



## AUDI S5 3.0TFSI CHARGE COOLER RADIATOR

### INSTALLATION INSTRUCTIONS



Please thoroughly read through and familiarize yourself with these instructions in their entirety prior to beginning any part of the installation process of any component. Please also ensure the vehicle and engine has cooled down sufficiently to avoid risking possible skin burns or other injury.

#### Tools Required:

Access to vehicle lift or floor jack and axle stands to support the vehicle.

Flat Blade screwdriver.

T25, T27, T30 Torxs Drivers.

10mm, 13mm Socket, extension bar and Ratchet.

13mm spanner.

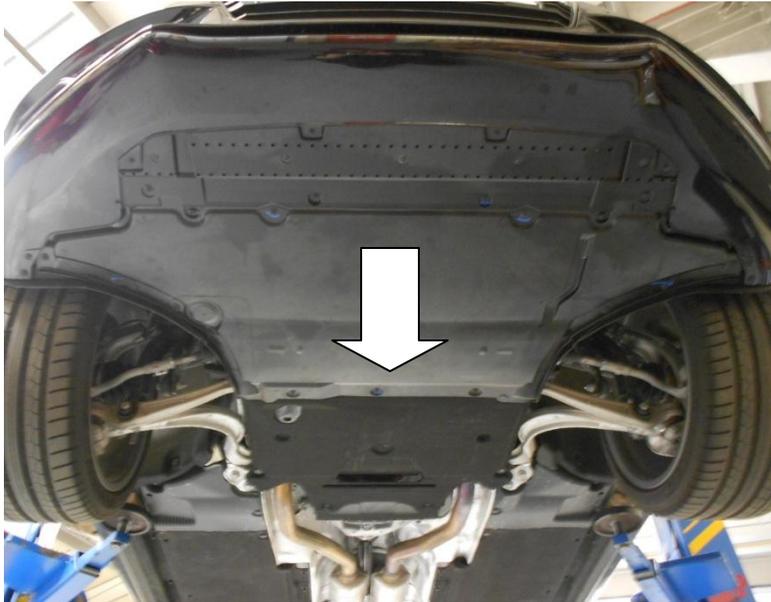
Marker pen, rule.

5mm Drill, Drill, Drain tray.

Safety eyewear, footwear, gloves and protective clothing are also recommended.

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1. Raise the vehicle on a ramp or suitable axle stands, to allow access to the underside of the front of the car.
2. Starting underneath the front of the vehicle undo the 4x T30 Torxs screws. Using a flat blade screwdriver undo 11x quarter turn clips. Slide the under tray towards the back of the vehicle to remove.

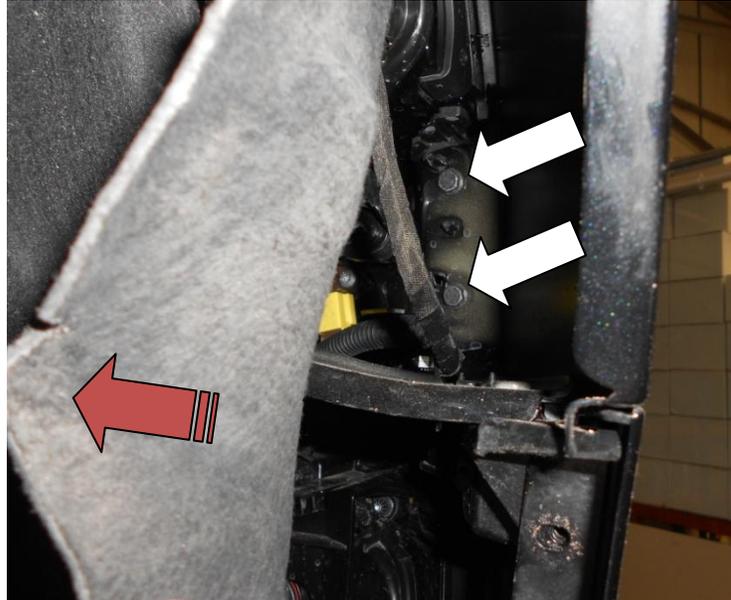


3. In each wheel arch undo 3x T30 Torxs screws and remove 2x clip clips using a flat blade screwdriver or similar tool.



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- Carefully pull the arch liner to one side to reveal 2x 10mm bolts.



- Using 10mm socket and long extension bar undo 2x bolts on both sides. Take care not to drop the socket or bolts as access is quite restricted.
- Moving to the top of the vehicle, remove the 4x clips using a screwdriver or similar tool push the centre of the clip down and then remove.

