



ALPHA

Performance Packages

CLA45 FRONT HEAT EXCHANGER
TECHNICAL SPECIFICATIONS

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.

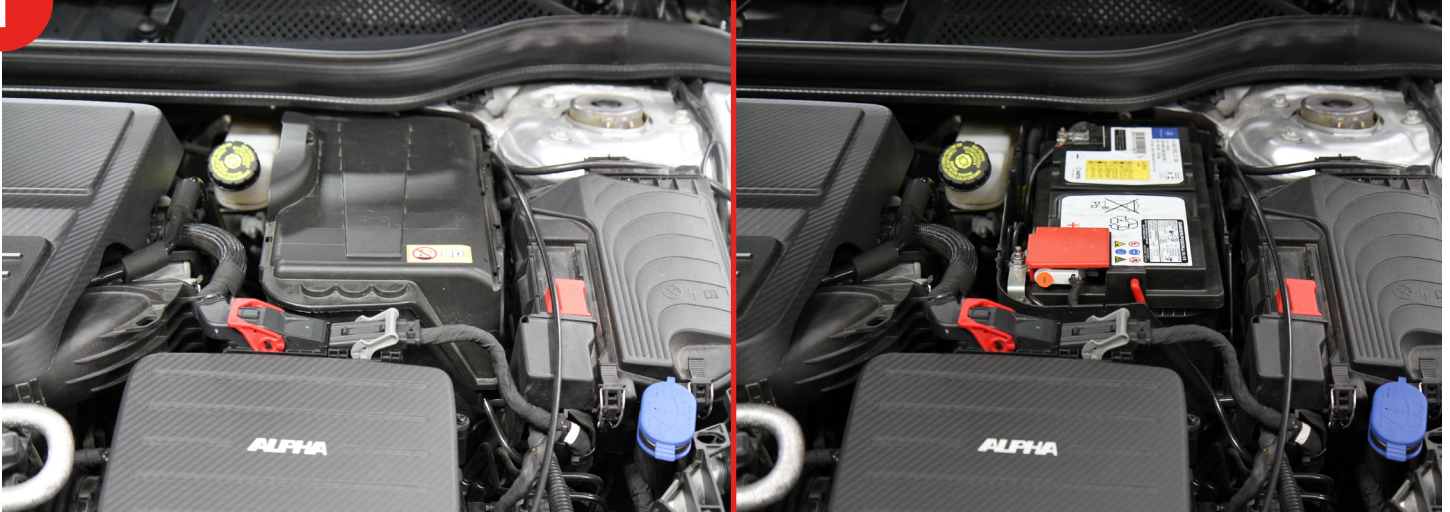
These instructions are provided as a guide only as there are many variables that cannot be accounted for concerning your particular vehicle, including but not limited to model year differences, model differences, the presence of non-OEM parts, and modifications that may already be or were previously 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.

Installation

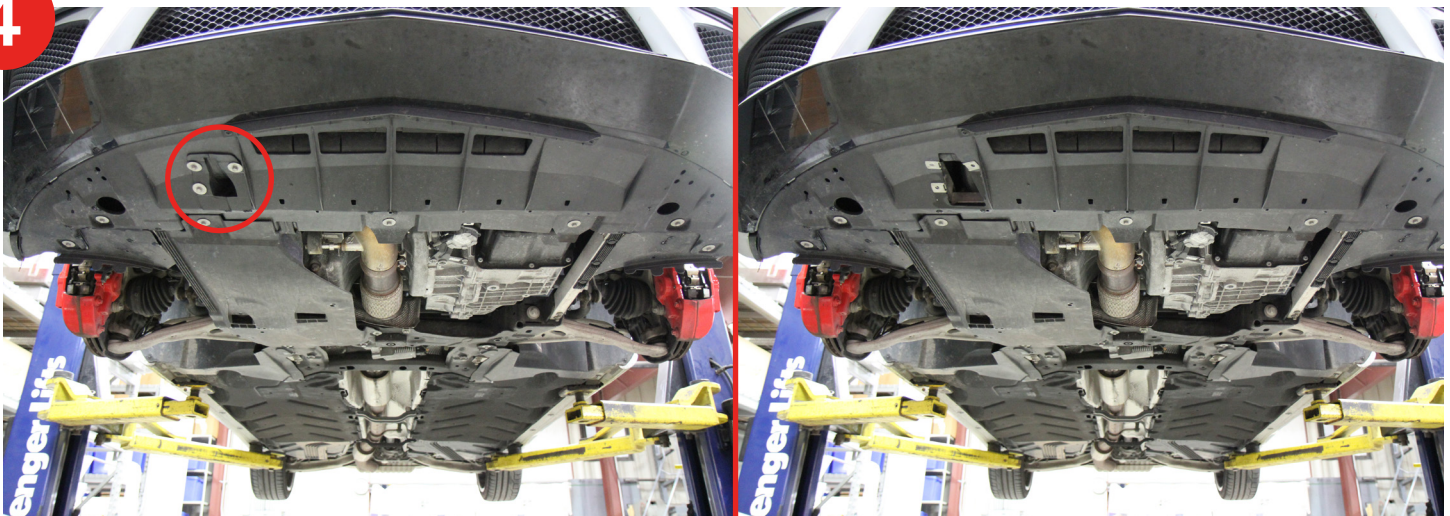
1. Disconnect the battery. **Important! SRS system sensors will be disconnected during the intercooler installation process!** To remove the battery cover, slide the cover towards the front of the car. Then lift upwards.

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2. Follow the next several steps to remove the front bumper.
3. Raise the front of the vehicle in a safe manner.
4. Under the vehicle, remove the turbo air duct. Remove the three 8mm screws then slide it out of the front bumper.

