty, and/or new OEM part warranty. Performance parts are sold as-is without any warranty of any type. There is no warranty stated or implied due to the stresses placed on your vehicle by performance parts and our inability to monitor their use, tuning, or modification.

These instructions are provided as a guide only as there are many variables that cannot be accounted for concerning your particular vehicle, including but not limited to model year differences, model differences, the presence of non-OEM parts, and modifications that may already be or were previously installed. A basic knowledge of automotive parts and systems is helpful but a better understanding of the parts and systems on your particular vehicle may be required.

If you have any questions or issues at any time during the installation of your Alpha Performance product(s) please call us for technical assistance. The Alpha Performance tech line can be reached during business hours at 847-709-0530 for Alpha Performance products only.

## Disassembly



- 1) Remove Front Wheels, Fender Wells, and Under Trays
- 2) Remove Front Bumper
- 3) Disconnect Battery (Located in trunk underneath spare Tire)

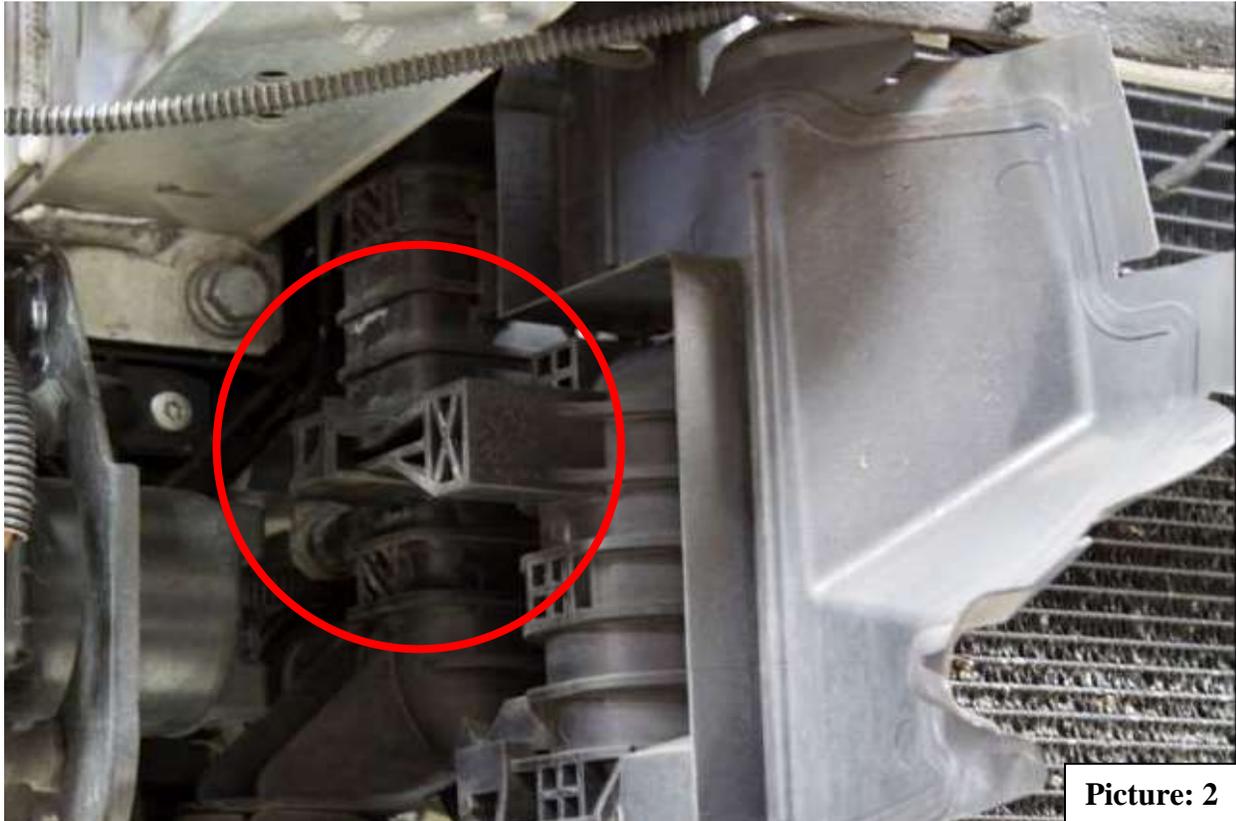


4) Drain the coolant by removing the two lines circled in blue (**Picture: 1**). Loosen the cap on the factory coolant reservoir to allow for quicker drainage.



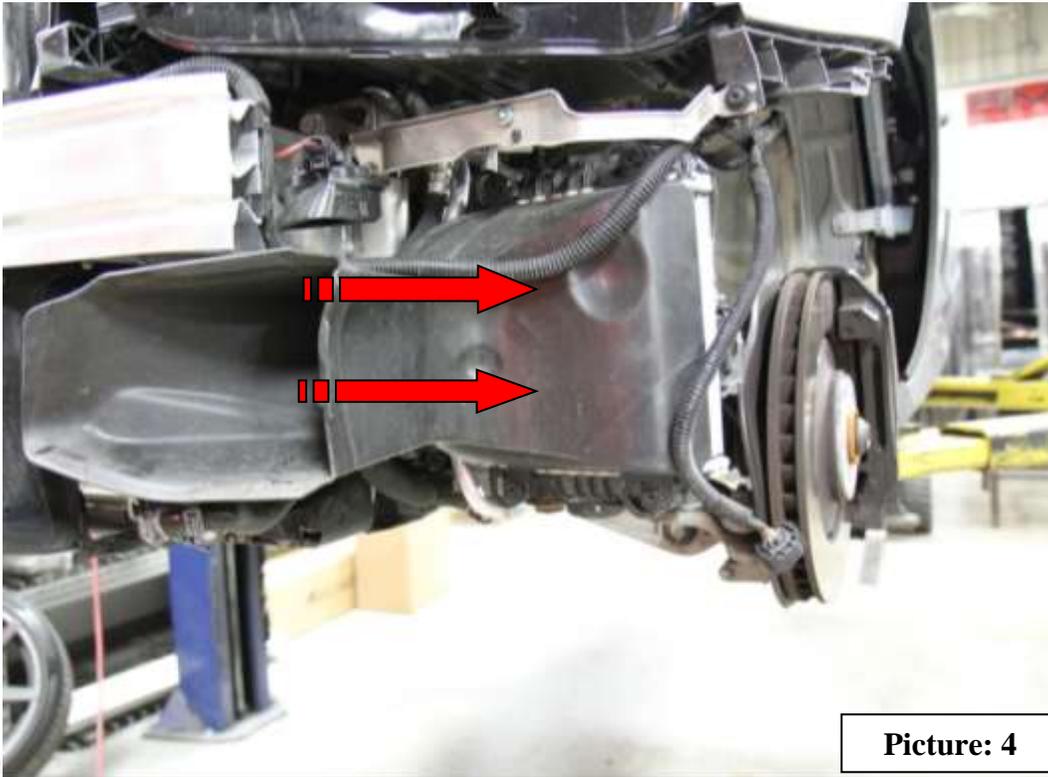
**Picture: 1**

**5)** Remove the factory heat exchanger. It is held in place by 1 T30 Torx screw on the left side (**circled in red in Picture: 1**) and by a clip on the right side (**Picture: 2**). Set the T30 Torx screw to the side for use during reinstallation of the Alpha Heat Exchanger.



**Picture: 2**

6) Remove left side auxiliary radiator shroud to gain access to the factory heat exchanger hoses by sliding shroud to the left side of the car and pulling forward (**Picture: 4 & 5**). This shroud will need to be reinstalled after the Alpha Boost Cooler system is installed.



