



MINI F56 COOPER S/JCW INTERCOOLER

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.

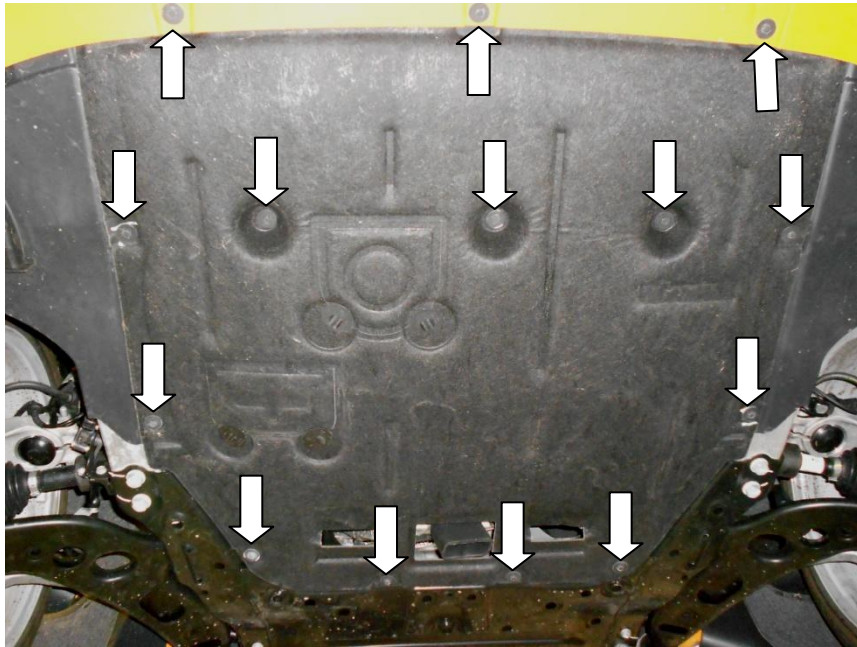
- **The intercooler that appears in these instructions is a prototype unit and production units are supplied with a black finish. The JCW and Cooper S intercoolers are different but installation is the same**

Tools Required:

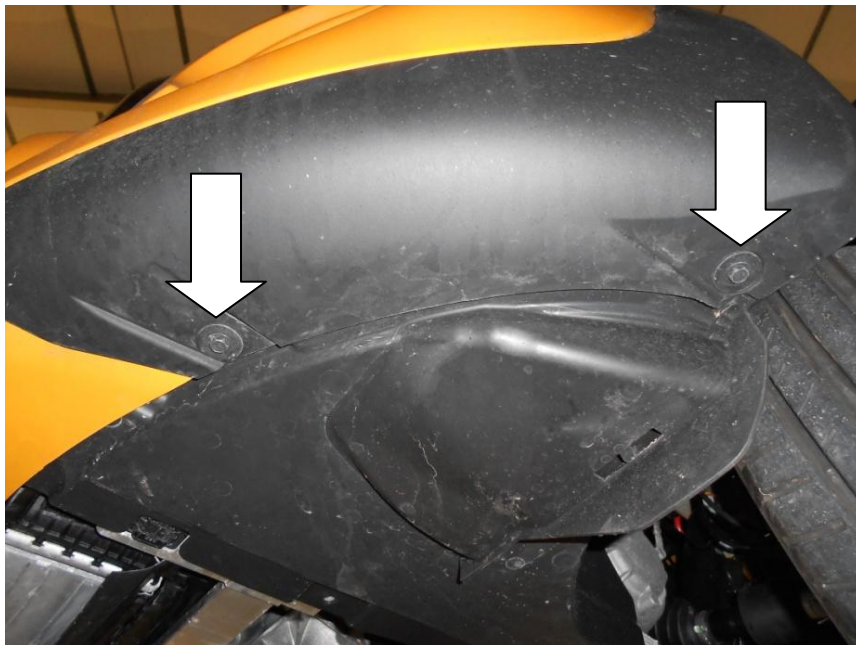
- Access to vehicle lift or floor jack and axle stands to support the vehicle.
- Flat-blade screwdriver.
- T27, T30 Torx Drivers.
- 8mm, 10mm, 13mm Socket, extension bar and suitable ratchet.
- 10mm, 13mm Spanner.
- 2mm, 3mm Allen key.
- Safety eyewear, footwear, gloves and protective clothing are also 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. Using an 8mm socket undo the 14x bolts. Slide the under tray towards the back of the car to release it.



3. Using an 8mm socket and suitable ratchet undo 2x bolts in front of each wheel.

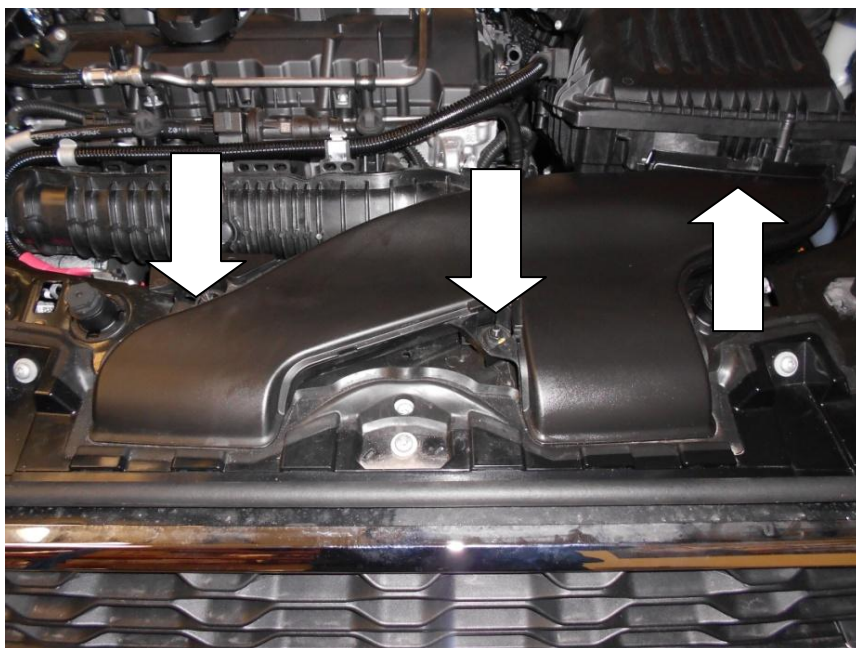


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4. Using 8mm socket and suitable ratchet undo the 1 off screw inside each wheel arch. Rotate the access panel inside the wheel arch and unclip wiring to the back of the fog light on both sides.



