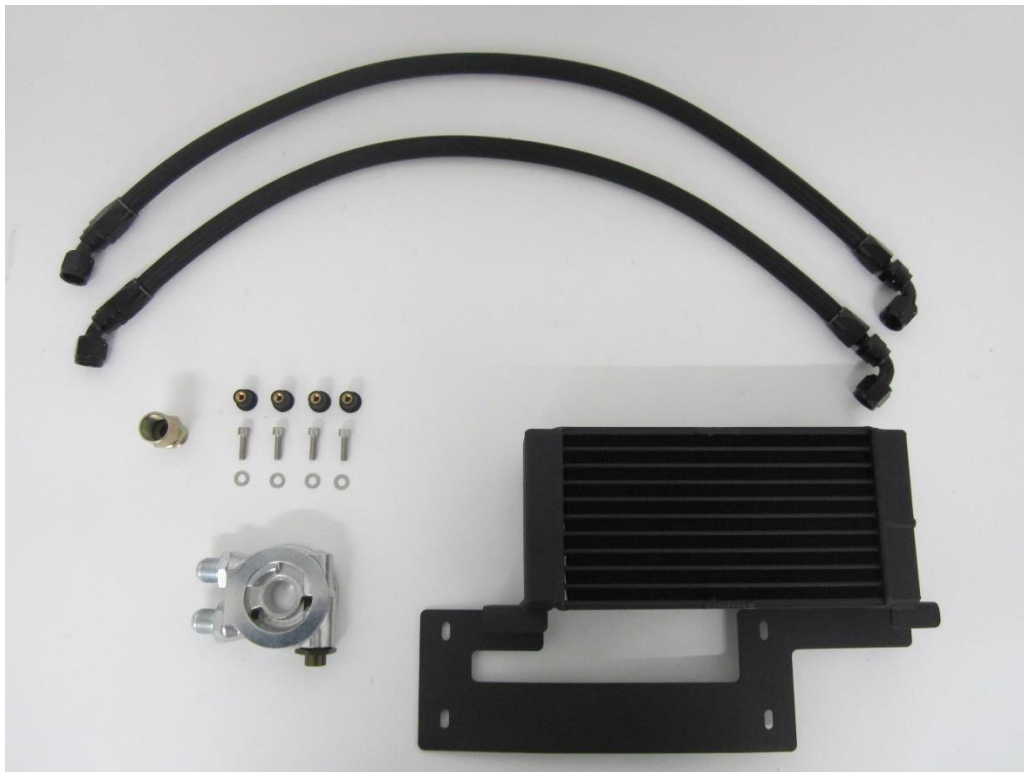




FMOC11 Fitting Instructions

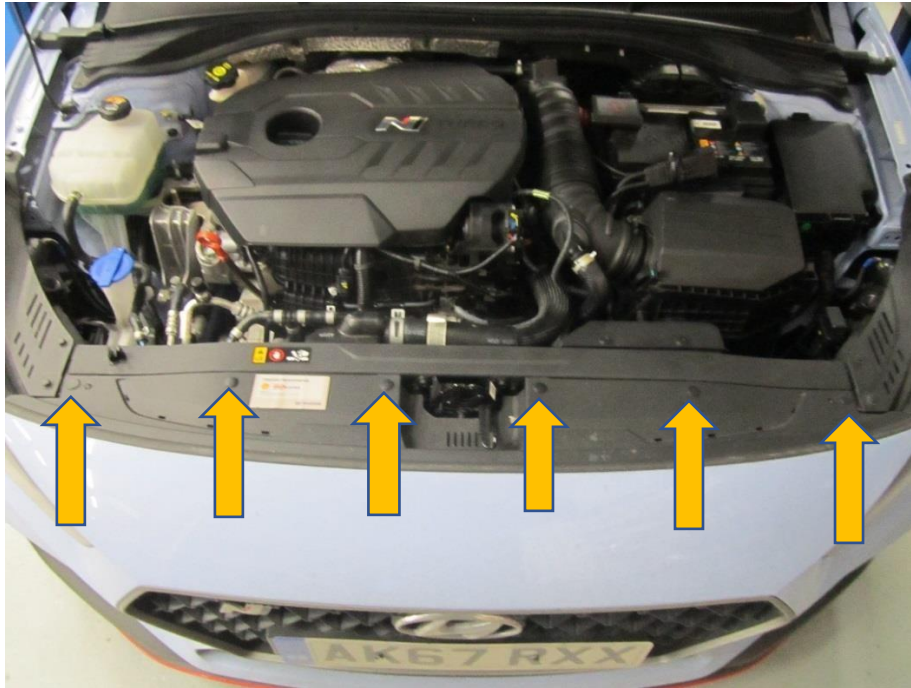


Please thoroughly read through and familiarise yourself with these instructions in their entirety prior to beginning any part of the installation process of any component. Please also ensure the vehicle and engine has cooled down sufficiently to avoid risking possible skin burns or other injury.

TOOLS NEEDED:

Flat blade screwdriver or trim removal tool
7/8/10/12/26 Ratchet Drive with extension
5mm Allen key
Adjustable spanner
Hack saw or angle grinder
Phillips screwdriver
Side cutters
Axel Stands & car jack/car ramp

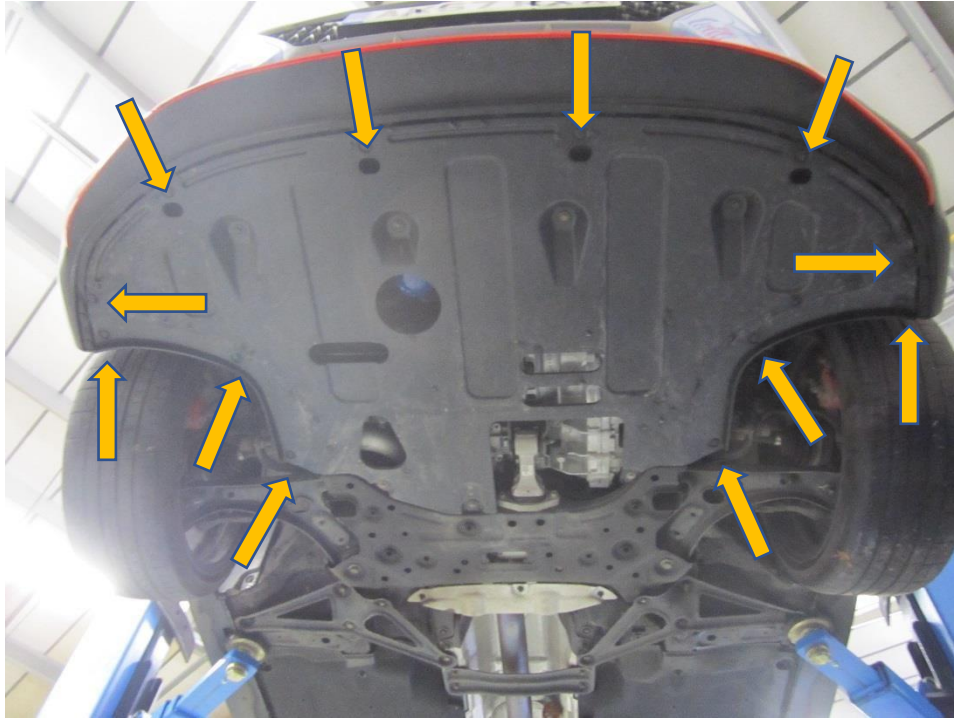
1. Park the vehicle securely, then open the bonnet and locate the six plastic fasteners that run across the slam panel. Remove these by lifting the centre up with a trim removal tool or flat blade screwdriver.