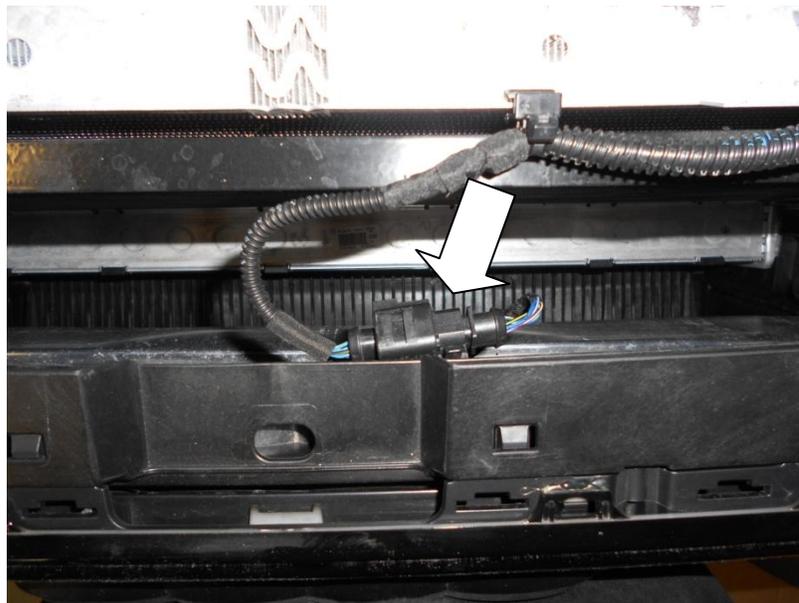


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7. Carefully pull the front of the cover upwards to release it. Store in a safe place away from the vehicle to prevent damage during the rest of the installation.
8. Undo T25 Torxs screw next to both head lights.



9. Reach inside the front grill and unplug sensor.

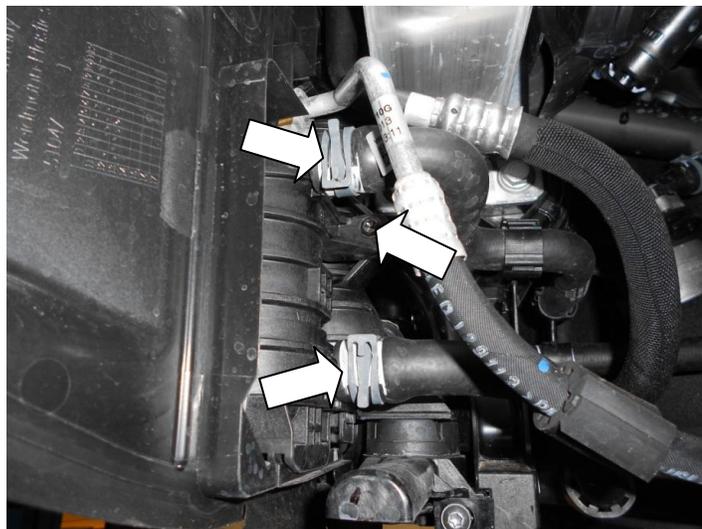


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10. The next part requires two people to carefully remove the bumper. Starting in the wheel arch pull the edge of the bumper away from the vehicle to release it. One person supports the bumper while the other releases the bumper on both sides. Pull the bumper away from the vehicle and then reach inside to disconnect the wiring running to both fog lights. Store the bumper in a safe place away from the vehicle to prevent damage while working on the rest of the installation.



11. Drain coolant from the vehicle. Ensure that the vehicle has fully cooled down before attempting to drain and work on the coolant system. Failure to do so may result in damage to the vehicle or personnel injury.
12. Undo T25 Torxs screw and hose clamps and remove the standard hose clips and hoses.

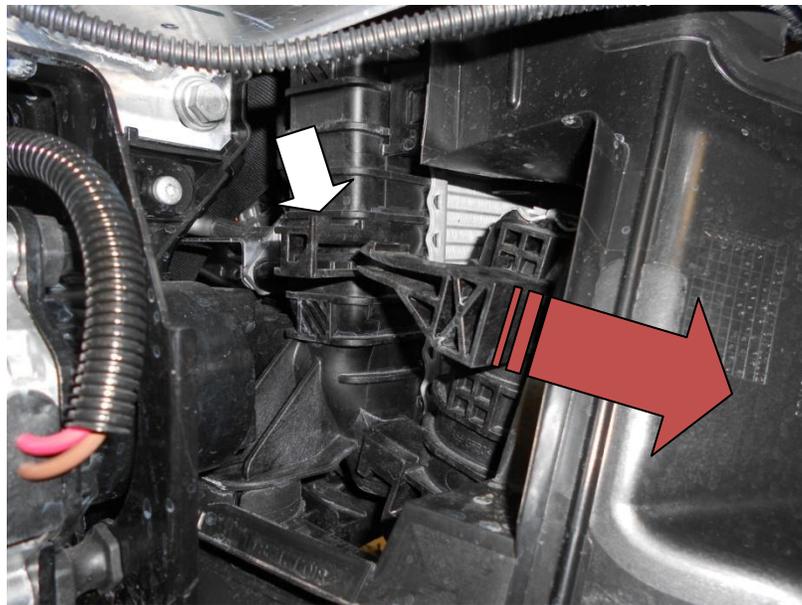


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13. Move the air guides on both sides out of the way.