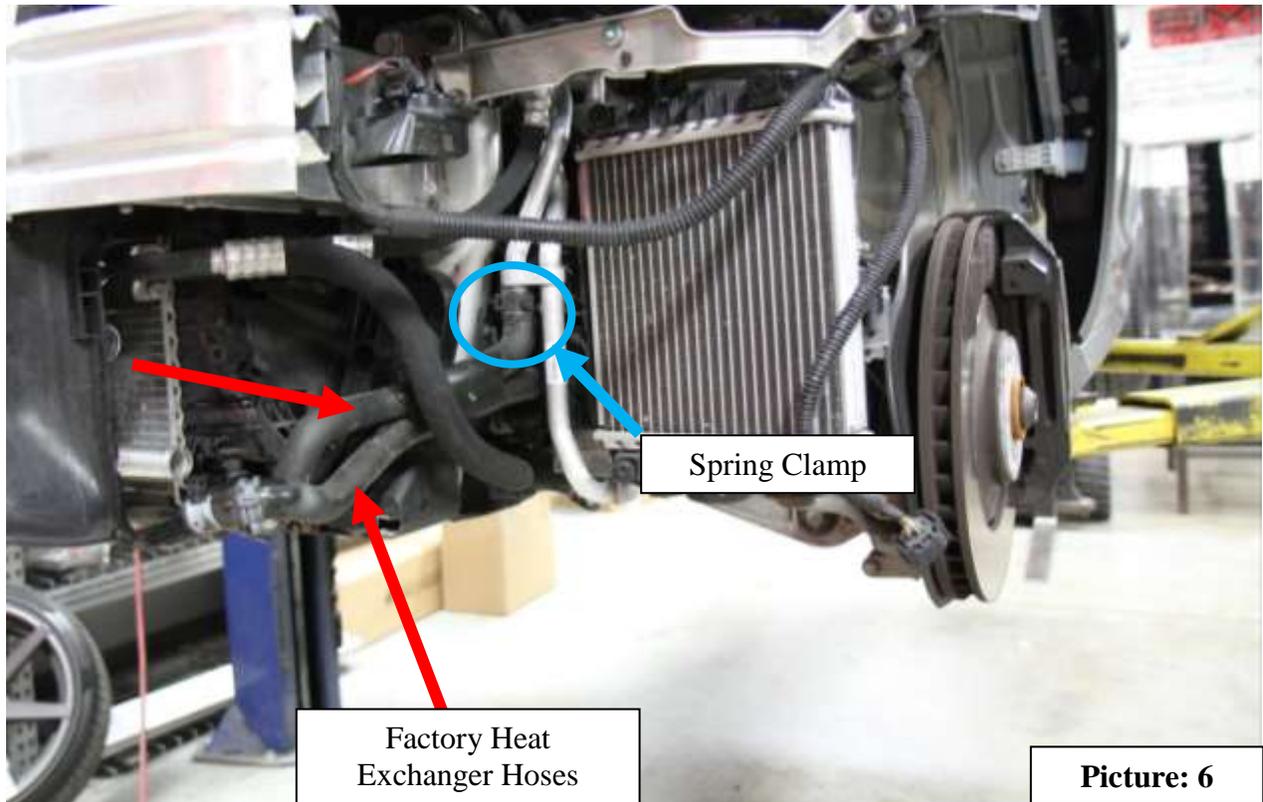
**Picture: 4**



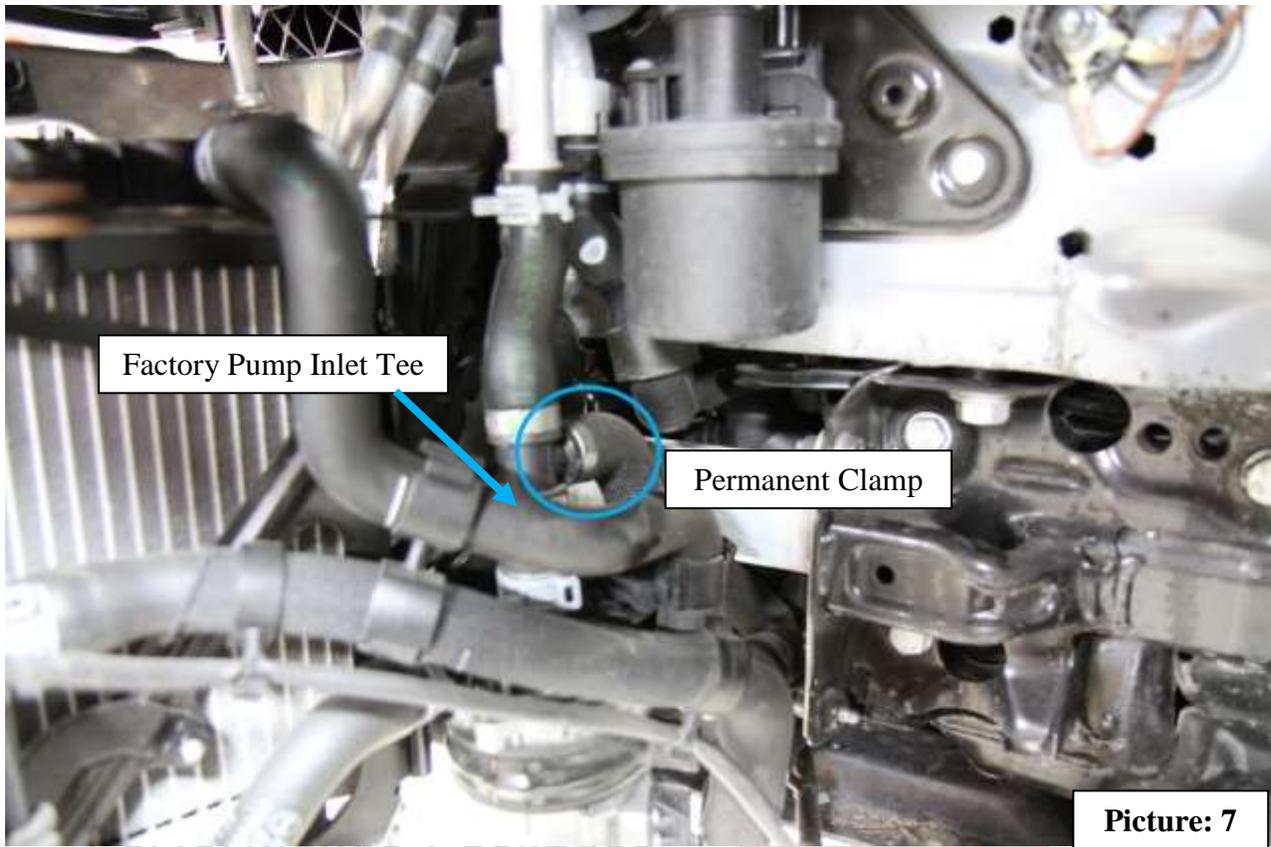
**Picture: 5**

7) Locate the Factory heat exchanger hoses and notice the connections circled in blue below (Picture: 6 & 7).

8) The hose that was attached to the bottom connection on the heat exchanger is routed to a hard line that runs to the intercooler. It is held on by a spring clamp. (Picture: 6)



9) The hose that was attached to the top of the heat exchanger routes rearwards into the left side wheel well. It is connected to a tee with a permanent clamp. The tee is connected to the Factory IC pump inlet. **(Picture: 7)**



**10)** In order to remove this end of the hose, you will need to cut the permanent clamp off. The best way to do this is to use a Dremel with a cutting wheel. You will have to be very cautious when doing so not to cut into the plastic tee fitting. **(Picture :8)**



**Picture: 8**

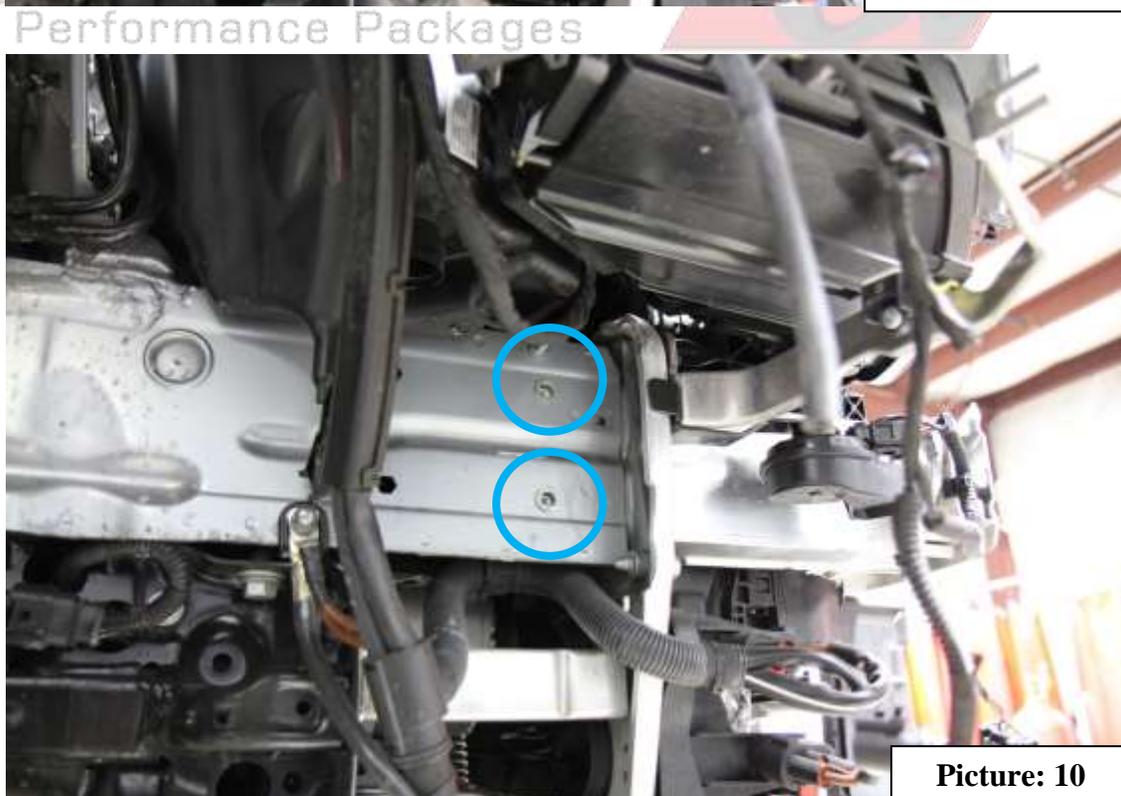
**11)** After cutting the permanent clamp from the hose, remove both hoses from the vehicle. They are banded together and are removed from the front. These hoses will NOT be re-used.

