VAUXHALL ASTRA G 2.0 TURBO FMIC

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.

Engineered for performance

Tools Required:

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

Flat head screwdriver.

7mm, 8mm, 10mm and 13mm sockets and short extension bar.

E Torx E8 and E10 sockets

T25 Torx bit.

Large pliers, Electrical Crimping pliers

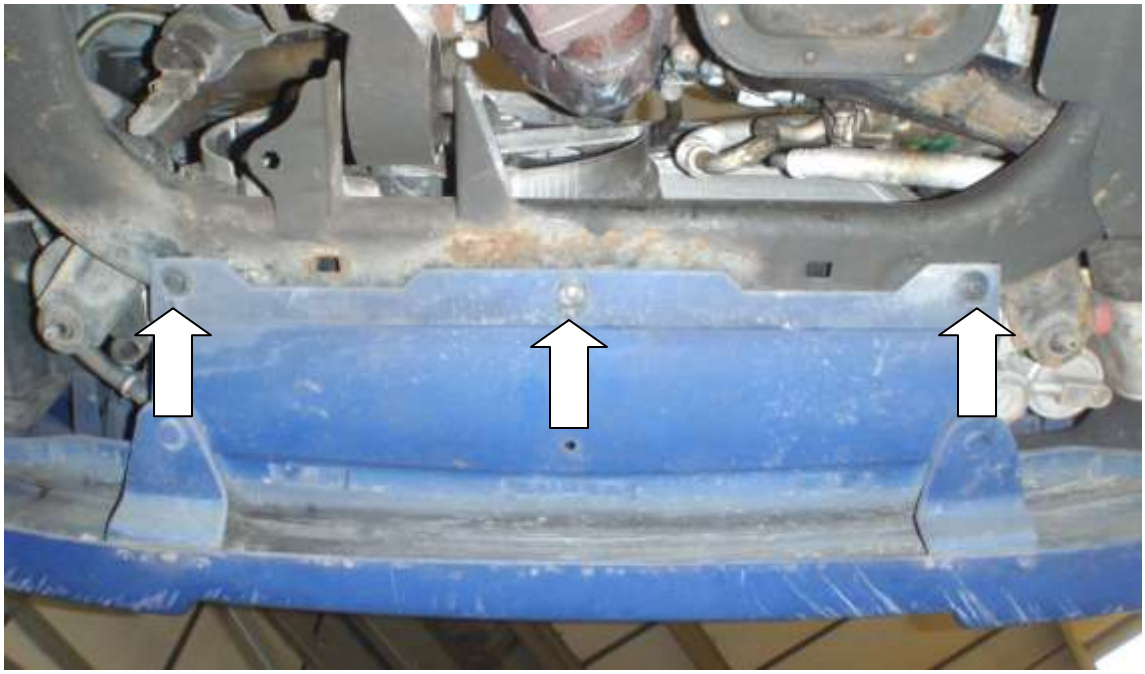
Rule, Hack saw blade.

Drill and 5.5mm Drill bit.

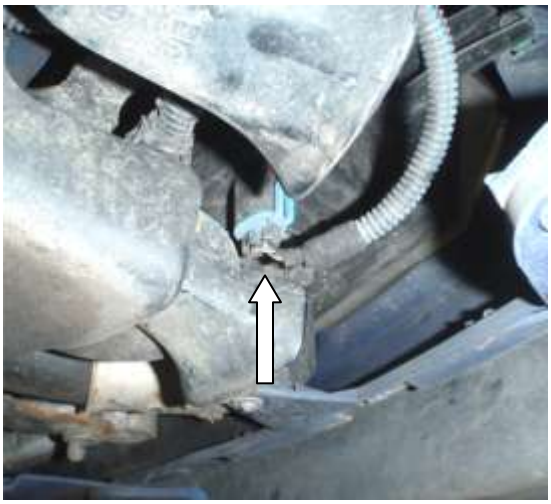
Safety eyewear, footwear, gloves and protective clothing are also recommended.

1. Jack the front of the car up and support it on the jacking points under each sill. On the Astra G it may be necessary to use small blocks of wood on the jacking points to prevent damage to the bodywork.

2. Remove the three fixings, from the under tray. Using a flat blade screw driver, pry out the centre pin, and then remove the whole fixing.