5. Using a 10mm socket, extension bar and suitable ratchet undo 2x 10mm nuts. Unclip the scoop at the airbox and remove the intake scoop.



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6. Carefully unclip the plastic wheel arch cover at front. Use suitable packing material (paper towel or bubble wrap) to hold the plastic cover away from the car. Using a T30 Torx driver undo x1 bolt, repeat the process for the other side.



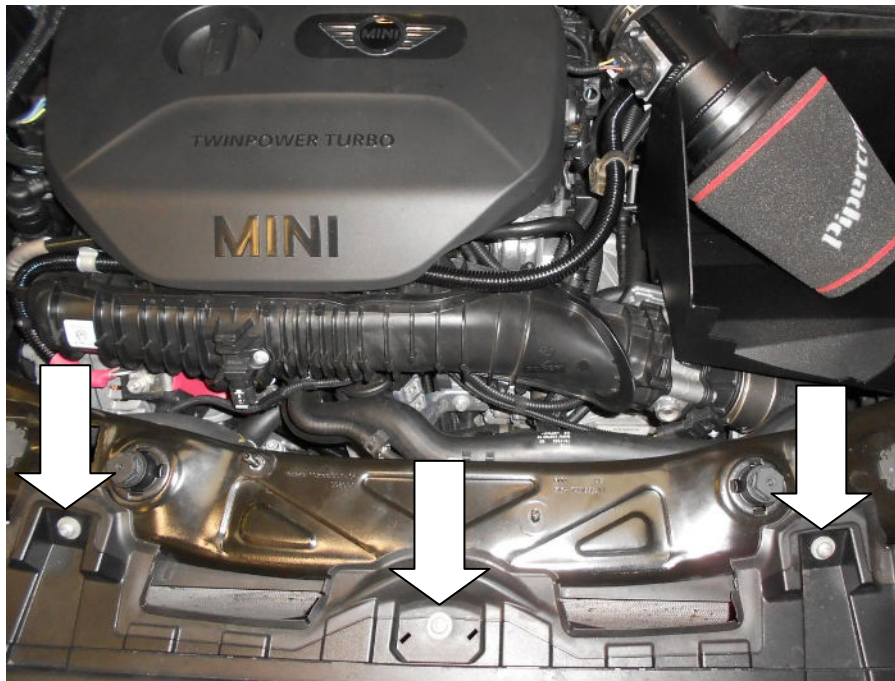
7. If your vehicle is fitted with Spot lights use a 3mm Allen key to loosen the horizontal bolt. Tilt the light forward using a 2mm Allen key undo the bolt and remove the headlight. Note the next part requires 2 people as the wiring connectors can only be undone once the bumper has been removed from the vehicle.



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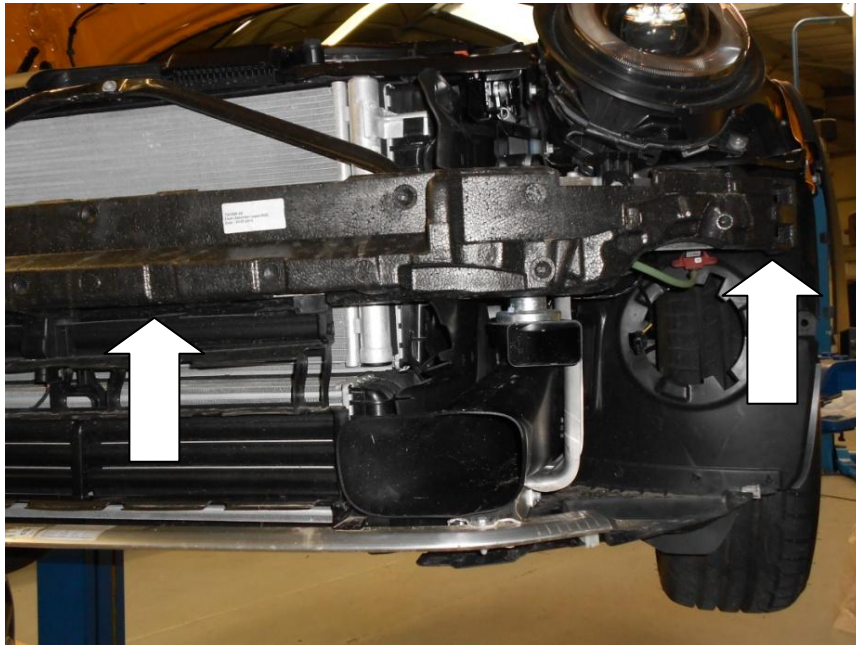


8. Undo the 3x T30 Bolts across the top of the bumper. You will require a second person to carefully pull the bumper forward and clear of the vehicle. Store in a safe place to prevent it becoming damaged while carrying out the rest of the installation.

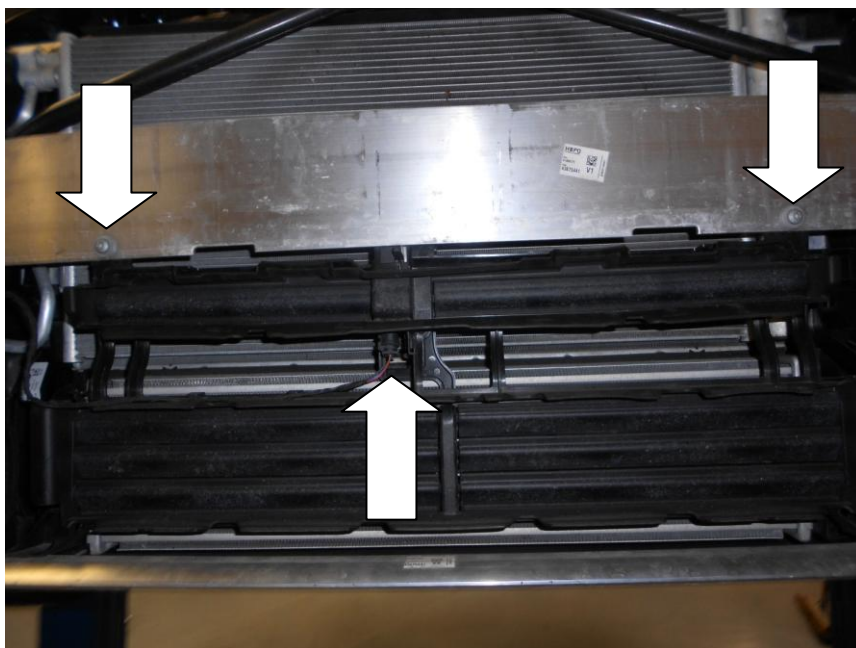


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9. Unclip the sensors at each end of the crash bar and remove the foam crash bar cover.
Note: DO NOT SWITCH ON THE IGNITION WITH THIS DISCONNECTED AS IT WILL CAUSE A WARNING LIGHT ON THE DASH WHICH CAN ONLY BE RESET AT A BMW DEALER.

