

BMW S55 Chargecooler

Fitting Instructions

Tools Required:

- Jubilee Clip Flexi-Driver or Flat-Blade Screwdriver
- Hose Clamping Tools
- Small Pick Tool or Small Flat-Blade Screwdriver
- Ratchet and Socket Set
- Torx Sockets
- Allen Key Sockets
- Dremel Tool or Similar
- Suitable BMW Coolant

Kit Contents:

- 1x AIRTEC Motorsport Chargecooler
- 1x Pro Hoses Silicone Hose Kit
- 7x M6x16mm Socket Head Bolts
- 7x M6 Pan Washers
- 2x M5x10mm Socket Head Bolts
- 2x 25mm Jubilee Clips
- 2x 16mm Jubilee Clips



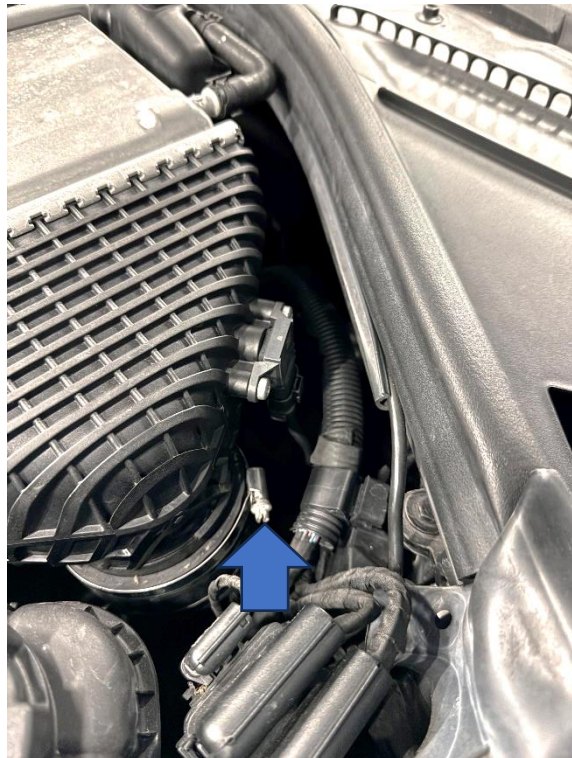
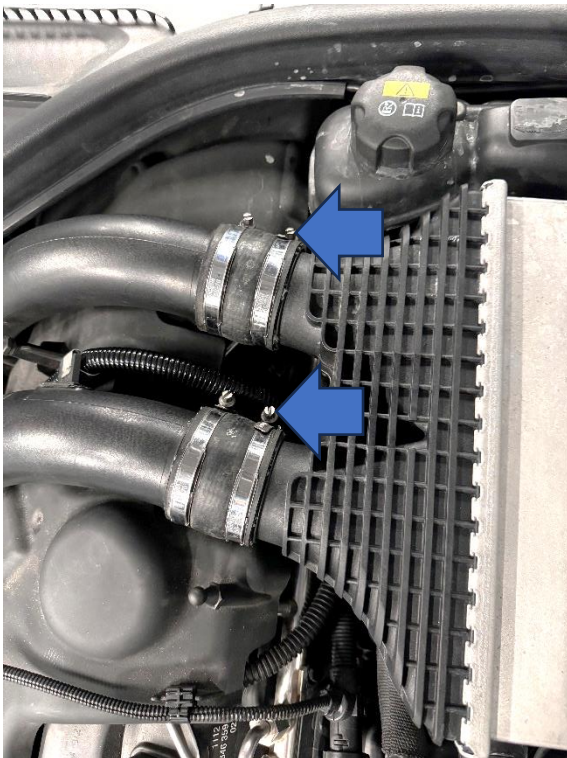
PLEASE THOROUGHLY READ THESE INSTRUCTIONS AND MAKE SURE YOU ARE FAMILIAR WITH THE STEPS BEFORE CARRYING THEM OUT