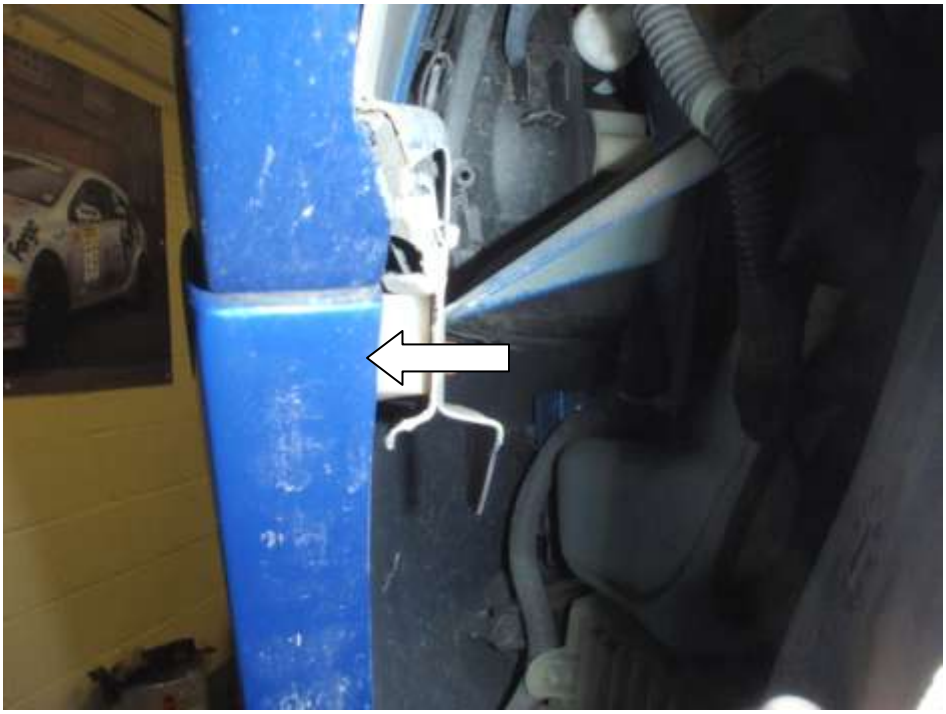


3. Unplug both fog light connections. These can be reached from the front of the car or while underneath the car.



4. Remove T25 Torx screw located on the underneath of both wheel arches.

5. Remove 8mm screws 3 per side holding the arch liner to the front bumper /bodywork.
6. The arch liner can then be pulled to one side to allow access to two 8mm screws inside the front bumper.

