



AUDI S4 B8 3.0TFSI CHARGE COOLER RADIATOR

(With ADS Oil cooler)

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, Pliers

T25, T27, T30 Torxs Drivers.

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

13mm spanner.

Marker pen, rule.

5mm, 6mm Drill bit, 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. From underneath reach inside the bumper and disconnect the wiring from the fog light. It is not possible to disconnect both fog-lights on a car fitted with a secondary radiator as the wiring is inside the ducting.



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4. In each wheel arch undo 2x T30 Torxs screws.

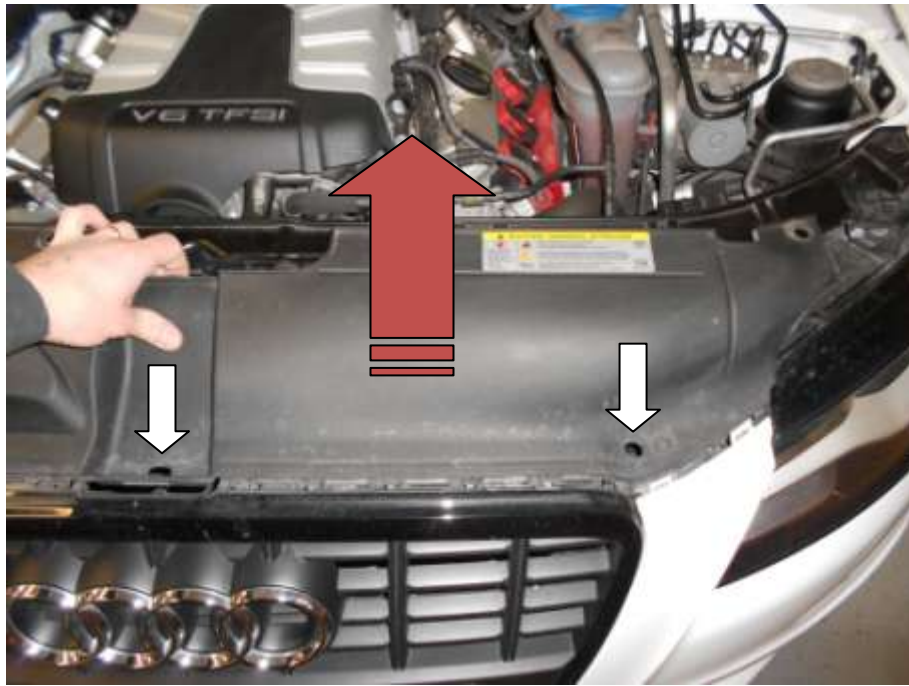


5. Moving to the top of the vehicle, remove the 4x T30 screws.

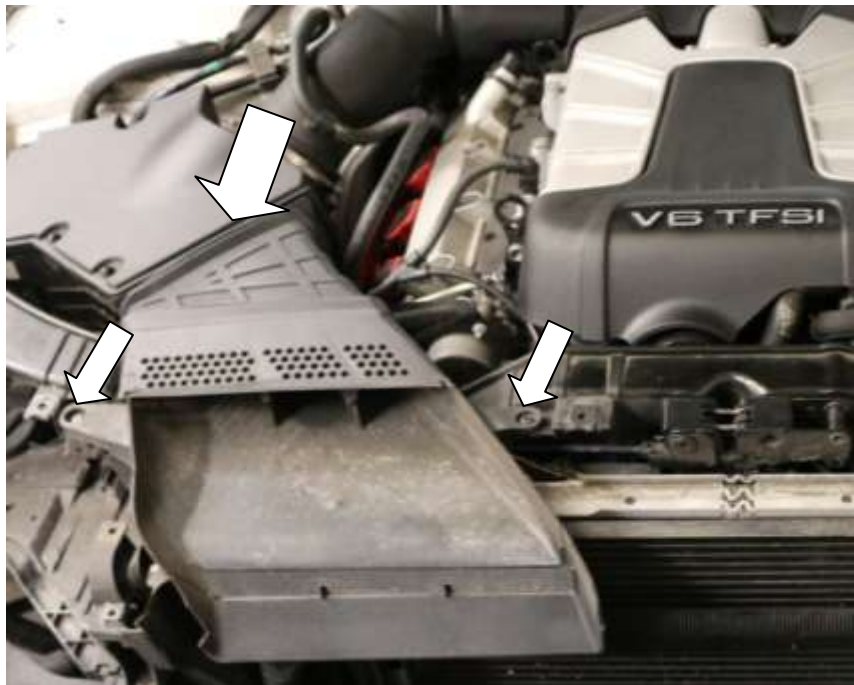


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6. Push the 3x tabs down and carefully pull the front of the cover backwards to release it. Store in a safe place away from the vehicle to prevent damage during the rest of the installation.



7. Undo 2x T25 Torxs screw and unclip the air intake from the airbox.



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8. Unplug the wiring connector on both headlights.
9. Undo the 4x T27 Torxs screws and remove the left-hand side headlight. Carefully slide the headlight forward and rotate it to clear the wing.



10. Repeat for the right-hand side headlight.

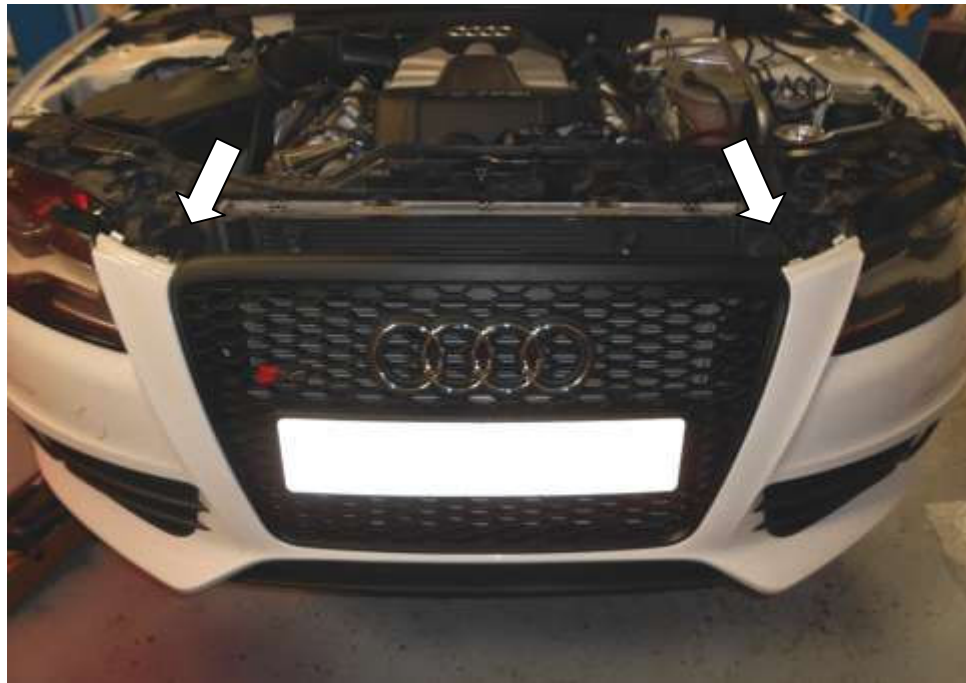


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11. Using a 10mm spanner reach inside front wing and undo 1x bolt on both sides of the car.

