



Audi S4 B8 Boost Cooler Kit



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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 the front bumper

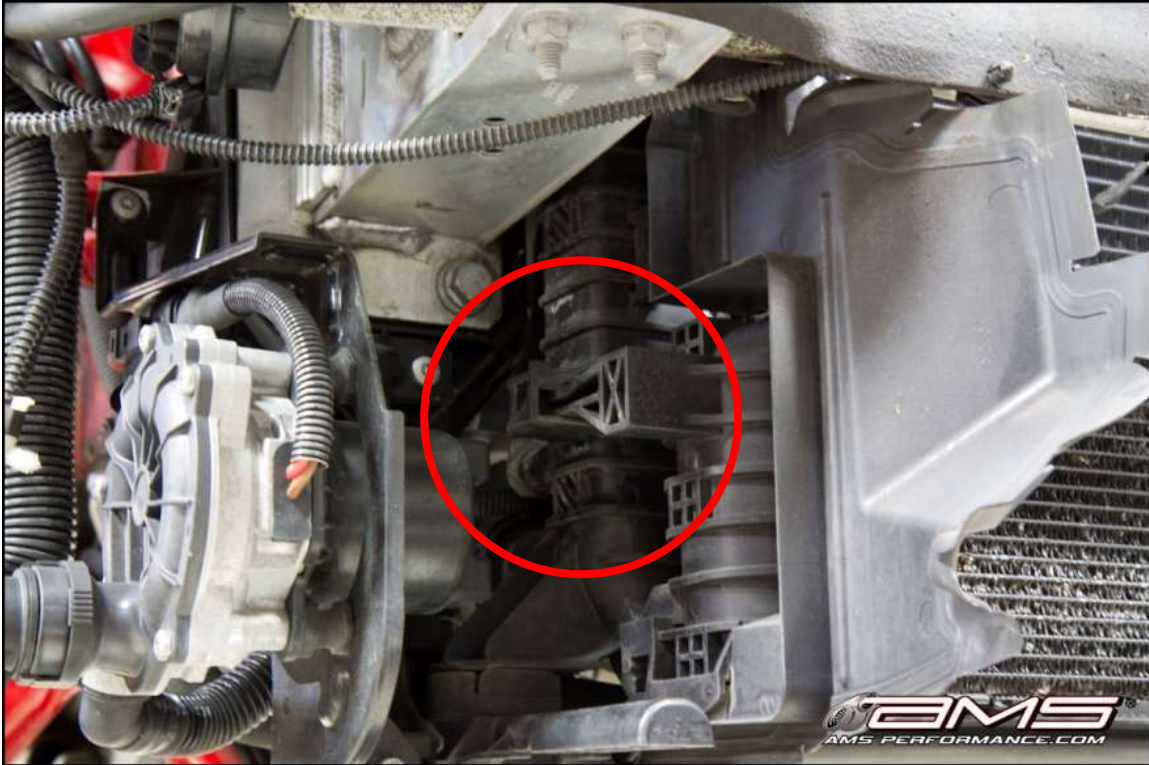


3) Drain the coolant. The radiator drain is on the passenger side of the radiator.



4) Remove the factory heat exchanger. It is held in place by 1 T30 Torx screw on the driver's side and a clip on the passenger side. There will still be coolant in the heat exchanger so put a drain pan under the 2 lines when disconnecting.