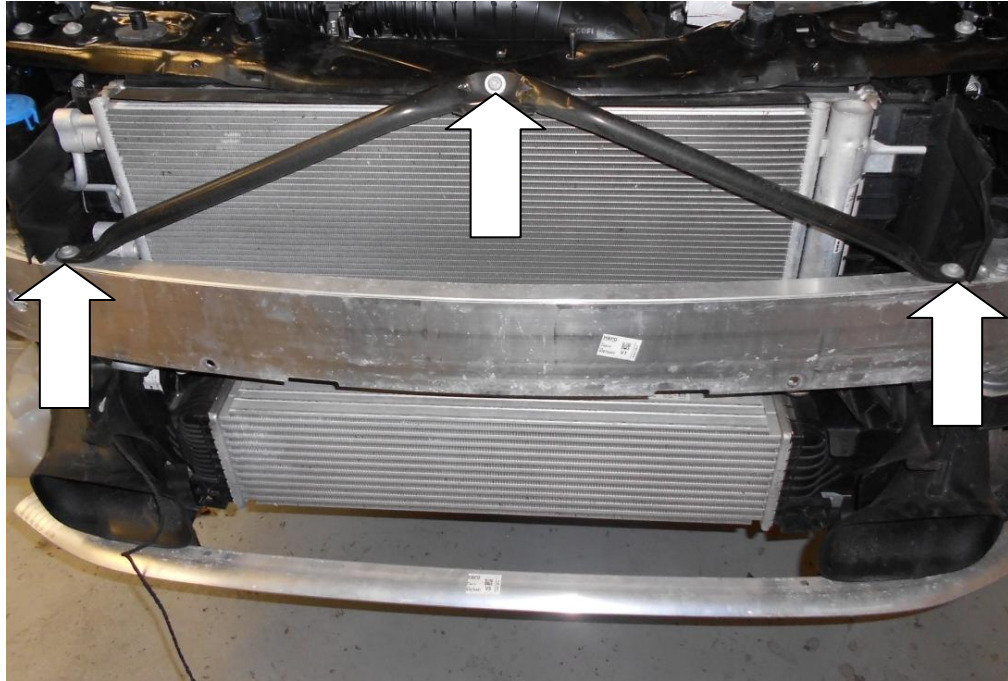


10. If fitted to your vehicle, unclip the wiring and using a T30 Torx driver undo the 2x bolts and remove the active air ducting.



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11. Undo 3x T30 Torx screws and remove the front brace.



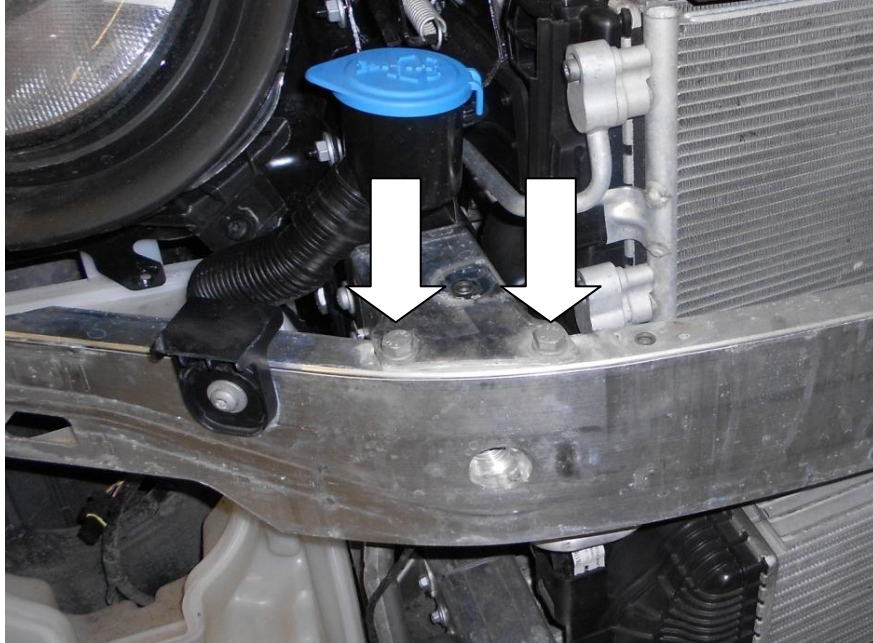
12. Unclip the wiring on both horns and disconnect the electrical connector located on the nearside of the crash bar.