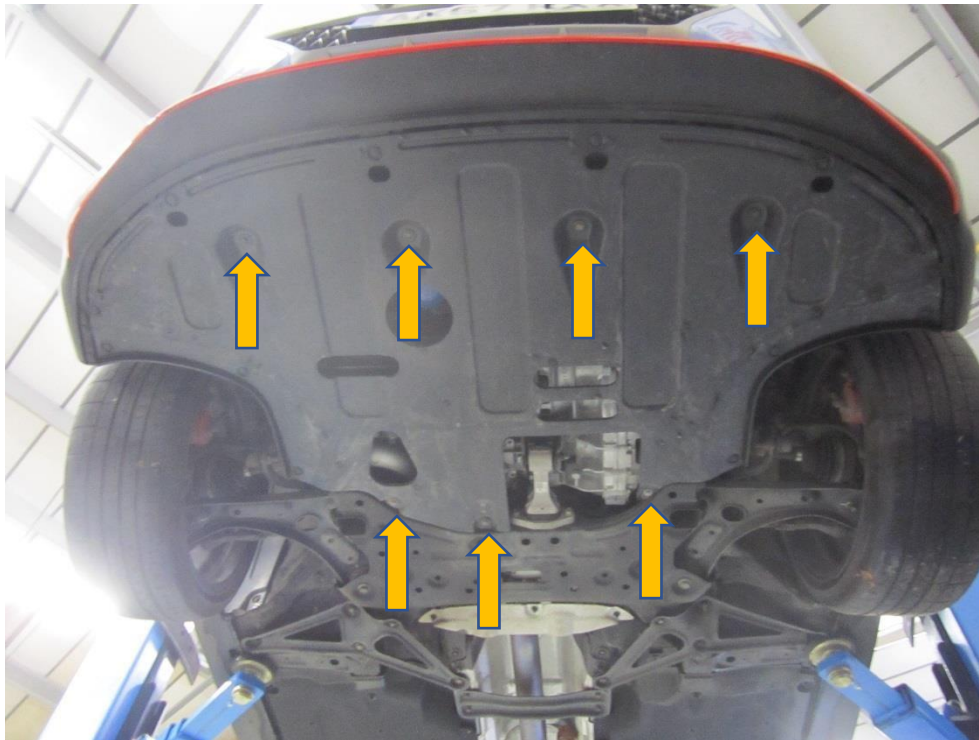
2. Inside both wheel arches there are three plastic fasteners that need to be removed in the same way as step one. At the top of the wheel arch there is an 8mm fastener attaching the bumper to the car, this also needs to be removed with either a Philips screwdriver or 8mm ratchet drive and extension.



3. With the vehicle raised from the ground, looking up at the belly pan you will see 12 plastic fasteners holding it in place. As with previous steps you will need to remove these with either a flat blade screwdriver or trim removal tool.



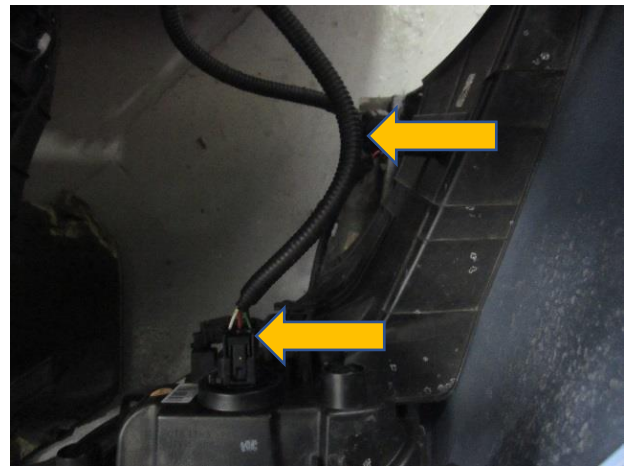
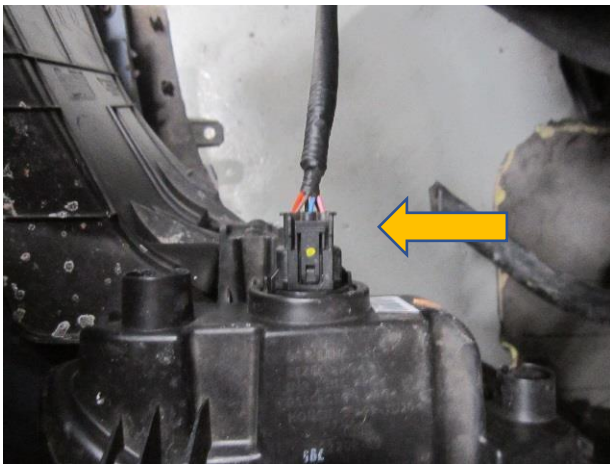
4. There are now 7 fasteners left holding the belly pan in place, remove all of these with a 10mm socket and ratchet drive and slide it towards the front of the car to remove it.



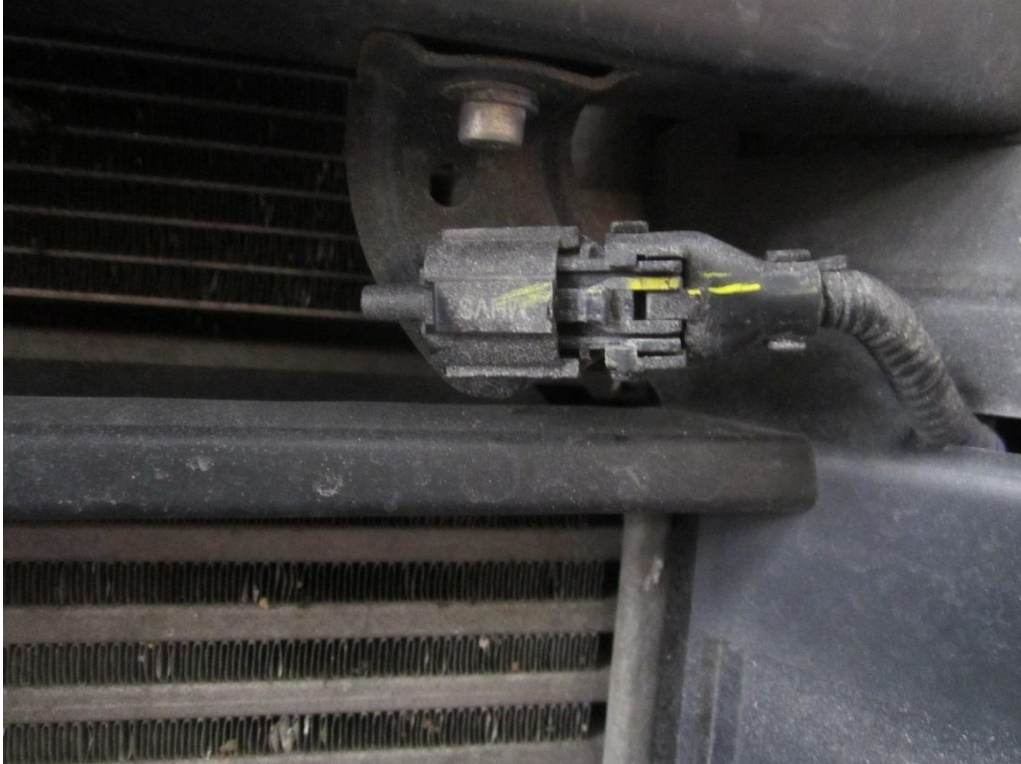
- Both sides of the bumper now need to be parted from the vehicle, pull sharply at the top corner of the bumper so that it comes away from its locating clips as shown in the picture. With both sides now away from the body of the vehicle you will be able to pull the bumper off the front of the car.



