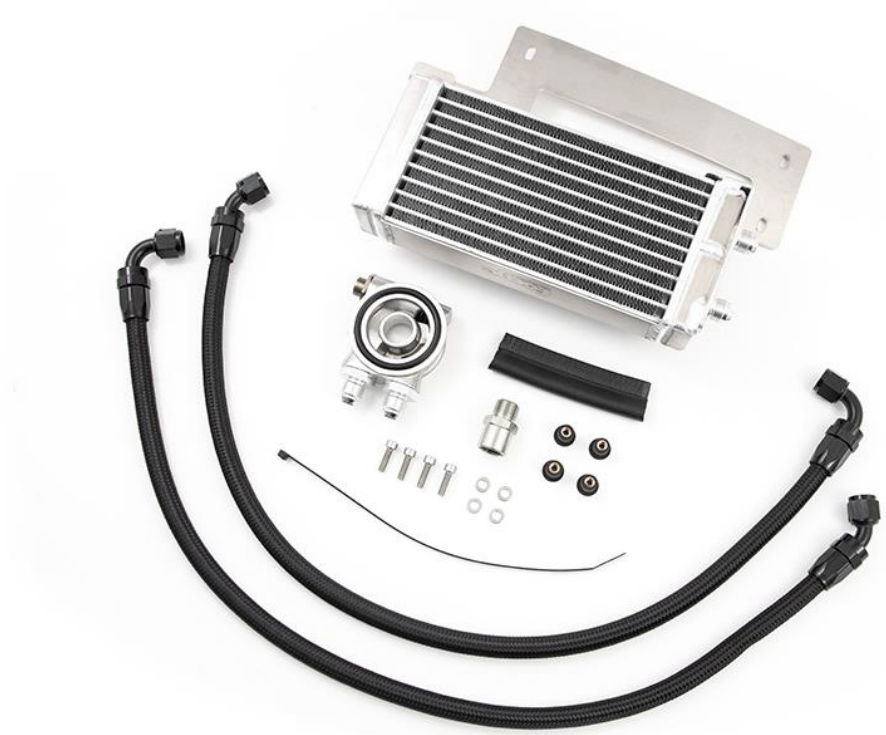
FMOC13 Fitting Instructions

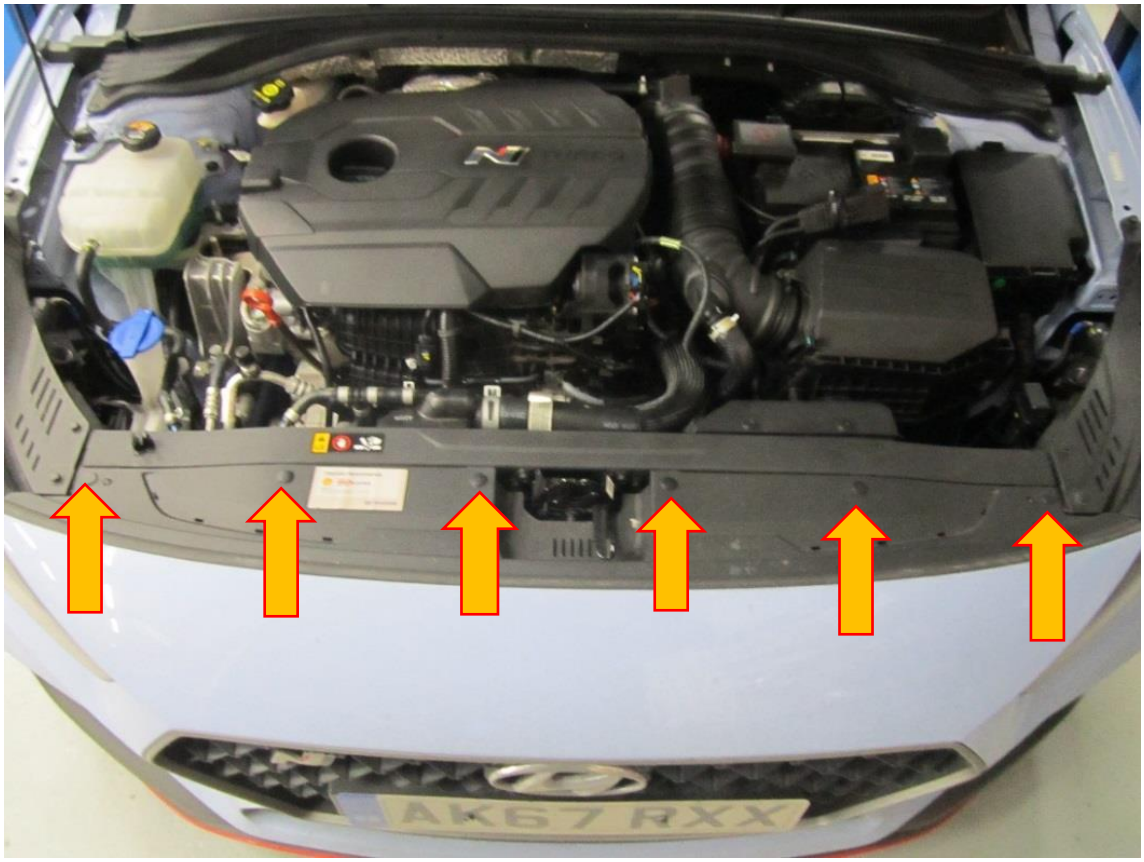


Please thoroughly read through and familiarise yourself with these instructions in their entirety prior to beginning any part of the installation process of any component. Please also ensure the vehicle and engine has cooled down sufficiently to avoid risking possible skin burns or other injury.