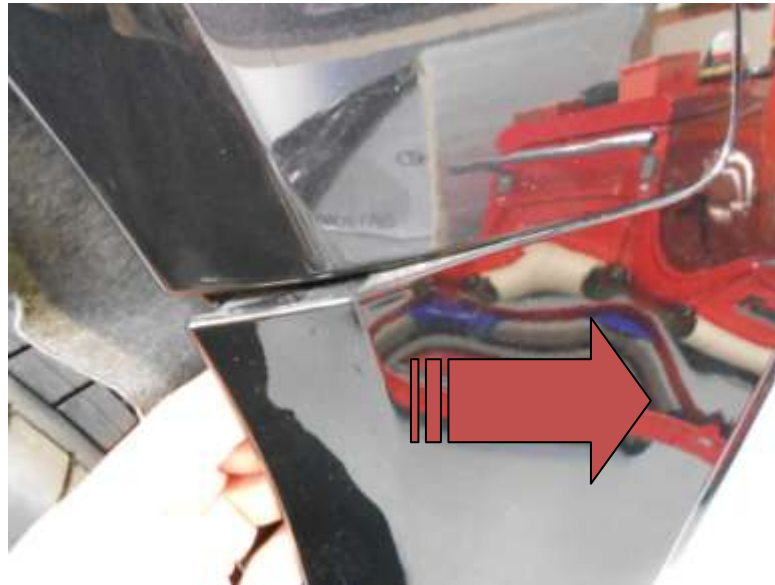


12. Undo X2 T25 Torxs screws on the top of the bumper.



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13. 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 the fog light inside the secondary radiator ducting. Store the bumper in a safe place away from the vehicle to prevent damage while working on the rest of the installation.