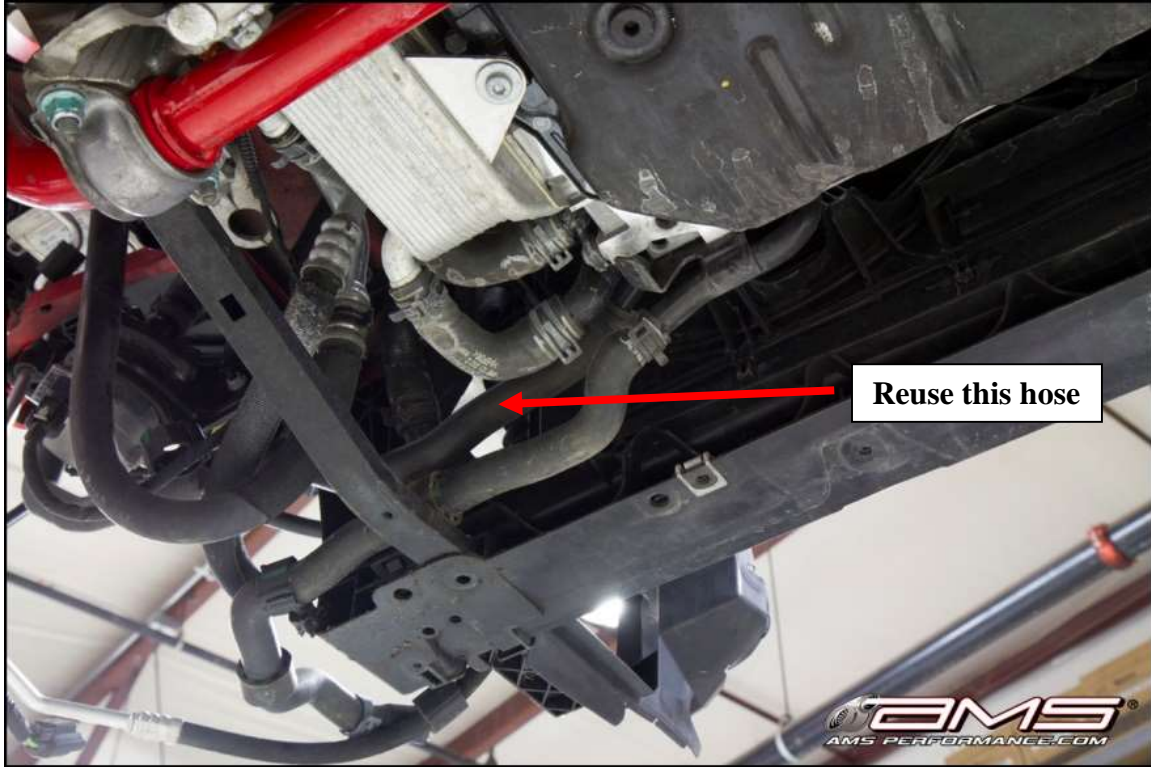




- 5) **B8** cars, remove both heat exchanger hoses from the car. Both will not be reused. The passenger side hose runs around the radiator core support to the pipe assembly that routes up to the super charger. Remove this hose. The driver's side hose of the heat exchanger routes to a tee. This tee is connected to the IC pump inlet and the reservoir. In order to remove this 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 the plastic tee fitting. This part will need to be reused. This procedure can be done in the car but if need be, the entire hose assembly can be removed and done on the bench.
- 6) **B8.5** cars, the same applies. Remove both heat exchanger hoses from the car, they will not be reused. Both hoses route around to the driver's side. The lower hose runs around the core support to the lower hard line that runs up to the super charger. The upper hose routes to a tee just like the B8. This tee is connected to the IC pump inlet and the reservoir. In order to remove this 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 the plastic tee fitting. This part will need to be reused. This procedure can be done in the car but if need be, the entire hose assembly can be removed and done on the bench.



- 7) **B8.5** cars, the hose that routes to the upper hard pipe on the driver's side that leads up to the super charger will remain in the car. This is the factory IC pump outlet hose. Disconnect this hose from the hard pipe but do not remove from the vehicle. This hose will be trimmed in a later step.