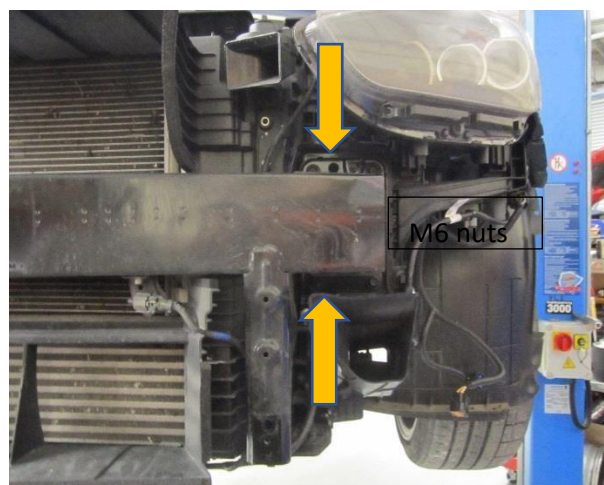
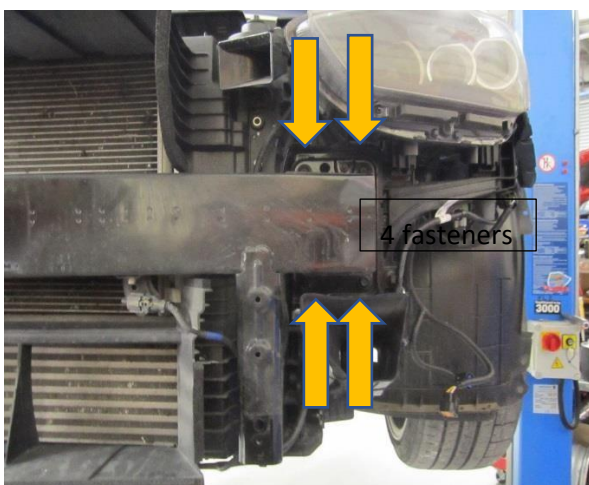
- With the bumper separated from the vehicle, you will be able to see three plugs that need to be detached, one on the offside and two on the near side. At this point the bumper can be removed completely from the vehicle.



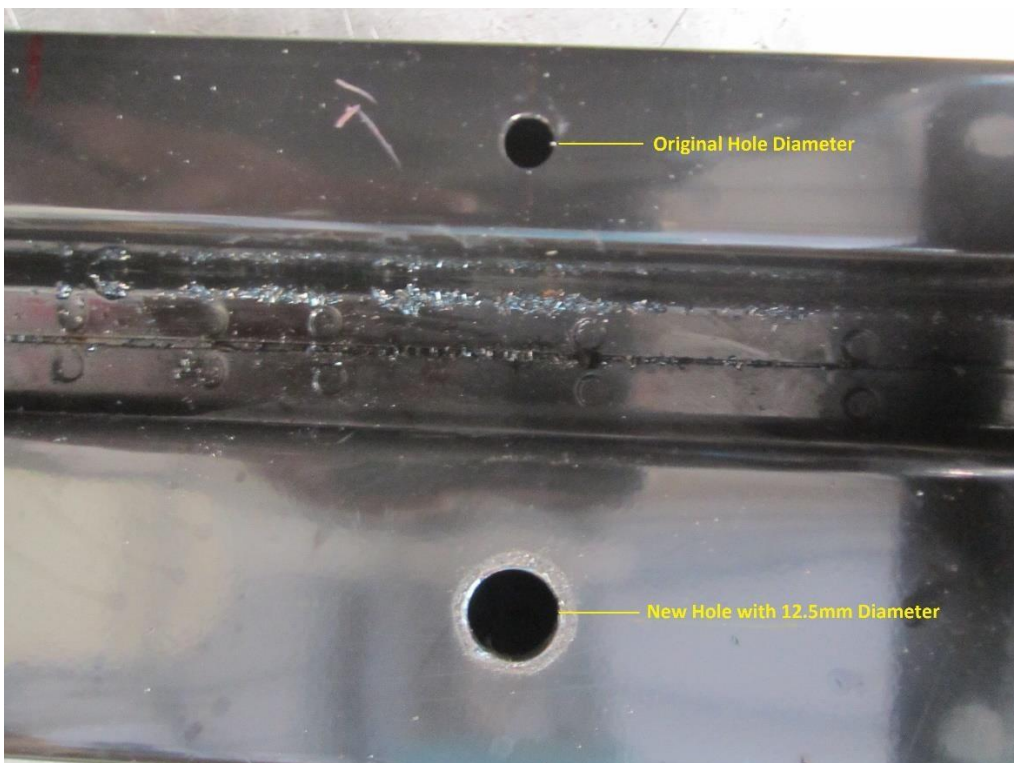
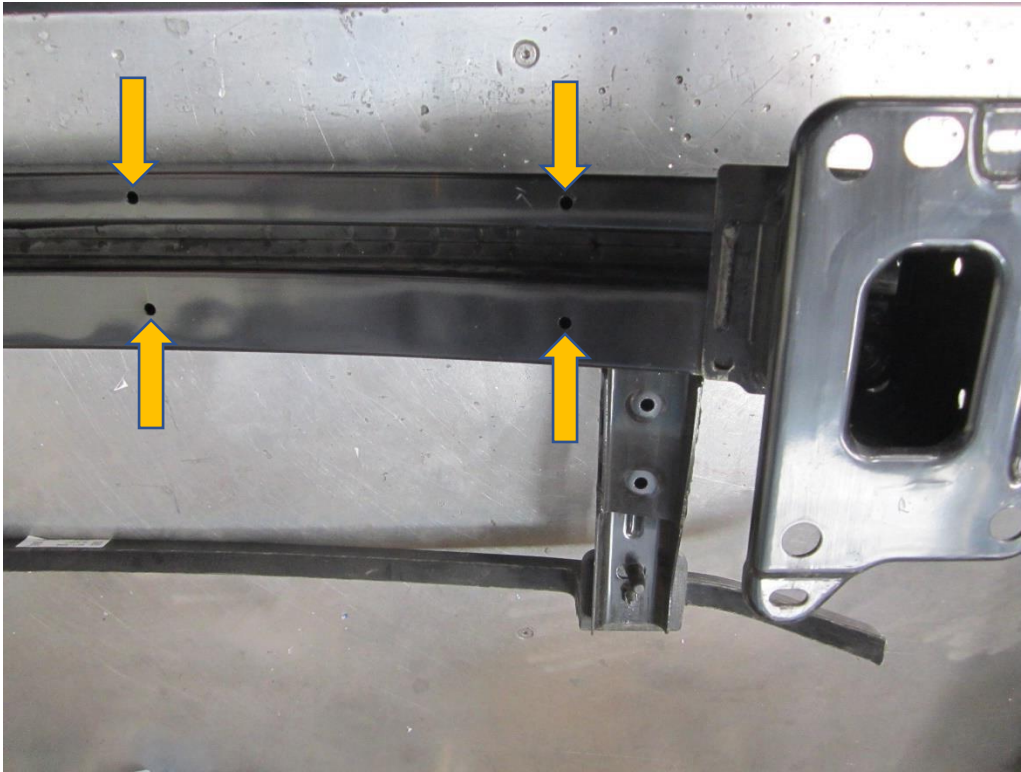
7. With the front bumper removed the first job is to unplug and remove the temperature sensor from the crash bar. To remove the sensor, use a trim removal tool or flat blade screwdriver to lever the sensor away from the crash bar.