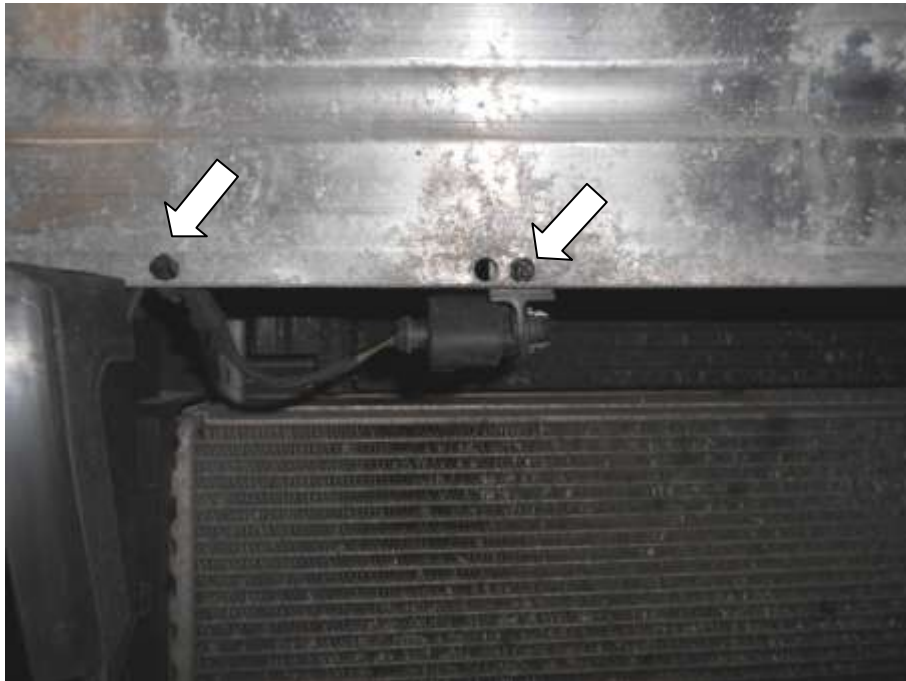


14. Using a flatblade screwdriver unclip x3 clips and remove crash bar cover.

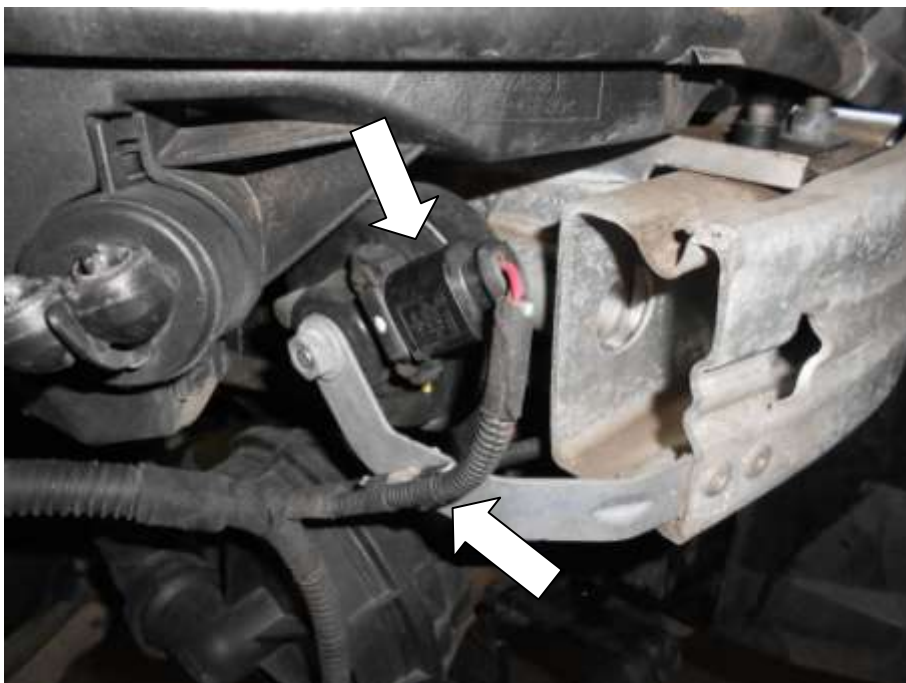


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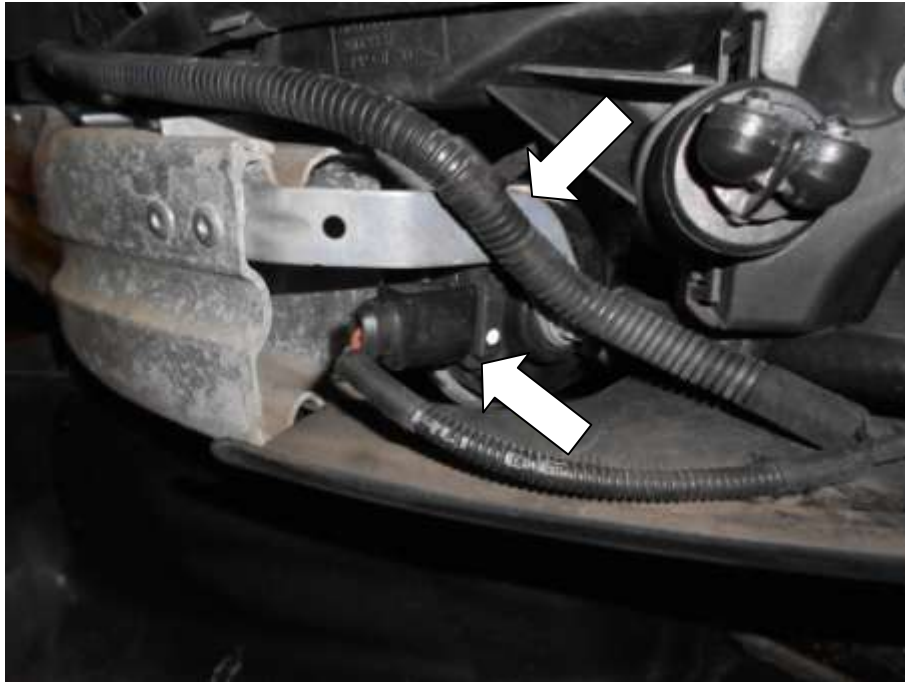
15. Using a flatblade screwdriver push the centre out of the clip and remove the sensor and cable clip.



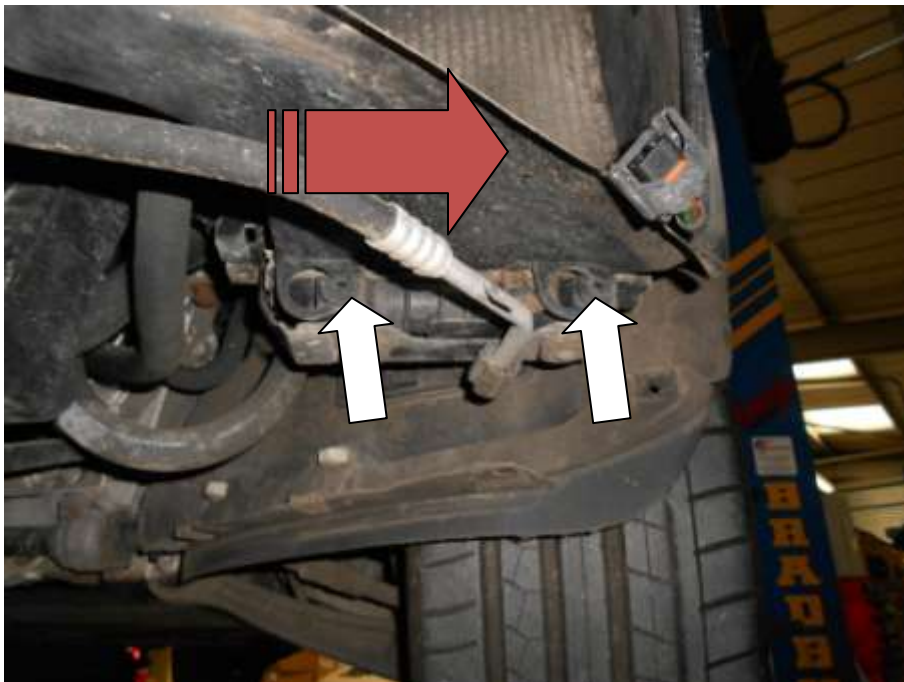
16. At each end of the crash bar unplug both horns and unclip the cable clips.



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17. Unclip the secondary radiator ducting and remove it from the vehicle.



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18. Using 13mm socket or spanner undo 2x bolts at each end of the crash bar. Pull the crash bar forward at each end to release it.



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19. Unclip and remove both air-guides.

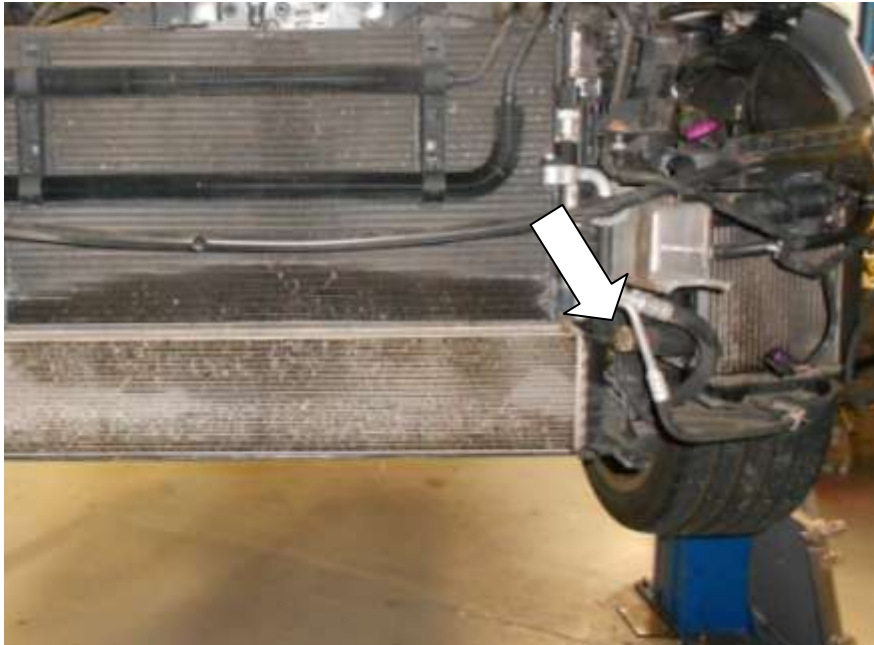


20. Drain coolant from the vehicle. Using a suitable hose clamp removal tool disconnect the lower chargecooler hose. Ensure that the vehicle has fully cooled down before attempting to drain and work on the coolant system. Failure to do so may result in damage to the vehicle or personal injury.