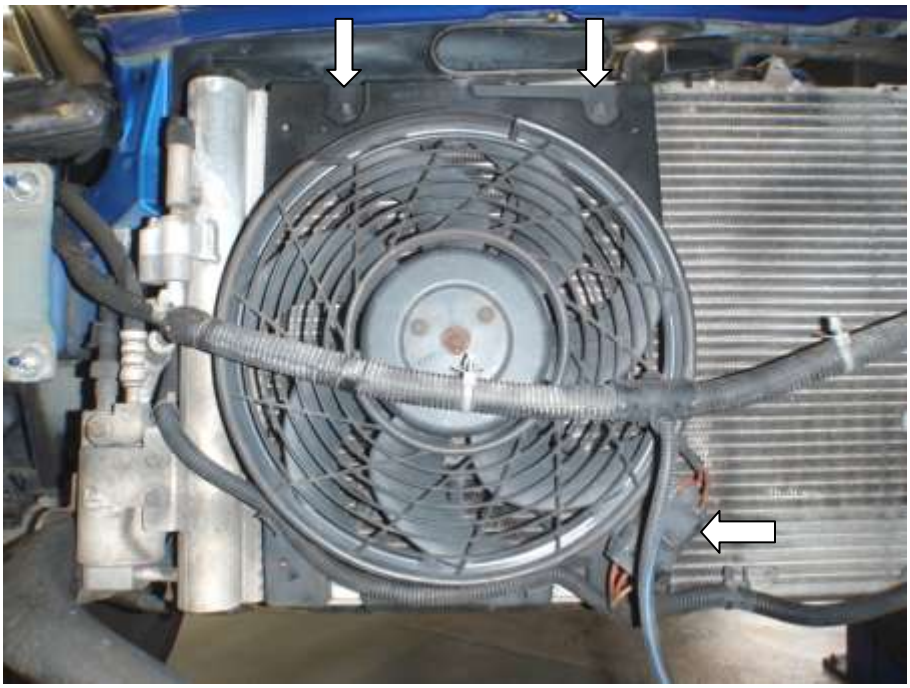


7. Using a flat blade screwdriver carefully pry the centre part out the two fixings on the top of the bumper.

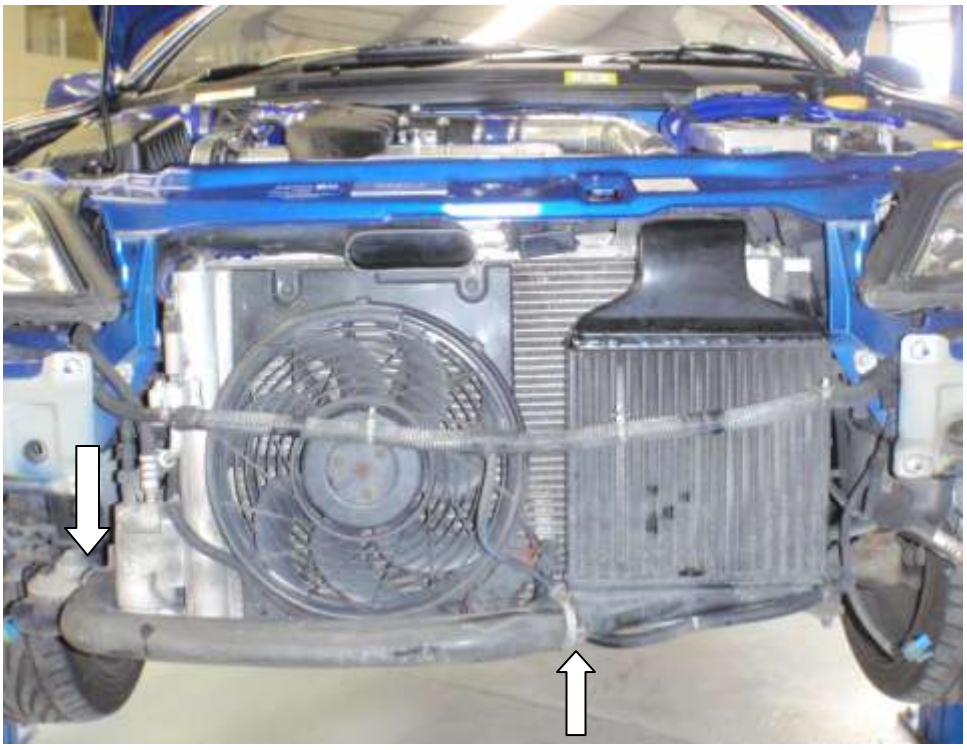
8. The bumper is now ready to be removed from the car. A firm pull on both sides will release the bumper from the wheel arch extensions. Place bumper in a safe place to avoid damage while working.
9. Release the four plastic wiring clips using pliers that run across the top of the crash bar.

10. Remove foam cover on top of nuts at each end of the crash bar. Using 13mm socket remove all 6 nuts (3 per side) holding crash bar to chassis.

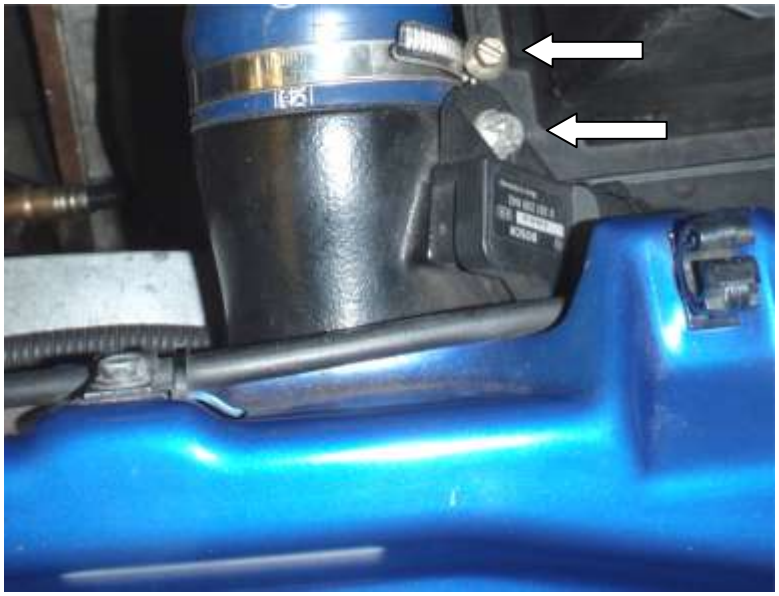
11. Pull crash bar away from the vehicle.
12. Unplug standard fan wiring connector and unbolt two 10mm nuts to release fan housing. Pull the fan housing upwards to remove form lower fixings.