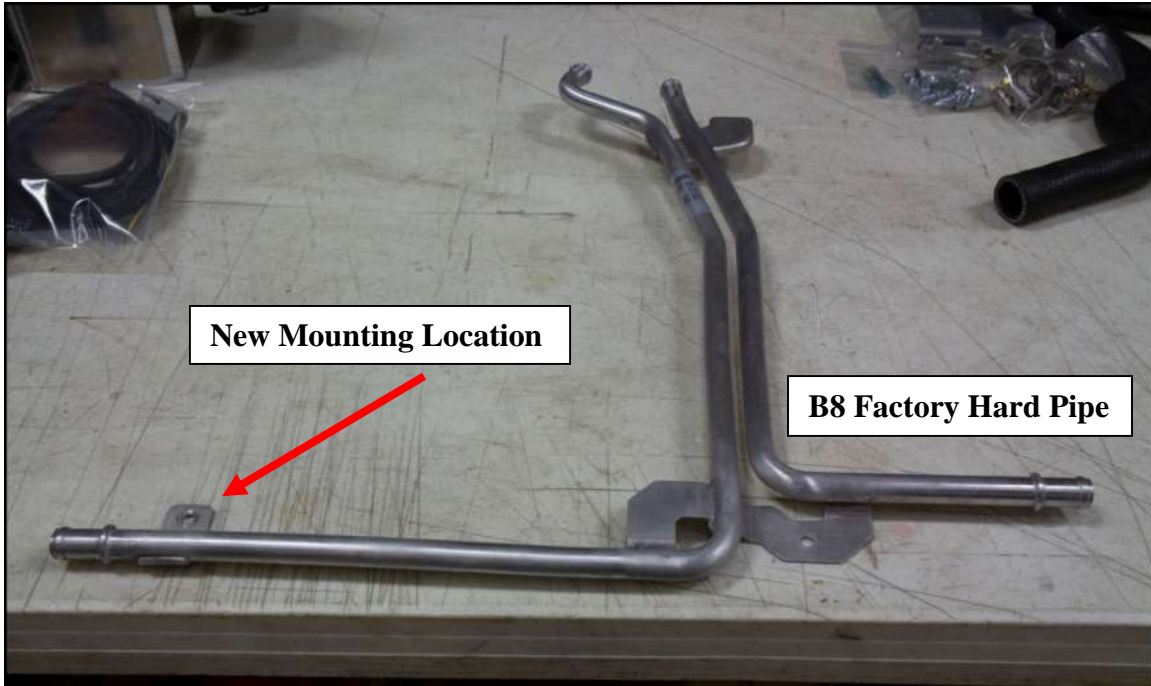


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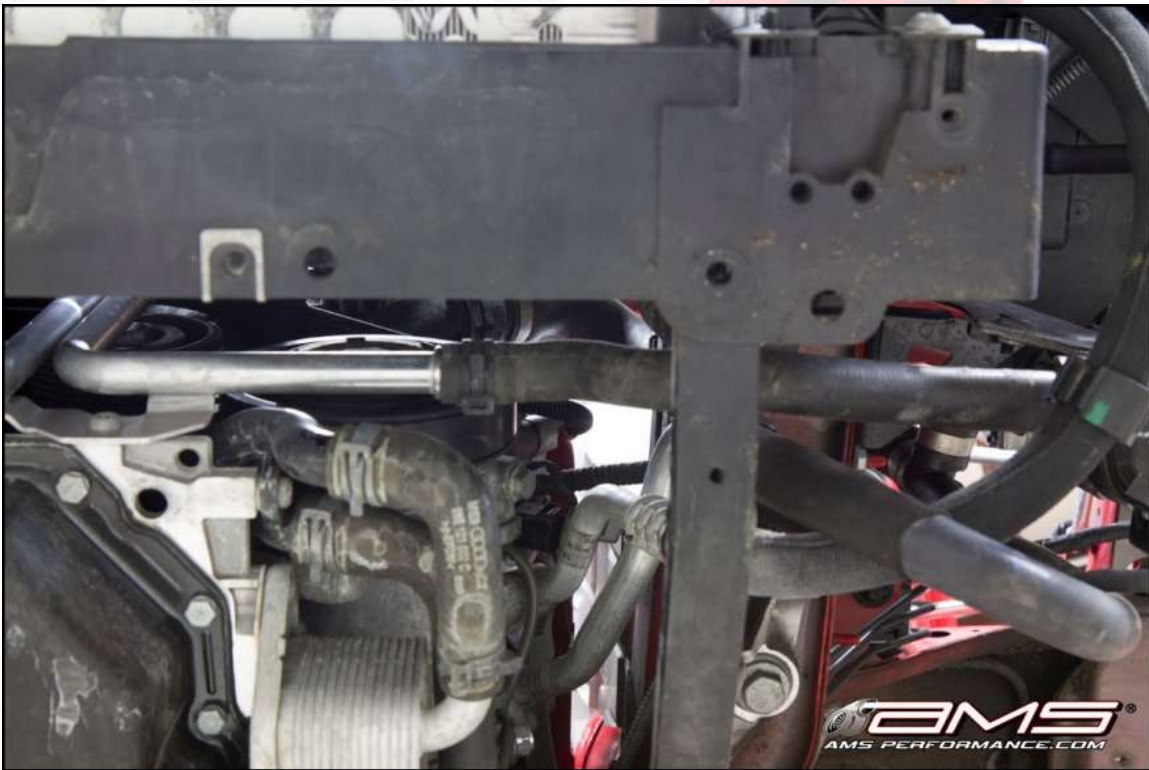
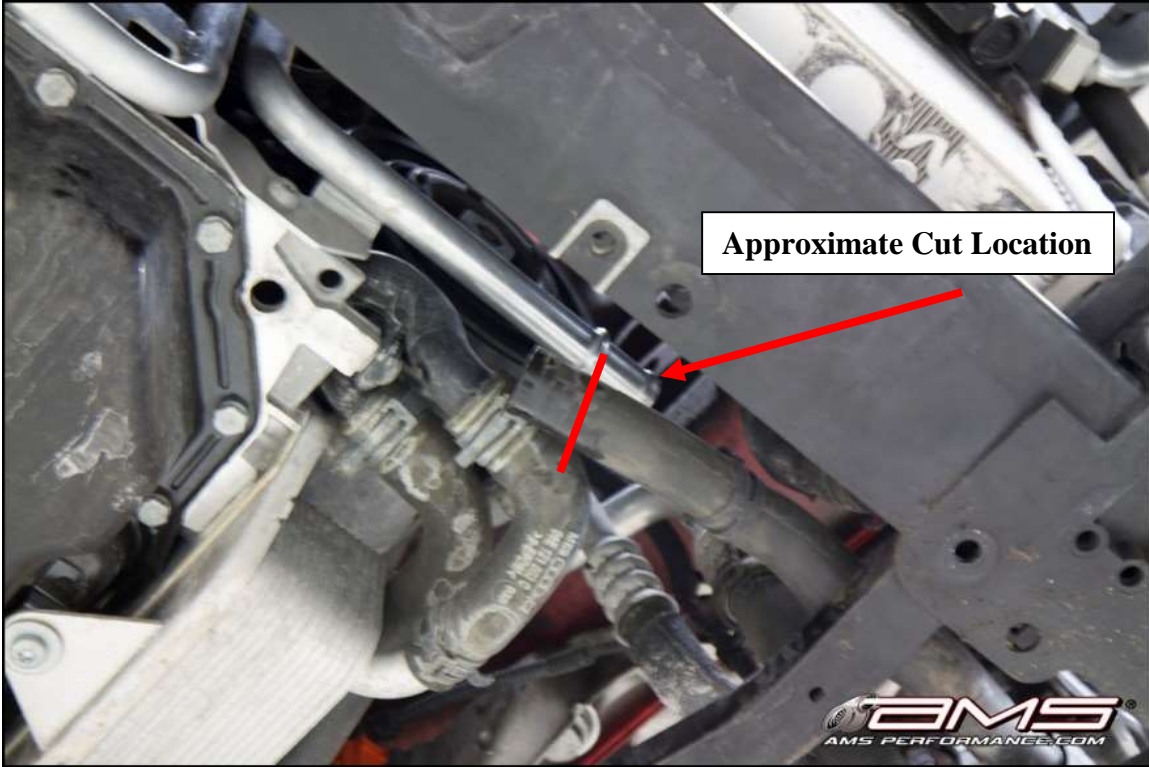
- 8) **B8.5** cars, remove the factory hard pipe that leads up to the super charger. This will be replaced with the B8 hard pipe supplied with the kit. Factory hardware is supplied to mount the new hard pipe. There will be a new mounting location on the passenger side of the engine. Make sure to clean out the hole before installing the hardware. Since this mounting location has been open to the elements, debris may cause the bolt to seize.



B8.5 Factory Hard pipe



- 9) **B8.5** cars, the hose that was disconnected but not removed in step 7) will now be trimmed. This hose will have to be cut a couple inches shorter so it can be connected to the B8 hard pipe just installed. Use the factory hose clamp to make the connection.