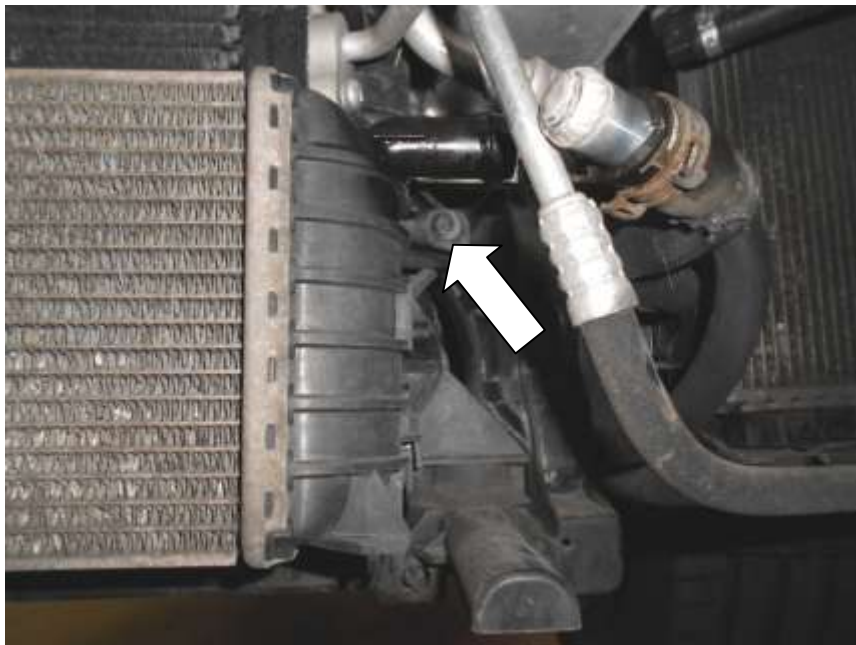


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21. Using a suitable hose clamp removal tool disconnect the hose at the other end of the charge cooler.

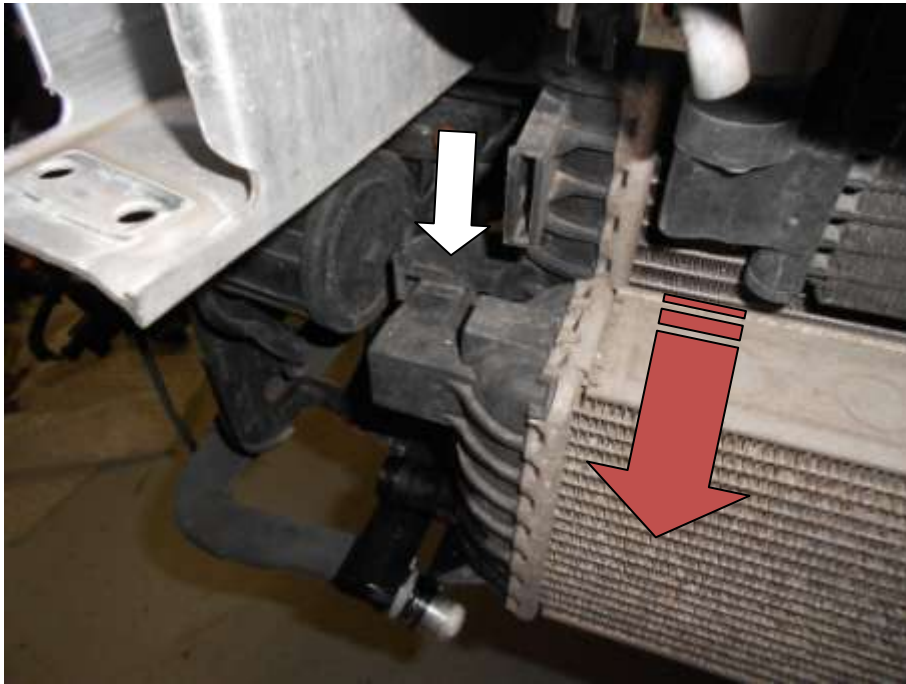


22. Undo T30 Torxs screw on right-hand side of chargecooler.



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23. Unclip the left-hand end of the chargecooler and tip it forward to remove.

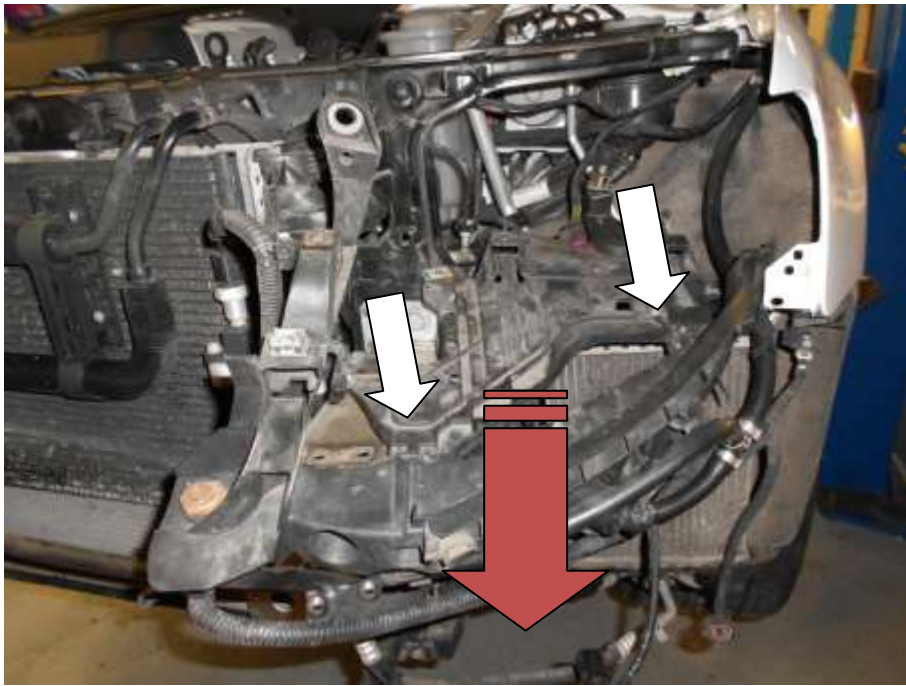


24. To allow better access to the pump and secondary radiator. Undo T30 screw and unclip hose clips.



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25. Pull the plastic part forward and from underneath undo the 2x T30 Torxs screws and remove the head light platform.



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26. Inside the wheel arch remove 2x clips.