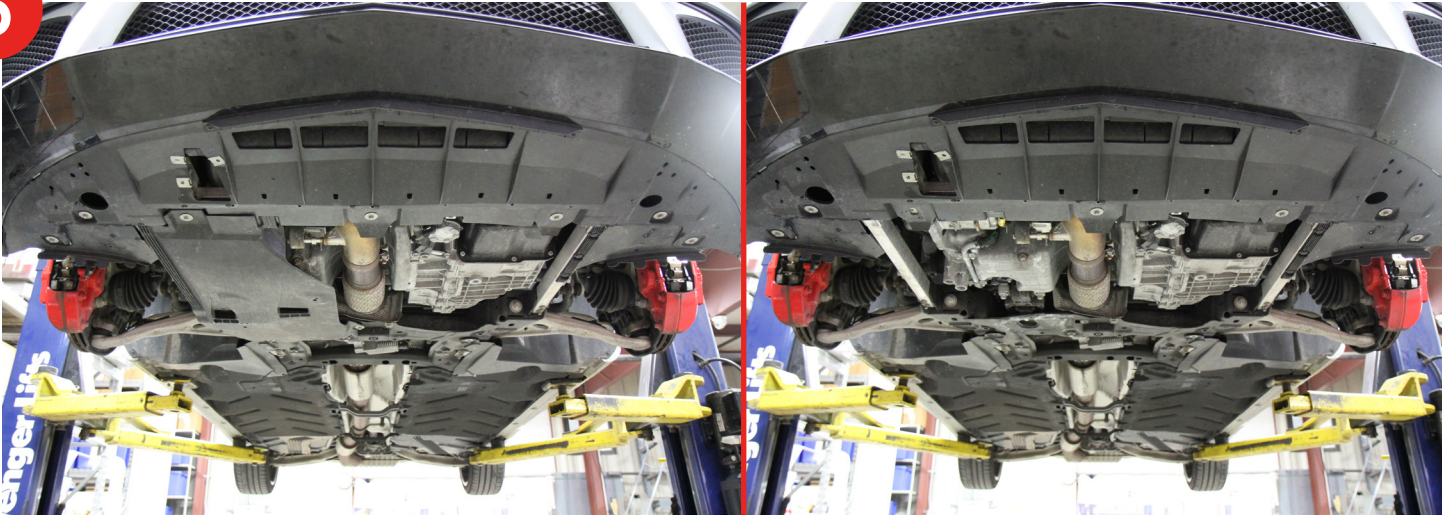
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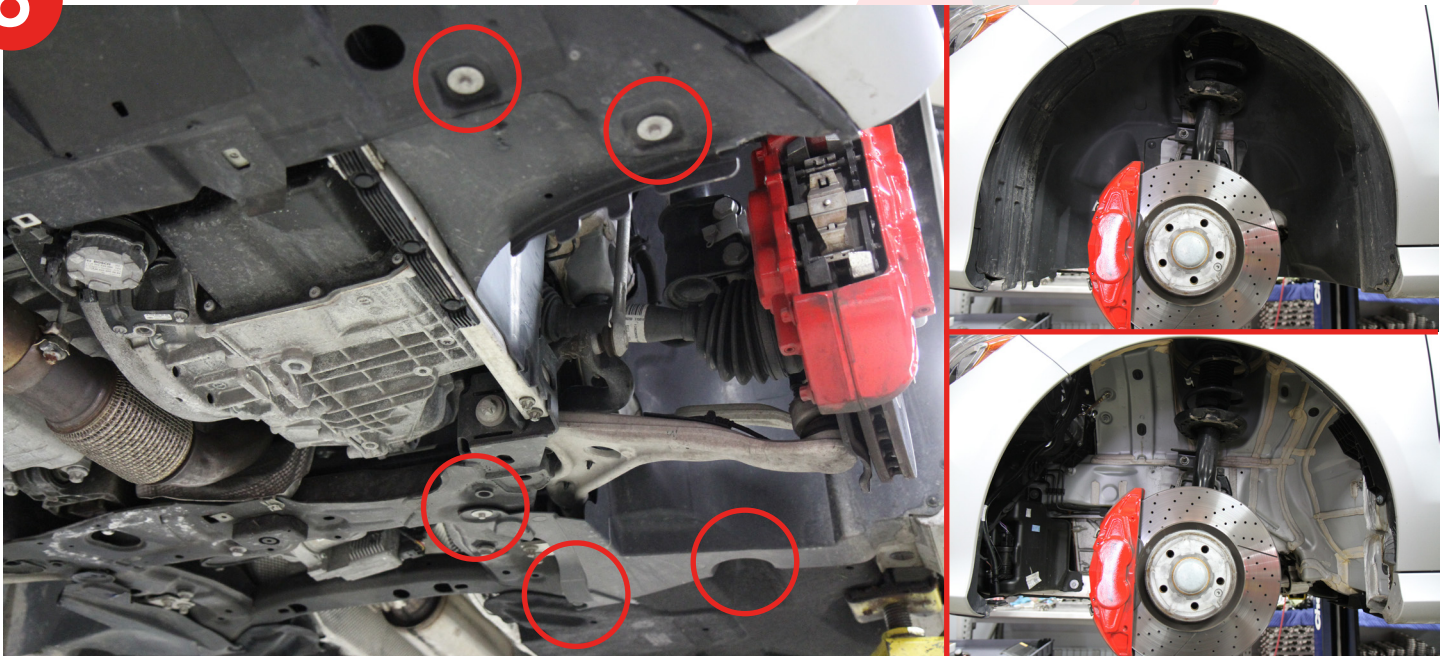
5. Remove the small under tray on the right side of the vehicle. Remove the three 8mm screws. Also remove the other two 8mm screws shown in the picture below for the front bumper.

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6. Remove both wheel well liners. Remove three 8mm screw, one large push clip, and one large or plastic 10mm nut from under the car. The large 10mm plastic nut is designed to stay in the wheel well liner but may come completely out. Next remove three 10mm plastic nuts and 6 small push clips from inside the wheel well. Remove the wheel well.

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7. Remove the two 10mm bolts inside each wheel well connecting the front bumper to the fender.

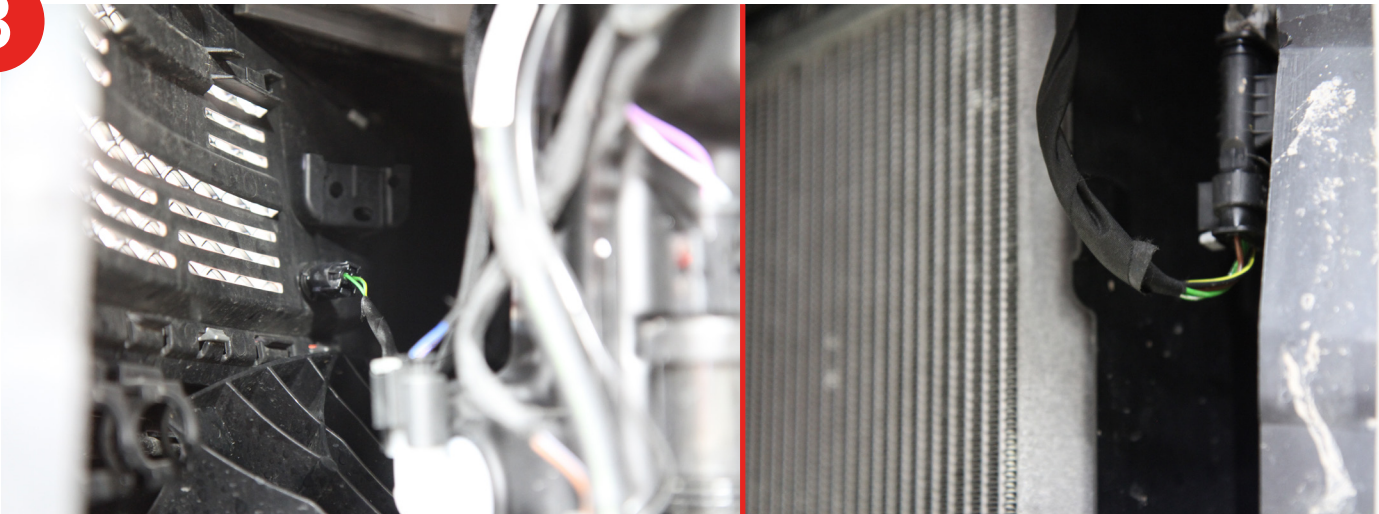
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8. Disconnect the outside air temperature sensor and the parking sensor connector. The air temperature sensor is accessed from the left side wheel well and the parking sensor is accessed from the right side wheel well.