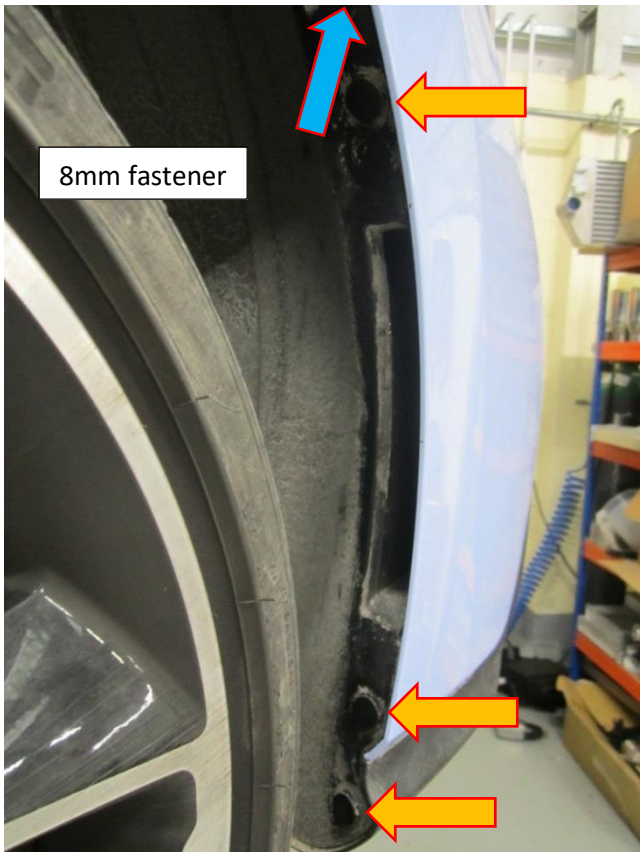
TOOLS NEEDED:

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

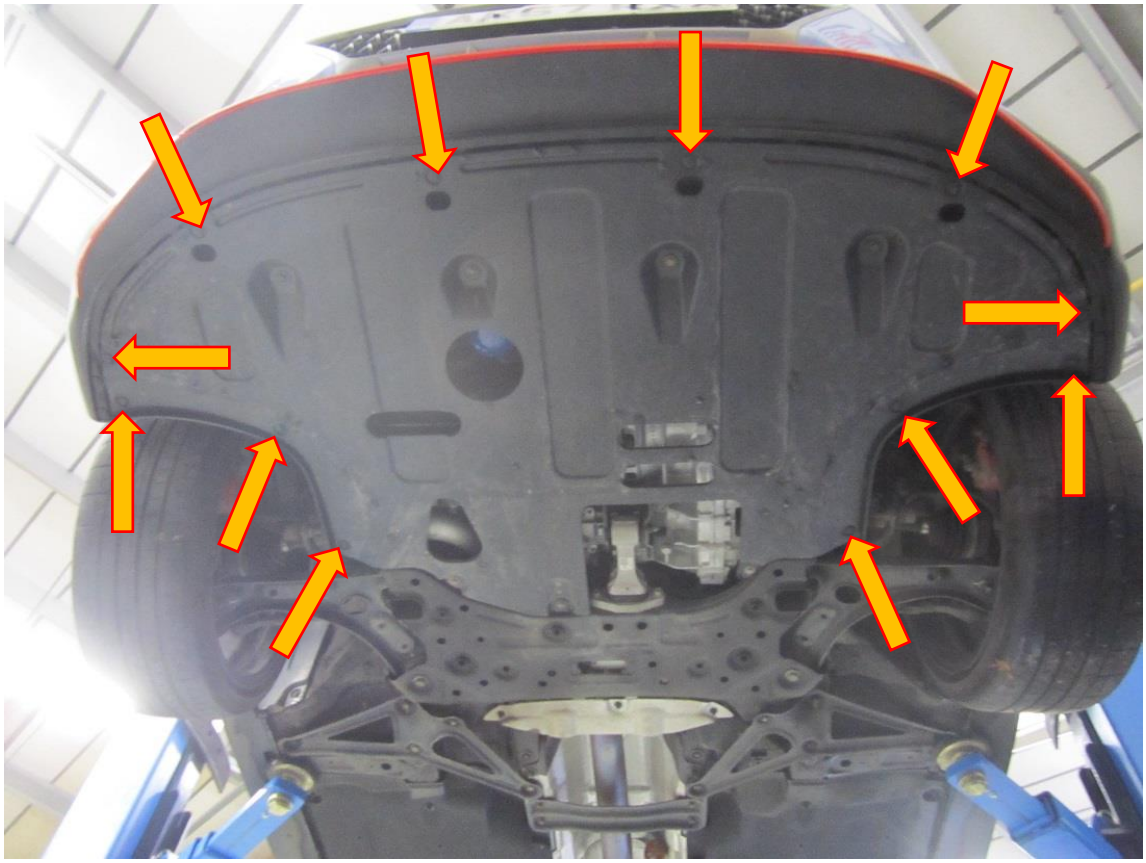
1. Park the vehicle securely, then open the bonnet and using a plastic trim tool or flat blade screwdriver remove the six plastic fasteners that run across the slam panel.



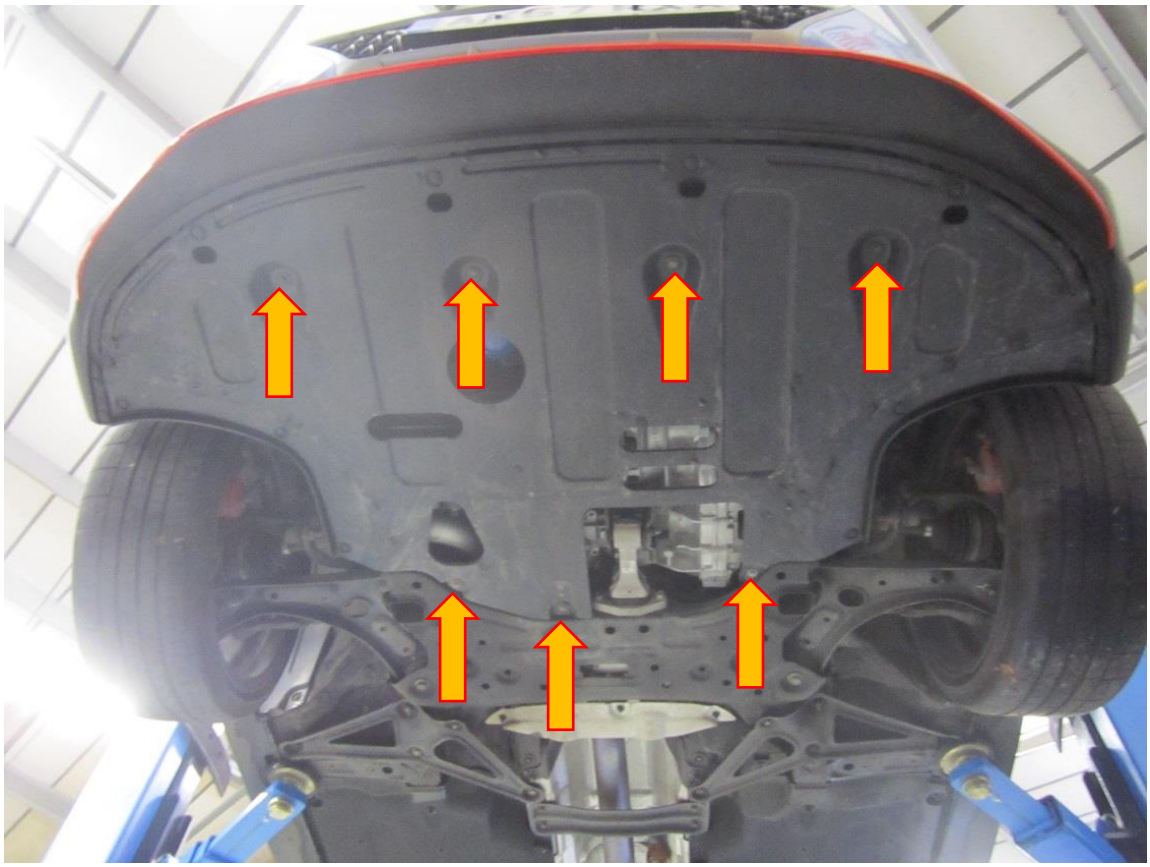
2. Using an 8mm socket and rachet or Pozi drive and remove the fastener at the top of the wheel arch. Using a plastic trim tool or flat blade screwdriver remove 3X plastic fasteners. This procedure is to be carried out both sides.