## Boost Cooler Installation

12) The reservoir will be installed on the right side frame rail. There are 4 hex holes that will need to have the 2 supplied M8x1.25 rivet nuts installed. A rivet nut installer tool is available for purchase and is available at most commercial hardware supply stores. **(Picture: 9 & 10)**



**Picture: 9**



**Picture: 10**

**13)** The Alpha reservoir will come assembled with the silicone hoses and pump as seen in **(Picture: 11)**.



Performance Packages

**14)** The Reservoir tank bolts to the rivet nuts that were just installed using the supplied M8 bolts and bolts along with an existing bolt for the front crash support. **(Picture: 12 & 13)**

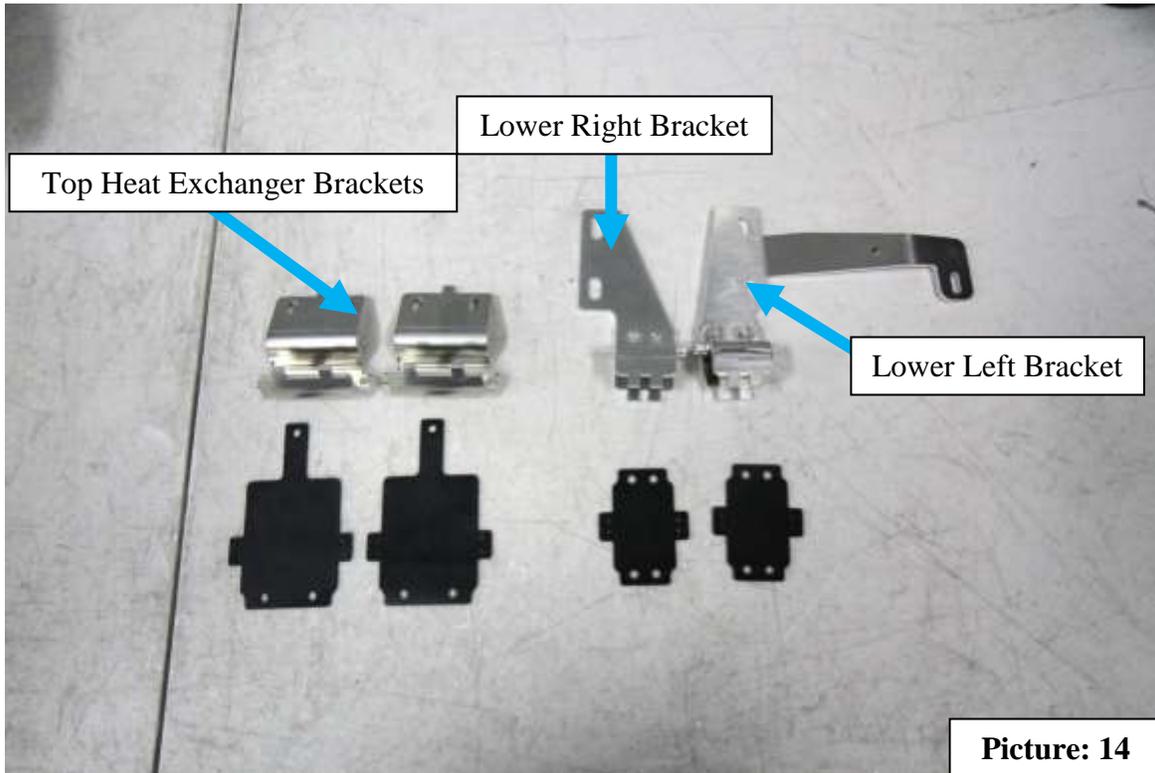


**Picture: 12**



**Picture: 13**

**15)** Assemble the heat exchanger. Locate the mounting brackets and rubber isolator pads. The rubber isolator pads will need to be installed on the brackets. **(Picture: 14 & 15)**



**16)** Install the upper and lower mounts onto the Alpha heat exchanger as shown. Leave the bolts loose for later adjustment. **(Picture: 16)**



**17)** The Alpha heat exchanger mounts to the A/C condenser by sliding the brackets around it. Slide the heat exchanger into place and hook the lower mounts first. Then lift up the core and hook the upper mounts over the top of the condenser. (**Picture 17 & 18**)



**Picture: 17**



**Picture: 18**

**18)** Next, center the heat exchanger on the condenser by lining up the bracket on the left side with the factory heat exchanger screw location. Loosely install the T30 Torx screw that was set to the side during **Step 4.** (**Picture: 19**)



Performance Packages

**19)** Slide the lower brackets upwards and tighten them down. Then tighten the upper brackets to pull the core tight. **(Picture: 20 & 21)** Then tighten the T30 Torx Screw. **(Picture: 19)**

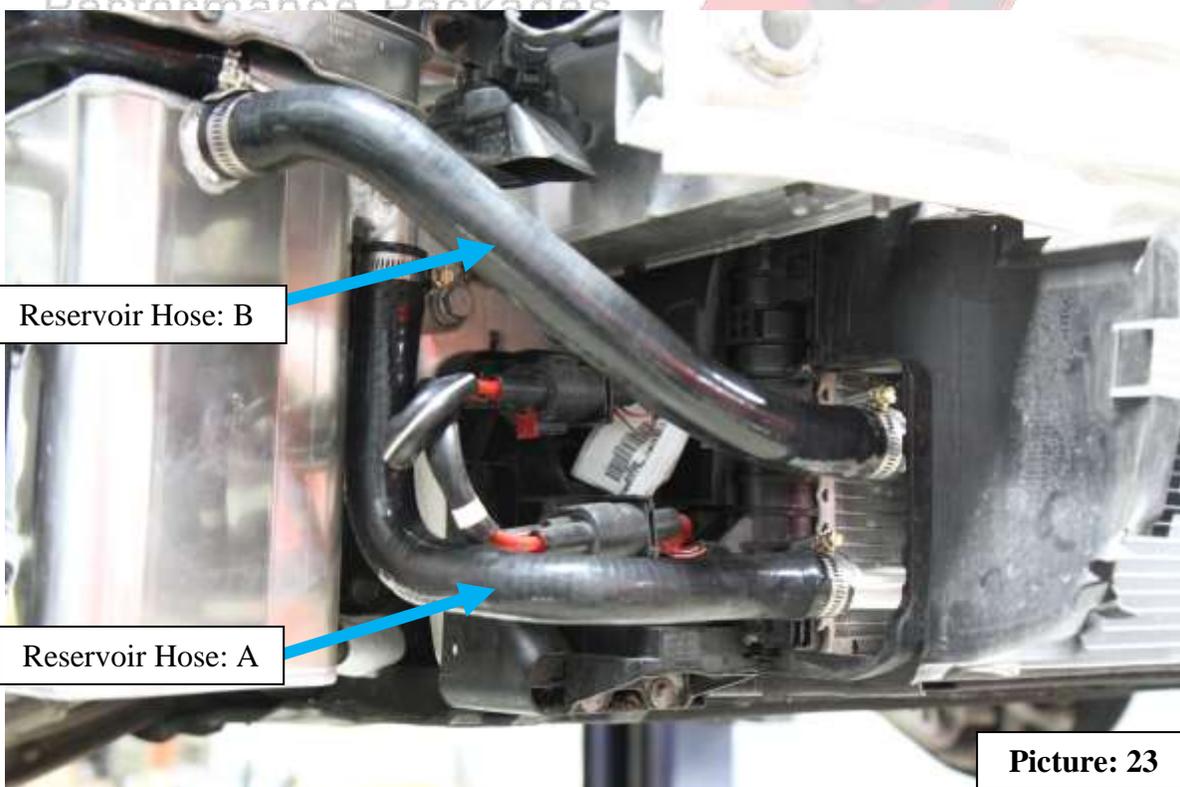
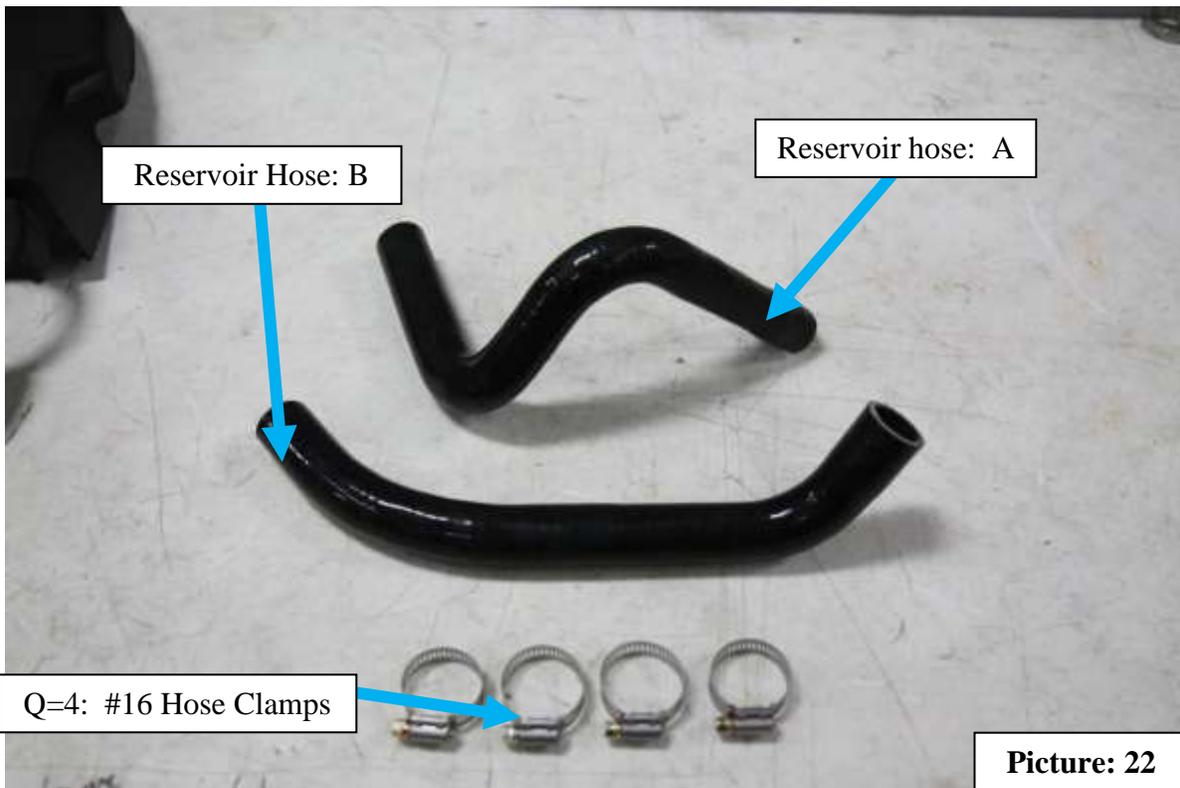