14. Unclip the other end of the charge cooler radiator and remove from the vehicle.



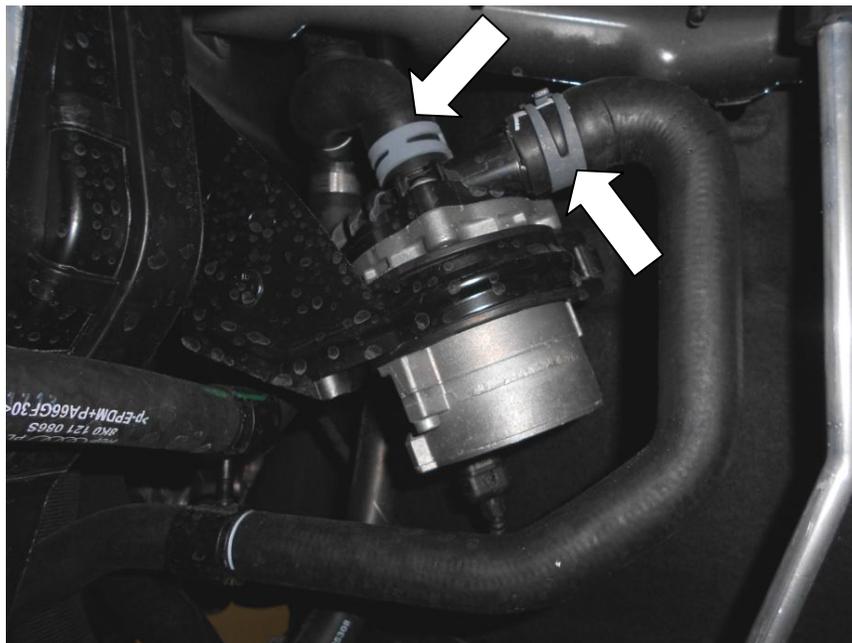
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15. Undo the clips and remove all of the standard charge cooler radiator coolant hoses.

A) 2x Hoses on connected to the charge cooler pipe work.

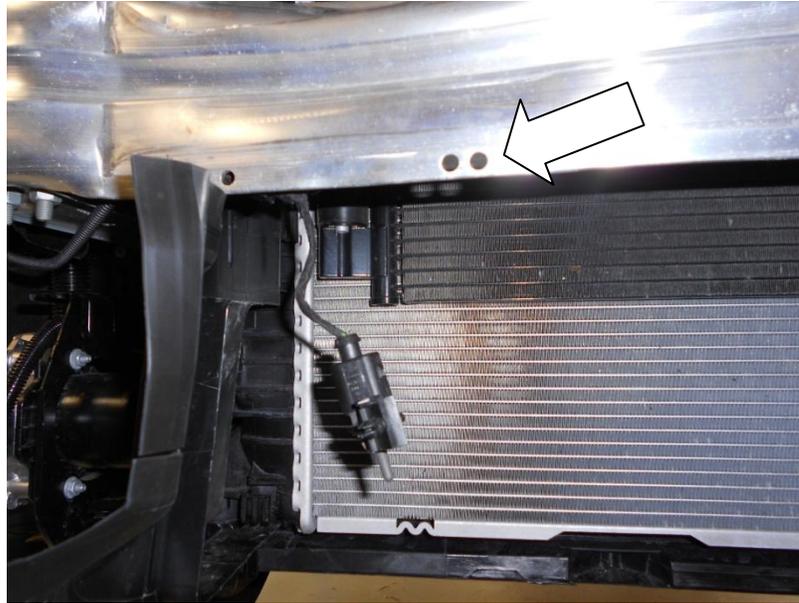


B) 2x Hoses on the pump inlet and outlet.

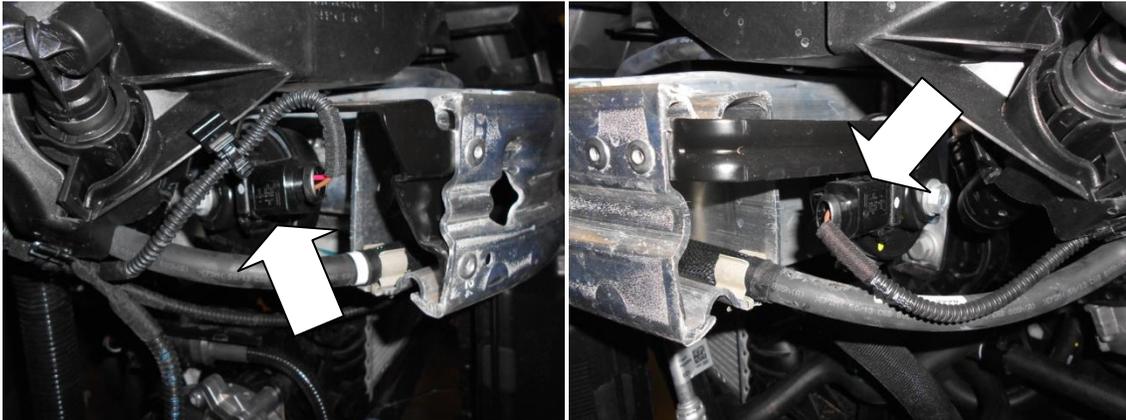


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16. Disconnect sensor on the underside of the crash bar.