8. Removing the crash bar. There are 8 fasteners that need to be removed, 4 each side. There are also four M6 retaining nuts that need to be removed, 2 each side. To do this use the appropriate socket and ratchet drive with extension bar. The crash bar will now pull away from the vehicle.



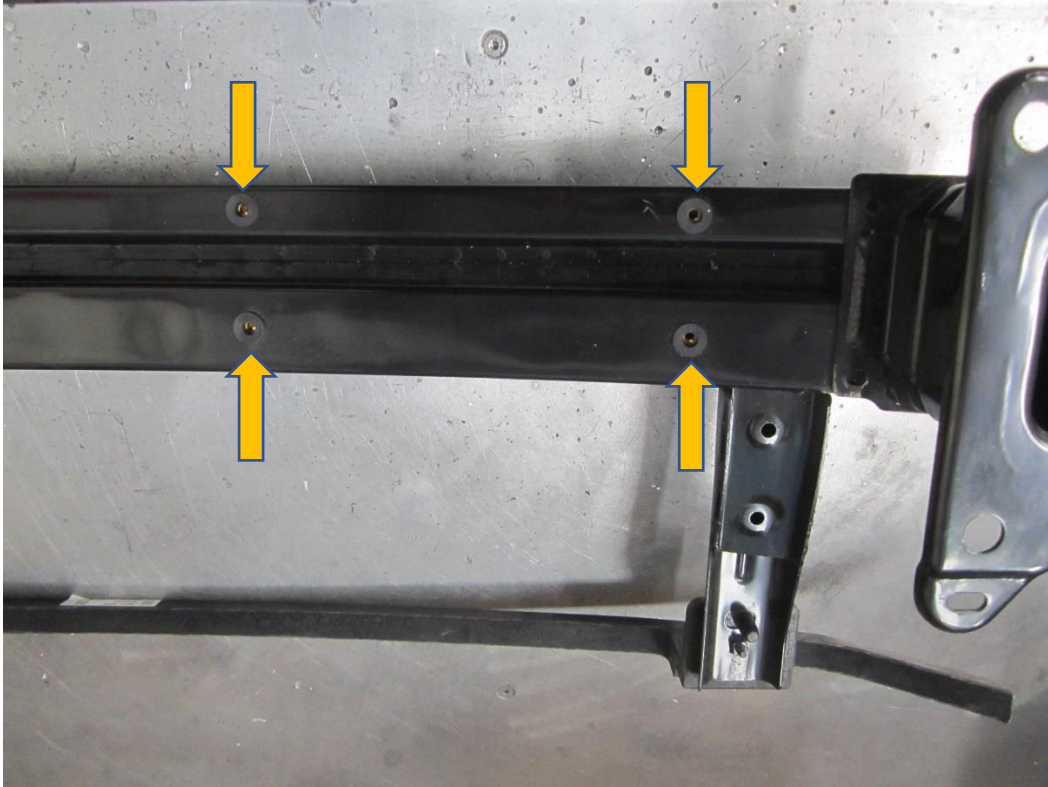
9. With the crash bar removed, place it front side down on the floor or work bench, looking at the crash bar with the lower support at the bottom you will see four predrilled holes to the right hand side. The four holes need to have the diameter increase to 12.5mm use the appropriate drill bit to achieve this.