Picture: 20



Picture: 21

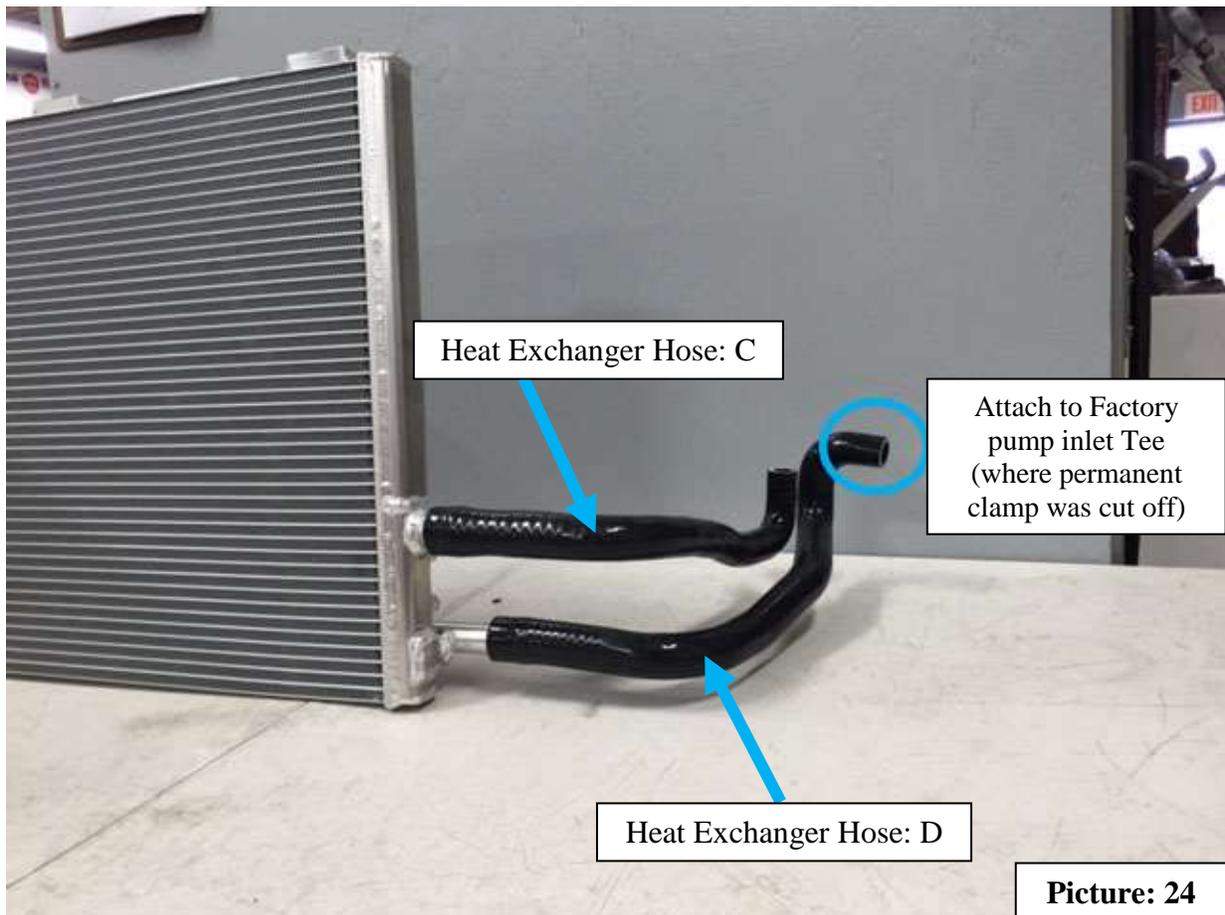
**20)** Locate the following silicone hoses and #16 hose clamps. Install as shown between the Alpha reservoir and heat exchanger. **(Picture: 22 & 23)**