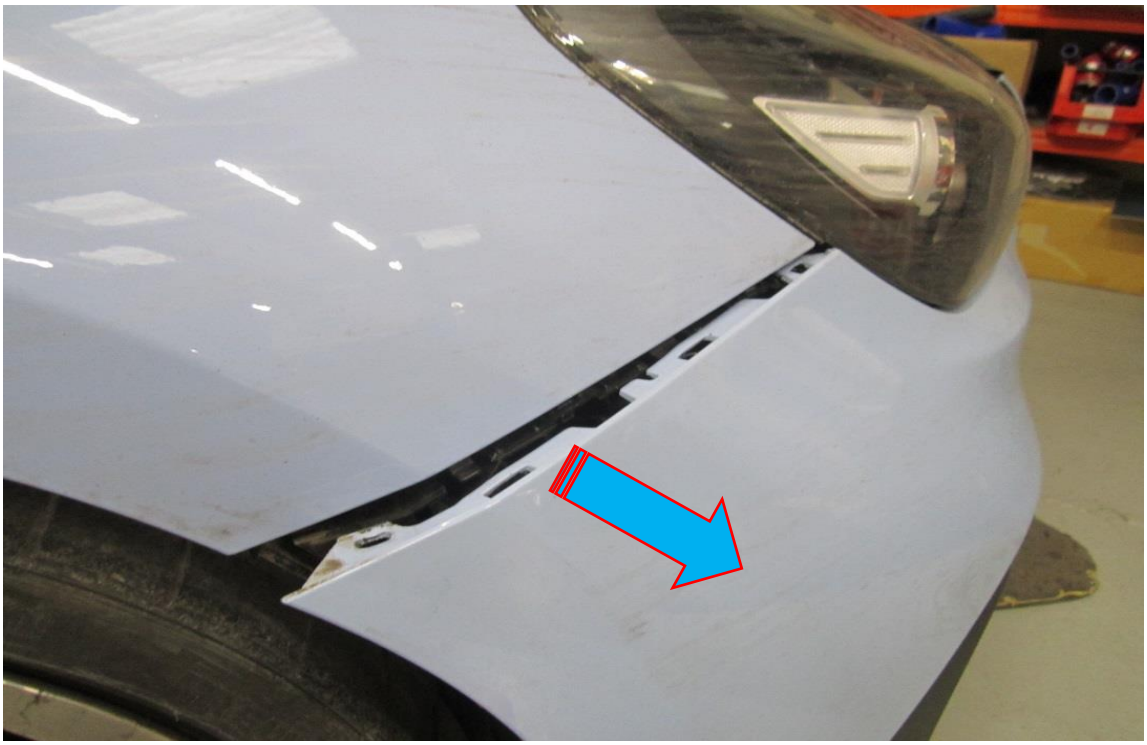
3. Using a car ramp or jack and axel stands raise the vehicle in the air. With the aid of trim tool or flat blade screwdriver remove 12 plastic fasteners attaching the under tray to the vehicle.



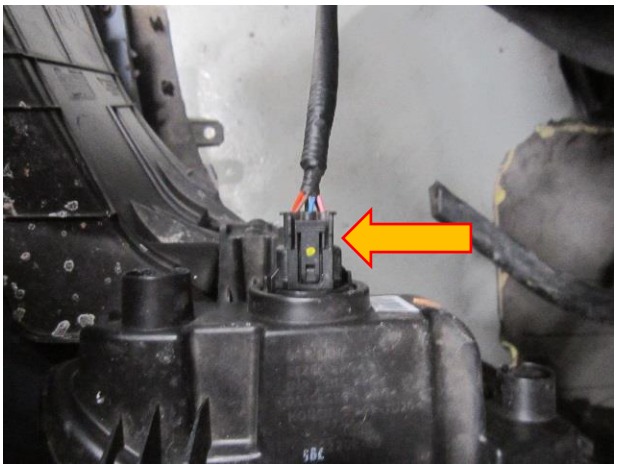
4. Using a 10mm socket and ratchet remove the remaining 7 fasteners left holding the under tray in place.