27. Using a suitable hose clamp removal tool disconnect the hoses shown below.

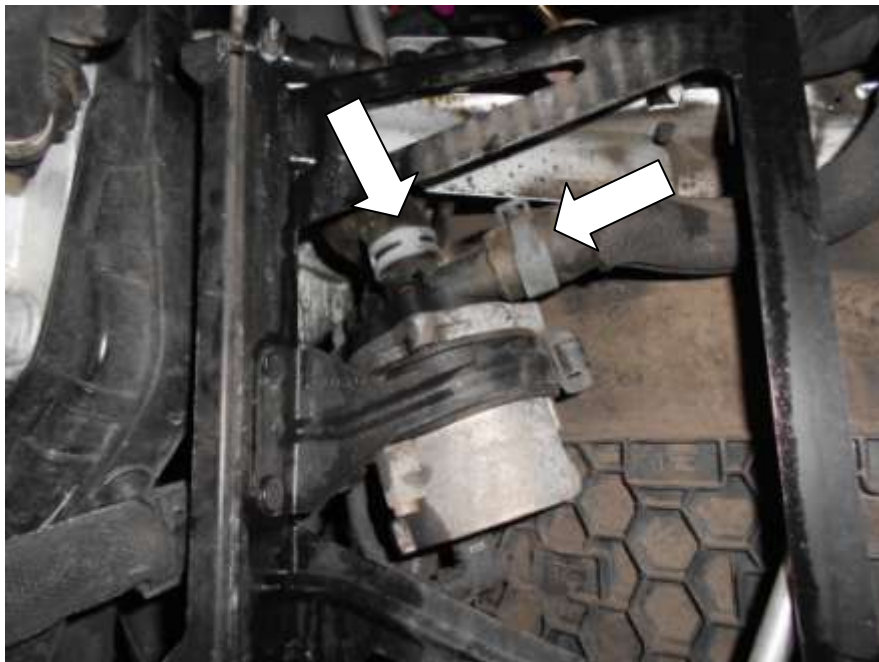


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28. Undo the 2x T25 screws and lift the secondary radiator upwards to remove it. Store in a safe place away from the vehicle to prevent damage while working on the rest of the installation.



29. Using a suitable hose clamp removal tool disconnect the hose shown below.



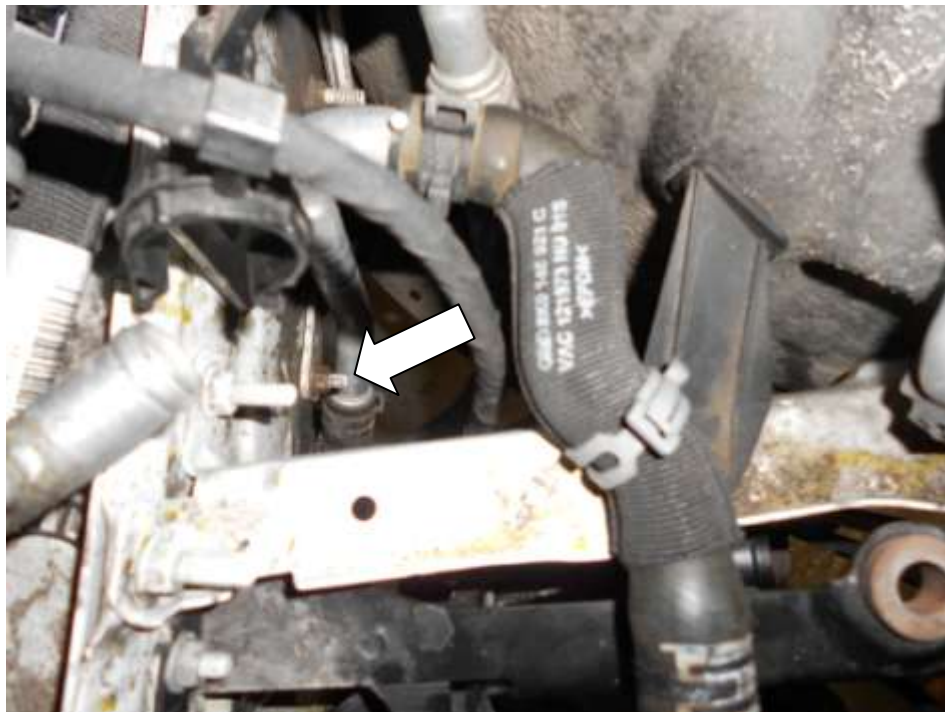
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30. Using a suitable hose clamp removal tool disconnect the hose to the chargecooler hardpipe.



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31. Undo 2x 10mm nuts and remove hardpipe and OEM chargecooler hose.

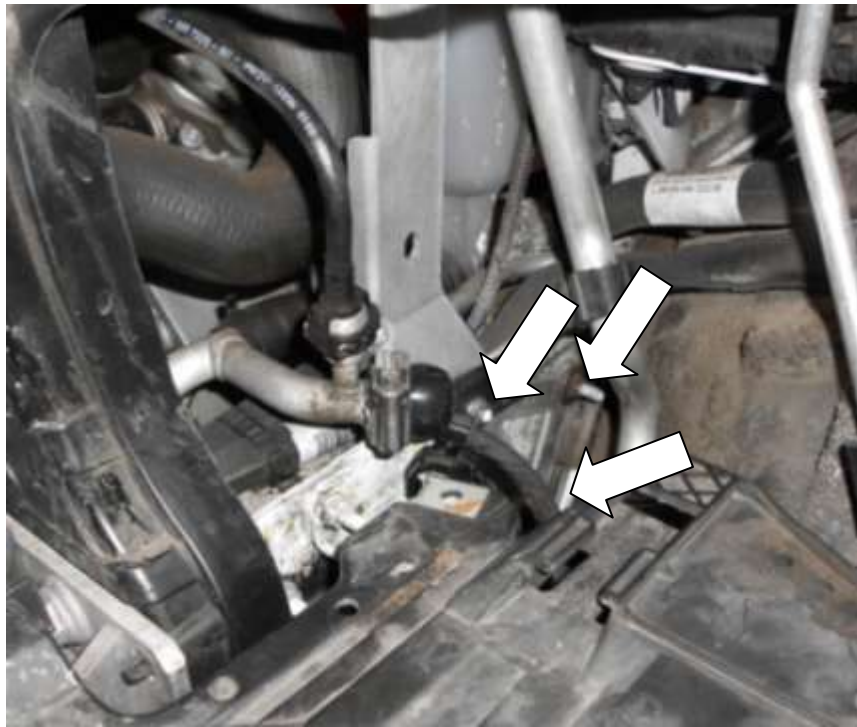


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32. Undo 2x 10mm Nuts on the side of the chassis leg.



33. Using 3x OEM nuts secure your Forge expansion tank bracket in position.



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34. Using 10mm spanner replace OEM nut on the side of the chassis leg.