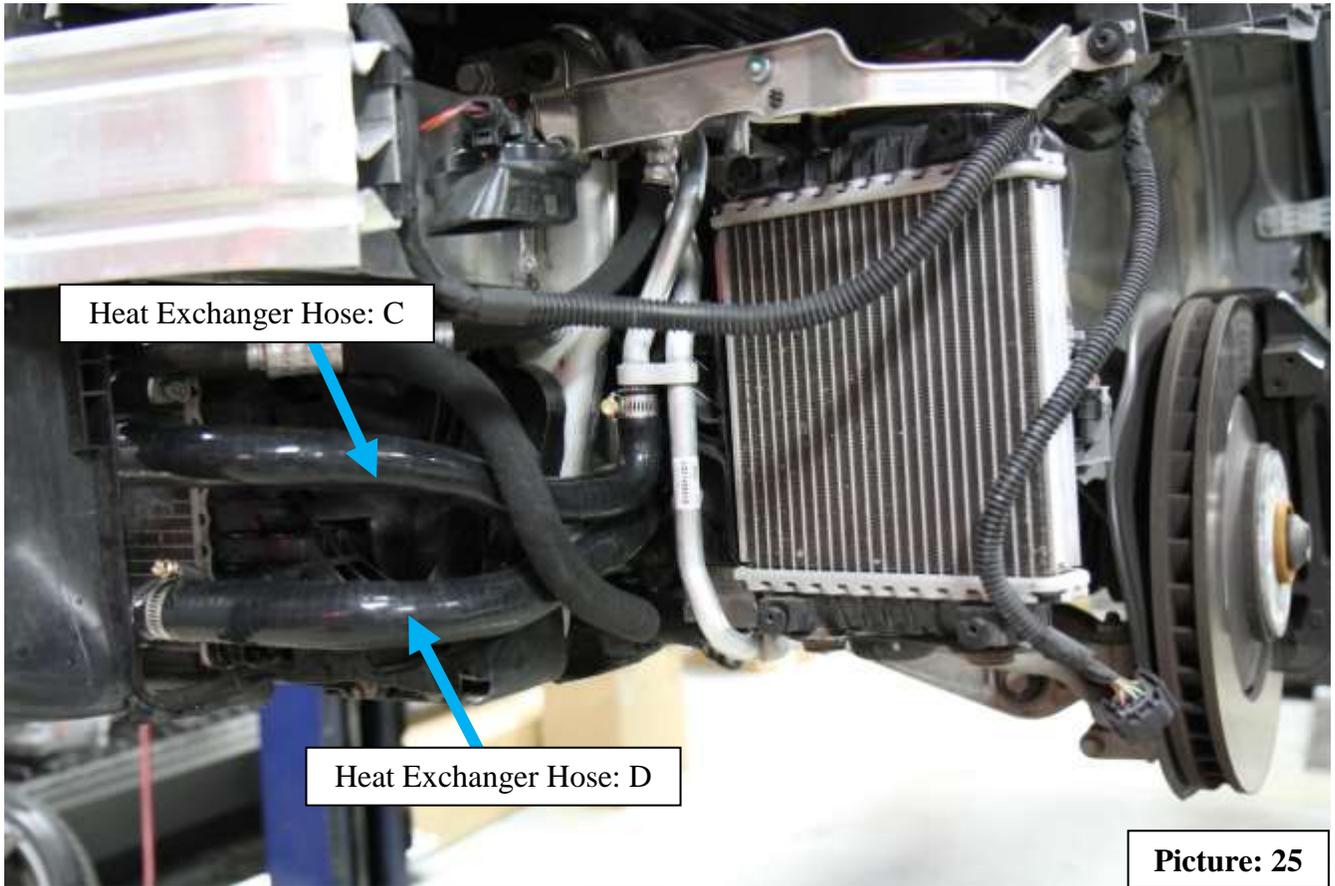


**21)** Locate the next set of silicone hoses. Install as shown. (Example picture shown with heat exchanger out of car) **(Picture: 24, 25, & 26)**

**22)** Heat Exchanger **Hose: C** will use one #16 hose clamp on the Heat Exchanger side and one #10 Hose clamp on the other.

**23)** Heat Exchanger **Hose: D** will use one #16 hose clamp on the Heat Exchanger side and one #12 Hose clamp on the pump inlet tee.

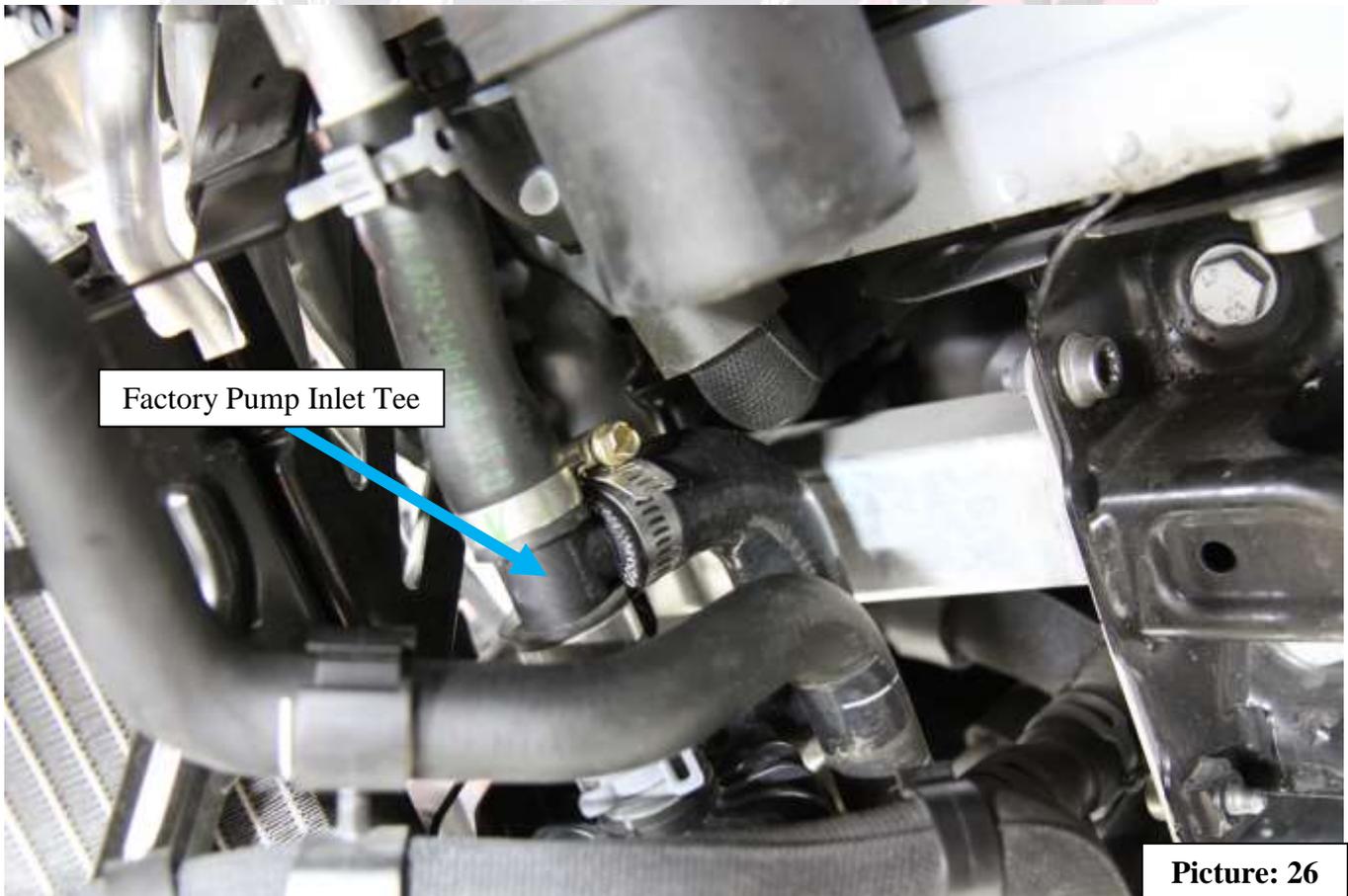




Heat Exchanger Hose: C

Heat Exchanger Hose: D

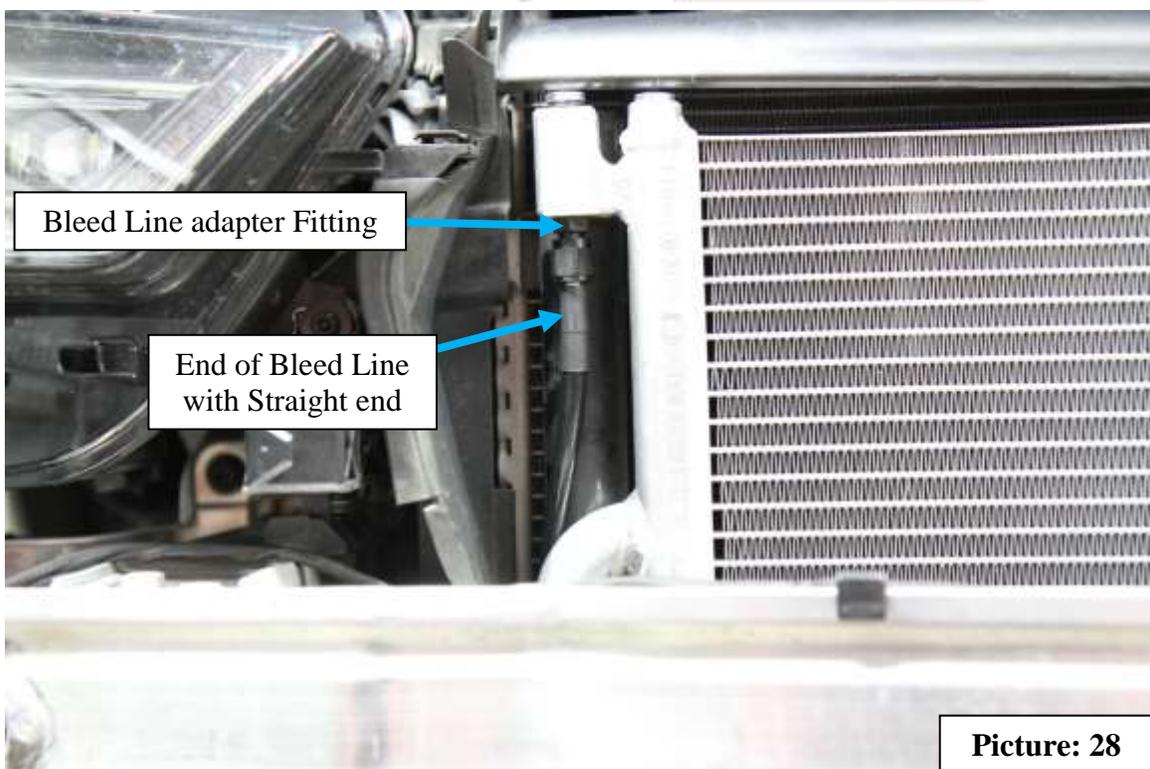
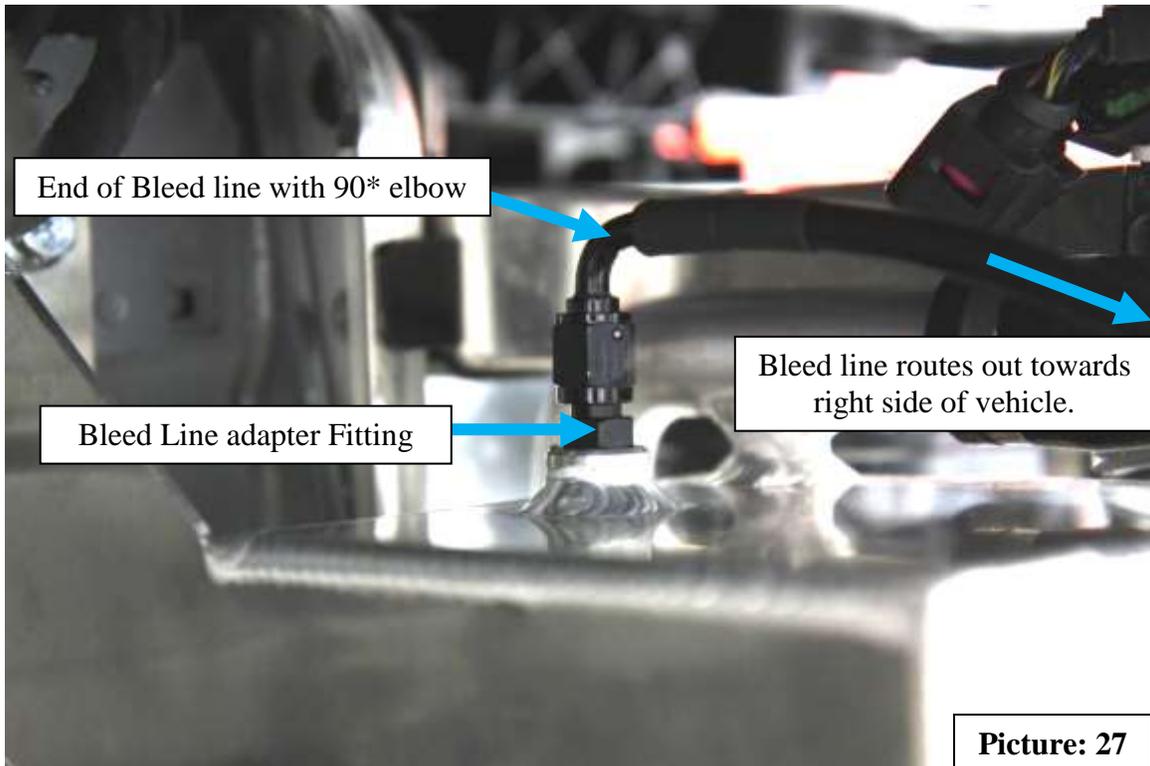
Picture: 25