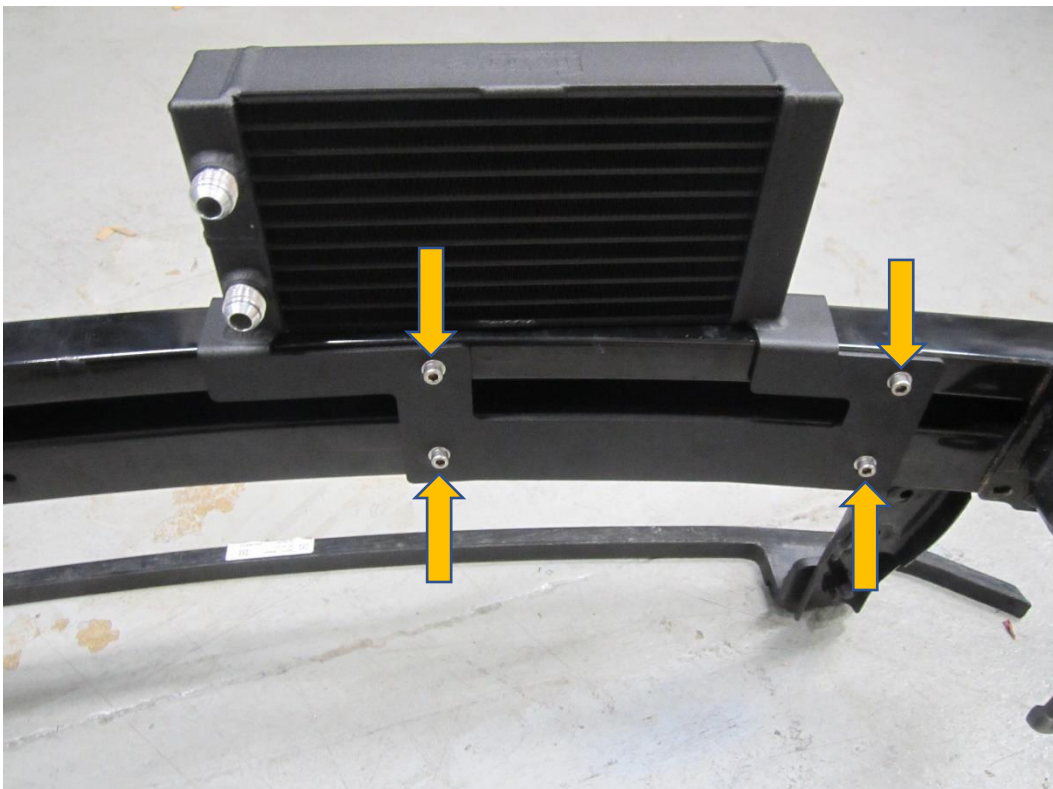
Original Hole
Diameter

Hole increased to
12.5mm
Diameter

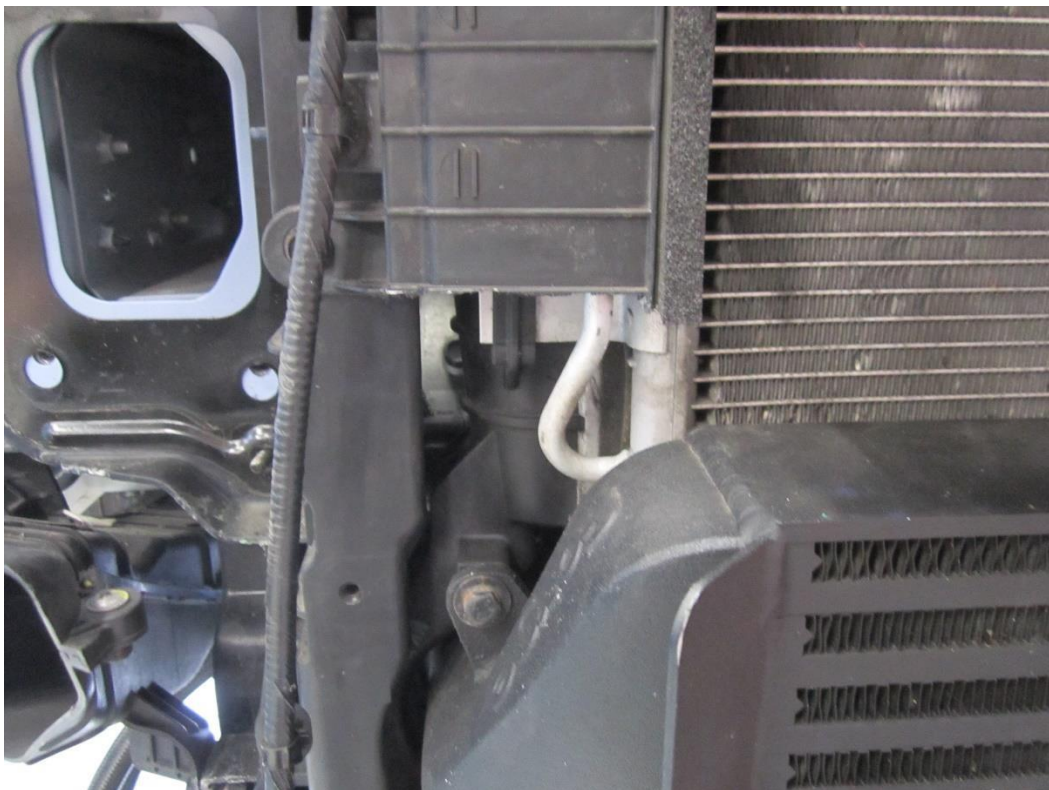
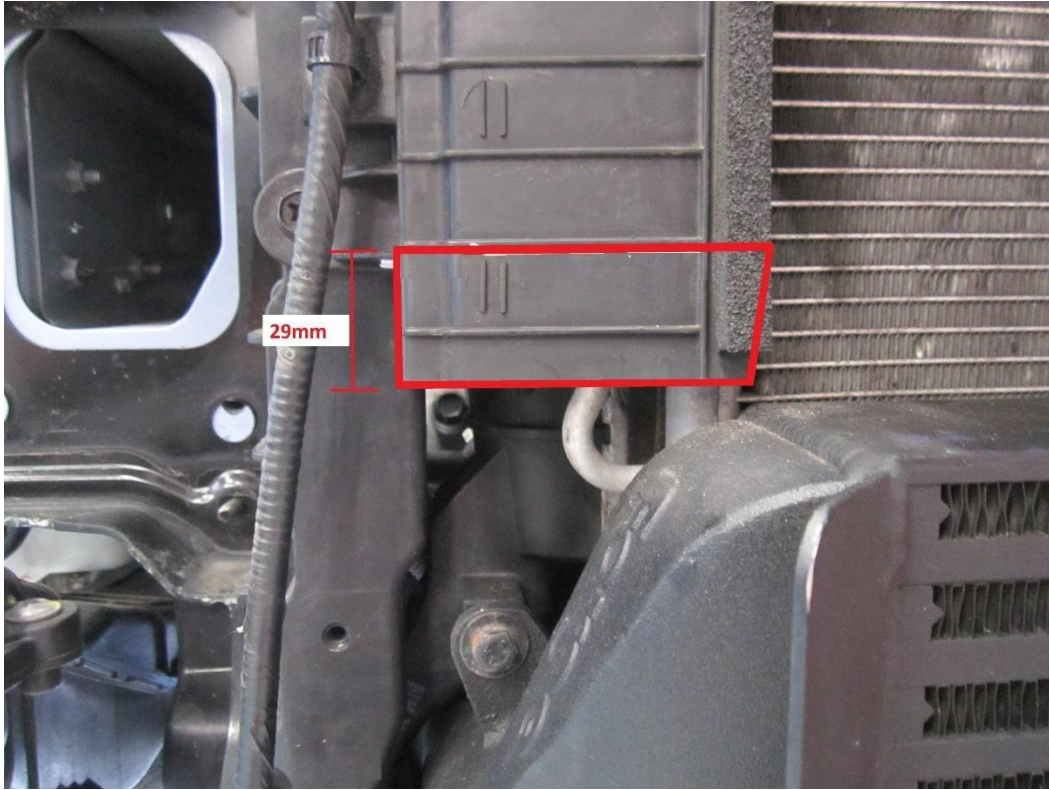
10. With all four holes drilled insert the four rubber riv nuts supplied with the FMOC11 Kit, these will push into place with mild force.