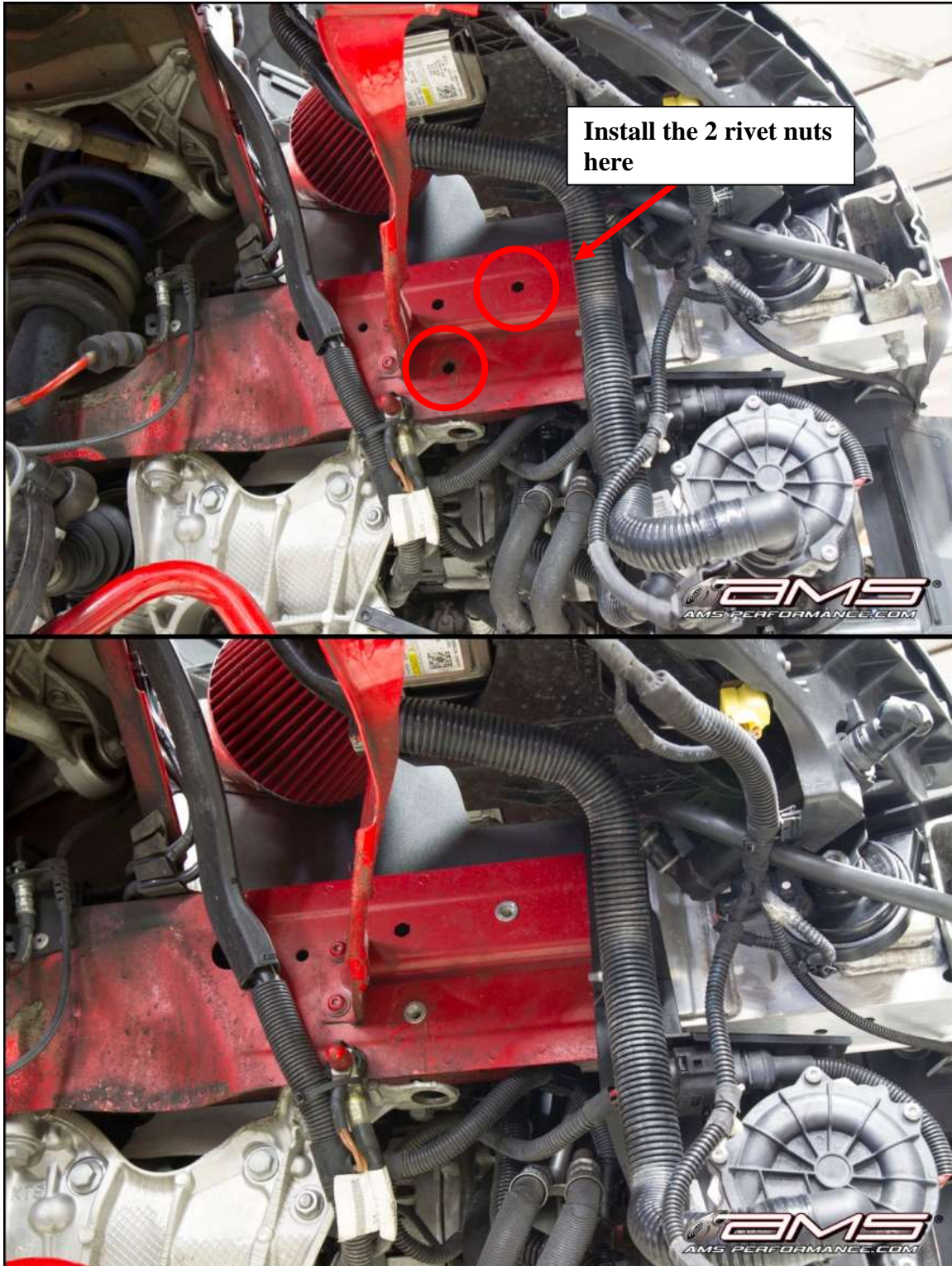




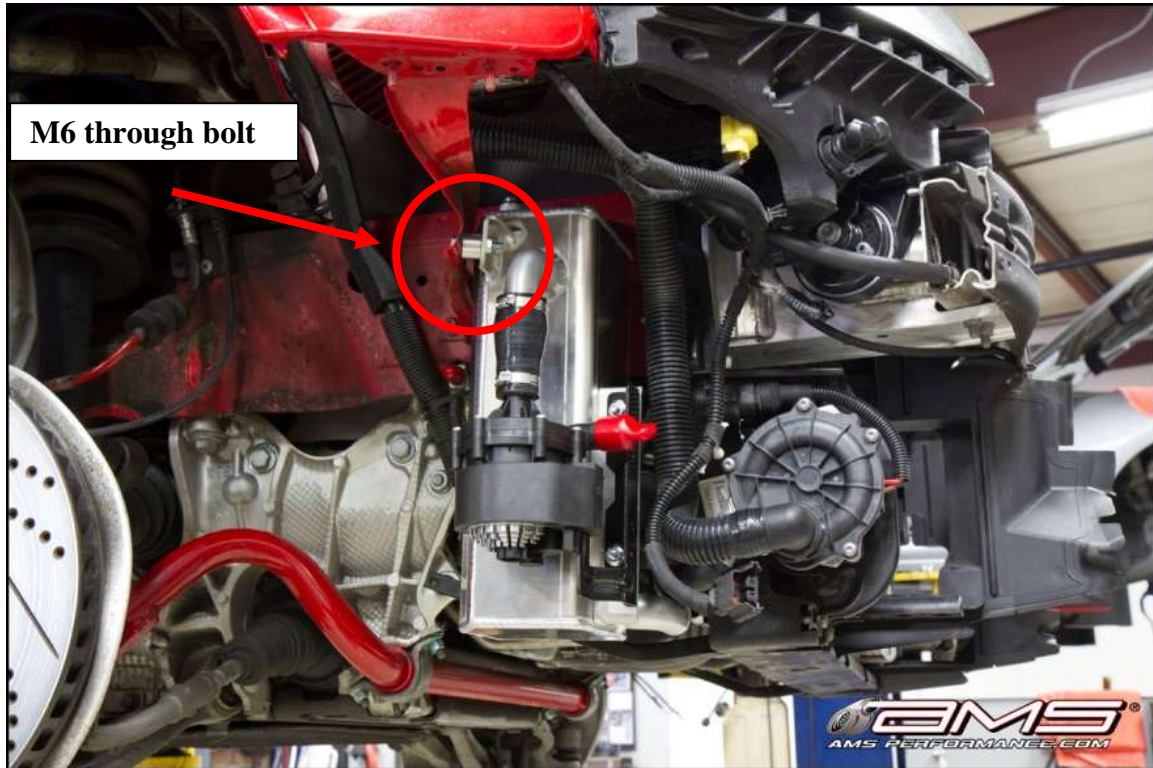
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Boost Cooler Installation

- 10) The reservoir will be installed on the passenger side frame rail. There are 2 hex holes that will need to have M8x1.25 rivet nuts installed. A rivet nut installer tool is available for purchase and is available at most commercial hardware supply stores.



- 11) The reservoir tank bolts to the rivet nuts just installed and the uses a M6 through bolt at the fender support bracket.
- 12) Install the assembled reservoir tank using the 2 M8 bolts, 1 M6 bolt, and M6 nut.
- 13) **B8.5** There will be 2 offset spacers and a M6 button head Allen bolt. The Allen bolt will replace the through bolt. Install the thicker spacer between the reservoir and the fender support bracket so all the surfaces are flat against each other. Install the thinner spacer on the outside of the bracket so the through bolt has a flat surface to tighten on.