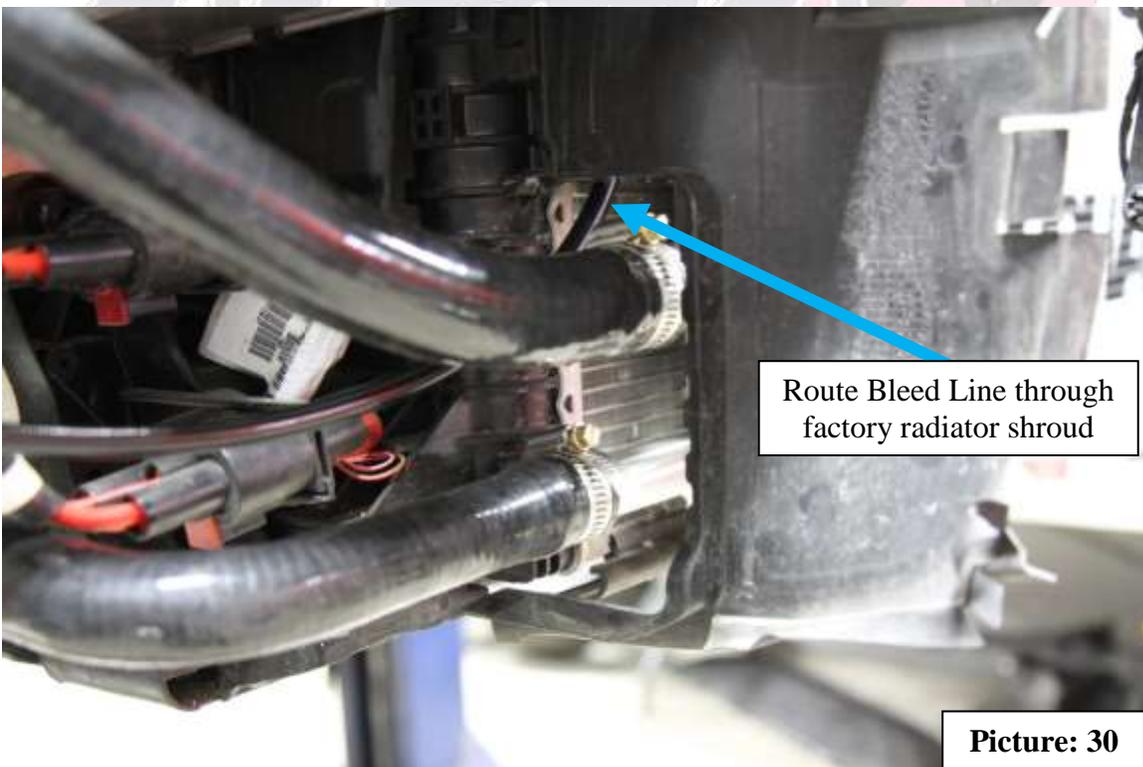
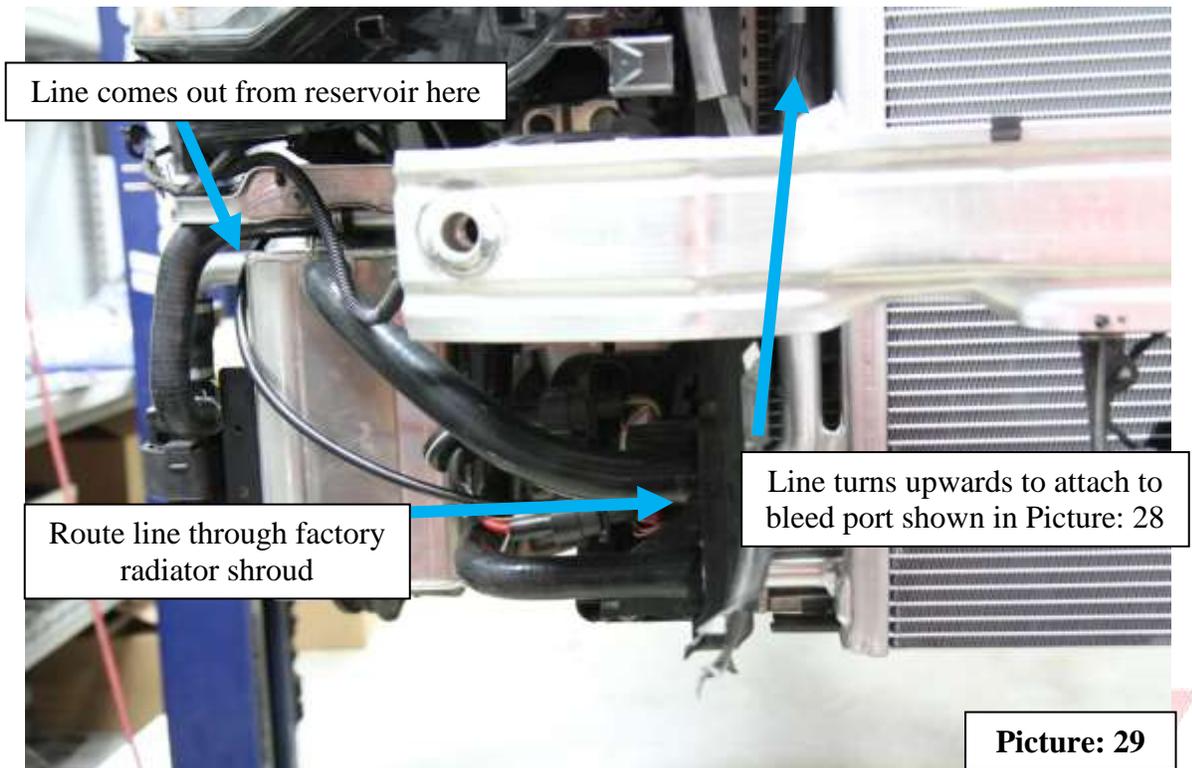
Factory Pump Inlet Tee

Picture: 26

**24)** Install the reservoir bleed line fittings into the heat exchanger and reservoir. Install the bleed line as shown. The end of the line with the 90\* Elbow connects to the reservoir and the end with the straight connector connects to the bleed port on the heat exchanger.  
**(Picture: 27 & 28)**



25) Route the Bleed line as shown in (pictures 29 & 30).