13. Undo x2 T30 Torx bolts and remove the air guide, repeat the process for the other side.

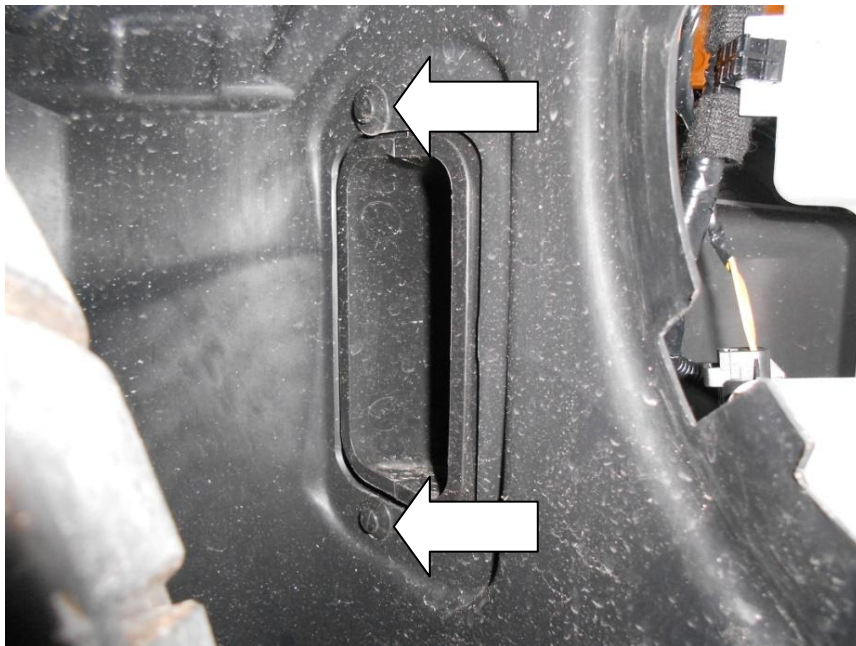


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14. Using a 13mm socket and suitable ratchet undo 2x bolts on either side of the crash bar. Pull the crash bar forward and remove it from the vehicle.

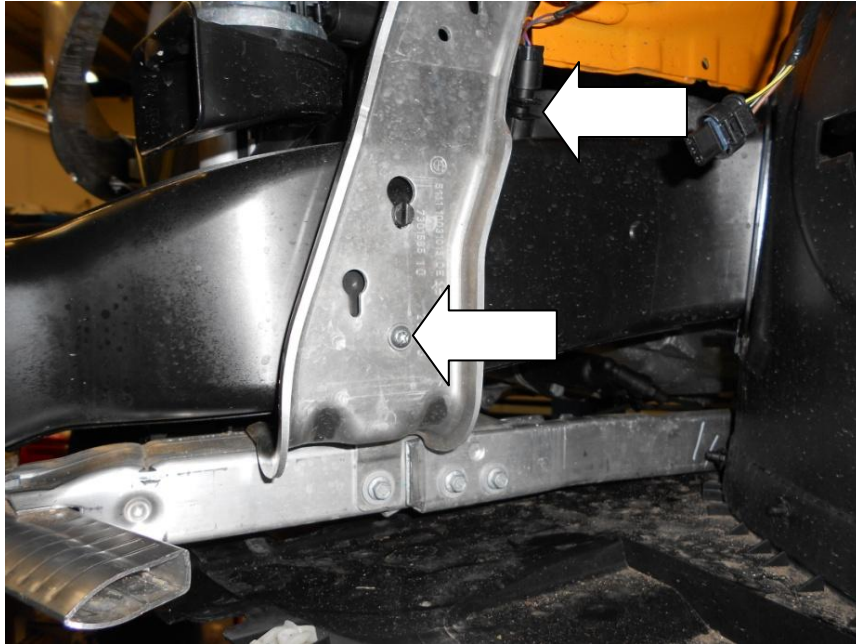


15. From inside the wheel arch using a flat blade screwdriver or similar tool remove the 2x clips. Pull the centre out first before removing the body of the clip.

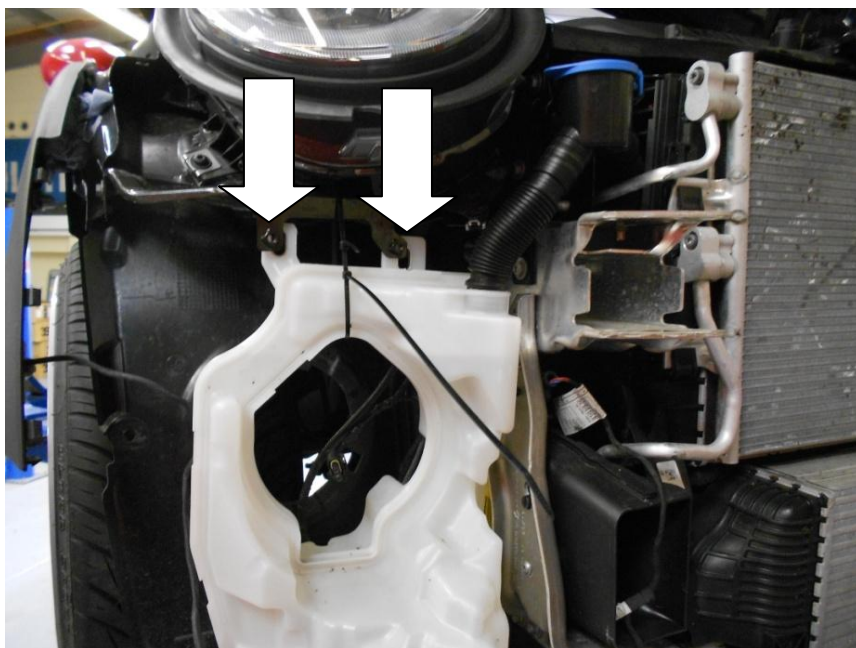


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16. Using T27 Torx driver undo 1x screw and unplug the temperature sensor. Lift the duct upwards to release it and remove it from the vehicle.

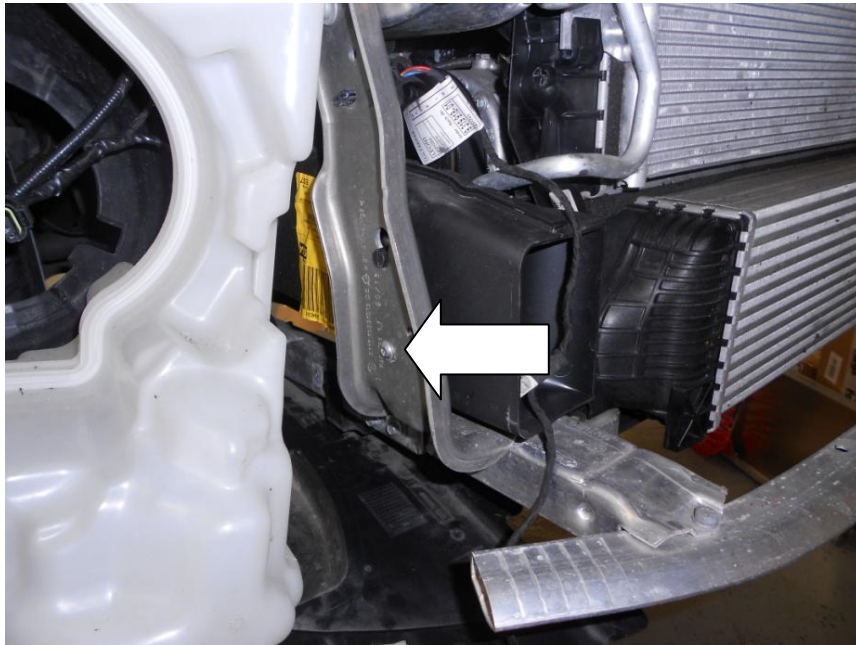


17. To access the bolt for the other duct you need to move the washer fluid reservoir. Using a T30 Torx undo the 2x bolts lift the reservoir upward to release it from its bottom mounts. To support the reservoir cable-tie it to the bracket above.