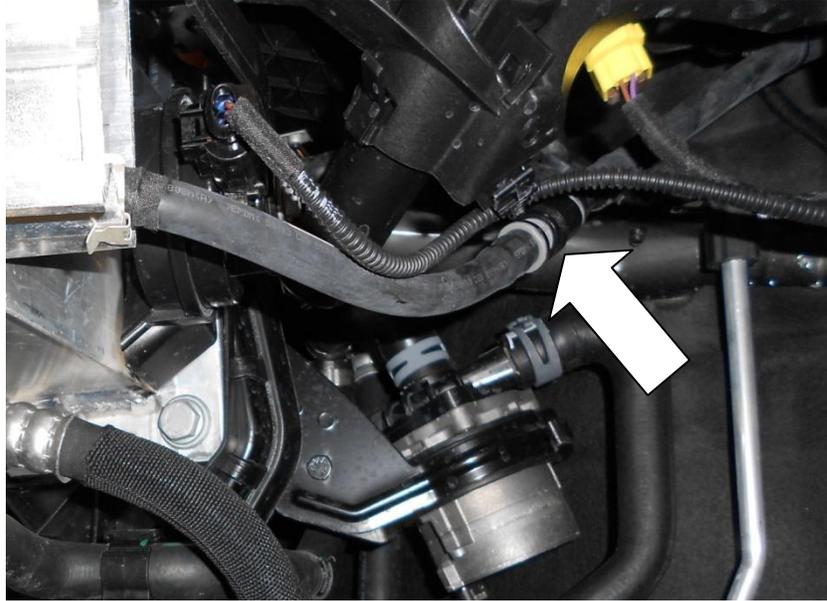


17. Disconnect the wiring to both horns.



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18. Disconnect the headlight washer tube and drain the remaining washer fluid into a suitable container. **This will need to be replaced when the installation is complete.**

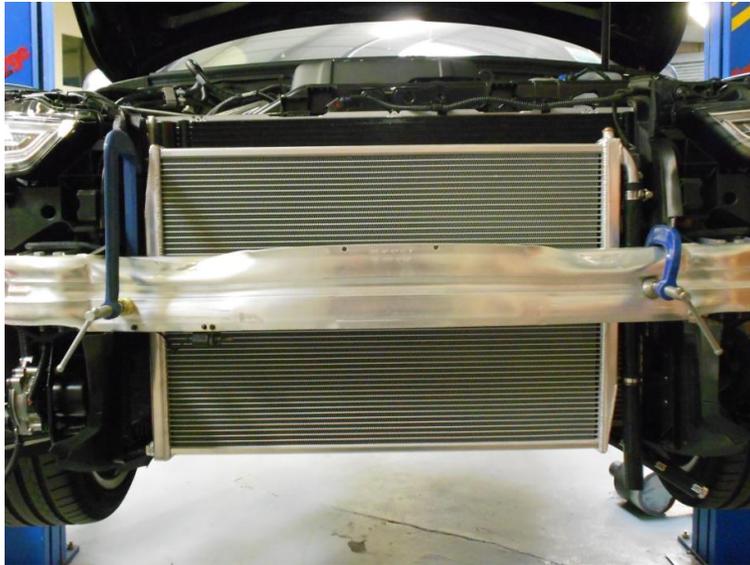
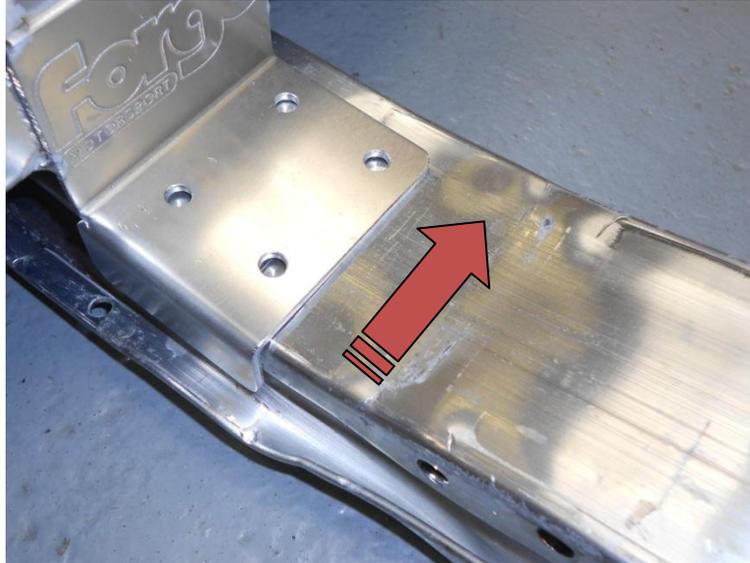