35. Using the silicone bung provided, place over the 16mm hardpipe and secure with a suitable clip.



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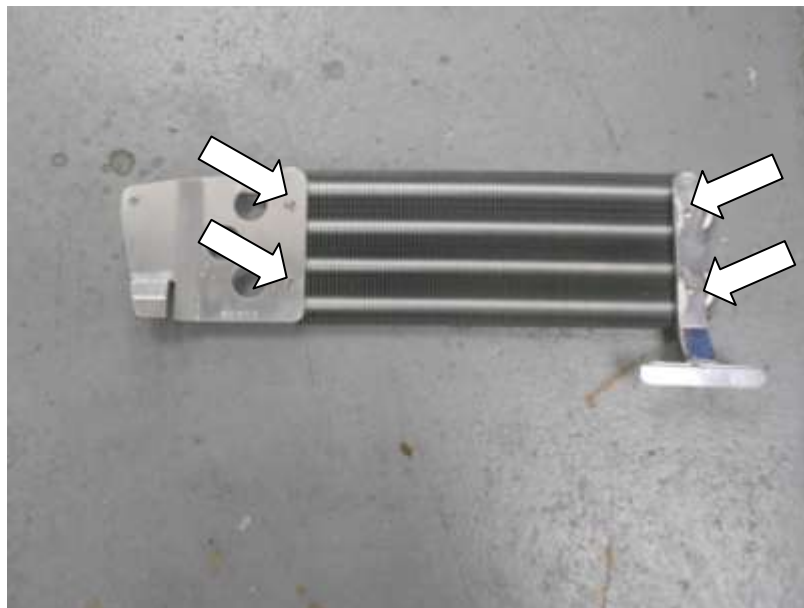
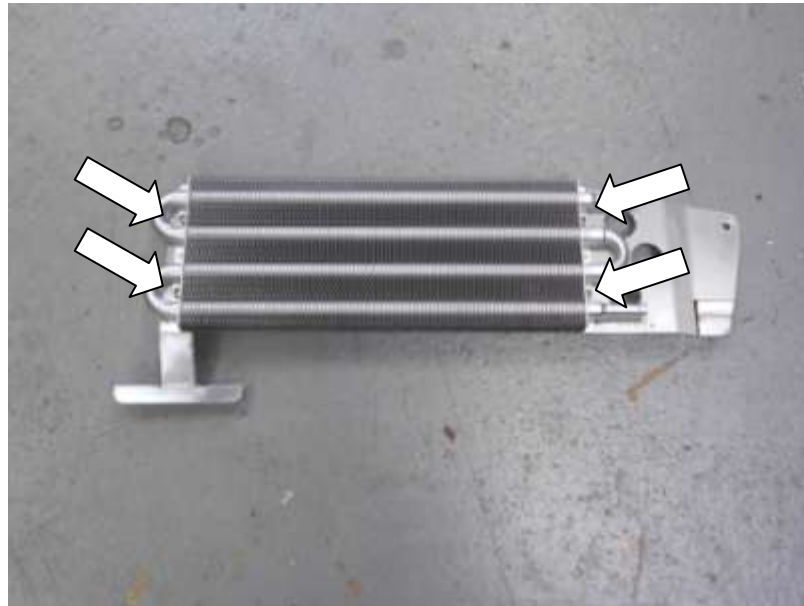
36. Using 2x M8x16mm socket cap bolts and 2x M8 washers secure the expansion tank to the bracket.



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37. If your vehicle is fitted with the Audi ADS (Audi Dynamic Steering) system you will need to fit the Forge Oil cooler relocation kit. If your vehicle is not fitted with the additional oil cooler please move to **Step 47**.

38. Assemble the ADS Cooler and brackets on a flat surface before fitting to the vehicle. Use the 4x M5x10MM Allen cap bolts, 4x M5 Nyloc nuts and 4x M5 washers to attach the brackets to the oil cooler.

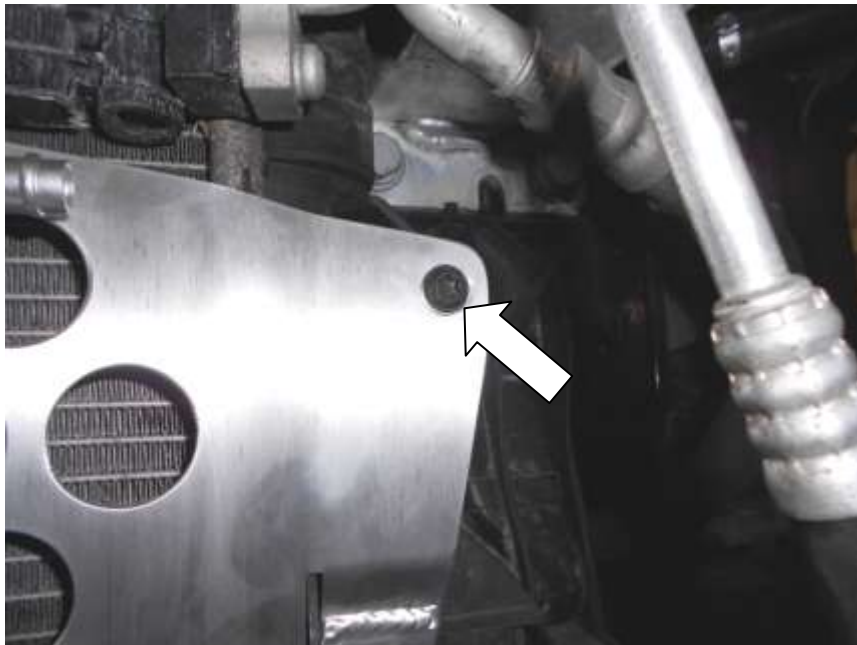


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39. Place the oil cooler in position on the car. Using a marker pen or similar, mark the hole positions for the bottom bracket. Remove the oil cooler from the car. Using a drill and 6mm drill bit drill both bolt holes for the bottom bracket.