Note: To disconnect the parking sensor connector, use a small screw driver to pop the grey tab outwards slightly. Then press down on the gray tab to disconnect the connector as you would a normal connector. Any connector found with these type of lock tab will be disconnected in the same manner.

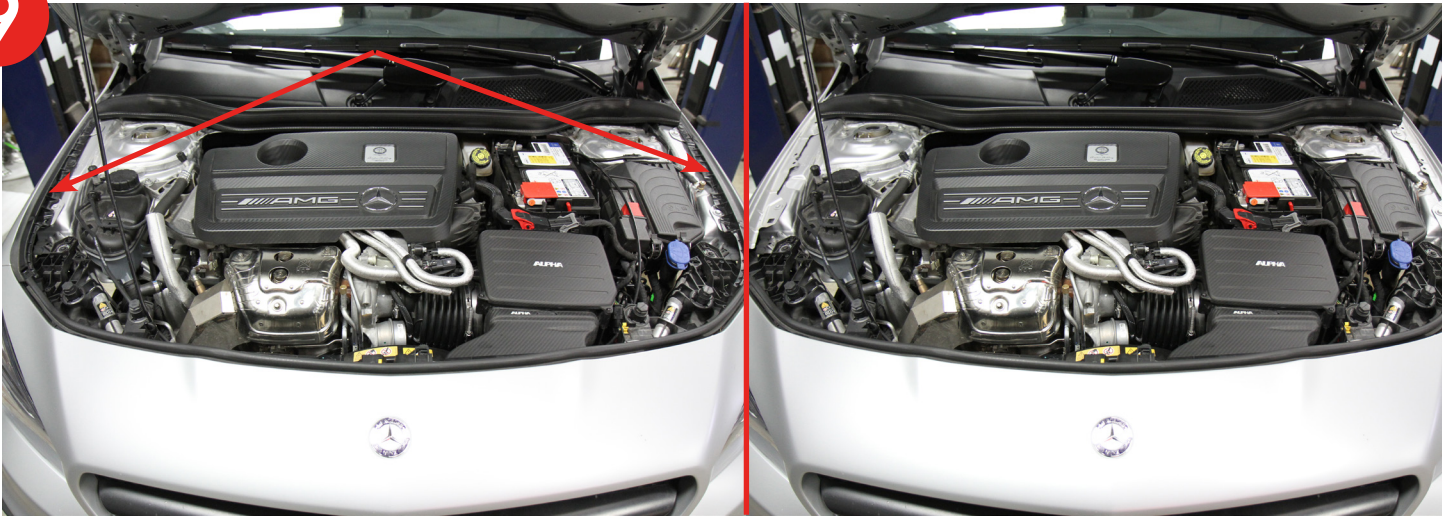
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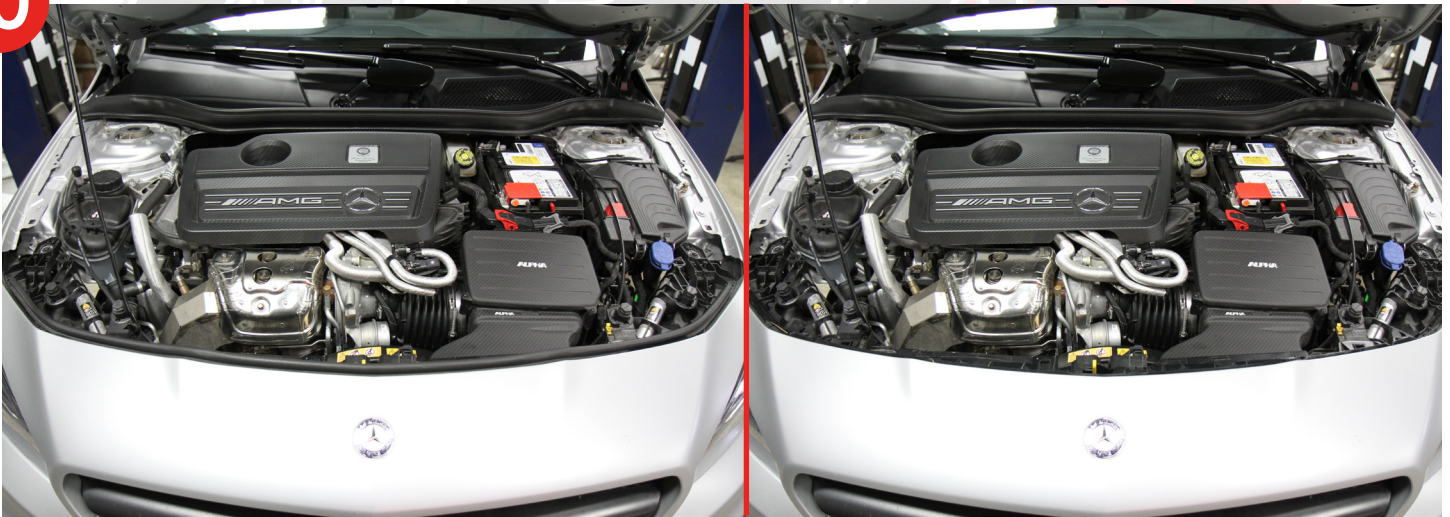
9. In the engine bay, remove the fender side trim panels. Remove the two push clips on each side. Release the tab then remove the panels.

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10. Remove the front hood seal.