19. Moving to the other end of the crash bar disconnect the other end of the washer hose.



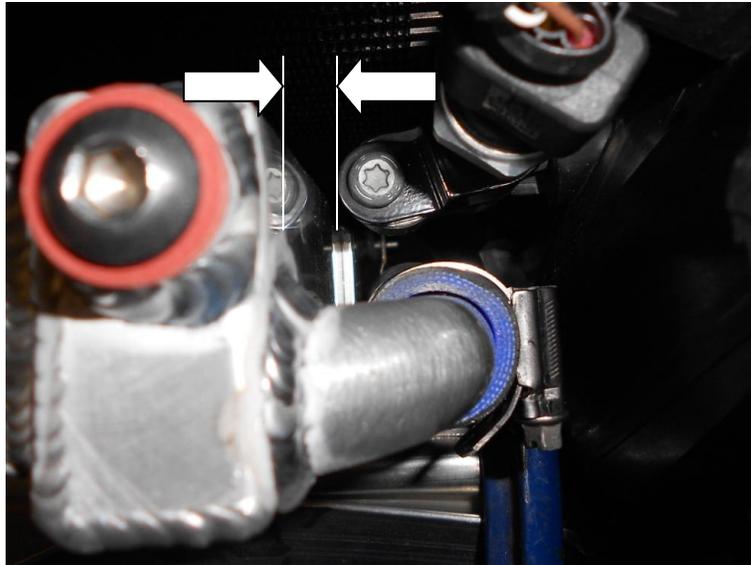
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20. Unclip and remove the headlight washer hose from inside of the crash bar to prevent it from becoming damaged while drilling the crash bar.
21. Carefully fit your new Forge Charge cooler radiator in position. Push the lip on the bracket firmly up against the crash bar. Support the radiator in position by clamping the mounting brackets to the crash bar or by supporting underneath the core with a suitable jack.



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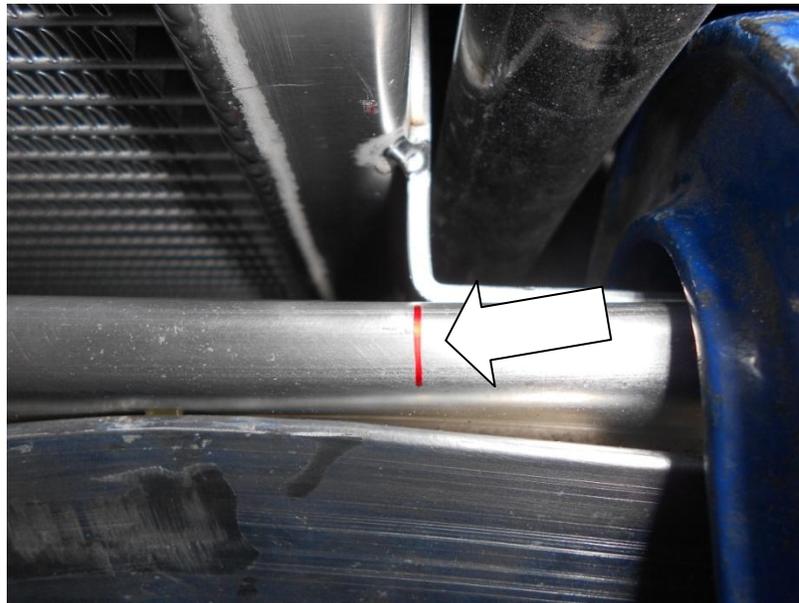
22. Ensure that there is approximately 4mm of clearance between the A/C radiator hose mount and the side of the radiator.