13. Using a flat blade screwdriver undo jubilee clip on the hose at the bottom of the intercooler. Follow this hose back to the side of the radiator, where it passes through an oval bracket. Using a 10mm socket remove the bracket. Undo the jubilee at the turbo outlet.



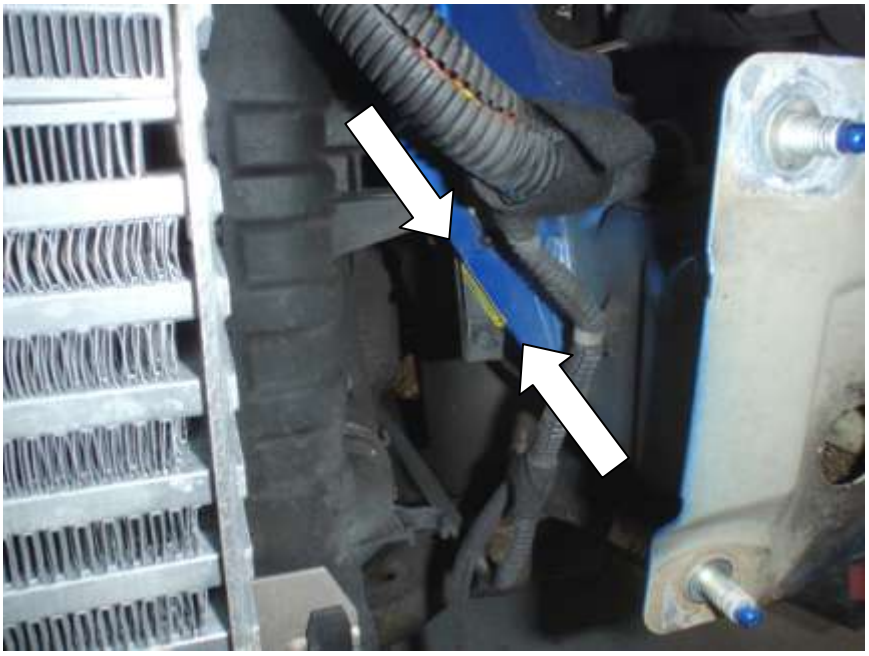
14. Move to the top of the intercooler where it exits from under the slam panel. Release jubilee clip to boost pipe. Unplug and remove MAP sensor using E10 Torx socket, handle with care.