- 14) Before tightening the reservoir bolt, make sure you have clearance at the core support. You should have a little bit of movement to allow for adjustment.



15) Locate the straight silicone hose



- 16) Install the hose with the larger end on the reservoir and the smaller end to the factory pipe assembly that routes up to the super charger. Use a #16 hose clamp on the larger end and a #12 hose clamp on the smaller end. Rotate and adjust for clearance.



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- 17) Assemble the heat exchanger. Locate the mounting brackets and rubber isolator pads. The rubber isolator pads will need to be installed on the brackets. See the next several pictures as a reference as to how they assemble.



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- These are the lower brackets



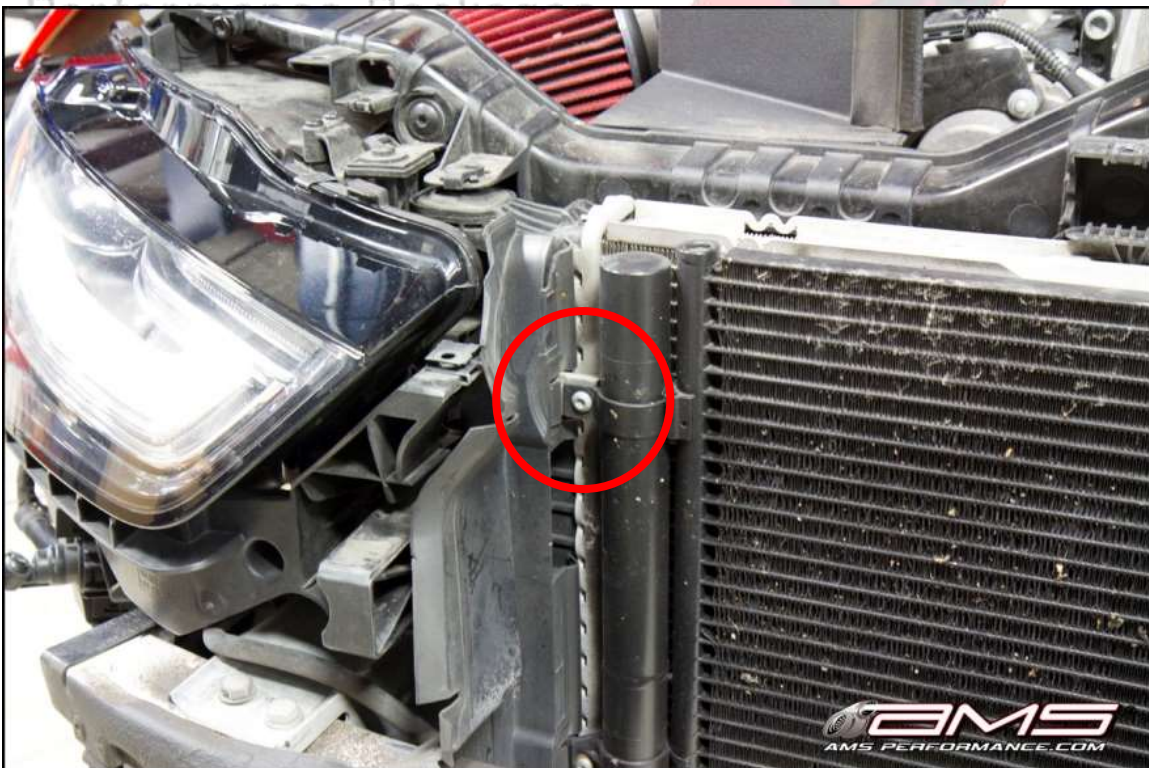
- These are the upper brackets



18) Install the lower brackets to the heat exchanger as shown. Leave the bolts loose for latter adjustment.



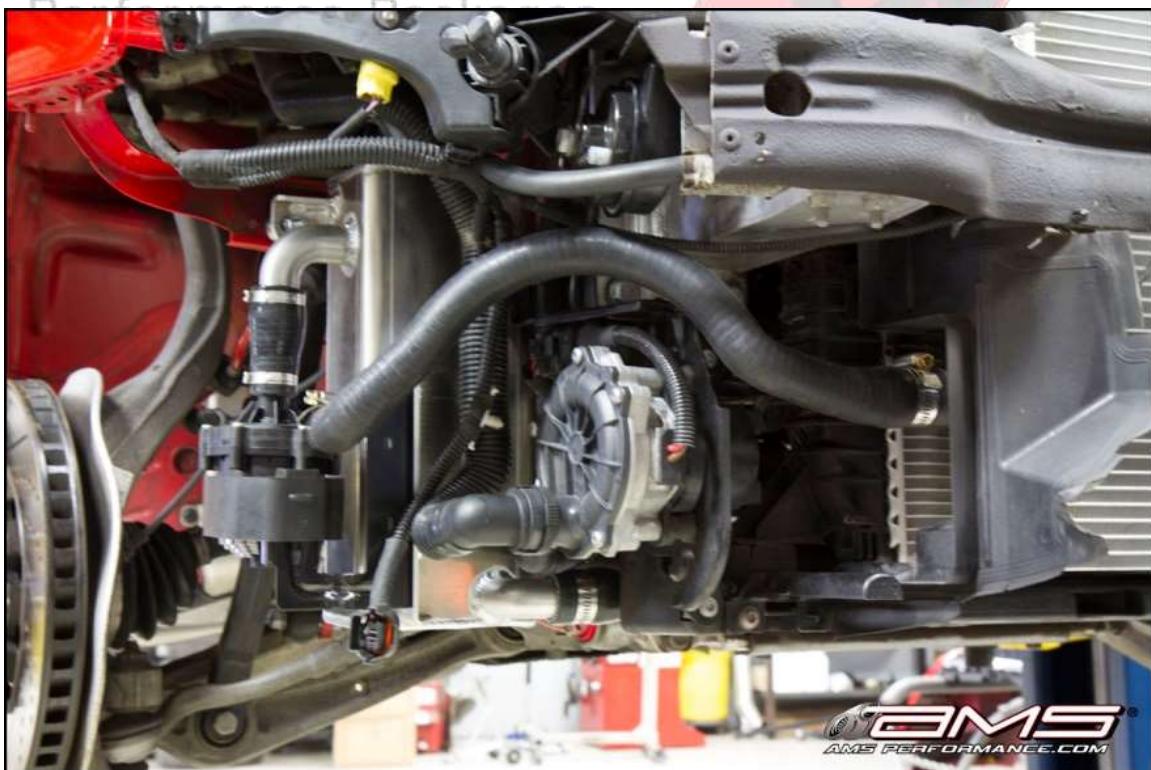
19) Remove the small factory T 25 Torx bolt for the receiver drier bracket.