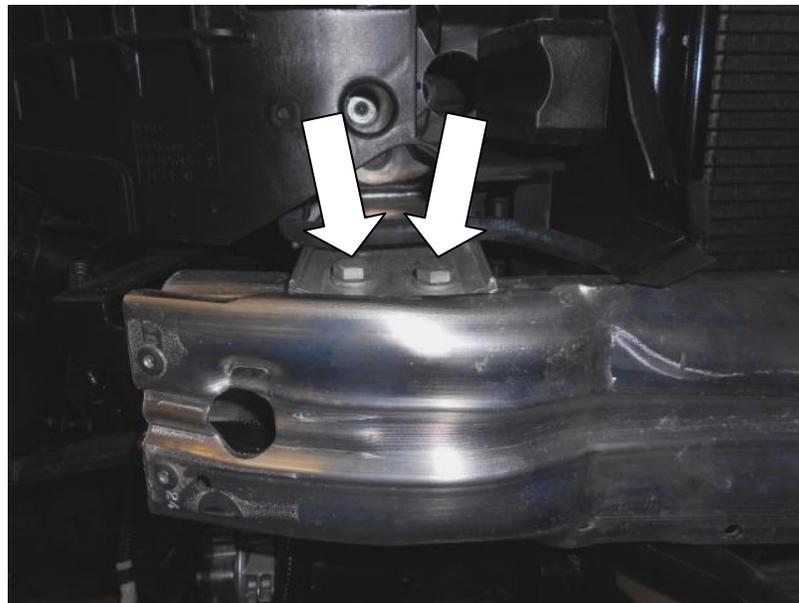
23. Using a rule and fine liner pen mark the position of the R/H bracket on the crash bar.



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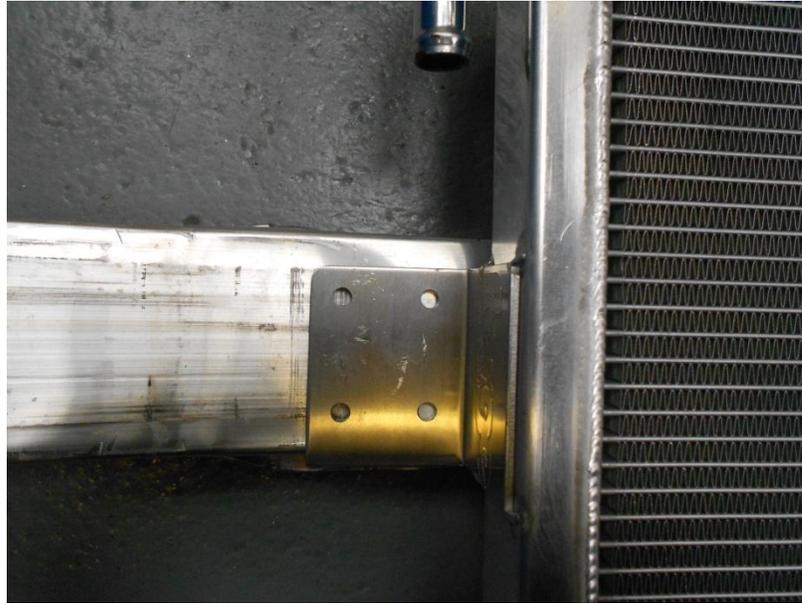


24. Using a 13mm socket and spanner undo and remove the 2x bolts at each end of the crash bar. It may be necessary to open the tabs on either side of the crash bar to release it.



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25. With the crash bar removed, realign the mounting bracket with the mark on the crash bar. Mark the position of the mounting holes on the crash bar. Using a suitable drill and 5mm drill bit carefully drill the crash bar. Using the 8x M6x19mm Self tapping screws provided attach the charge cooler radiator to the crash bar. Take care not to over tighten the screws.



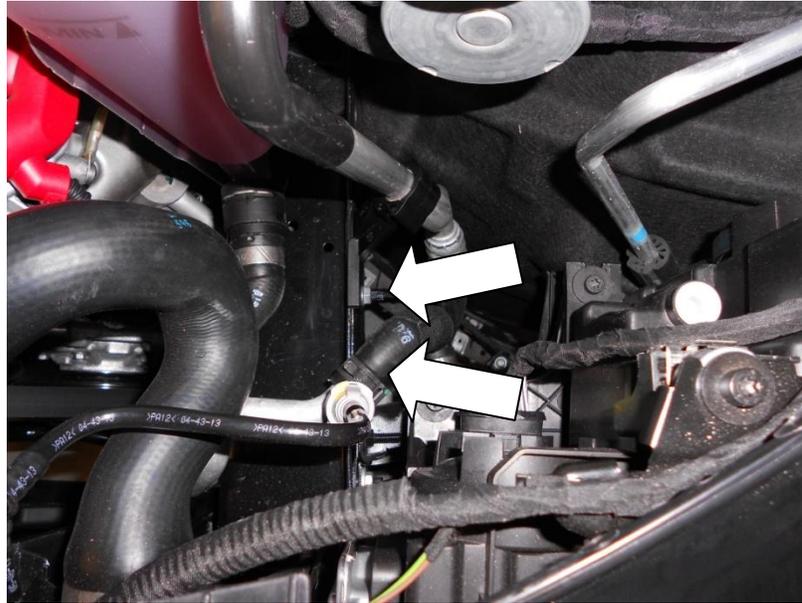
26. While the crash bar and radiator are off the vehicle fit the lower charge cooler radiator silicone hose, with suitable hose clip. Secure the 28mm P-clip with the M6X12m Allen cap bolt and washer provided.