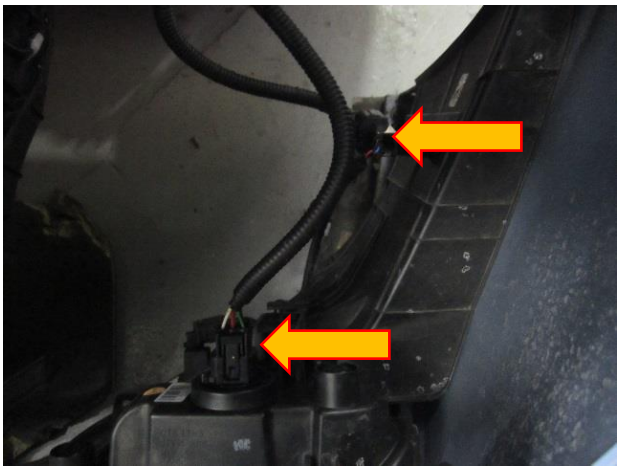


5. Pull sharply at the top corners of the bumper so that it comes away from its locating clips as shown in the picture.

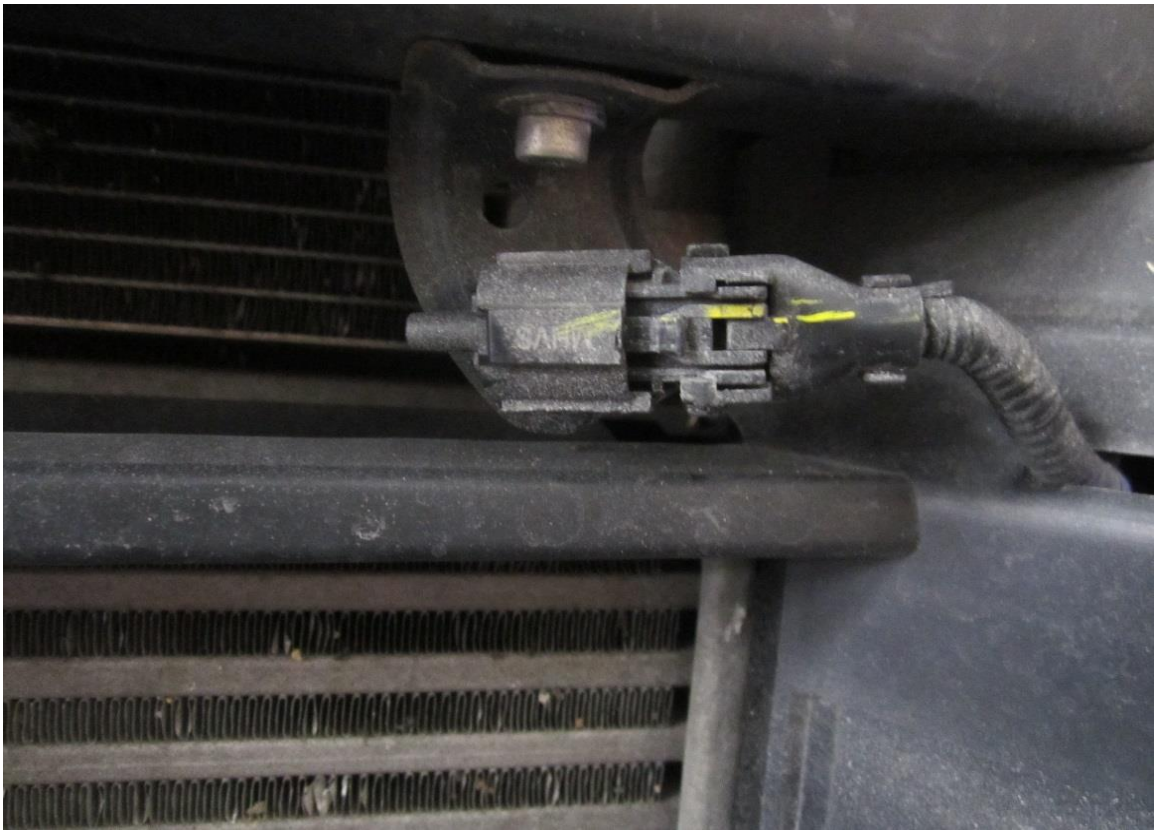


Un-plug both fog lights and parking sensor loom. At this point the bumper can be removed completely from the vehicle.

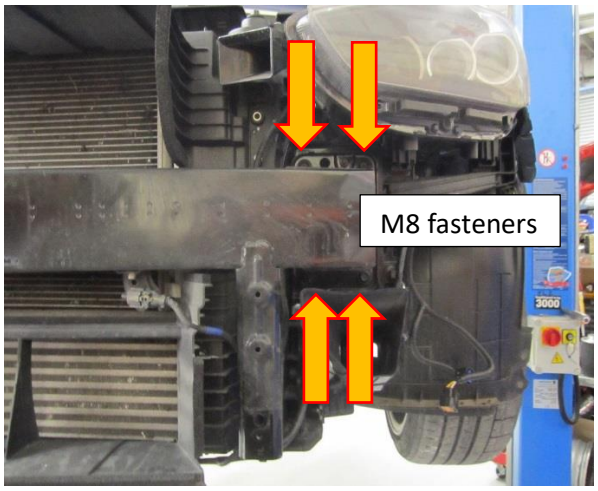


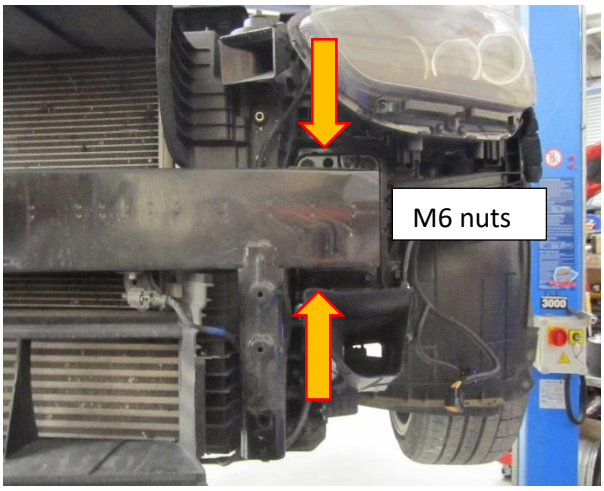


6. Un-plug the temperature sensor and using a trim removal tool or flat blade screwdriver to lever the sensor away from the crash bar.