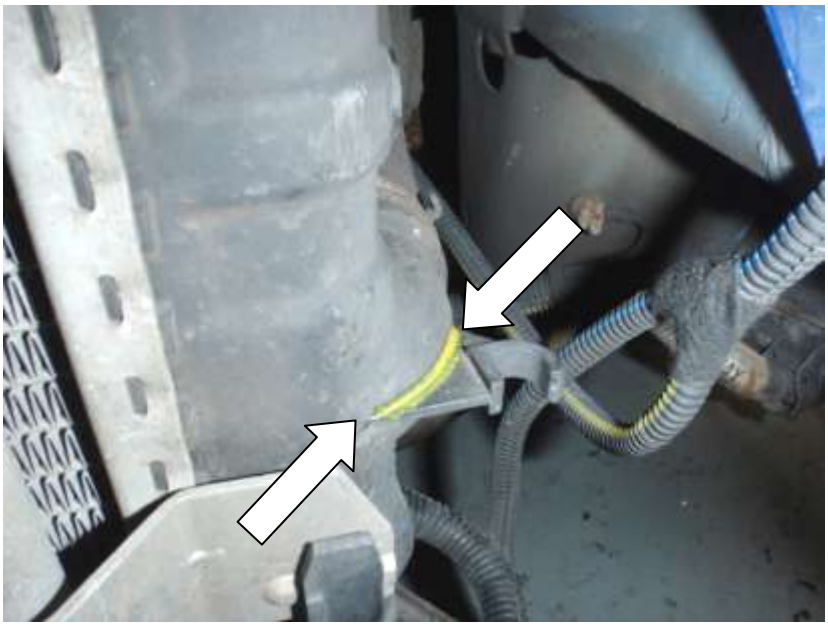


15. Unbolt intercooler using E8 Torx socket and un-clip water hoses that runs across the top of the intercooler outlet.

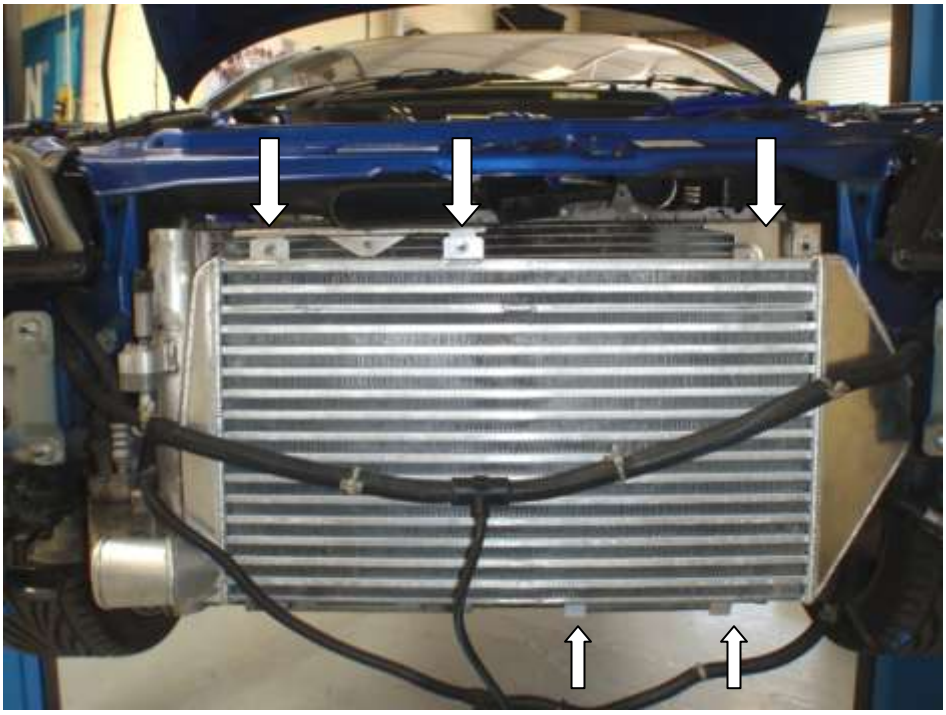
16. Pull the intercooler upwards to release it from its lower mounting points. Push the top of the radiator back on its mounts, this will allow the top tube of the intercooler to be pulled free from the vehicle.