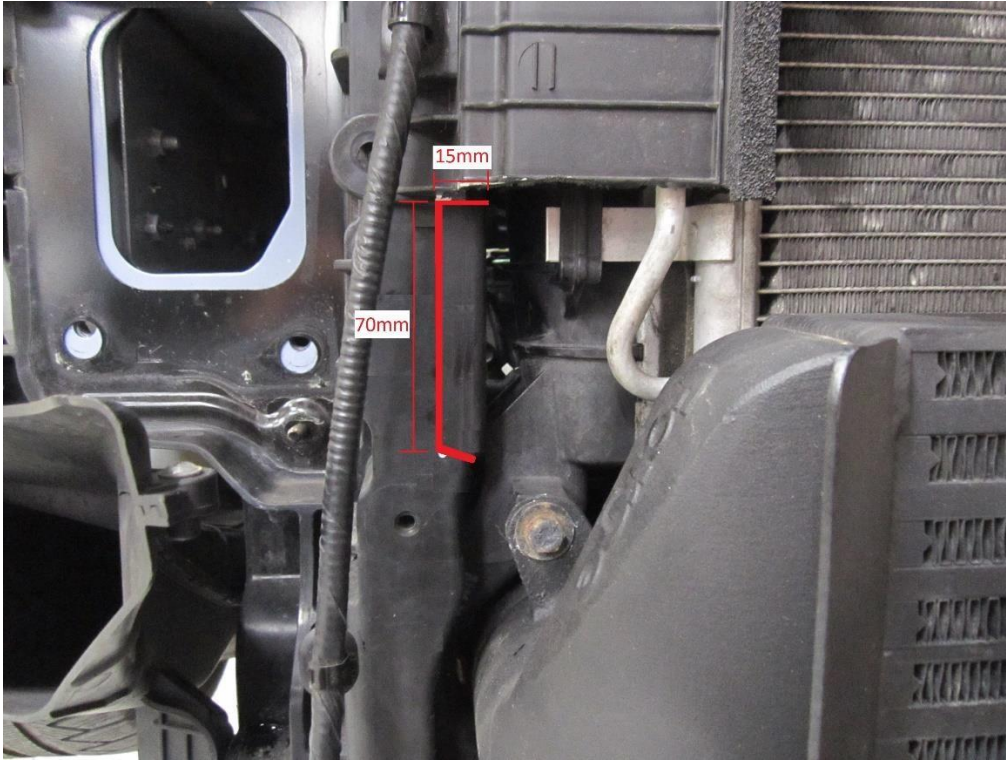
11. Offer the oil cooler and bracket to the crash bar and line up the holes in the bracket to the rubber riv nuts fitted into the crash bar from the previous step. Use the four M6x20mm cap head fasteners and M6 washers to secure the oil cooler into place using a 5mm Allen key to tighten them.

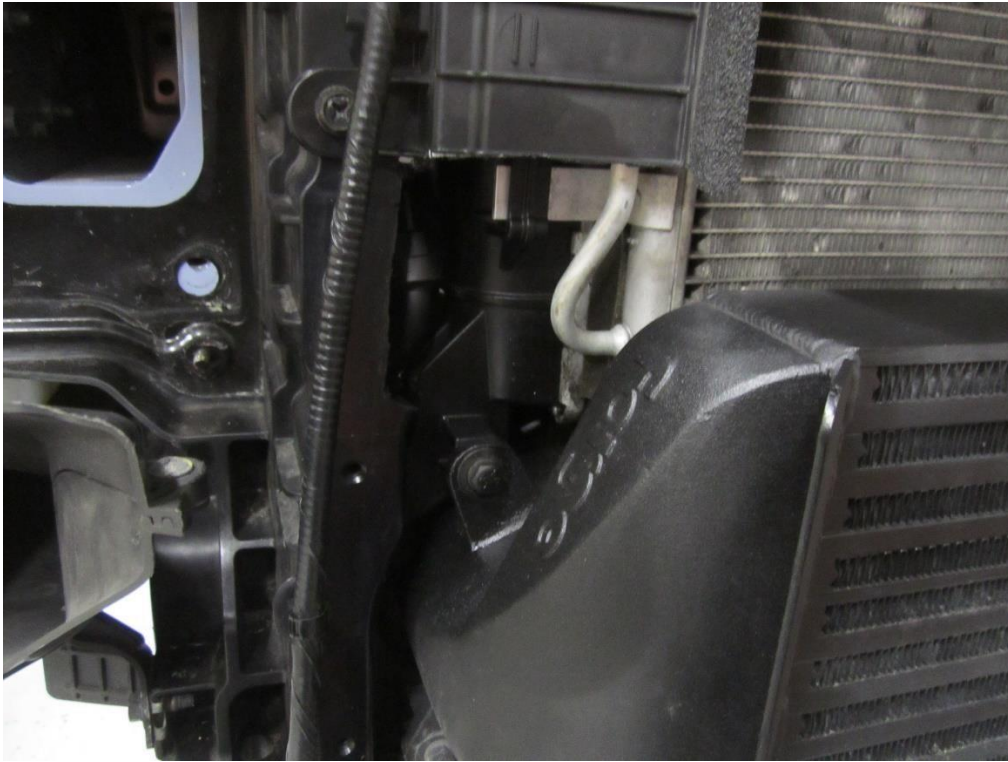


12. As you look at the front of the vehicle, to the top left of the intercooler there is part of the plastic shrouding that needs to be cut down. Cut it as shown in the picture below, measure 29mm up from the bottom and cut straight across with a junior hack saw.

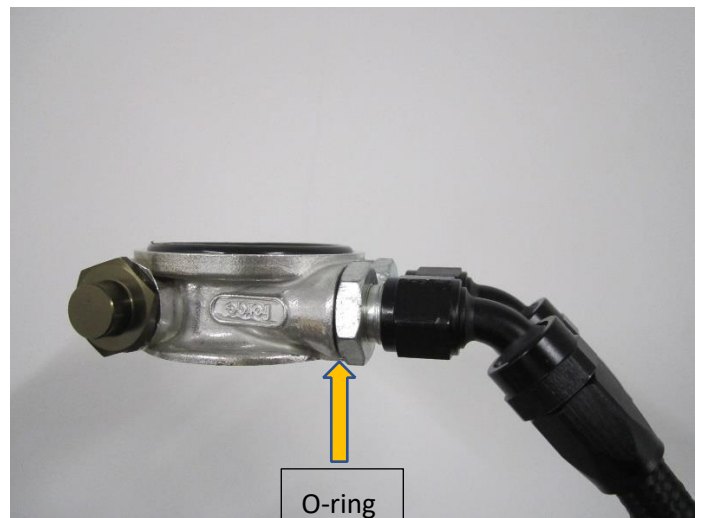


13. The next part to be trimmed is the plastic framework behind the area you just cut. As before measure and mark out the area to be cut then use a junior hacksaw to remove the marked area. These cut areas will allow better access for the oil lines to run to the oil cooler.