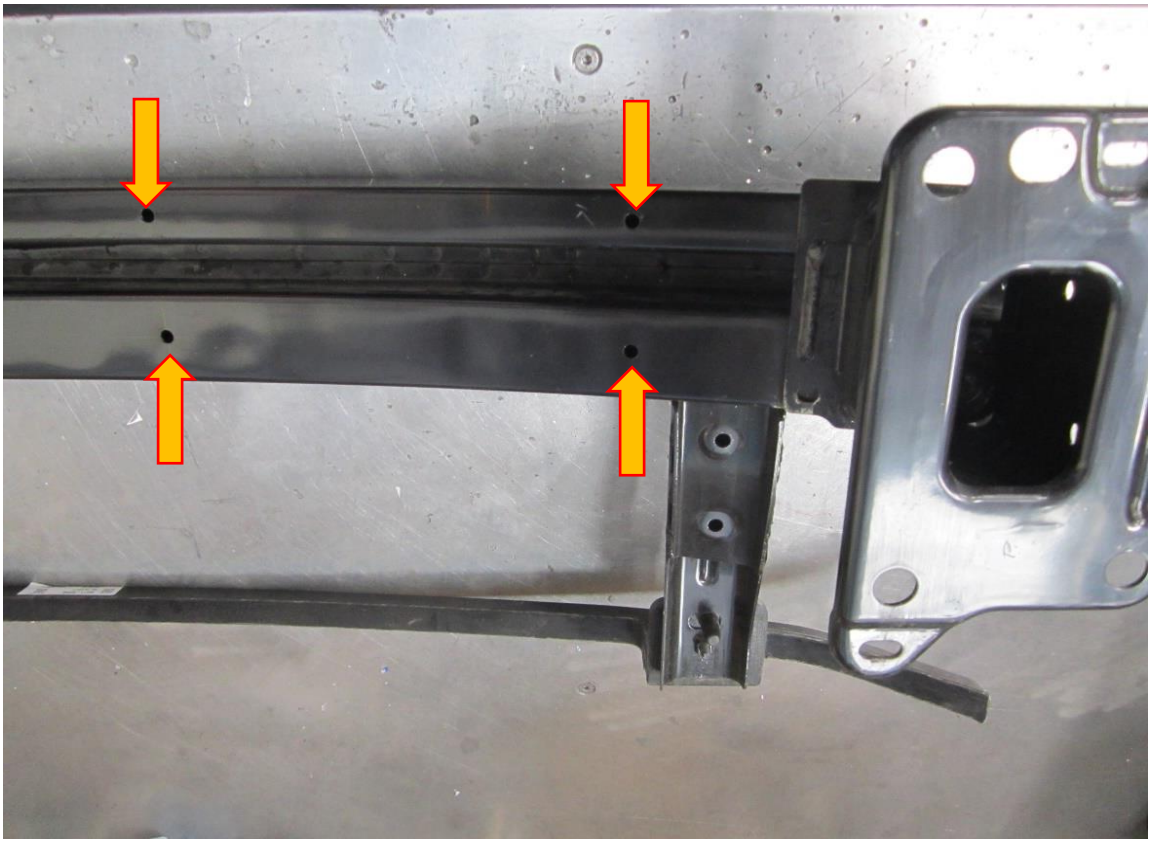


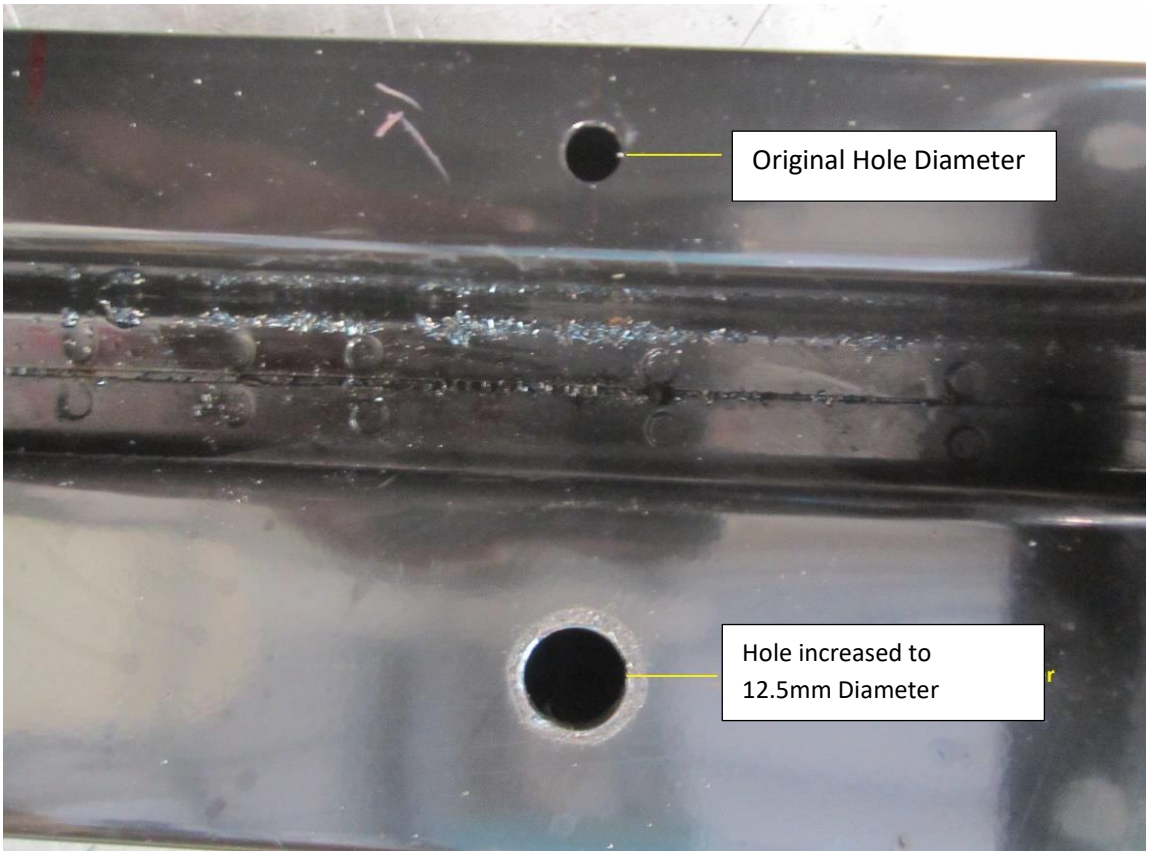
7. Using a 12mm socket and ratchet remove 8X M10 fasteners (X4 each side) and a 10mm socket and ratchet to remove 4X (x2 each side) M6 nuts attaching the crash bar to the vehicle.