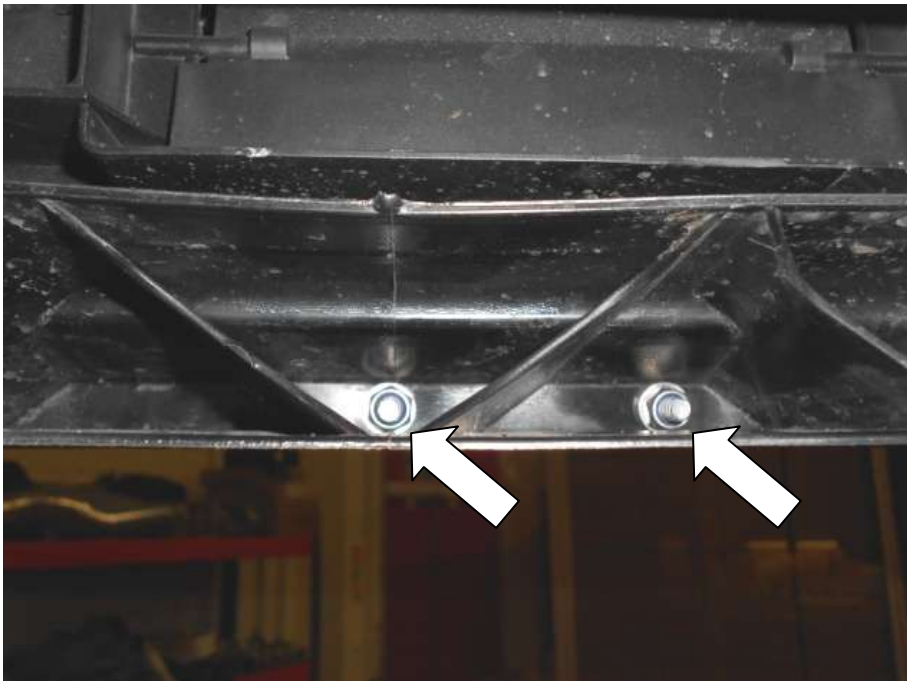
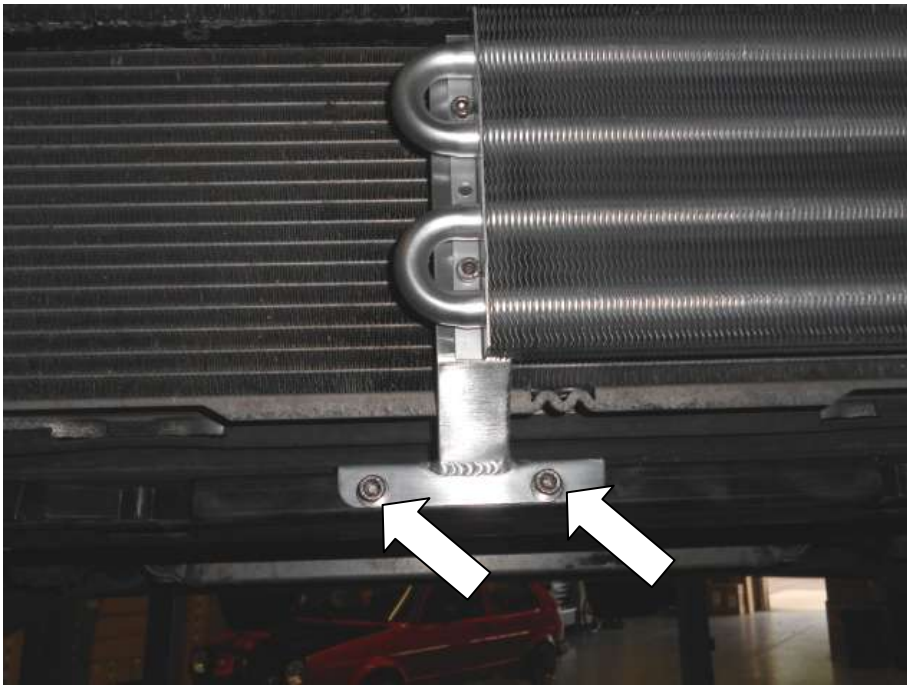


40. Using the 1x T30 Torx screw and M6 washer, bolt the oil cooler in position. Place an M6 Washer underneath the T30 Torx screw.



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41. Using the 2x M6x16mm Allen cap bolts, 4x M6 washers and 2x M6 Nyloc nuts, secure the other end of the oil cooler.



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42. Using a flatblade screwdriver or pliers, carefully remove the single use clips on the ADS cooler pipes.

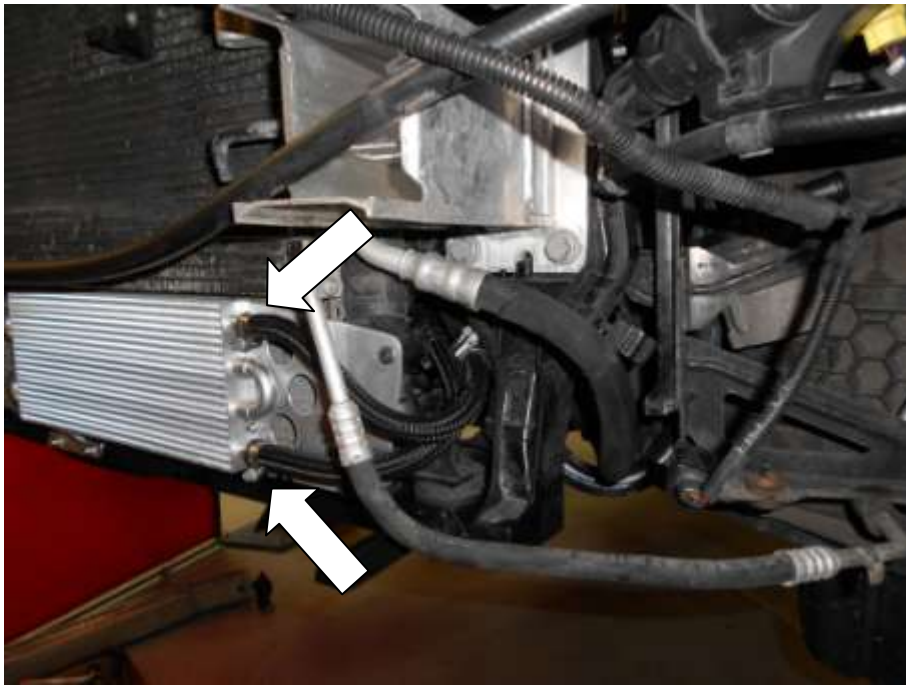


43. Carefully disconnect the pipes to the oil cooler, block with a suitable sized bolt (10mm Diameter).

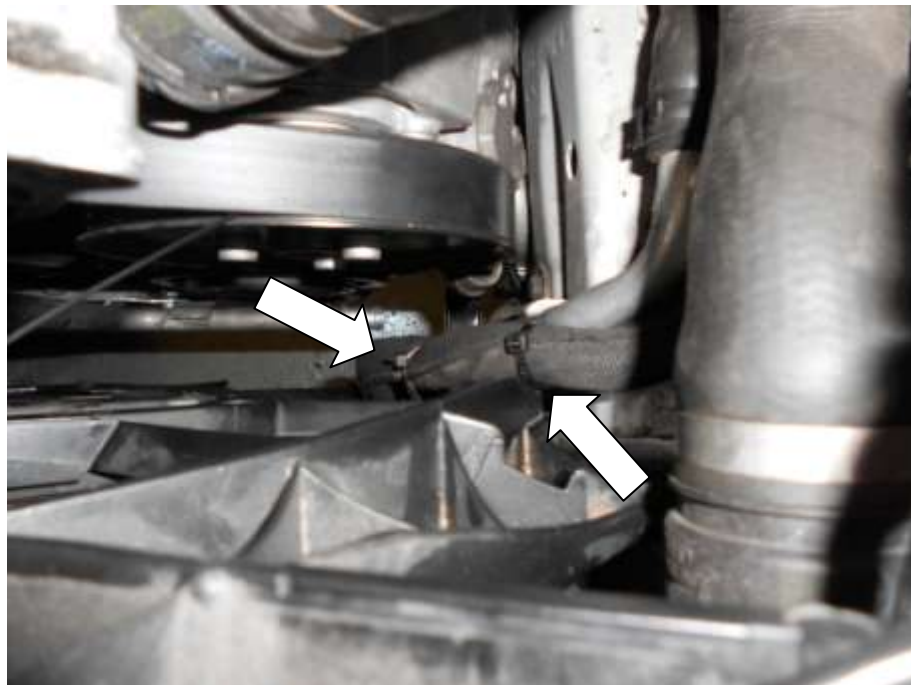


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44. Using the 2x 285mm long hose extensions, hose joiners and suitable clips. Reroute the rubber pipes and join them to the new oil cooler.