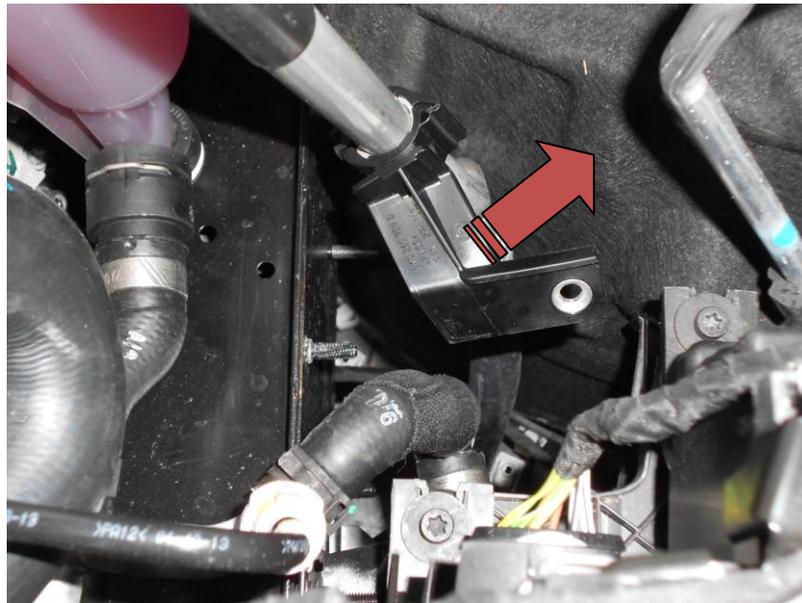
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27. Refit the crash bar.

28. Remove the hose clip and remove the OEM pump feed hose. Using the custom 16mm silicone blank bung and suitable clip blank off the standard pipe work.

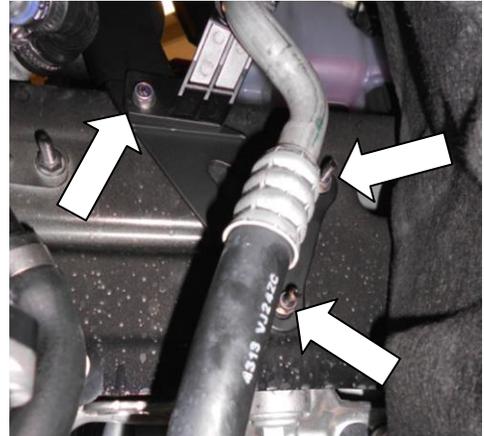


29. Using 10mm spanner undo nut and remove A/C pipe bracket.

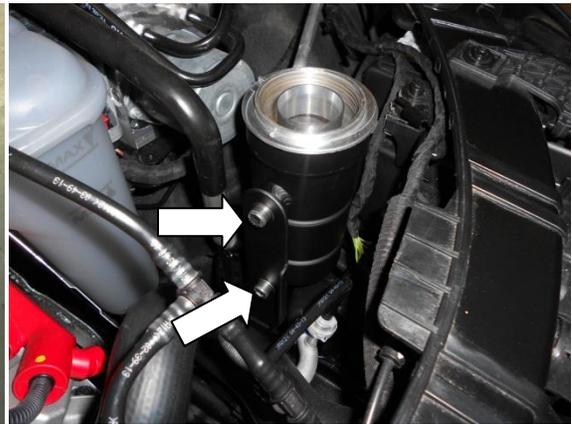


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30. Using the Expansion tank bracket and 3x M6 Nyloc nuts and M6 washers secure the bracket and A/C bracket provided to the chassis rail.



31. Using the 2x M8x12mm Allen cap bolts and M8 washer attach the Forge expansion tank to the bracket.



32. Slide the Forge billet expansion tank cover over the top of the OEM VAG Expansion cap and secure with grub screw.

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33. Using S-bend silicone hose provided connect the central outlet on the expansion tank the centre of the pump and secure with suitable hose clips.



34. Join the lower radiator outlet silicone hose (which should already be attached to the radiator) to the side pipe on the expansion tank and secure with a suitable hose clip.