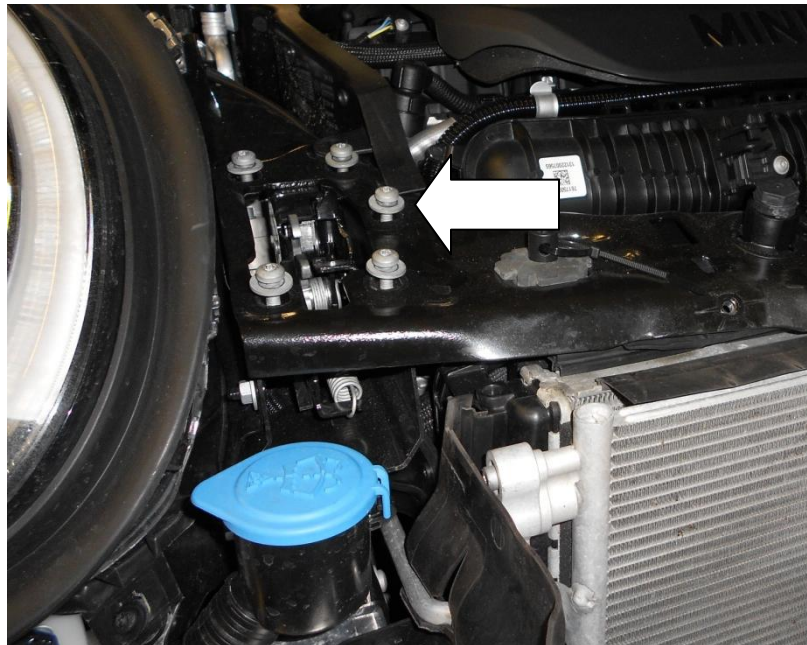


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18. Using a flat blade screwdriver or similar remove the 2x clips inside the wheel arch. Using T27 Torx driver undo the 1x screws. Lift the duct upwards to release it and remove it from the vehicle.

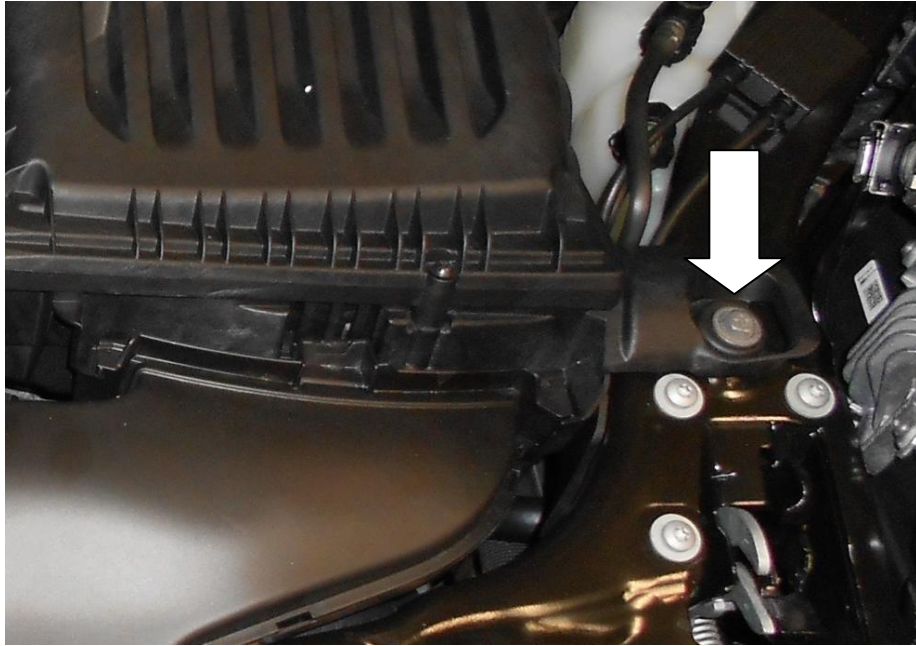


19. Undo the 5x T30 Torx bolts around each bonnet catch; do not fully remove the bolts.

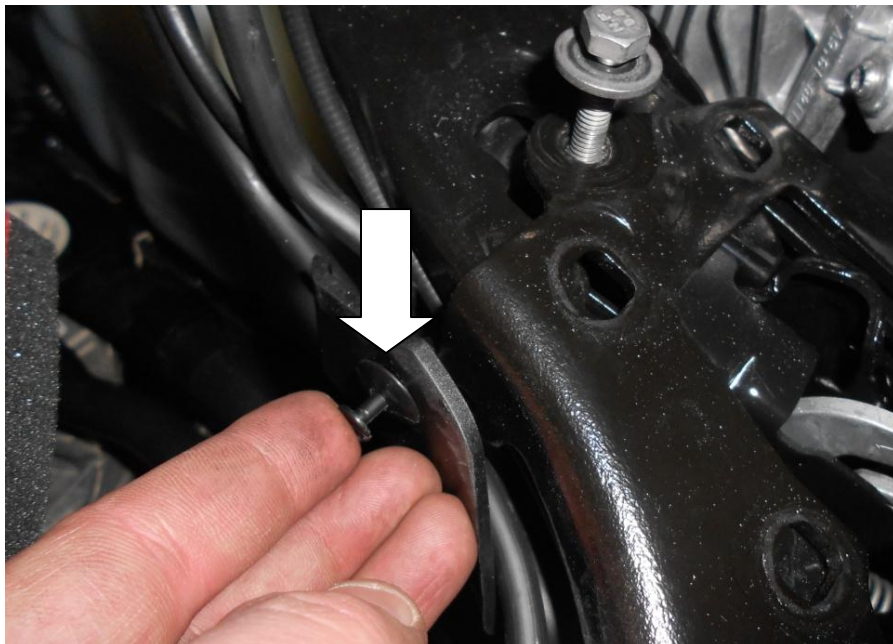


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20. Using a 10mm socket and suitable ratchet remove 1x bolt.