Instructions

1. Open the bonnet and remove the engine cover by lifting it up from the bottom.



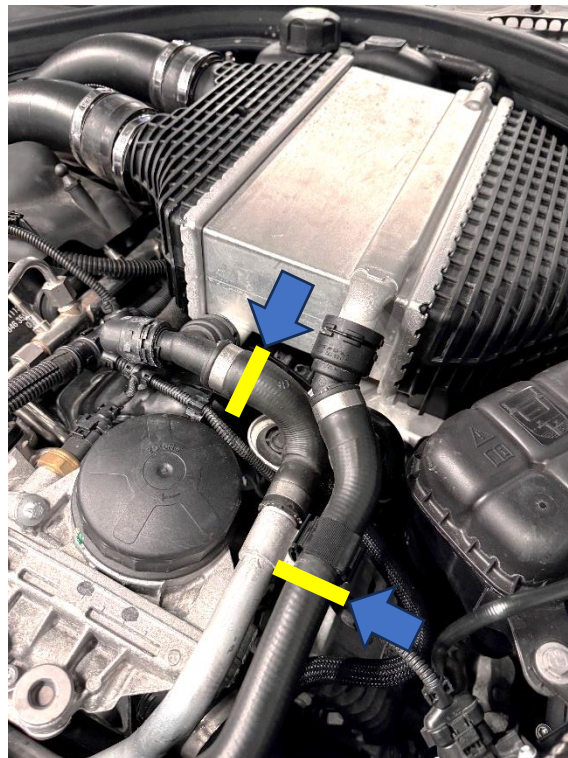
2. Undo the three jubilee clips securing the silicone couplers on either side of the original chargecooler using and remove them.



3. Unplug the MAP sensor and remove the pipe from the clip on the chargecooler bracket.



4. We recommend clamping the hoses using a suitable hose clamps in the two locations shown, otherwise you will need to drain the coolant for the chargecooler circuit. We also suggest placing a cloth underneath the connectors to try and collect any spilt coolant in the later steps.



5. Now lift the chargecooler from one side to release it from its rubber mounting underneath and then lift it from the other side to free of all the rubber mounts.



6. With the chargecooler now free to move, use a small pick tool or flat-blade screwdriver to lift the spring clips for the three water connectors and remove them, whilst tilting the chargecooler back, remove it from the car. Drain the coolant from the chargecooler into a suitable container.