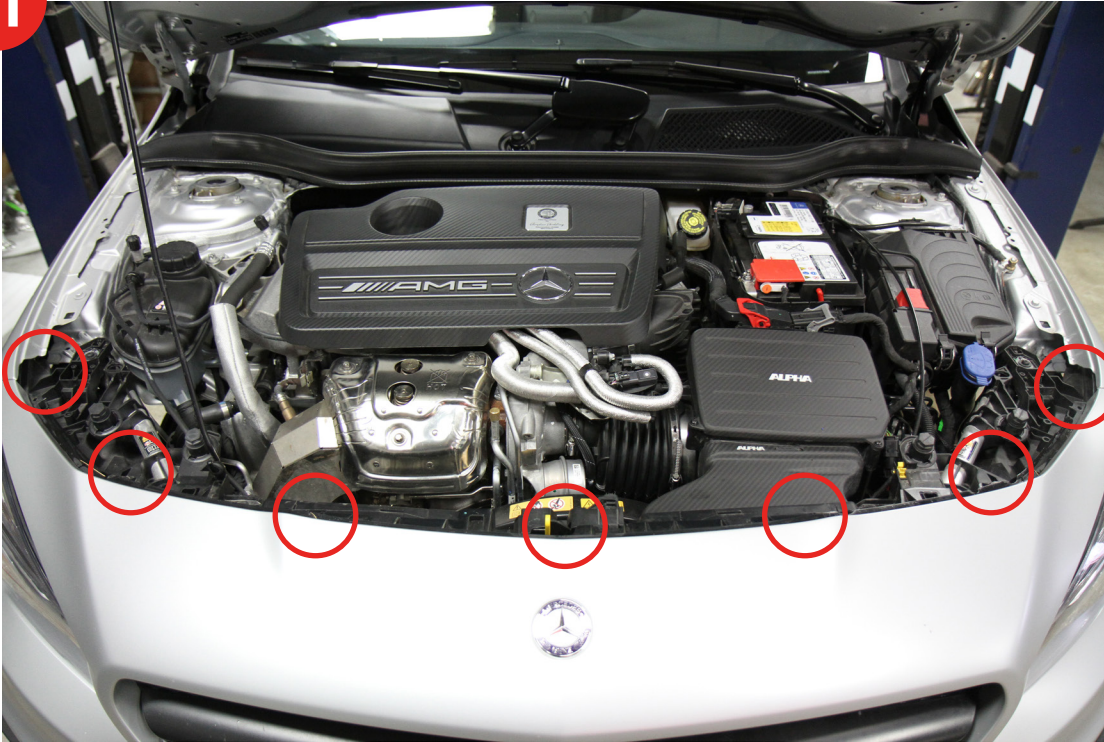
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11. Remove the five large T25 Torx screws from the front top area of the bumper. Also remove the two small T25 Torx screws under the corner of the bumper where it meets the headlights as shown in the picture below.

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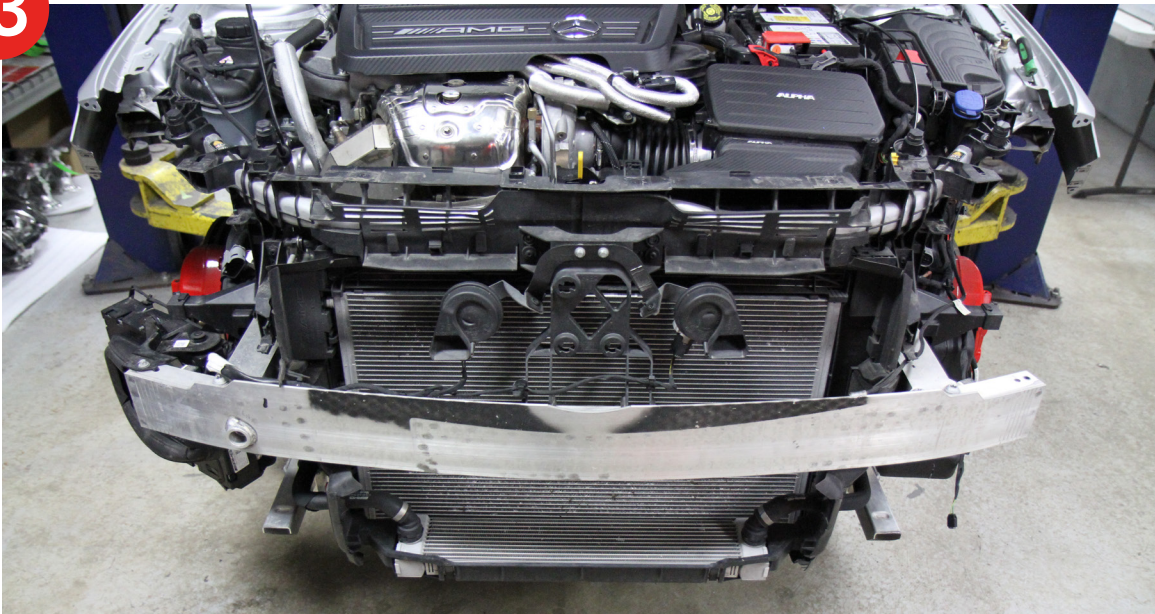
12. A second set of hands to remove the front bumper is highly recommended. Carefully remove the front bumper. Take caution when removing the front bumper so not the scratch the headlights. If your vehicle has any dealer install accessories such as a light up front emblem, there will be a connector you will need to disconnect during removal.

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13. Remove both headlights. Remove the three T25 Torx screws holding the headlights in place. Take note on how the headlights are adjusted so they can be placed in the same position during reassembly. Disconnect the connectors and remove the headlights.