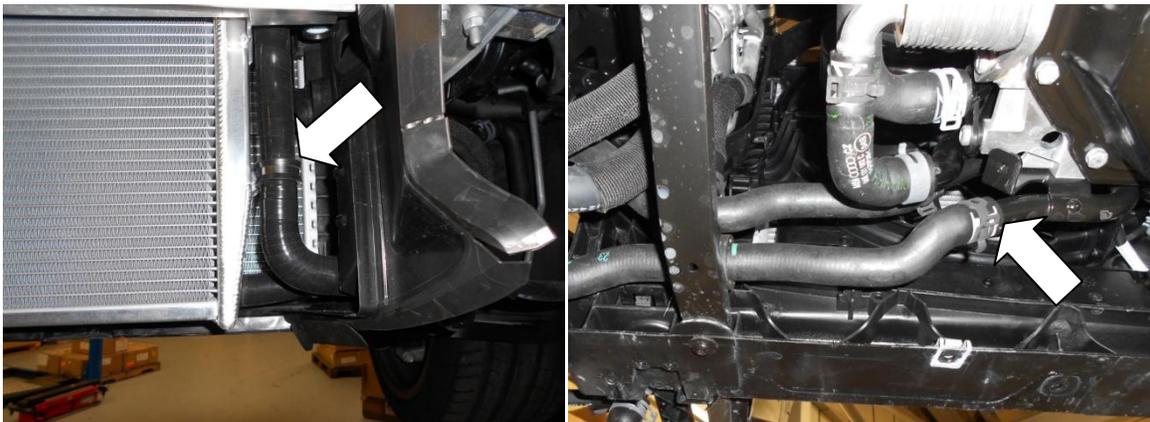


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35. Using the silicone hose provided replace the standard pump feed to stock coolant hard pipe hose and secure with a suitable clip.



36. Using the remaining silicone hose in the kit, connect the top radiator outlet to the return from the charge cooler hard pipe and secure with suitable hose clips. Using the remaining 28mm P-clip, M6x12mm Allen head bolt and M6 washer to secure the silicone hose to the side of the radiator.

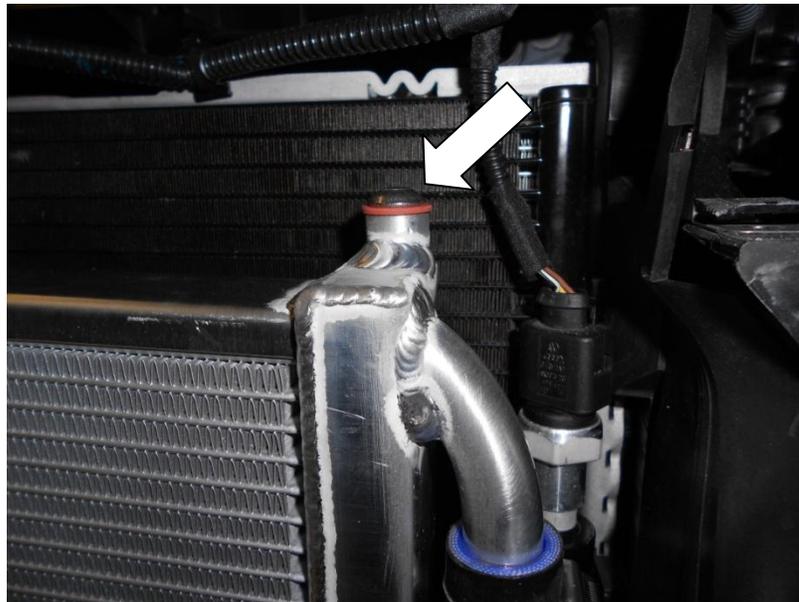


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37. Ensure that the sump plug and sealing washer on the L/H side of the radiator is tight and that all of the hose clips on the silicone hoses are tightened with the hoses in their final positions.



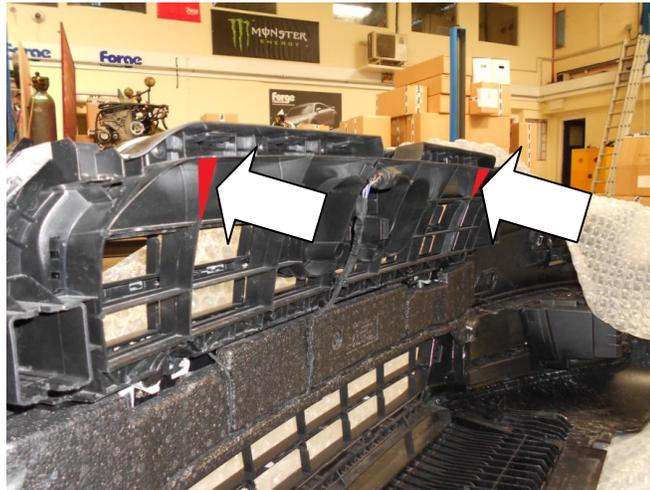
38. Undo the bleed screw located on the top R/H side of the charge cooler radiator. Fill the expansion tank with coolant until the coolant starts to appear at the bleed hole, then refit the bleed screw and sealing washer.



39. Check the silicone hoses for any signs of leaks before replacing the bumper.

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40. On some vehicle it may be necessary using a dremel or similar tool trim this area shown below.



41. Follow the disassembly in reverse and reassemble your vehicle. Refill the main coolant reservoir with coolant before starting the vehicle.

42. Top up the expansion tank with coolant so the level is just above the baffle plate. After running the engine up to operating temperature allow the car to cool before checking and topping up the coolant if required.

43. Your installation should now be complete. Enjoy Your New Performance!

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