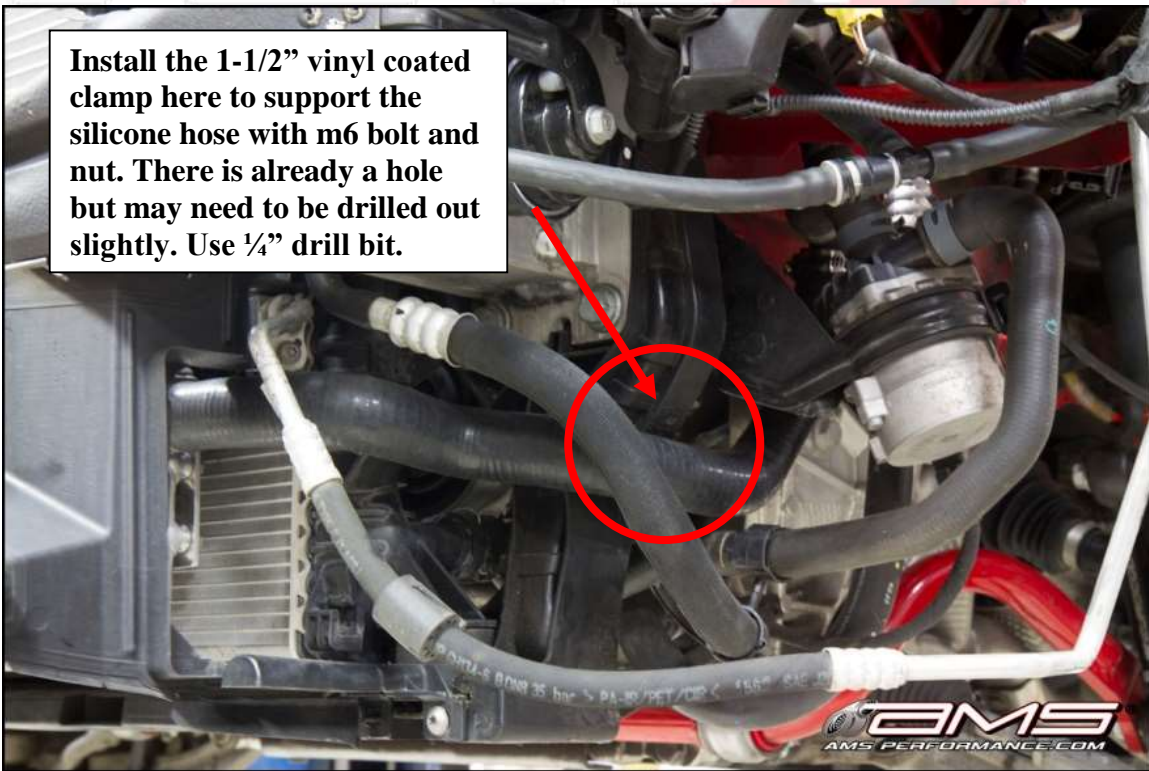
- 20) The heat exchanger mounts to the A/C condenser by clamping around it. Slide the heat exchanger into place and hook the lower mounts first. Install the upper mounts loosely. Adjust the heat exchanger so the small bracket on the passenger side lines up. Install the new supplied M5 allen head bolt. First tighten the upper brackets, followed by the M5 allen bolt, then the lower brackets. This is done to allow some movement of the heat exchanger and A/C condenser.



- 21) Install the silicone hose in the picture from the Alpha reservoir pump to the passenger side of the heat exchanger. The smaller end installs on the pump outlet and the larger end on the heat exchanger. Use a #16 hose clamp on the larger and a #12 hose clamp on the smaller end.



- 22) Install the supplied silicone hose pictured from the driver's side of the heat exchanger to the factory plastic tee where the permanent clamp was cut off. Use #16 hose clamps on both ends.