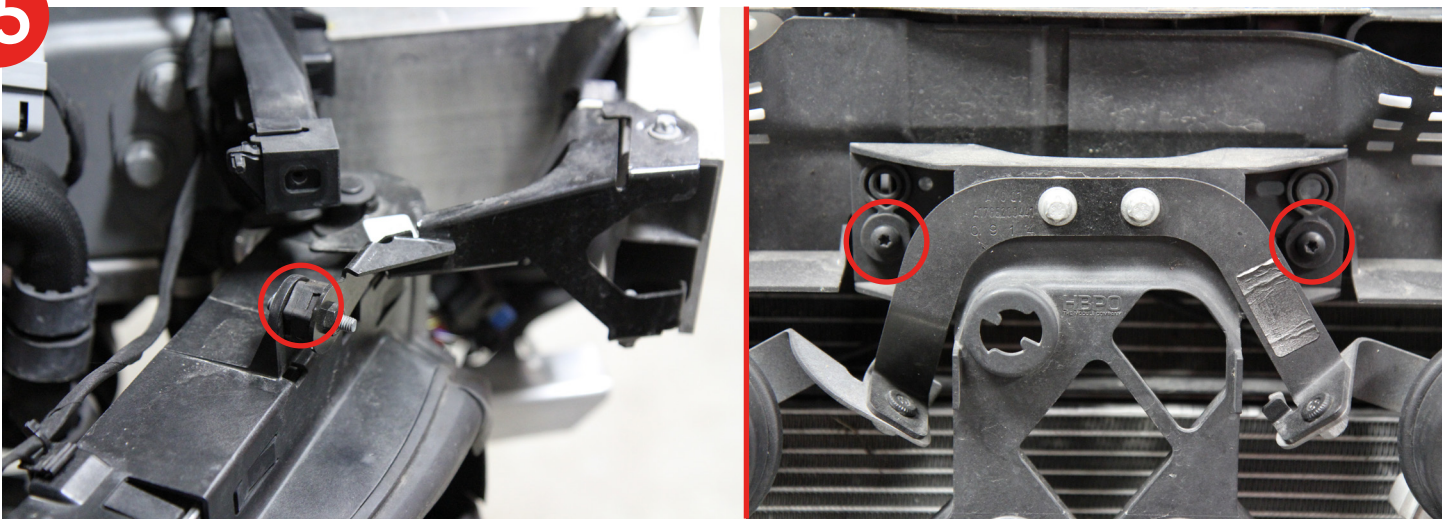
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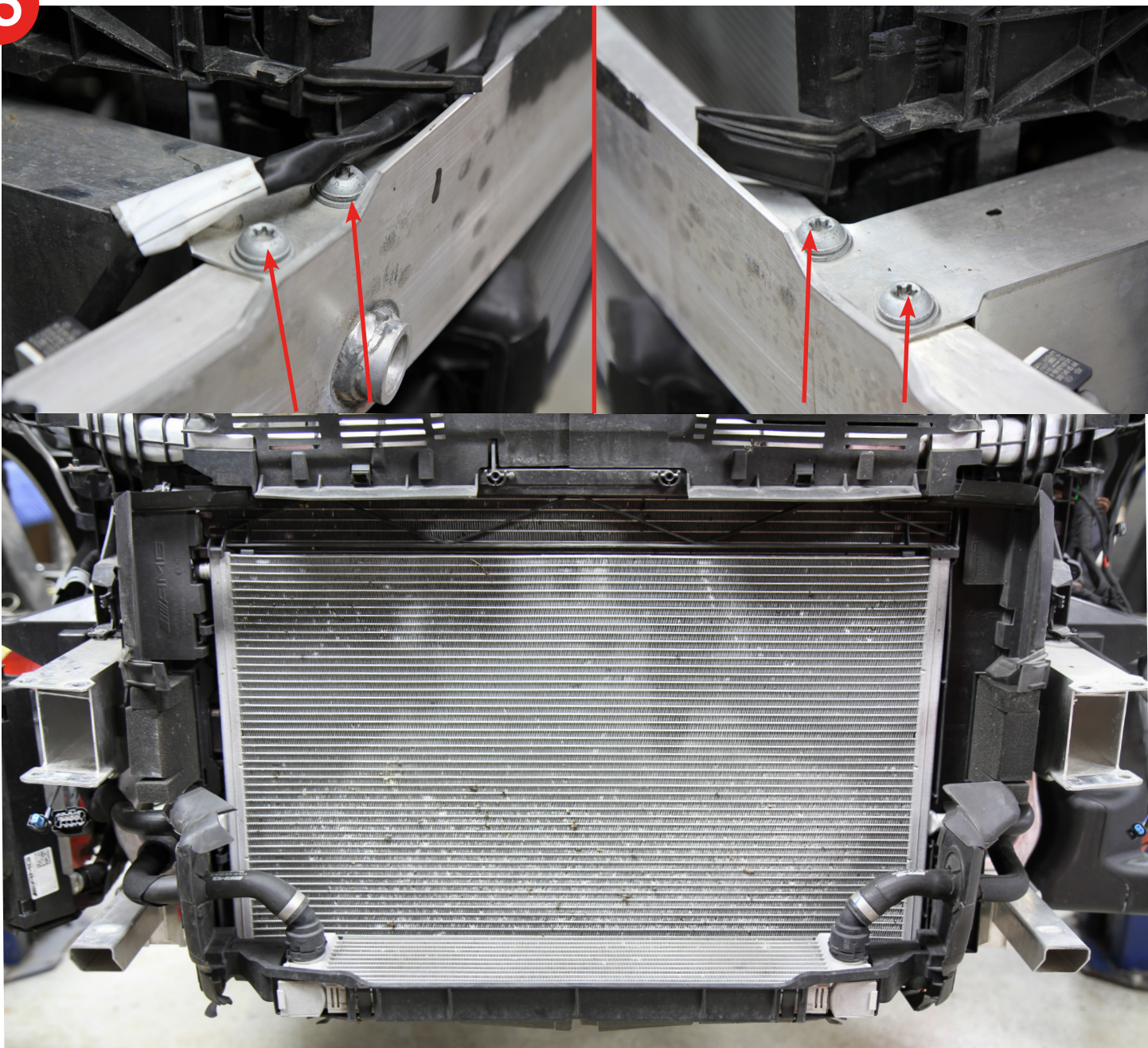


14. Make sure the battery has been disconnected! Disconnect both SRS sensors on the back side of the crash beam. Also disconnect the main beam harness connector on the right side of the crash beam. The horn harness will remain on the crash beam.

15. Remove the hardware listed below for removal of the crash beam.
- a. 10mm nut on the top of the side cooler
 - b. Two T25 Torx screws at the top of the horn bracket
 - c. Four main T50 Torx bolts and nut plates under the beam