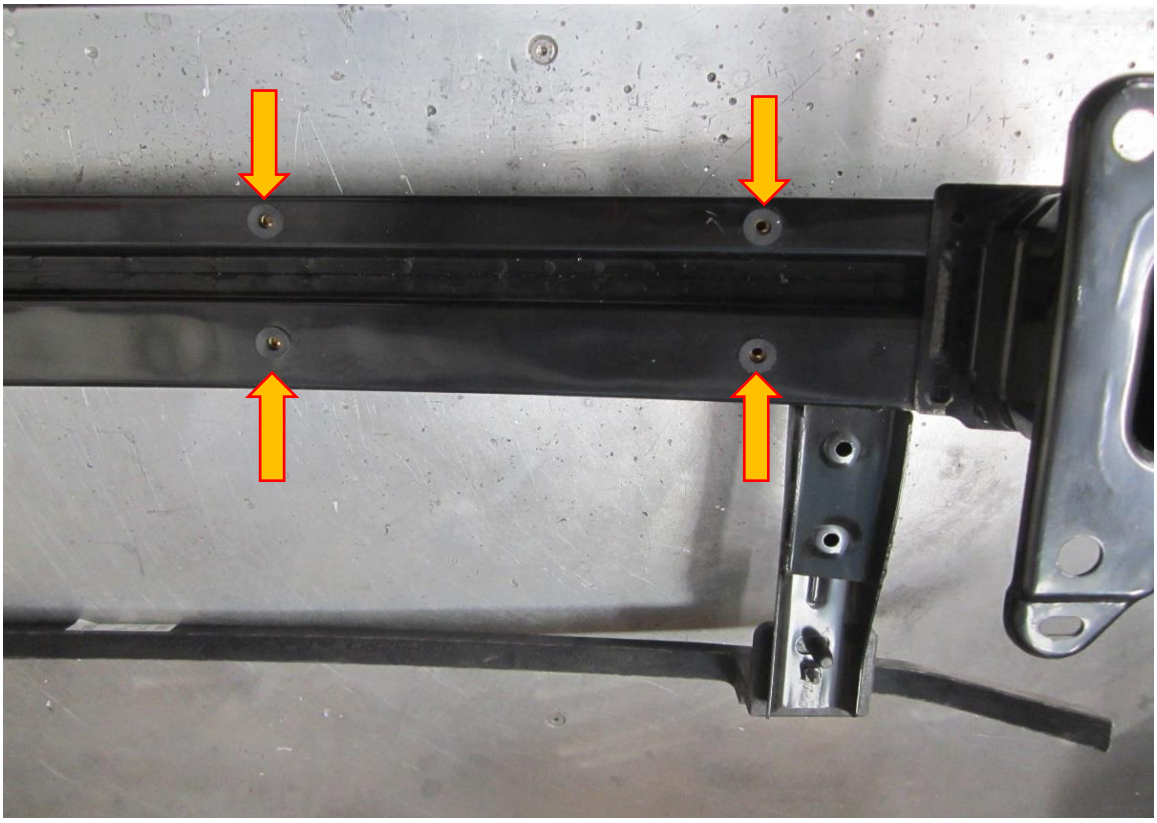


8. With the crash bar removed, place it front side down on the floor or work bench, looking at the crash bar with the lower support at the bottom you will see four predrilled holes to the right-hand side. Using a 12.5mm drill bit drill out these holes to increase the diameter.