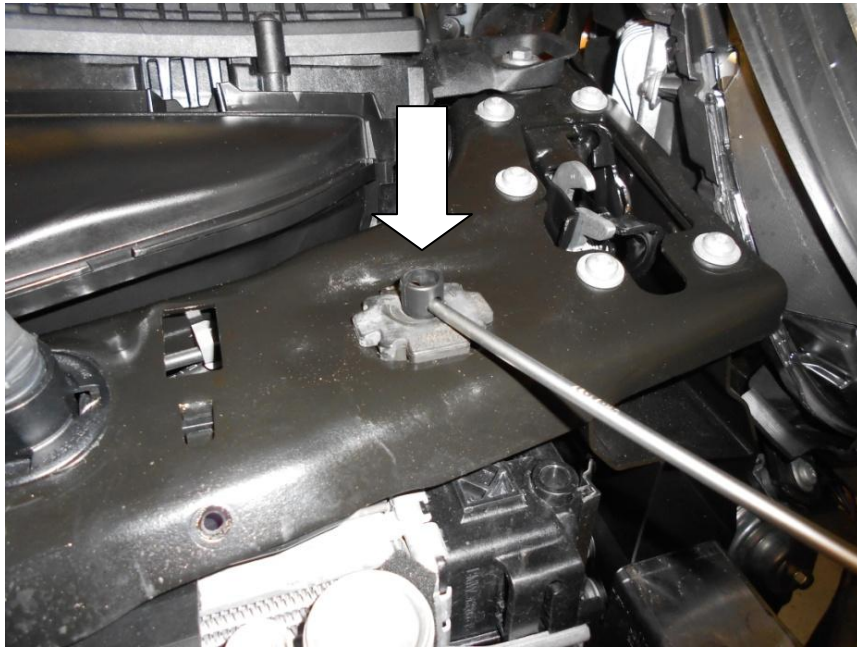


21. Using a flat blade screwdriver or similar tool remove the 1x plastic clip on each side.

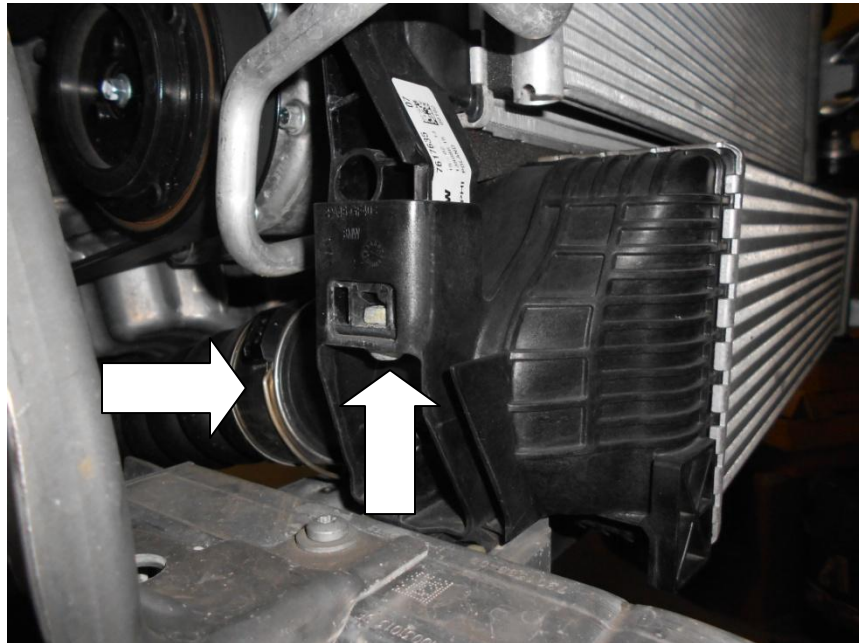


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22. Undo the 2x radiator pins using a screwdriver or T30 Torxs driver.

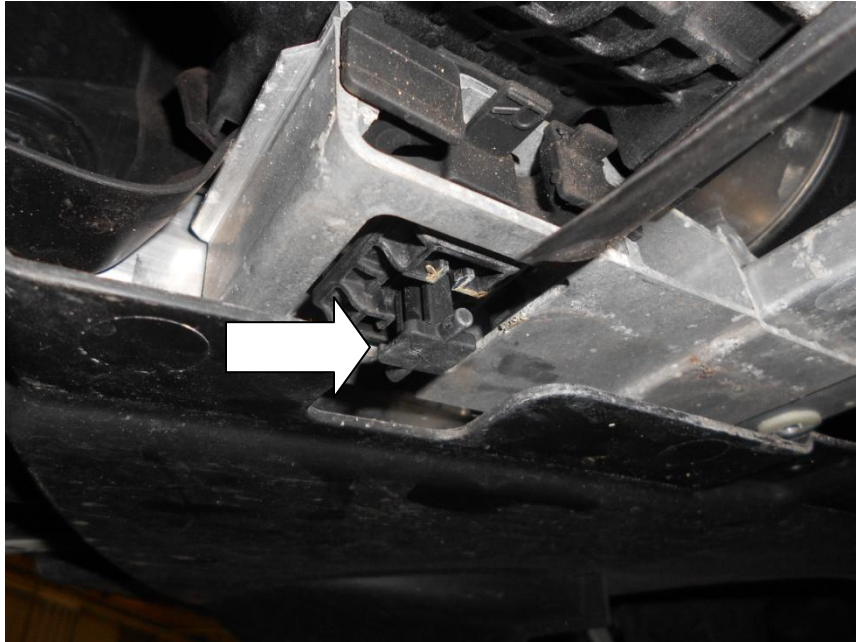


23. Undo the 2x T30 Torx screws on either side of the intercooler. Using a flat blade screwdriver or similar tool carefully release the spring-clips and disconnect the hose at each end of the intercooler.