45. Cable tie rubber pipes to back of the fan shroud. Make sure the fan can still rotate freely.



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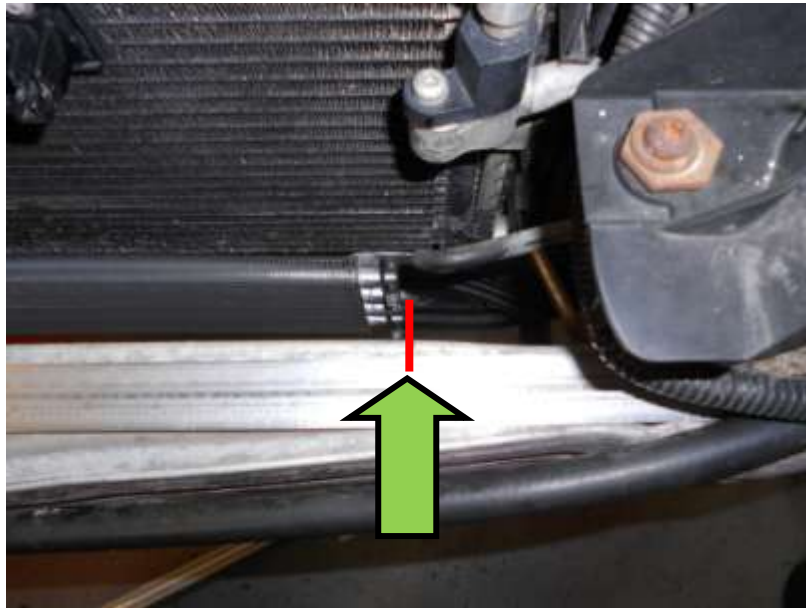
46. Once the pipes are cable tied in position, ensure that all of the hose clamps are fully tightened.

47. Refit the air guides on both sides of the radiator.



48. Put the crash bar back in position. Put the x2 Long bolts back into each end of the crash bar.

49. Mark a line 105mm from the right-hand side from the chassis spar.



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50. Carefully hold the chargecooler in position, check that nothing touches the A/C radiator or condenser.



51. Remove the crash bar from the vehicle and place the chargecooler back in position.



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52. Carefully mark the position of the holes through the brackets.



53. Using a drill and 5mm drill bit drill the 8x holes.

54. Using the 8x Posi-drive screws provided attach the chargecooler to the back of the crash bar.

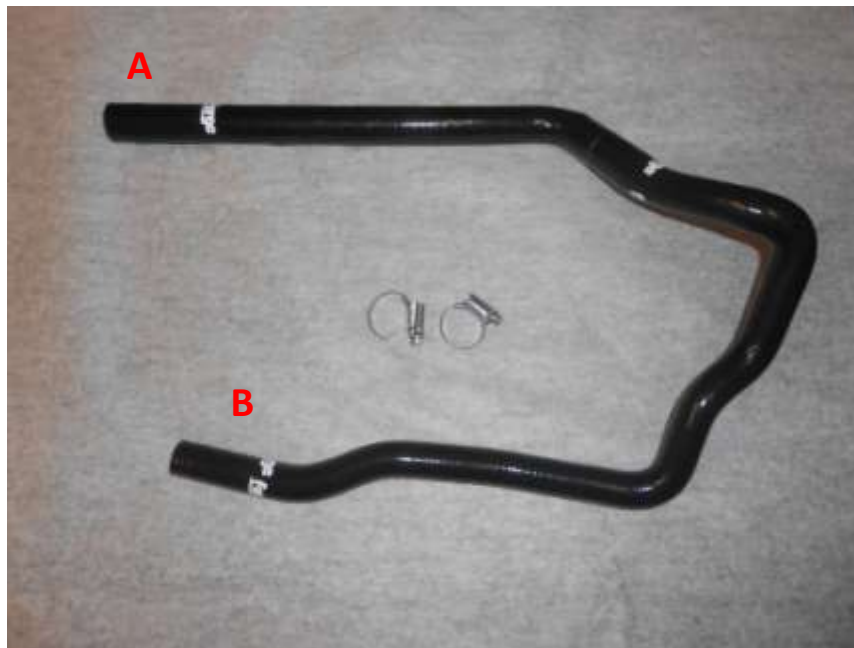


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55. This may require two people, fit the crash bar and chargecooler back to the car. Secure with x2 OEM long bolts at each end of the crash bar.



56. Using the custom silicone hose provided and 2x suitable clips connect **A** to left-hand chargecooler outlet and **B** to the charge cooler hard pipe. Fully tighten hose clamps.



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57. Using the custom silicone hose provided and 2x suitable clips connect **C** to the pump inlet and **D** bottom of the expansion tank.



58. Using the silicone hose provided connect **E** to the pump outlet and secure with a suitable hose clamp. Connect **F** to the right-hand outlet of the secondary radiator when it is refitted.





59. Using the silicone hose provided connect **H** to the open side of the outlet of the chargecooler pipework. Connect **G** to the left-hand outlet of the secondary radiator when it is refitted.



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60. Using the remaining silicone hose connect **I** to the right-hand outlet of the chargecooler and connect **J** to the side inlet on the expansion tank and secure with a 2x suitable hose clamps.



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61. Refit the secondary radiator and fit **F** and **G** silicone hoses to the correct outlets and secure with suitable hose clamps.
62. Follow the disassembly in reverse and reassemble your vehicle.
63. Refill the main coolant reservoir with approved coolant and ADS Fluid reservoir to the correct level with approved grade of oil before starting the vehicle.



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64. Top up the Forge expansion tank with coolant so the level is just above the baffle plate. After running the engine up to operating temperature (this may take 15-20mins) allow the car to cool before checking and topping up the coolant if required. Bleed air from the chargecooler coolant system by undoing 2x bleed screws shown below.



65. Install your billet expansion cap cover.

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

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