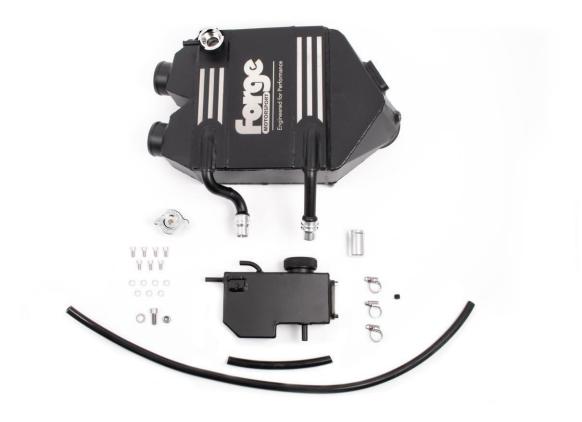


## BMW M3/M4 CHARGECOOLER & EXPANSION TANK INSTALLATION INSTRUCTIONS.



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:**

- 6mm Hose Clamp Driver
- Flat Blade Screwdriver/Similar Tool
- 5mm and 6mm Allen keys
- T25 and T30 Torx Driver
- Silicone Spray/Suitable Lubricant

1. Open and secure the bonnet. Ensure the engine has cooled down fully before starting the installation.



2. Pull the engine cover upwards to remove it from its mounts.



3. Using a 6mm hose clamp driver undo the 4x hose clamps and slide the hoses back over the boost pipes.



4. Disconnect the wiring to the MAP sensor and then use a 6mm socket or hose clamp driver to undo 1x hose clamp.



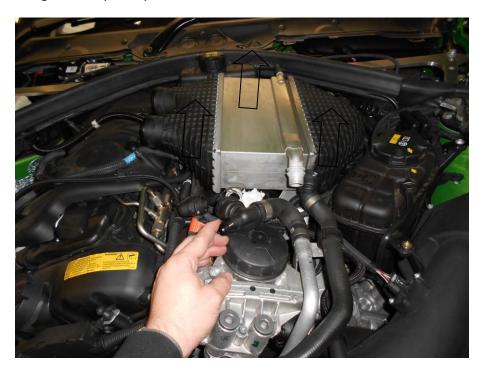
5. Pack a suitable absorbent material underneath the Chargecooler before using a flat blade screwdriver or similar tool to release the 2x retaining clips and pull the 2x couplers away from the Chargecooler.



6. Release the 1x clip and disconnect the 1x hose from the coolant pipework.



7. Pull the chargecooler up firmly to remove it from its 3x rubber mounts.



8. Using a T25 Torx driver undo 2x screws and carefully remove the MAP sensor. Refit the MAP sensor to the Forge Chargecooler and secure in place using 2x Allen cap bolts M6 x 12mm and 2x 6mm washers.





9. Fit the supplied 1/8 NPT Grub screw to the boss on the chargecooler. This boss is provided if a water/methanol injector is required.



10. Ensure that the Chargecooler has been fully drained of coolant. Using a T30 Torx driver undo 5x screws and remove the 2x Mounting brackets from the OEM Chargecooler.



11. Refit the OEM mounting bracket to the Forge Chargecooler and secure in place with the remaining 5x Allen cap bolts M6 x 12mm and 6mm washer provided.



12. Lubricate the mounting bosses with a suitable lubricant (Silicone spray) and then fit the Chargecooler to the vehicle.

13. Using the Allen cap M8 x 20mm bolt, 2x 8mm washers and M8 Nyloc nut secure the Expansion tank to the side of the Chargecooler.



14. Reconnect the coolant feed and return pipes to the Chargecooler ensuring that the retaining clips are pushed into position.



15. Using a suitable hose clamp driver tighten the single hose clamp at the Chargecooler outlet.



16. Remove the O-ring and retaining clip from the OEM expansion tank coolant coupler. Install the O-ring in the Forge blanking cap provided, attach this to the open coolant coupler and secure in position using the retaining clip.



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17. Using the 8mm I/D silicone x 750mm hose provided connect one end to the 8mm overflow pipe on the side of the expansion tank and secure with a suitable hose clamp. Route the other end of the pipe through to the underside of the car.



18. Using the remaining 8mm I/D Silicone x 170mm hose and 2x hose clamps connect the radiator neck to the expansion tank.



19. Carefully fill the Chargecooler with coolant and fit the radiator cap. Fill the expansion tank up to the level shown on the side glass window.



20. Re-assemble your vehicle. Your installation is now complete.