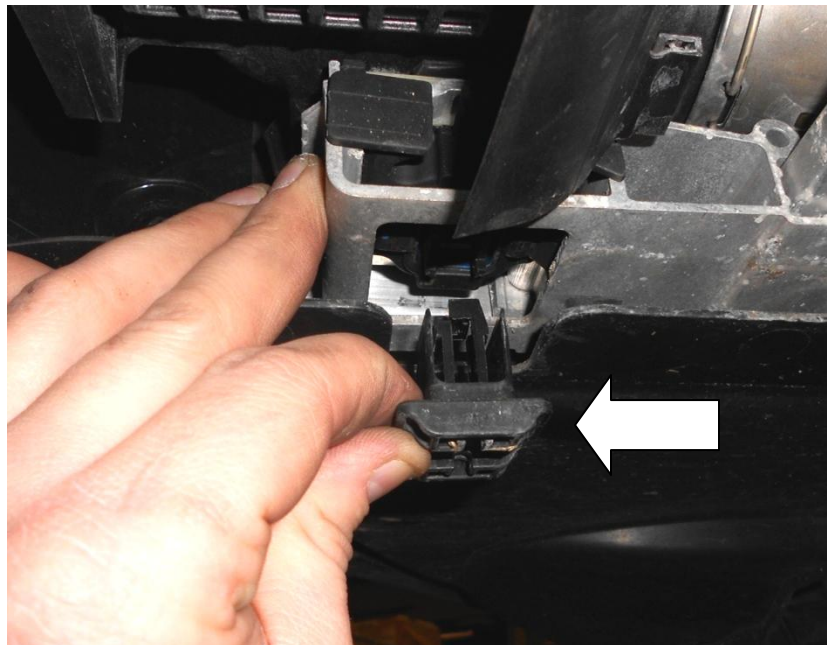


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24. Moving to the underside of the vehicle using a flatblade screwdriver or similar tool remove the centre part of the intercooler clip.



25. Once this is removed pull out the main part of the clip.



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26. This next part requires 2 people. Lift the intercooler and radiator pack upward to release the intercooler from the bottom rubber mounts. Use a flatblade screwdriver or similar tool to release the rubber mounts if necessary.

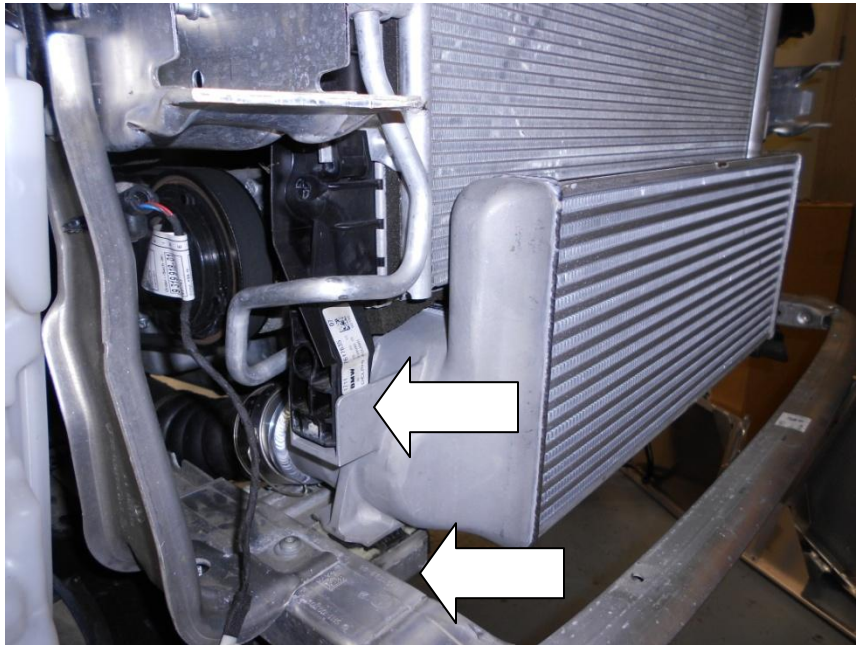


27. Pull the bottom of the intercooler forward and drop it down to release the radiator mounts.

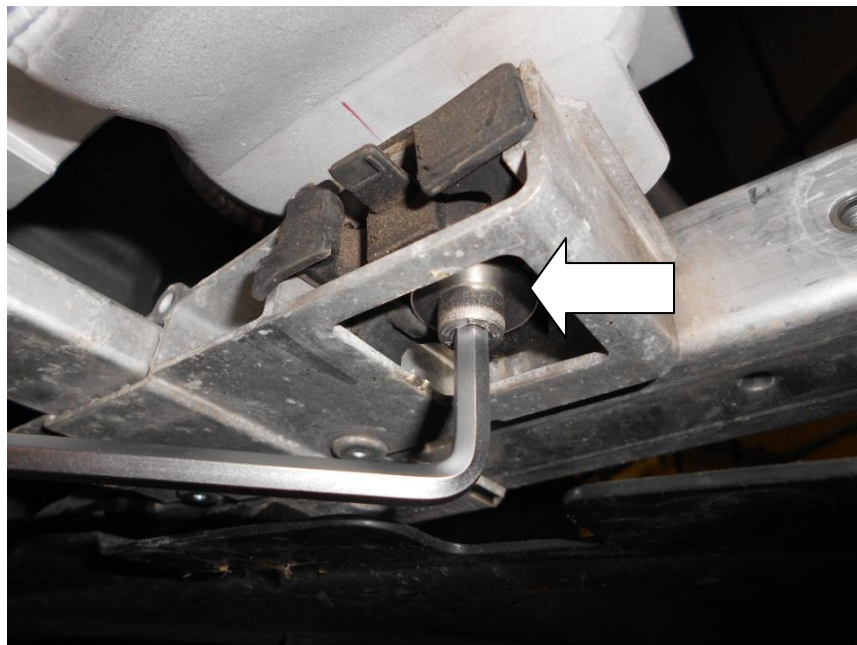


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28. Fit the radiator mounts into the brackets on both end tanks of your Forge intercooler before lifting the intercooler upwards and pushing the bottom edge backward to allow the mounting pegs to locating the rubber bushes.