17. Mark out and trim the brackets show in the pictures below.

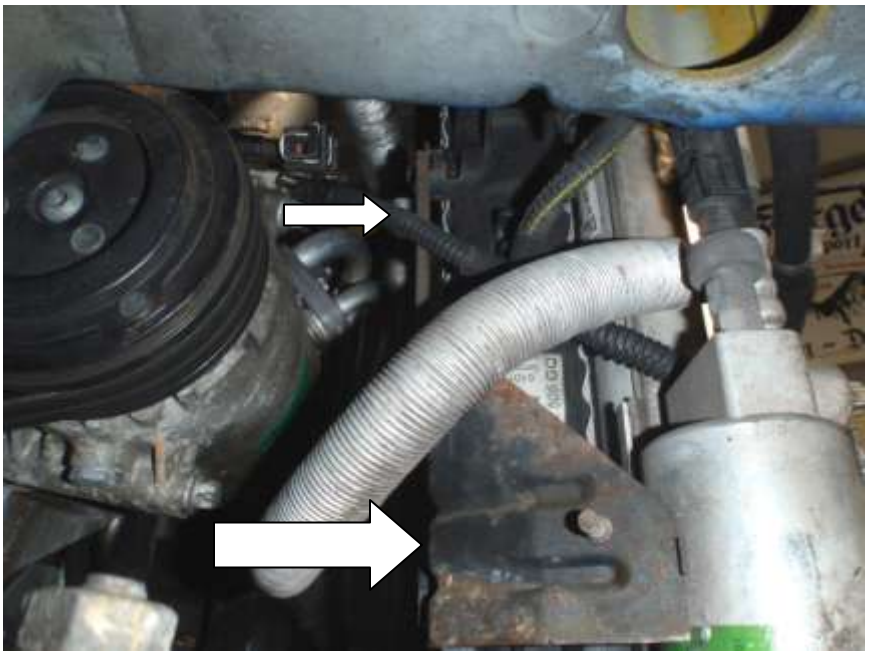




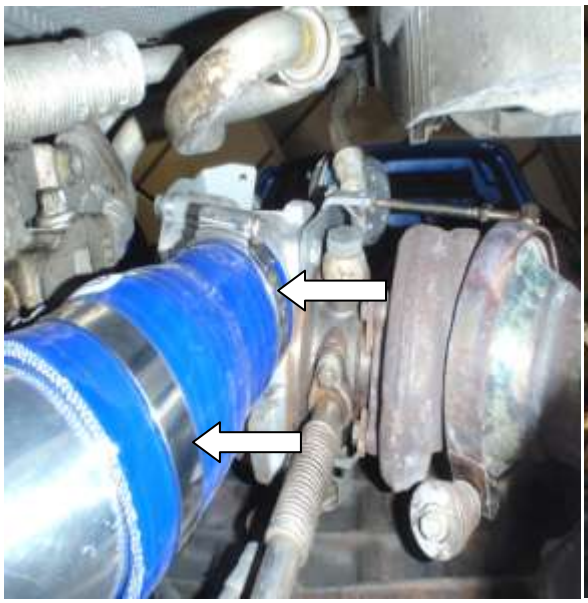
18. Place your new Forge Intercooler in position. It locates on the two original intercooler mounts at the bottom and uses three fixing points on the top. Tighten all fixings.



19. Remove metal bracket located behind radiator using E8 Torx socket.

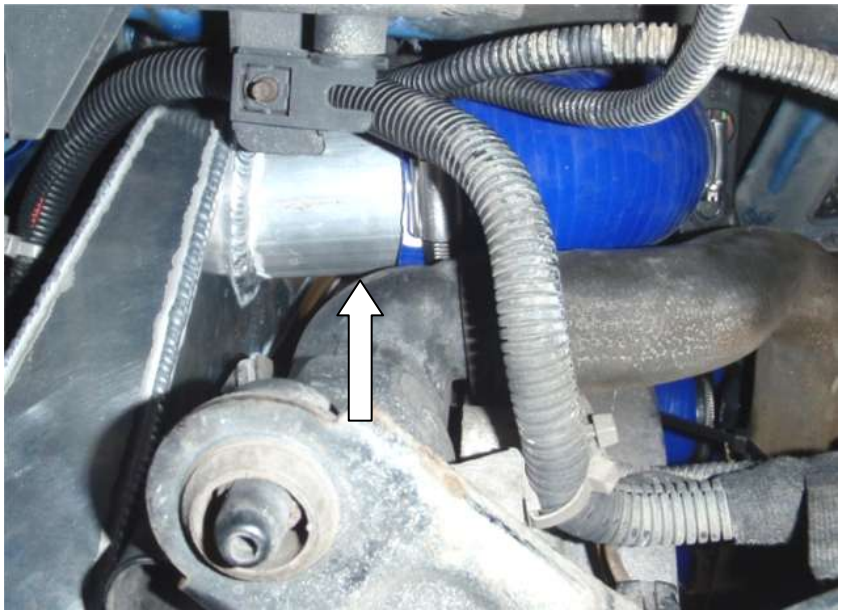


20. Fit the 50-60mm reducer to the turbo outlet using suitable jubilee clip. Place a suitable clip over the open end of the reducer and insert lower hard pipe. Place suitable clip over the end of the hard pipe and on the lower intercooler inlet. Using oval silicon 135 degree bend join the lower hard pipe to intercooler inlet. Do not tighten any of the jubilee clips until all parts are in position.