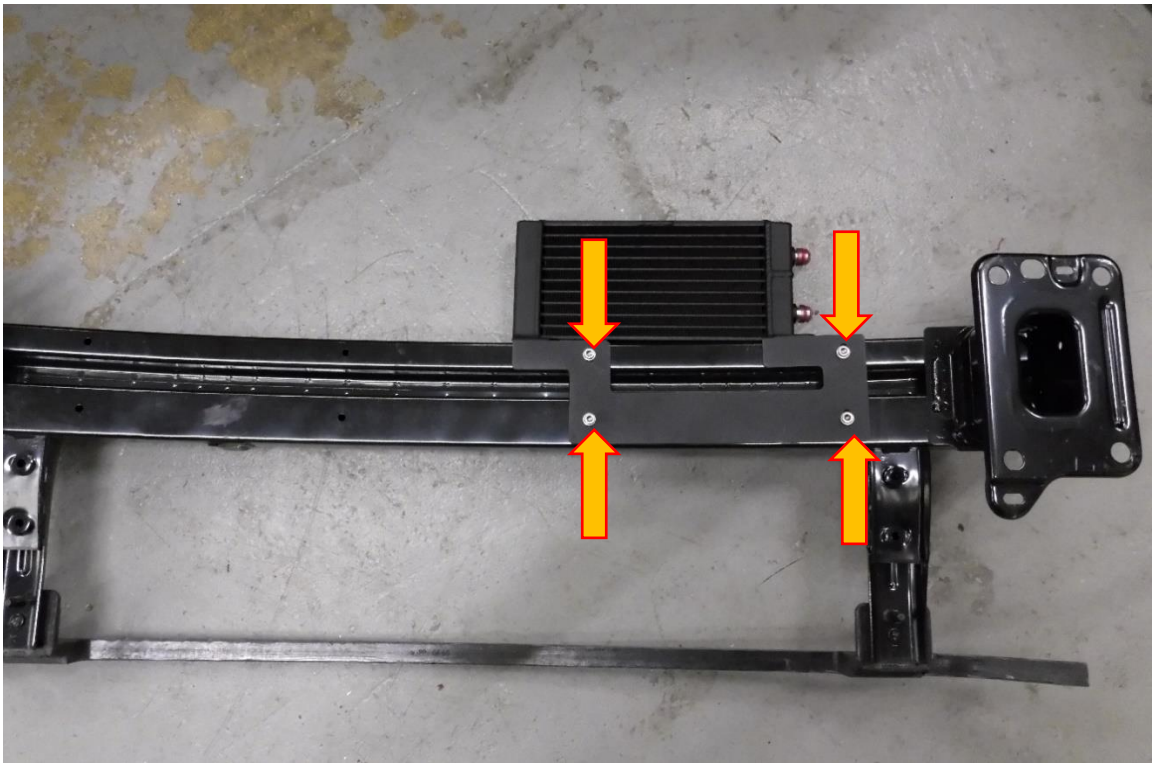




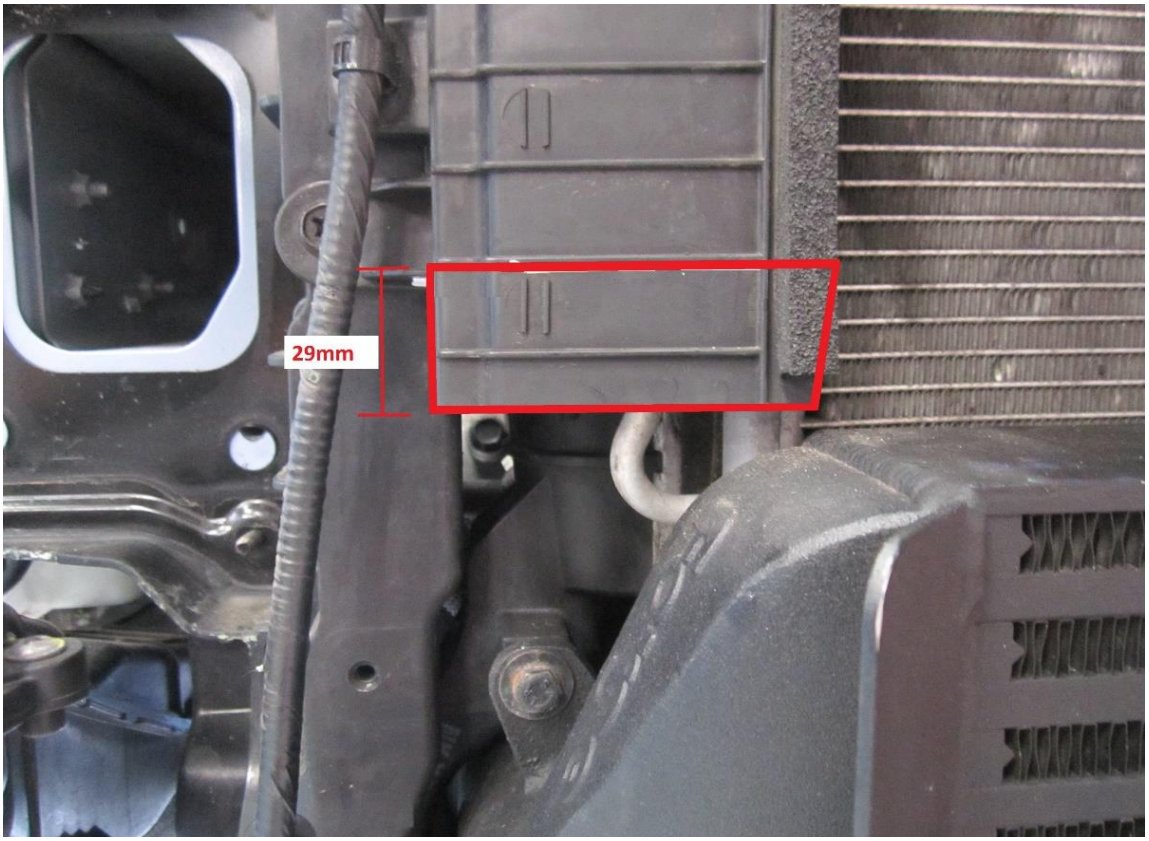
9. Insert the 4X rubber Riv-nuts supplied with the FMOC13 Kit into the four drilled holes, these will push into place with mild force.

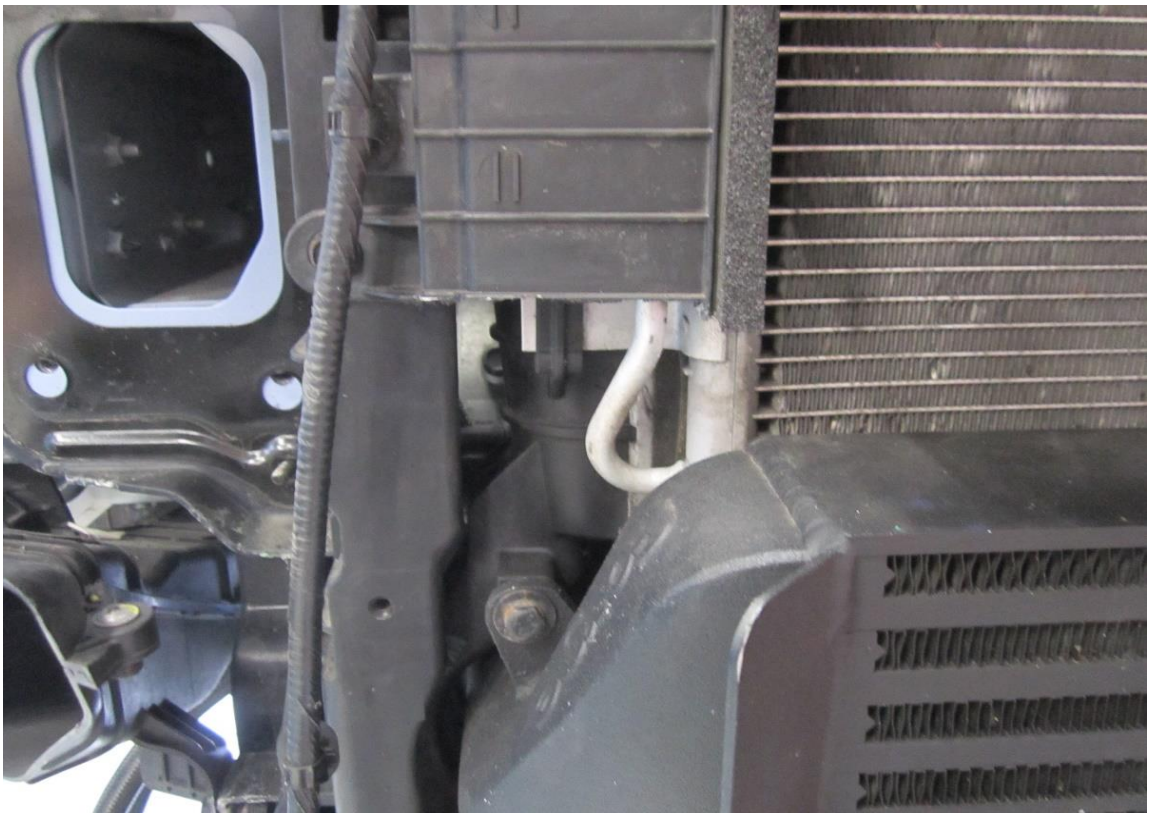


10. Using a 5mm Allen key tighten 4X M6x20mm cap head fasteners and M6 washers from the FMOC13 kit to secure the oil cooler to the crash bar.