## Wire Harness Install

26) Remove the Cowl Panel. (Picture: 31 & 32)



**27)** Locate the factory power junction box/fuse panel and remove the cover.  
**(Picture 33 & 34)**



**28)** Locate the supplied wire harness. The terminal circled in blue will be attached to the open junction in the fuse panel also circled in blue using the supplied m6 nut. **(Picture 35 & 36)**



**29)** Replace the fuse panel cover and secure the new fuse holder with the relay to the open bracket shown using the supplied m6 bolt. **(Picture 37 & 38)**



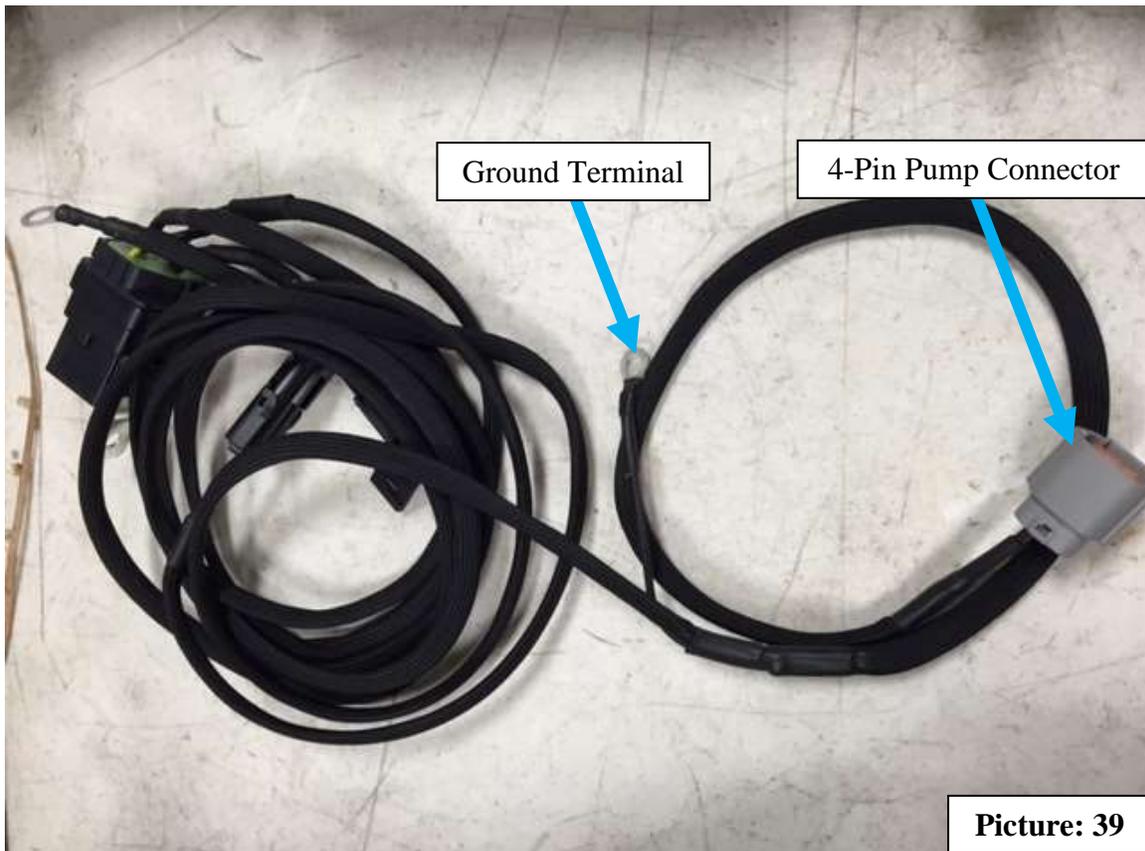
**Picture: 37**

Performance Packages



**Picture: 38**

**30)** Route the Alpha harness end with the ground ring terminal and the 4 pin pump connector to the Alpha reservoir and pump. Route the harness along with the factory wire harness underneath the cowl. **(Picture 39 & 40)**