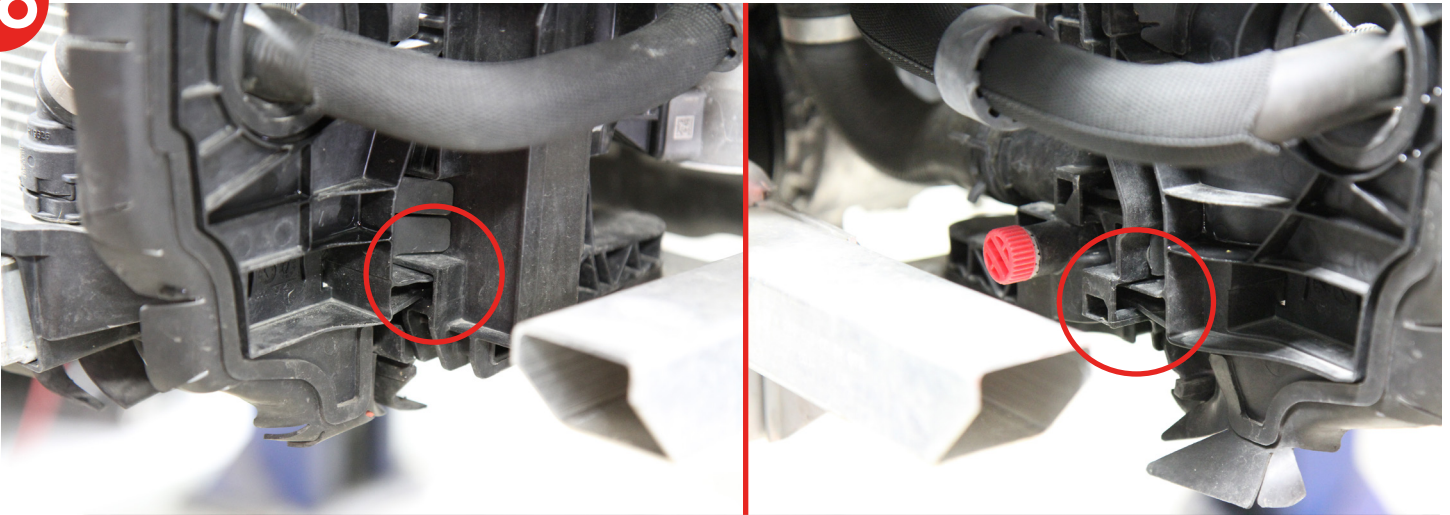
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16. The small cooler at the base of the heat exchanger will need to be unclipped from the core support and dropped down out of the way to remove the front heat exchanger. To unclip it, squeeze the lower lock tabs together on both side and pull forward away from the core support. Slide the heat exchanger downwards out of the way. You do not need to disconnect any coolant hoses.

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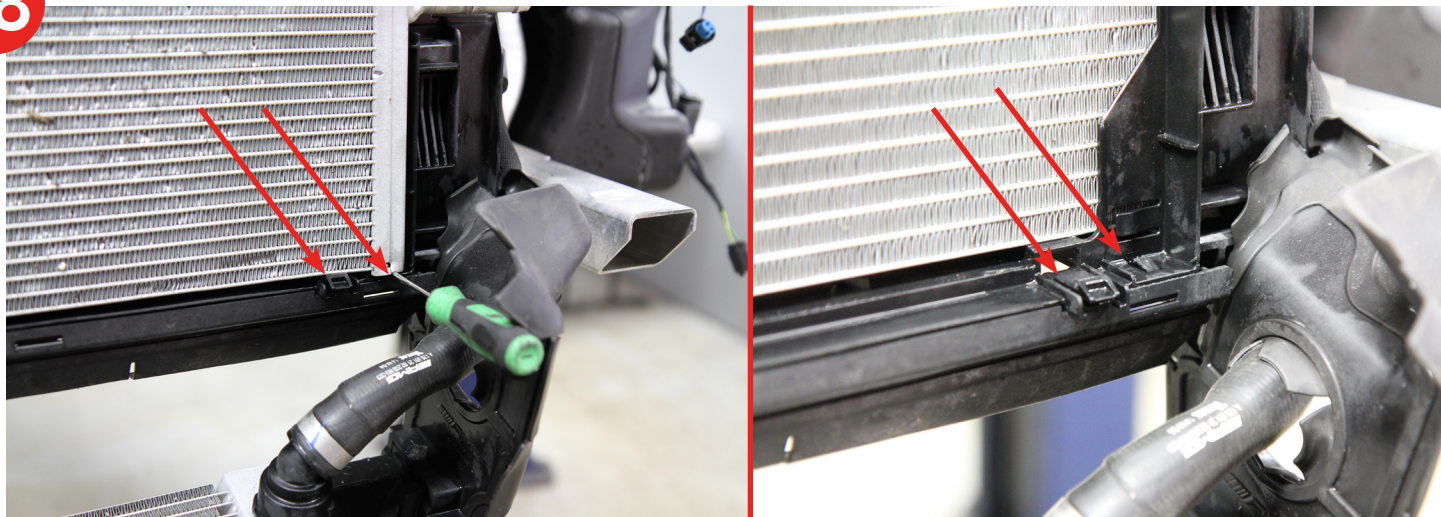


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17. Disconnect the coolant hoses on both sides of the front heat exchanger and drain the coolant. You can use pinch clamps on the hoses so not to drain the rest of the system.

18. To remove the front heat exchanger, there are a couple clips that need to be released in the lower corners. The outside visual one is easy to release just by pushing down. The other retaining clip is under the heat exchanger corner and can only be released by using a small screwdriver or flat panel tool. The second picture shows the hidden release tab. Once the tabs are released, pull the heat exchanger bottom outwards, then side the heat exchange down out of the bracket and remove it from the car.

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19. Install the new Alpha front heat exchanger into the vehicle in the reverse order of removal. Make sure the tabs lock the new heat exchanger into place.

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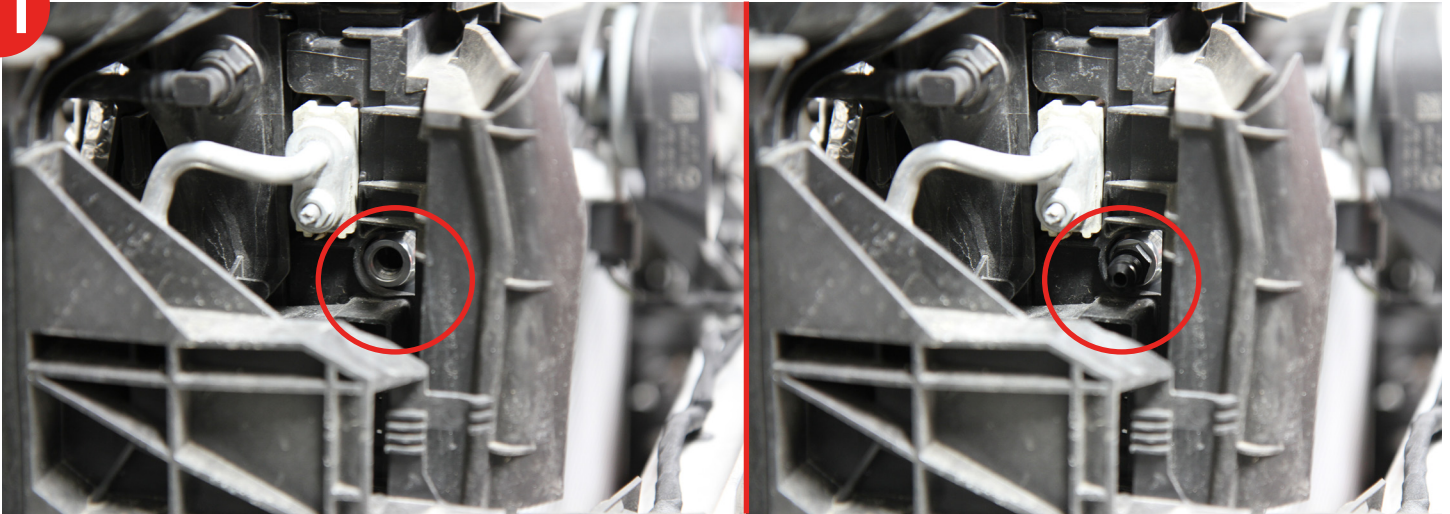


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20. Connect the cooler hoses to the front heat exchanger and reinstall the crash beam.