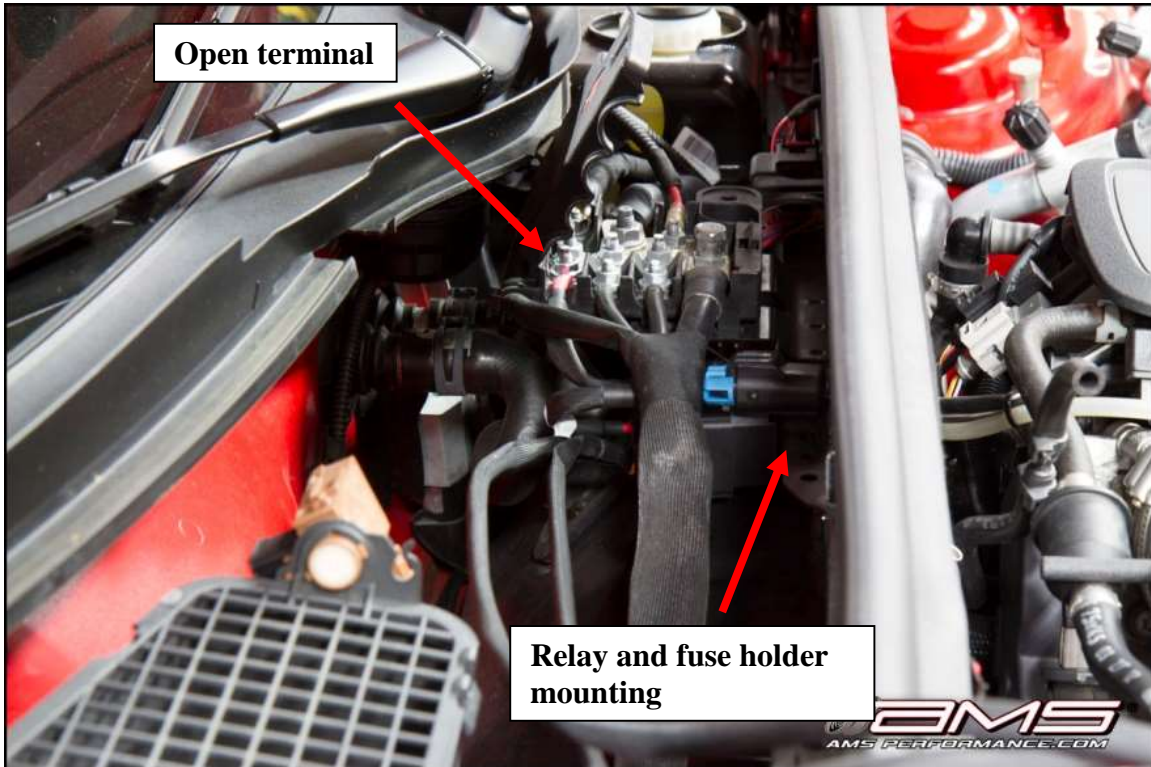


Wiring Harness Install

23) Remove the cowl panel.

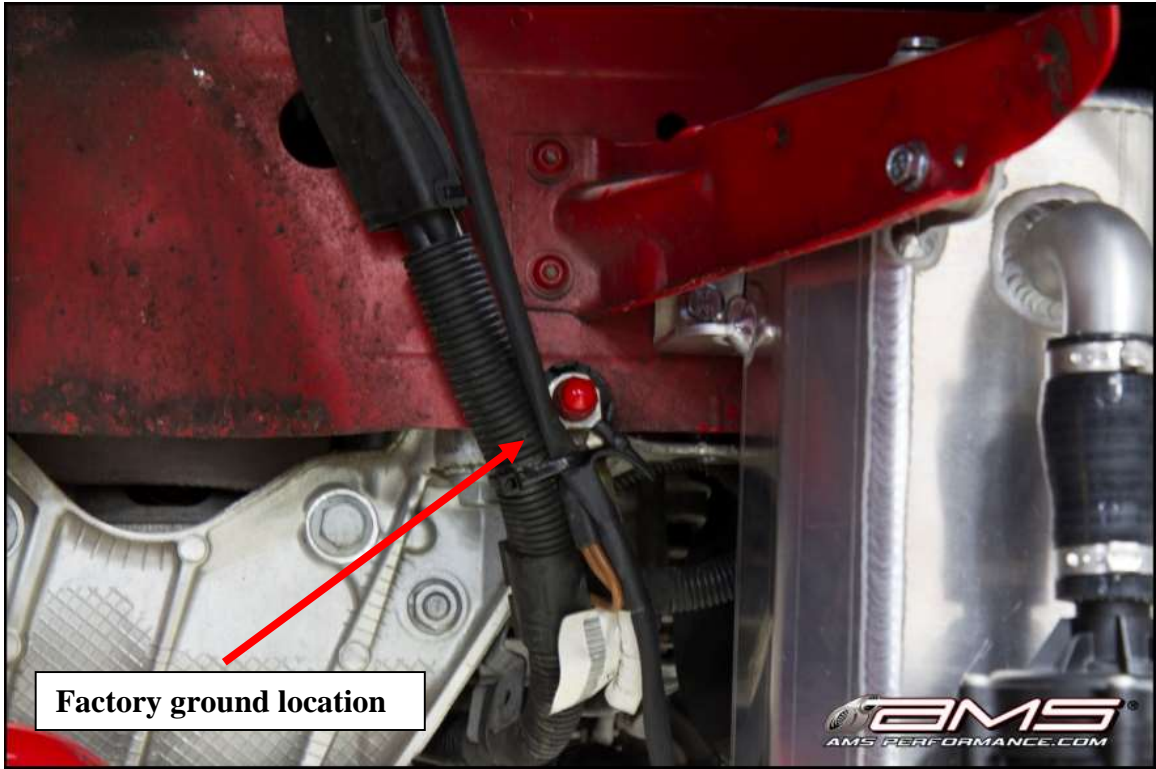


- 24) Locate the wire harness. The harness has 2 legs that lead out from the relay. The relay and fuse will mount right next to the fuse panel using the supplied M6 bolt and nut. There are a couple unused holes in the engine firewall panel that will be used to bolt the relay into place. The relay and fuse hold can be bolted together using the same bolt. See pictures as a reference.
- 25) Open the fuse panel cover. Locate the open terminal. The power lead of the harness will attach here and get power. Use the supplied M6 nut to attach the ring terminal to the fuse panel.