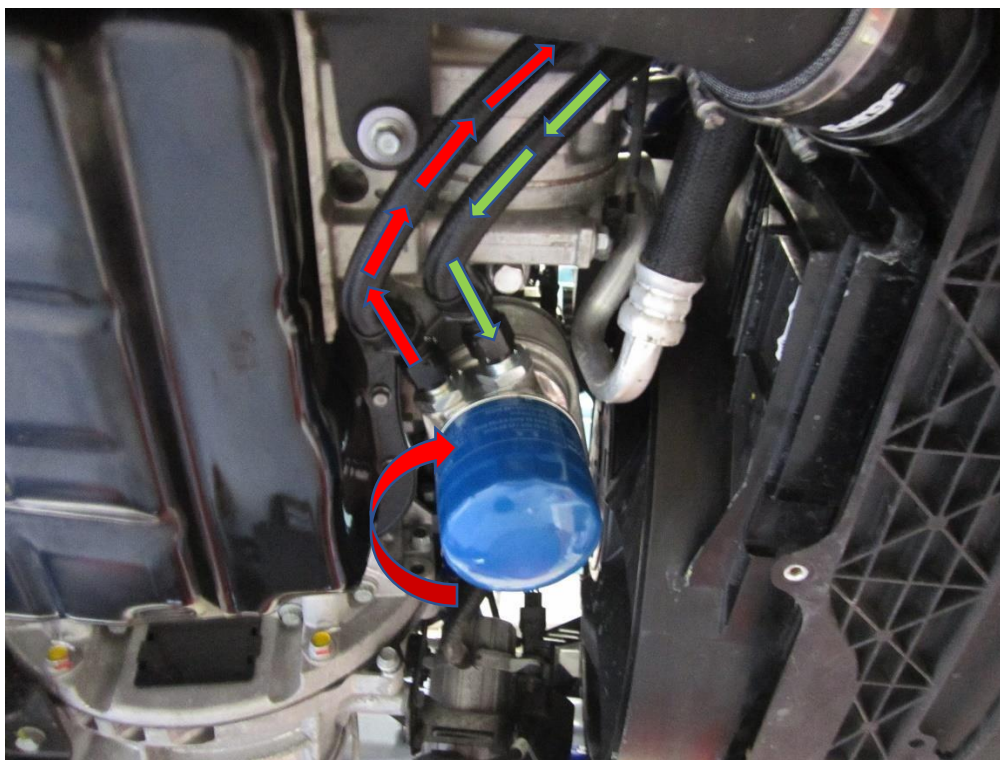
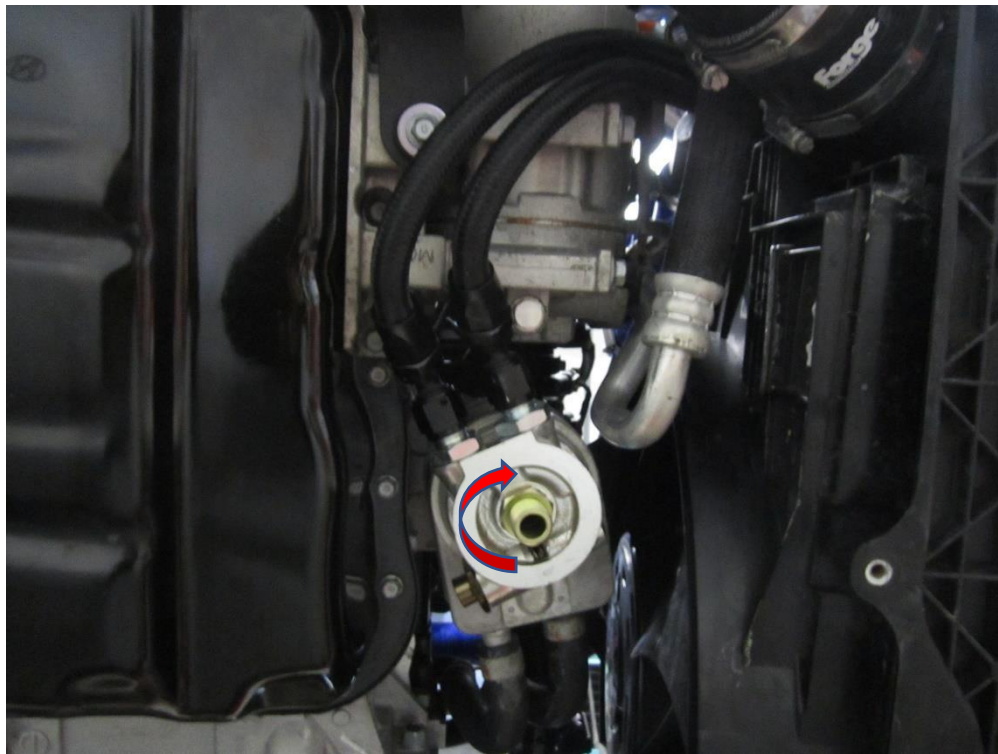
14. Assemble the oil take off plate with the AN fittings and O rings. Attach the 45 degree ends of the oil cooler lines to the AN fitting's as shown in the picture below. Use an adjustable and a 22mm spanner to tighten these fittings, make sure all fittings are tightened firmly.