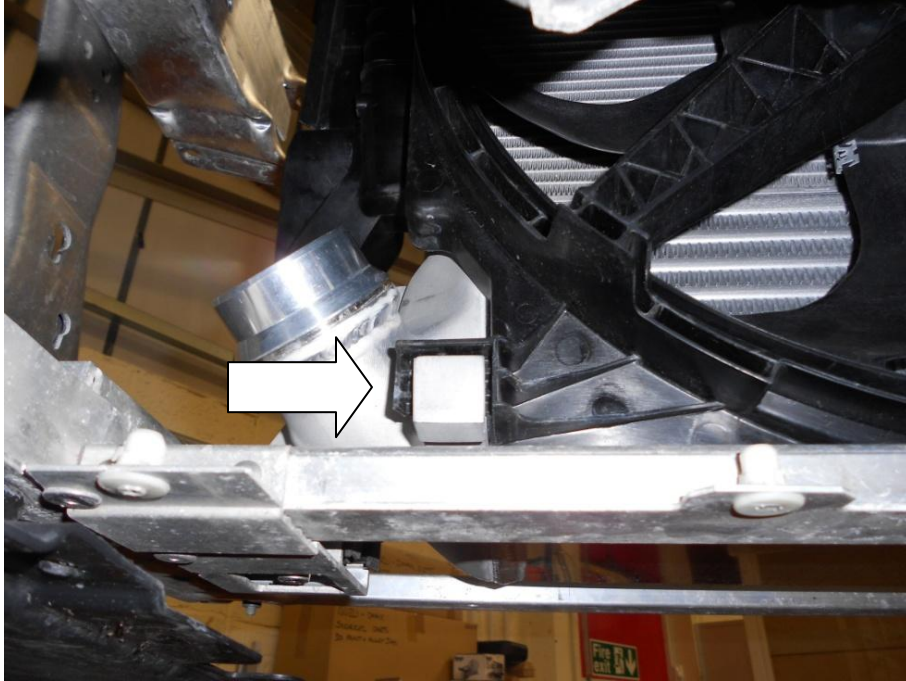


29. Using the 2x M8x16mm Allen cap bolts and 2x 8mm Penny washers supplied secure the intercooler to the bottom mounts.



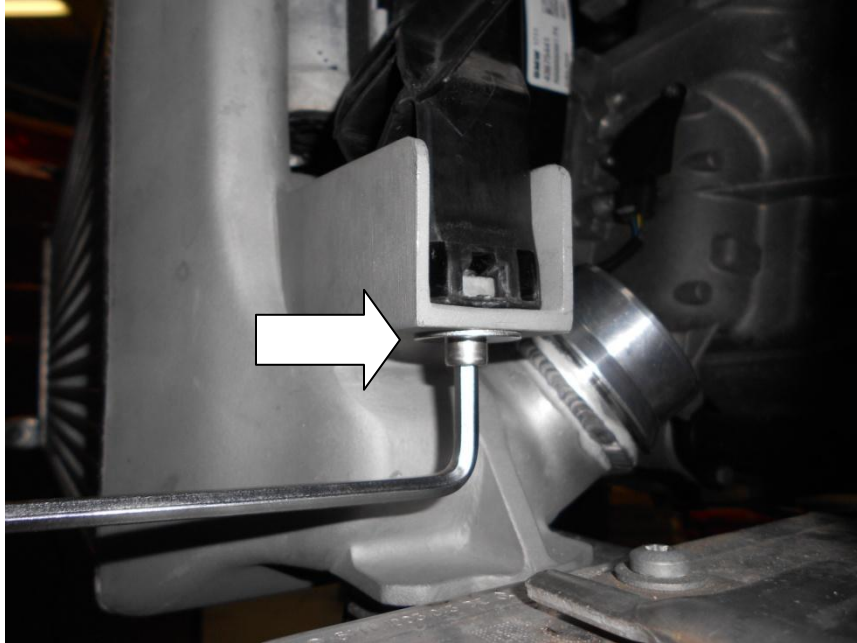
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30. Before securing the radiator to the intercooler check that the bracket and locating peg are correctly engaged on the fan shroud.



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31. Using the 2x M6X16mm Allen cap bolts and 2x 6mm washers align and secure the radiator to both intercooler brackets.

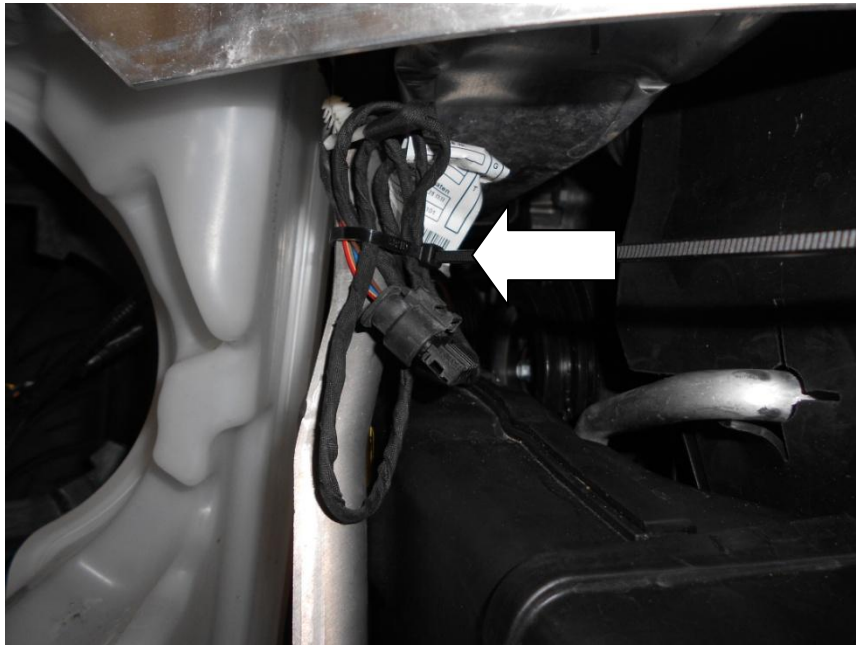


32. Re-connect both intercooler hoses. Ensure that the spring clips are fully released and have fully engaged in the recess in the CNC coupler. **If these are not correctly installed they may come off during normal driving.**



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33. Follow steps 1 to 22 in reverse to reassemble your vehicle. The active air ducting (if fitted) in step 10, is not refitted as part of this installation. Use a cable tie or similar secure any loose wires.



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

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