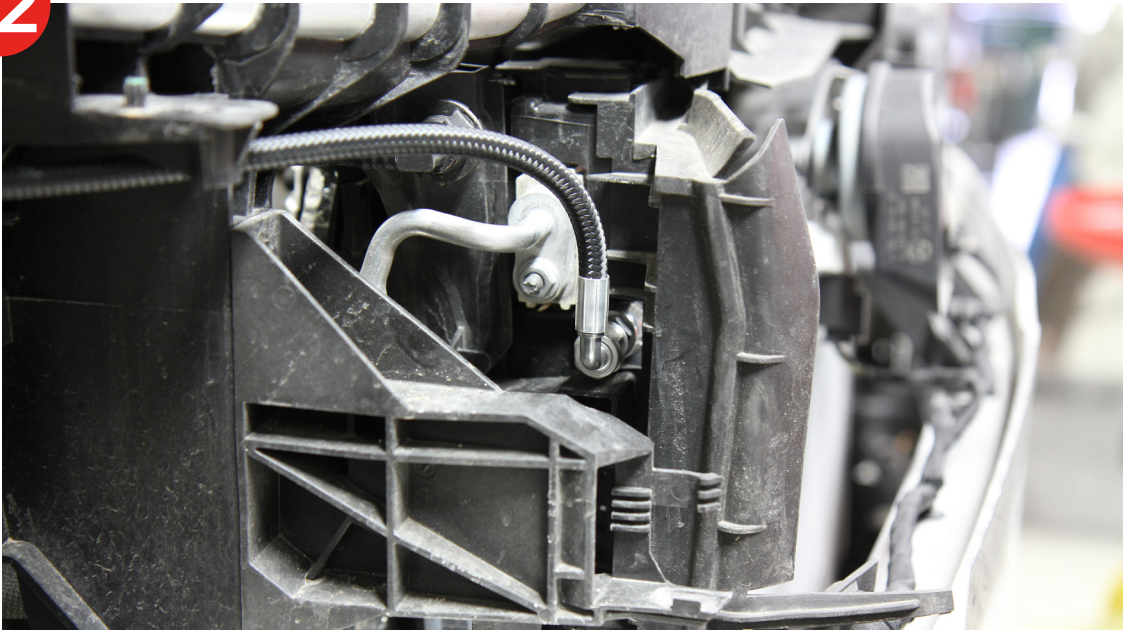
21. Locate the -4AN to #4 ORB port fitting and install it into the bleed port at the top right side of the cooler. Use a tiny bit of grease or oil on the O-ring when installing.

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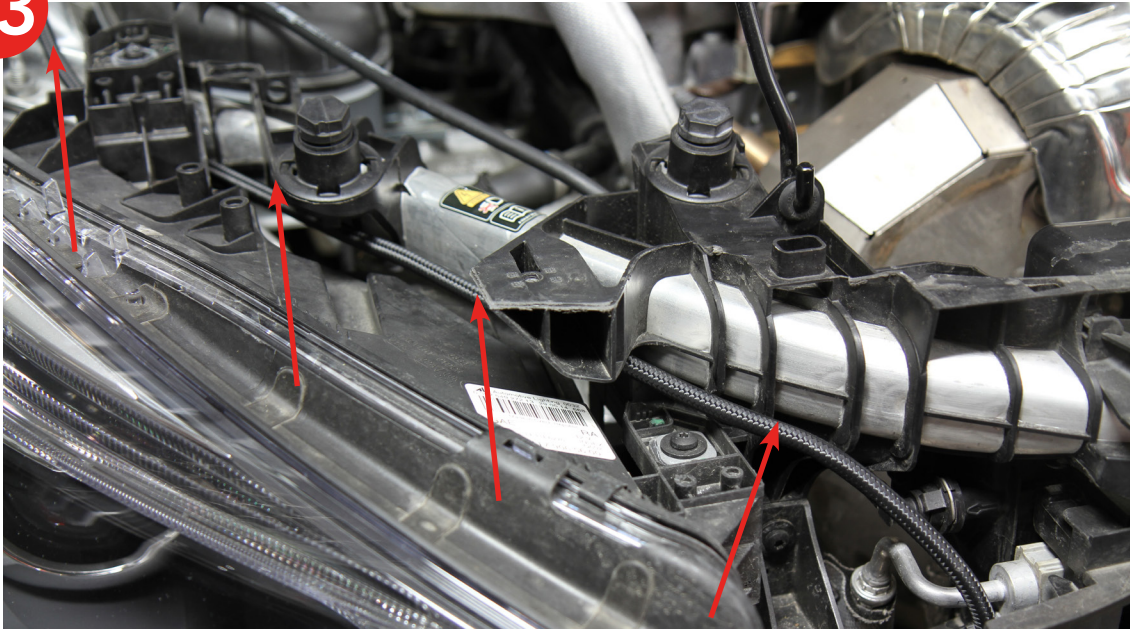
22. Locate and install the -4AN hose, install the 90 degree end on the cooler. This hose is for remote bleeding. On the factory style setup, in order to bleed the intercooler system, you would have to remove the front bumper and headlight. This setup will place the bleeder up by the engine mount for easy access.