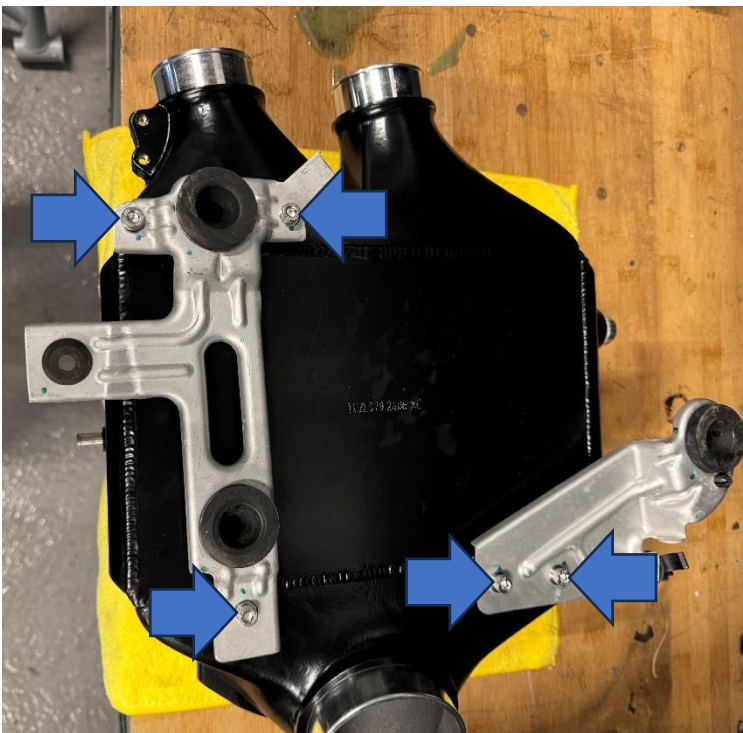
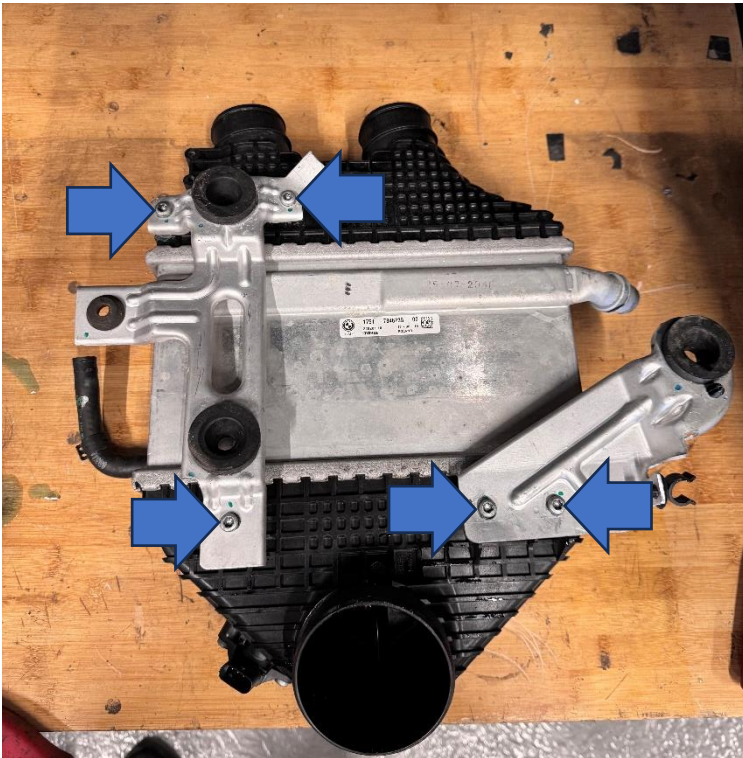
7. With the chargecooler on a bench, undo the two T25 Torx bolts (blue arrows) securing the coolant reservoir and then use hose clamp pliers to remove the smaller hose (orange arrow). Turn the reservoir upside down and loosen the hose clamp (green arrow) so that the larger hose can be removed.



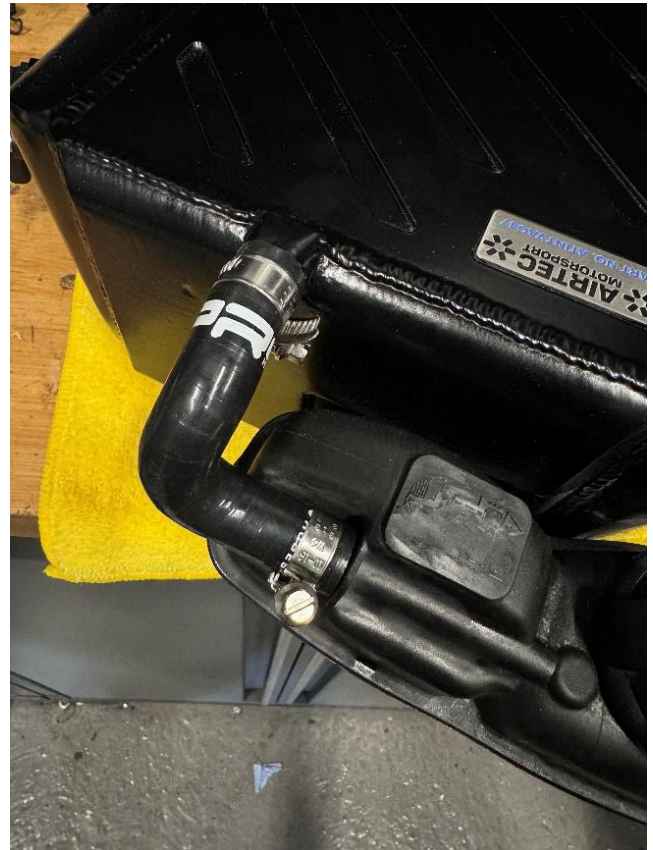
8. On the other end of the larger hose you just removed from the reservoir, use a Dremel tool or similar to cut through the metal clip securing the 90-degree fitting and remove it from the hose. Place the fitting aside as it will be reused when installing the new AIRTEC Motorsport chargecooler.