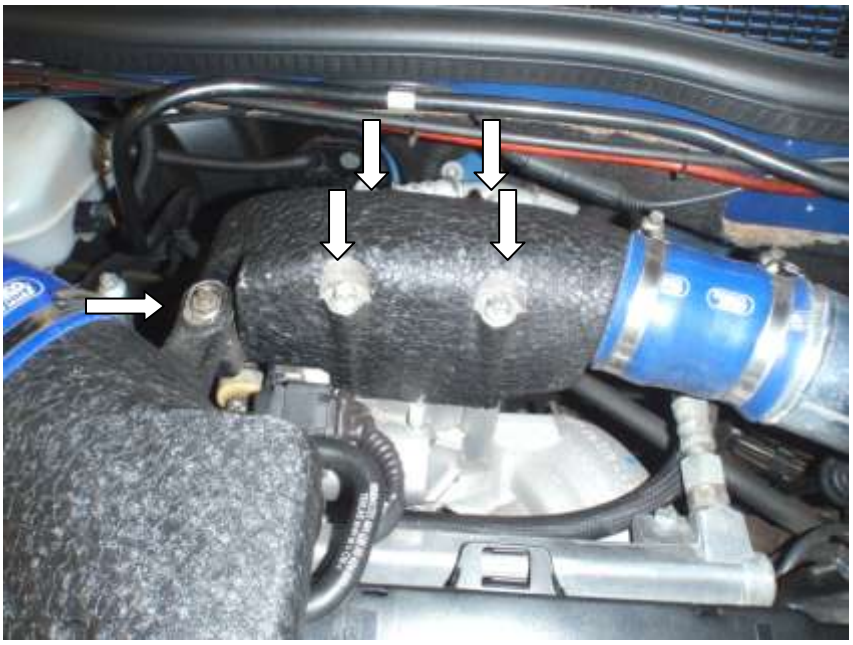


21. To allow access to fit the outlet silicon hose to the intercooler it is necessary to remove the battery. Using 10mm undo both terminals and battery clamp using 13mm socket and extension bar. Disconnect the Negative terminal first followed by the positive.

22. Feed intercooler outlet silicon hoses between battery tray and bodywork. Place suitable jubilee clip on silicon hose join to intercooler outlet.



23. Undo the 10mm nut that secures the standard “top hat” on to the standard oval induction pipe work. Then using an E10 Torx socket remove the four long bolts that secure the “top hat” to the throttle body. Remove “top hat” and all of the standard boost pipe work.



24. Place the MAP sensor into the boss on the S-shaped aluminium bends and secure using original E8 Torx bolts. Insert short end on S-bend into open end of the silicon hose next to the slam panel. Secure with a suitable jubilee clip.

25. Put a 60mm bellows silicon hoses on the open end, followed by the plain 90 degree bend. Secure with a suitable jubilee clip.

26. Screw in two M6 X 75mm bolts with spring washers into two right-hand bolt holes on the throttle body. Do not fully tighten these bolts as the new “top hat” flange slides underneath these, before place the bolt at the back on the left hand side in place.

27. Use the stainless steel bracket provided to reconnect the standard induction pipe work to the “top hat”. Reuse the nut and rubber damper from the original “top hat”. The remaining M6 X 75mm bolt secures the bracket to the “top hat” flange.