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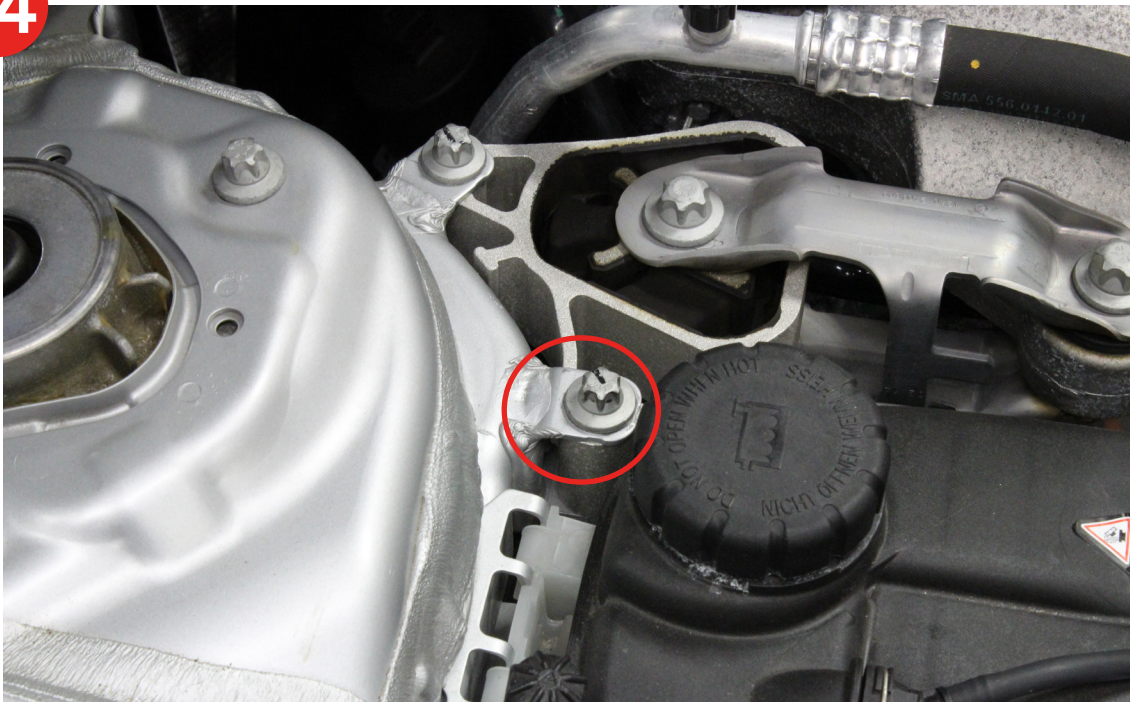
23. Route the hose up along the formed core support just on top of the headlight. Route the hose along the fender up to the engine mount. Reinstall both headlights to hose routing can be confirmed.

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24. Remove the E14 Torx bolt from the passenger side engine mount shown in the picture below. Locate and install the supplied billet remote bleeder using the supplied allen bolt.

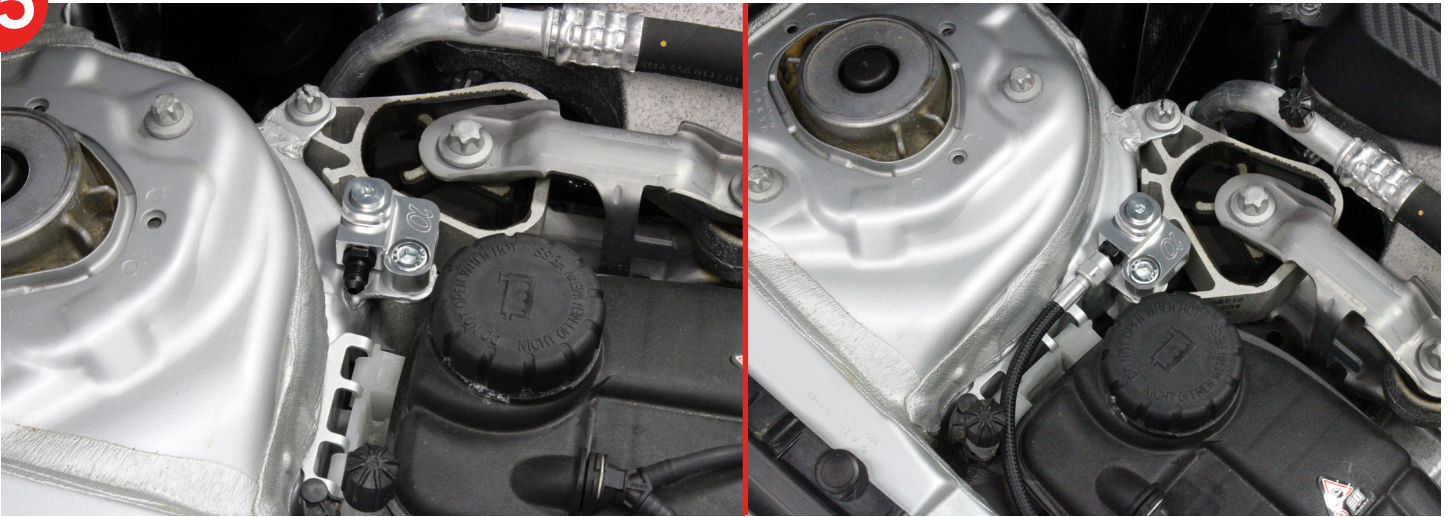
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25. Locate the -4AN to #4 ORB fitting and #4 ORB plug. Install them into the billet remote bleeder using a tiny bit of oil or grease on the O-ring if this has not already been done. Connect the -4AN bleeder hose from the Alpha front heat exchanger.

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26. Reinstall the front bumper, fender wells, and under trays in the reverse order of removal. See the bleeding notes in the next section.

INTERCOOLER SYSTEM BLEEDING

WITH AIR LIFT

1. The proper way to bleed the system is to use an air lift coolant fill system. These are available from any major tool manufacture.

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2. Use the air lift system to fill the system with coolant according to the tool's instructions. Once filled, remove the air lift tool.

3. Run or drive the car until the IC pump turns on. This could take 10 minutes or more of idle time.

4. Once the pump cycles on and off, check the fluid level.

5. If when the IC pump turns off and the reservoir pushes a bunch of coolant out, this means there is still a large amount of air in the system that needs to be bled.

6. You may have to repeat this process multiple times along with test drives. Continue until the coolant level is stable with the pump on or off.

7. Reinstall the engine cover.

8. Enjoy!

INTERCOOLER SYSTEM BLEEDING

WITH STANDARD FILLING

1. Fill the system through the factory reservoir with the remote bleeder screw open.

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2. It may only take a little bit of coolant. Close the bleeder and run the car until the IC pump turns on. This can take 10 minutes or more of idle time.

3. Once the pump turns on, it will start to cycle coolant into the system. Continue to fill with coolant to maintain a proper level. Make sure the fluid level is maintained when the IC pump turns off.

4. If the IC pump turns off and the reservoir pushes a bunch of coolant out, this means there is still a large amount of air in the system that needs to be bled.

5. Shut off the car and make sure the intercooler pump is off. Crack open the remote bleeder to allow any trapped air to bleed out.

6. You may have to repeat this process multiple times along with test drives. Continue until the coolant level is stable with the pump on or off.

7. Reinstall the engine cover.

8. Enjoy!