9. On the underside of the chargecooler, remove the five T27 Torx bolts attaching the two mounting brackets. Then remove the two bolts securing the MAP sensor in place. These can all be reinstated onto your new chargecooler using the supplied M6 bolts with washers for the brackets and M5 bolts for the MAP sensor.



10. Now install the reservoir onto the new chargecooler using the supplied M6 bolts to attach it and install the smaller supplied silicone hose in place with 16mm jubilee clips, as shown.



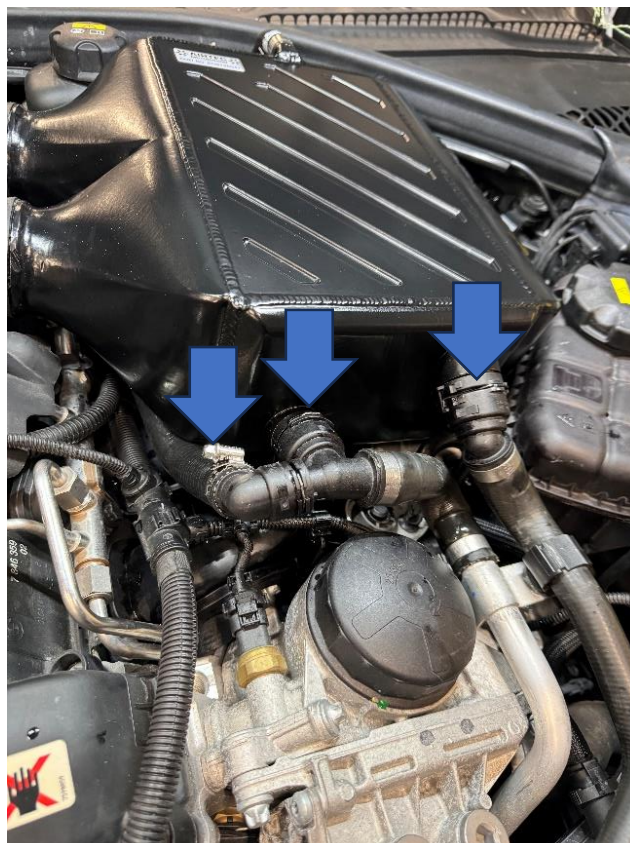
11. Fit the larger supplied replacement silicone hose to the underside with the 25mm jubilee clip provided



12. The new chargecooler can now be installed onto the car by press it down onto the original rubber mounts and reattaching the silicone couplers for the three boost pipes along with reconnecting the MAP sensor removed in Steps 2 and 3.



13. Install the 90-degree fitting removed in Step 8 on to the other end of the hose larger silicone hose using with the supplied 25mm jubilee clip and then reattach all three water connectors.



14. Finally, open the reservoir and top up with the correct specification coolant for your application. It will help to undo the top coolant hose that connects to the reservoir so that air can escape. Once coolant runs out the hose, then reinstall it and jubilee and top the coolant up to the max level and run the auxiliary coolant pump BMW procedure that can be found online.

Top up the coolant as necessary and even after running this process we have found that some cars still need additional coolant so after an additional heat cycle from driving, the system has cooled down open the cap and top up as required.



15. **PLEASE NOTE:** for **M2 MODELS ONLY**, the inside of the bonnet will need minor trimming to allow for clearance of the chargecooler. Use a suitable cutting tool to trim the section highlighted below.