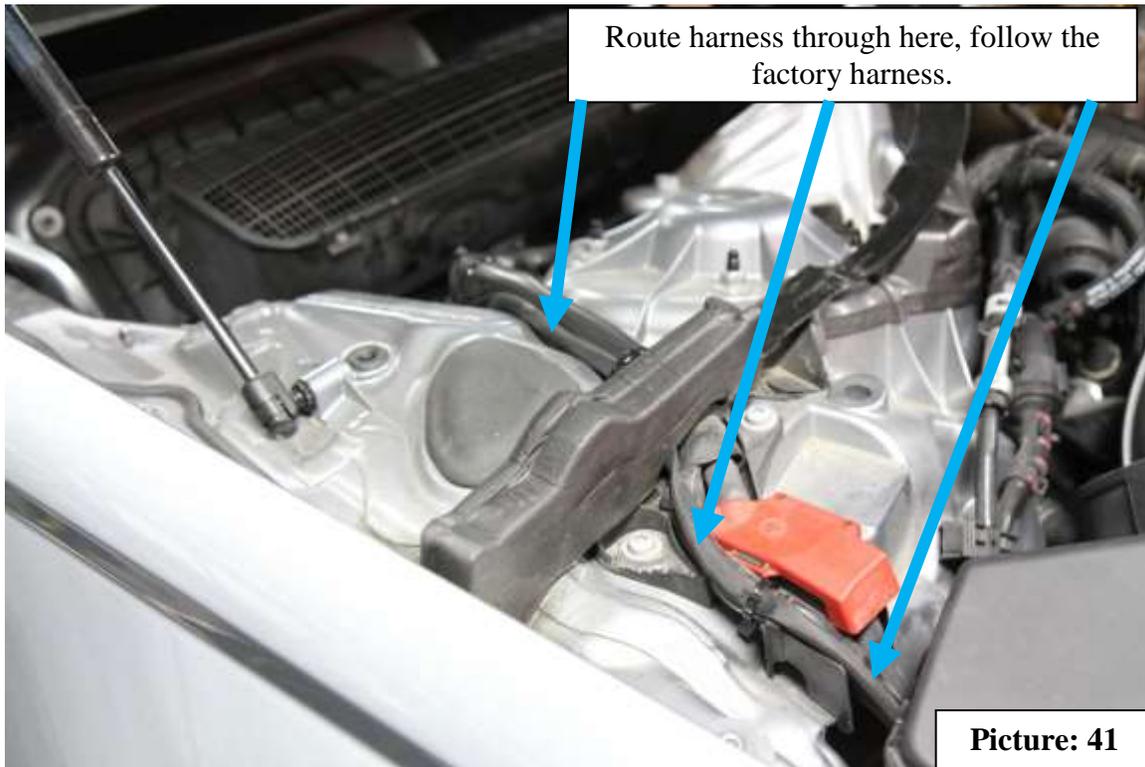


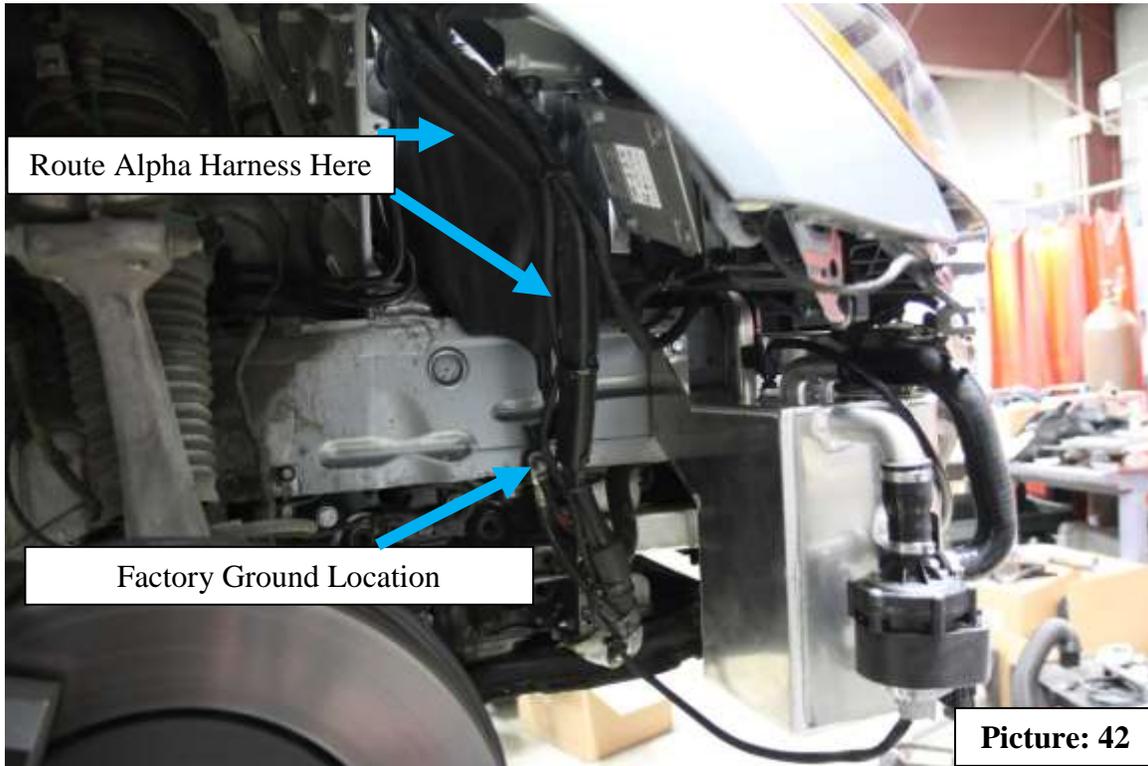


**Picture: 40**



**31)** Route the Alpha harness through the opening in the firewall where the factory harness runs through. Run the harness down along the frame rail and around the reservoir to the pump as shown. Attach the ground ring terminal on the Alpha harness to the factory ground located on the frame rail. Once all attachments are made, secure the harness with zip ties starting at the pump and working up to the relay. **(Picture 41 & 42)**





**32)** Route the other side of the Alpha harness with the 2pin connector down to the factory IC pump. Route the harness through the firewall along with the brake lines. Route the harness down under the ABS modulator down into the left side wheel well to the factory pump. **(Picture 43 & 44)**

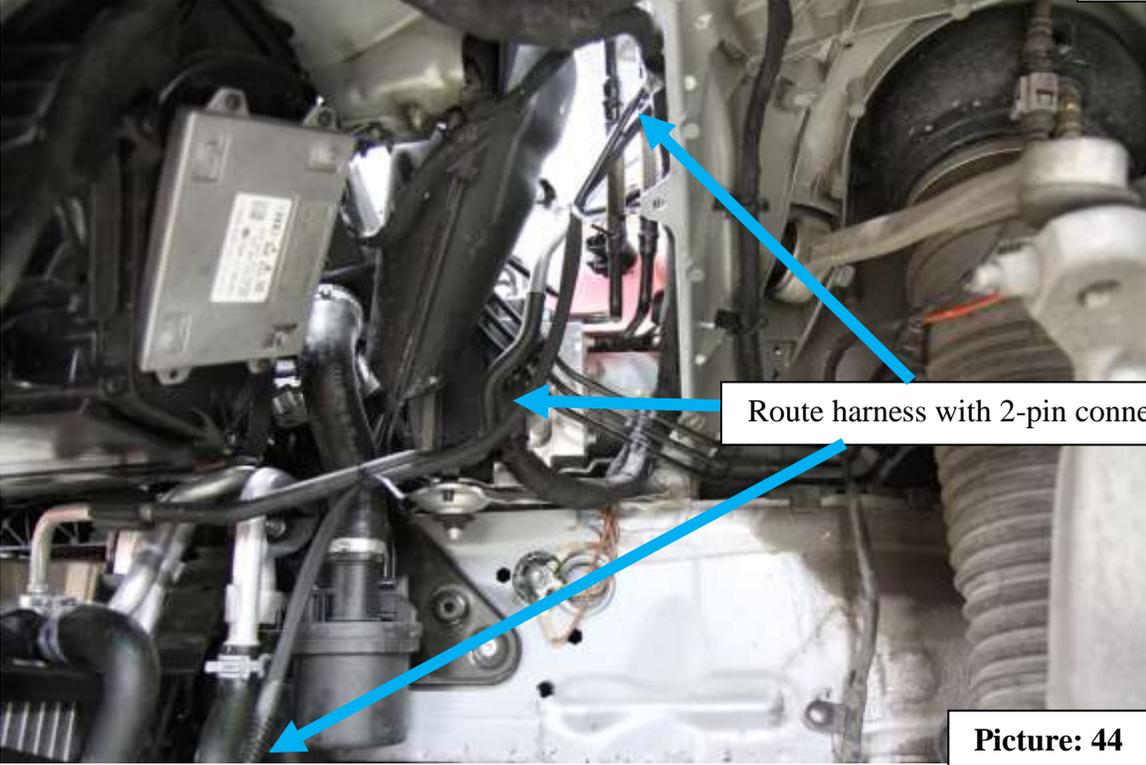
Performance Packages

**33)** A plug and play adapter harness is included so there are no wiring connections that need to be made. Just plug in and go! **(Picture 45)**



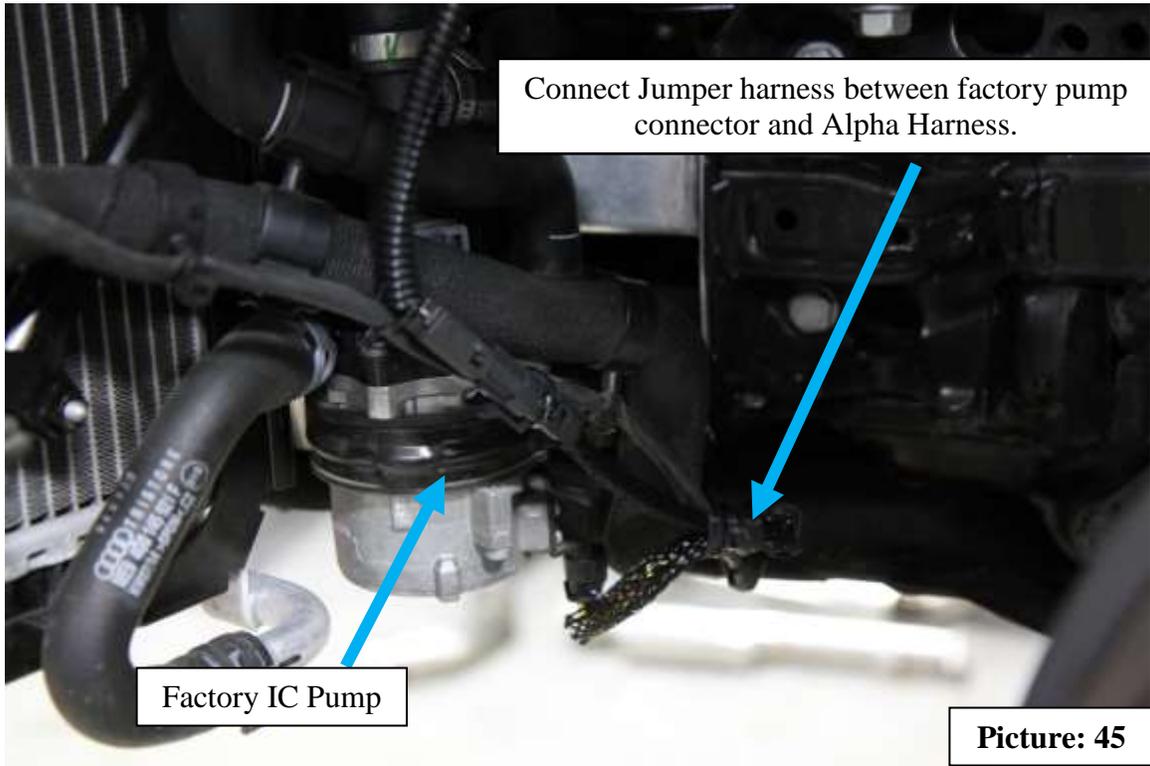
Route harness with 2-pin connector here

Picture: 43



Route harness with 2-pin connector here

Picture: 44



## **Bleeding The Cooling System**

- 34)** Fill the system from the factory reservoir. Crack open the bleed screw on the Alpha reservoir and the Alpha heat exchanger while filling. Fill until all the air is bled and a solid stream of coolant is coming out. The Alpha reservoir will fill first, and then second will be the Alpha heat exchanger.
- 35)** Once all the air is out of the system, start the car and run it to operating temperature occasionally increasing the RPMs slightly to help bleed the engine. Maintain the coolant level in the factory reservoir bottle at the minimum line to allow for expansion.
- 36)** After running the car at operation temperature for a bit, shut the car off. The IC pumps may run for a few minutes after shut down. Make sure the pumps are off and repeat the bleeding steps starting at the Alpha reservoir. This procedure may have to be done a few times to ensure all the air is bled from the system.
- 37)** Once all the air is out of the system, reassemble the front end, front bumper, under trays, wheels.
- 38)** Let the car cool down. Once the engine is cold, make sure the coolant level is slightly below the minimum line cold. This is important since the capacity of the system has now been increased. Watch the coolant level, large swings in level may be an indication there is still air in the system. Drive the vehicle and adjust the coolant level as needed for a day or two as more air may bleed it's self out.

Reinstall the front bumper / fender liners / and wheels.

**Enjoy!**