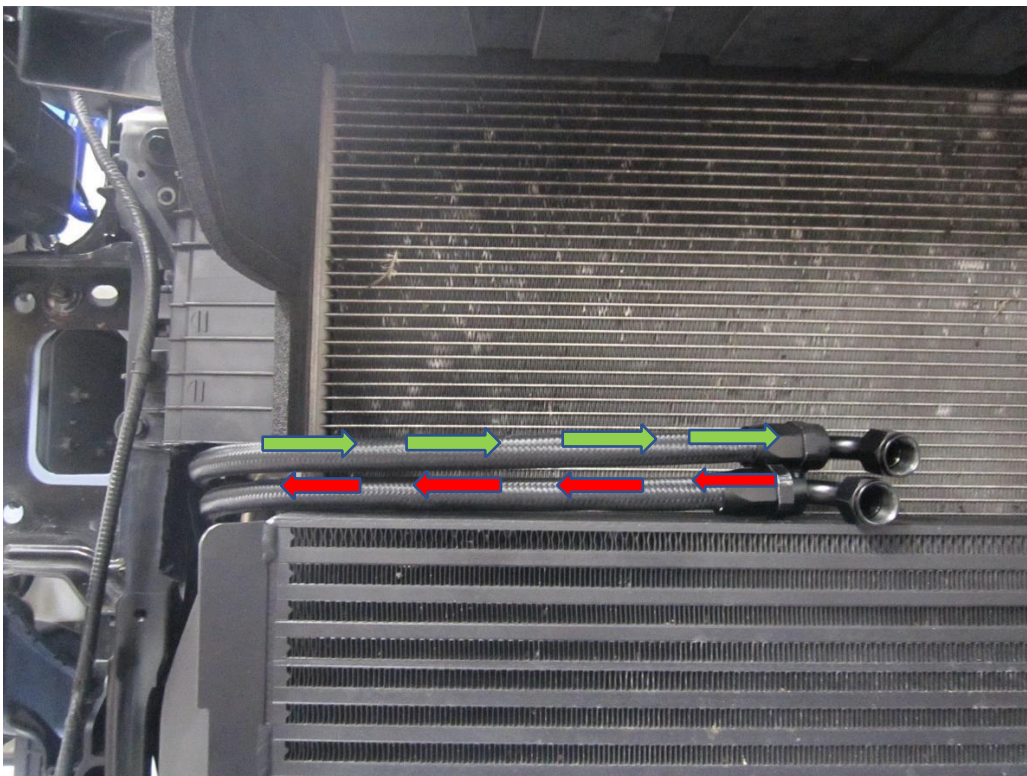
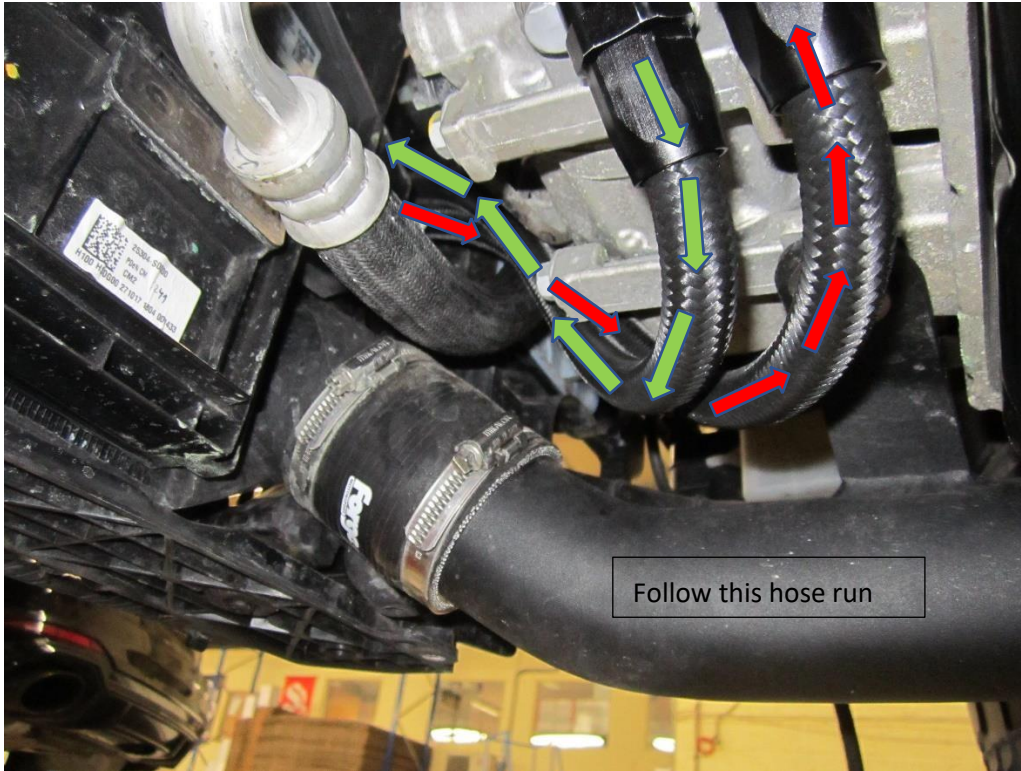
15. Remove the oil filter with an oil filter removal tool, turn the filter anti clockwise to release it.



16. Offer up the oil take off plate where the oil filter used to be in the orientation illustrated below, make sure the rubber O ring side is facing towards the engine and secure it in place with the threaded extension supplied. Clean the sealing face for the oil filter, smear a small amount of clean oil on to the sandwich plate O-ring. Use a 26mm extended socket or 26mm spanner to tighten the threaded extension fully, now fit the oil filter onto the threaded extension.



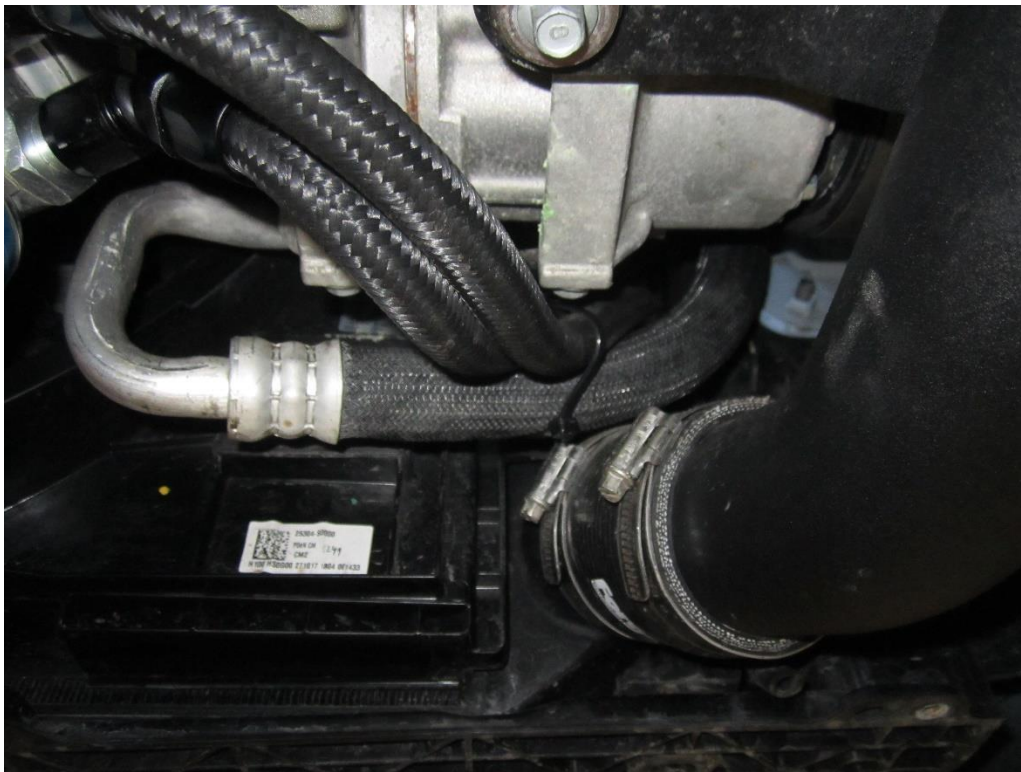
17. Run the hoses as shown in the pictures below, we would suggest you mark one of the hoses with a pen or pencil, so you know which the feed is and which is the return hose. The arrows in green show the feed direction and the red arrows show the return.



18. Offer up the crash bar with the fitted oil cooler to the front of the vehicle, attach the oil line to the oil cooler with the feed hose at the top and the return hose at the bottom of the cooler as shown below. Use a 22mm spanner to tighten the oil lines to the oil cooler, make sure they are tightened firm and fully. Once the oil lines are secure mount the crash bar back in place by following step 8 in reverse.



19. Use the supplied cable tie to secure the two oil cooler lines to the high-pressure hose below them. This is to avoid the oil lines chafing against the compressor.



20. Add half a litre of the appropriate grade engine oil to your vehicle to compensate for your new Forge oil cooler. Now start the engine, get it to full running temperature and check for oil leaks, if you do find any leaks; wait for it to cool down and tighten fittings accordingly.
When you are happy with your installation put the rest of the car back together by following steps 1-7 in reverse order