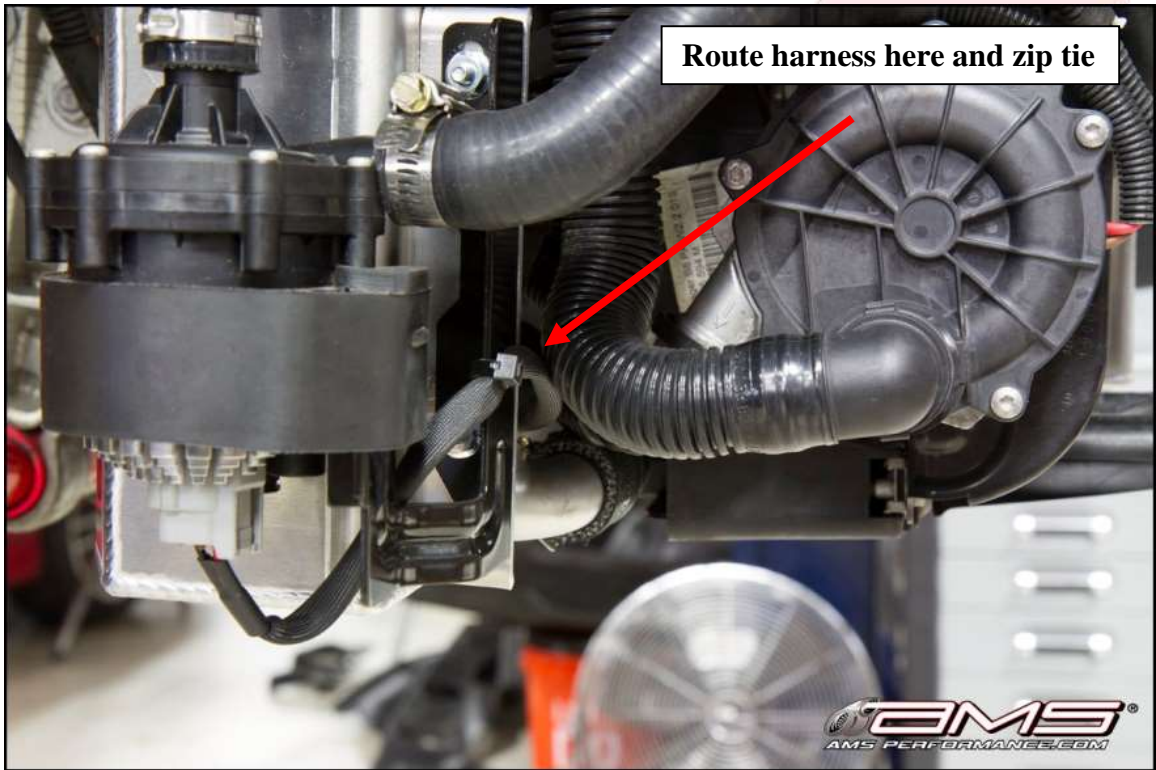


26) Route the harness end with the ground ring terminal and the 4 pin connector to the Alpha reservoir and pump. Route the harness through the opening in the firewall where the harness runs through. Run the harness down along the frame rail and around the reservoir to the pump as shown. Attach the ground ring terminal 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.





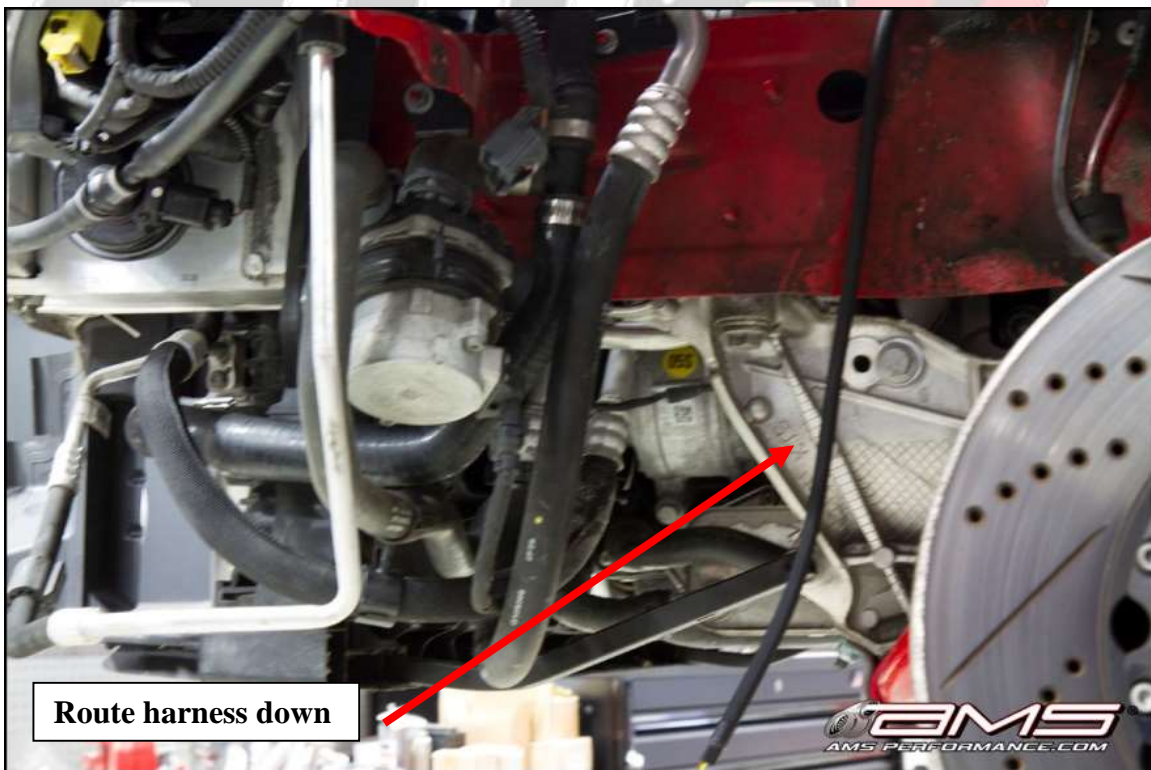
Factory ground location



Route harness here and zip tie



27) Route the other side of the harness with the 2 open wires 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 to the pump.



28) Locate and disconnect the factory IC pump connector.

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



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Bleeding The Cooling System

- 30) Fill the system from the factory reservoir. Crack open the bleed screw on the Alpha reservoir and the Alpha heat exchanger while filling. Also crack open both factory bleed screws at the back of the super charger. 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, and then the factory intercooler bleeds. In order to get all the air out of the intercooler, you will need to have a funnel in the reservoir and fill the fluid level above the intercooler bleeds.
- 31) 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.
- 32) 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.
- 33) Once all the air is out of the system, reassemble the front end, front bumper, under trays, wheels.
- 34) 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.

Enjoy!

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