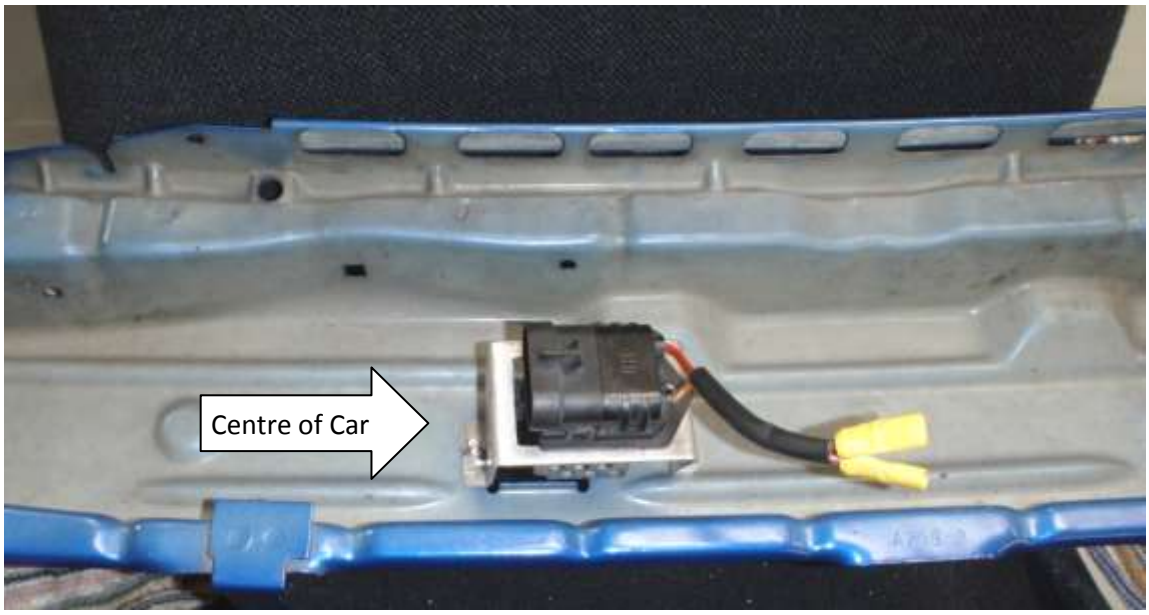
28. Tighten “top hat” bolts. If not using Forge Dump Valve screw blanking plate in place. If you are using a Forge Dump valve screw it into position. It may be necessary to rotate the top of the dump valve to ensure the vacuum out exits in the desired position. To do this remove the Allen head fixings, while applying constant pressure to the top of the dump valve. The top cover is sprung loaded, but can be rotated to the desire position and the bolts replaced.
29. Using a 60mm bellows silicon hose with two suitable jubilee clips the “top hot” can be connect to the remaining hard pipes.

30. Ensure that all the pipe work is in the correct positions and you have approx 25mm in each end of the silicon joiners. Then tighten all of the Jubilee clips. Reconnect the MAP sensor, you may need to thread the cable the other side of the loom to allow the connector to reach.

31. Remove Fan variable resistor from the standard Fan housing (1 off t20 Torx screw). Mark the wiring at 100mm from the resistor. Cut and strip the wires, crimp with the two connectors provided.

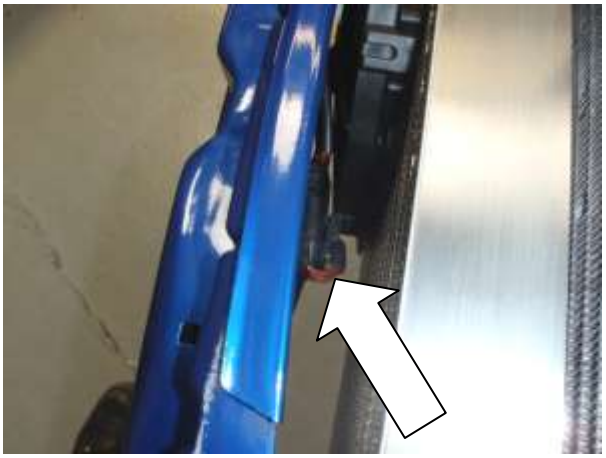
32. Attach the variable resistor to the bracket provided using M5 x 15mm Dome head bolt, 2off M5 washer and M5 Nyloc.

33. Place the crash bar on a suitable surface as not to damage it. Place the bracket in the position shown below. Drill two 5.5mm holes at xx apart using the jig provided. Attach the bracket using 2 off M5 x 15mm Dome head bolts, 2 off M5 washers and 2 off M5 Nylocs. Ensure the wiring is facing in the correct direction.



34. Connect the wiring from the Spal slim line fan to the variable resistor ensuring that the polarity matches the label on the fan connector.
35. Loosen cable tie holding wiring loom for fan, the wiring for the fan will now run inside the crash bar with the main wiring loom.

36. Holding the crash bar in position reconnect large fan connector. Push the crash bar onto its mounting studs. Using 13mm Socket replace all 6 nuts.



37. To give clearance for the lower intercooler pipe and fan it is necessary to trim the front bumper. In the centre of the bumper this section is removed.


38. For the Intercooler inlet, mark the bumper scoop in a straight line approx 35mm back and using a hacksaw blade trim in a straight line.


39. Refit bumper following instructions 8 to 2 in reverse. Reconnect your battery. Your installation should now be complete. Enjoy Your New Performance!

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