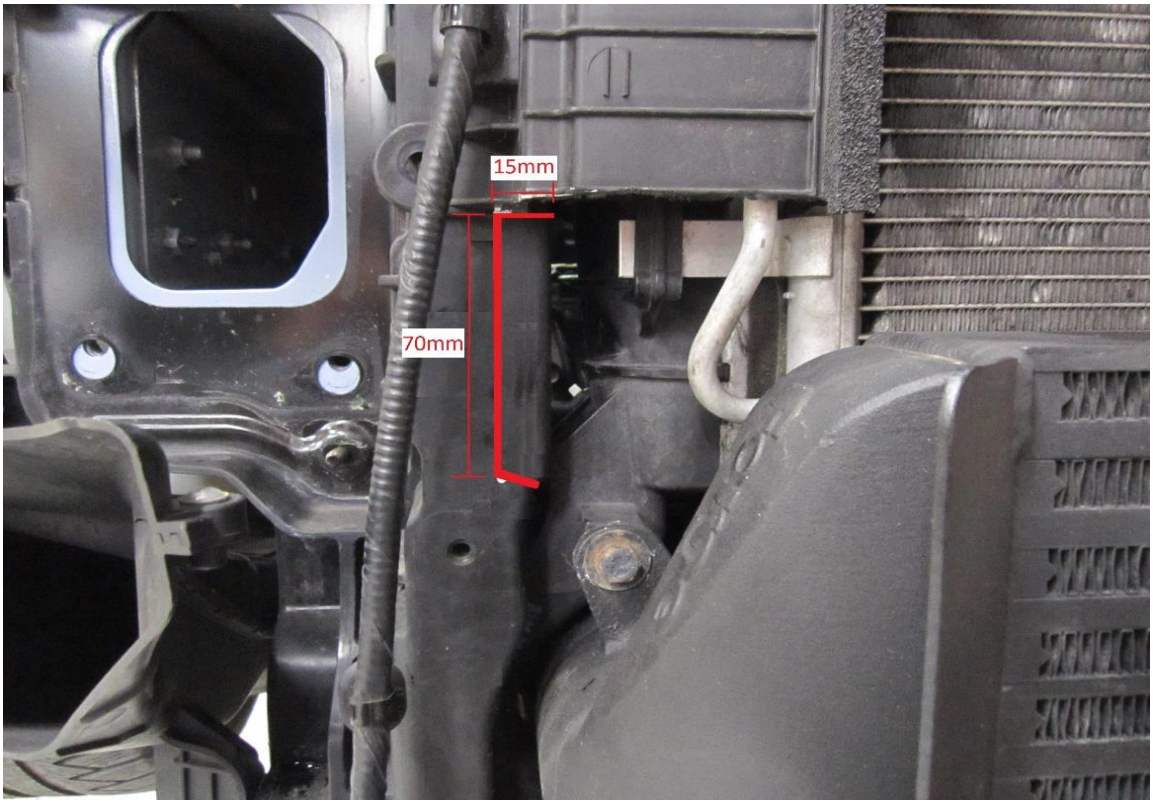


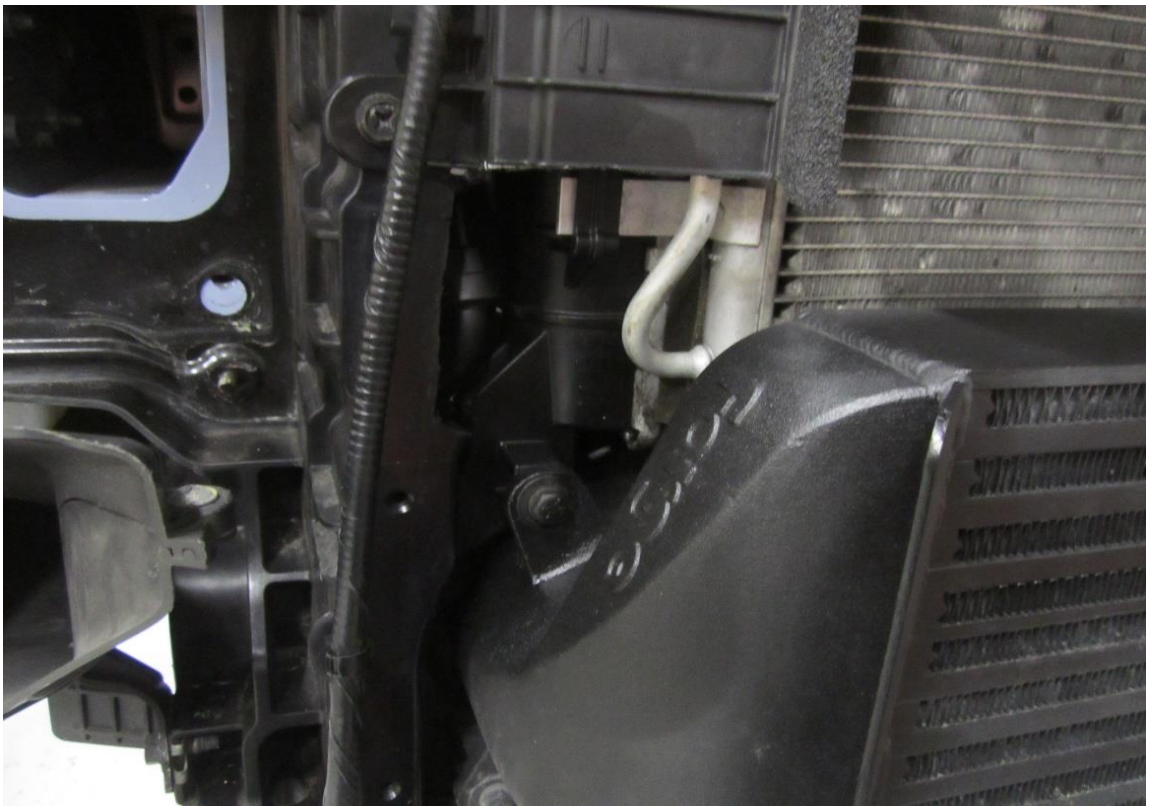
11. As you look at the front of the vehicle, to the top left of the intercooler there is part of the plastic shrouding that needs to be cut down. Using a junior hacksaw cut out the marked area as shown in the picture below, measure 29mm up from the bottom and cut straight across.



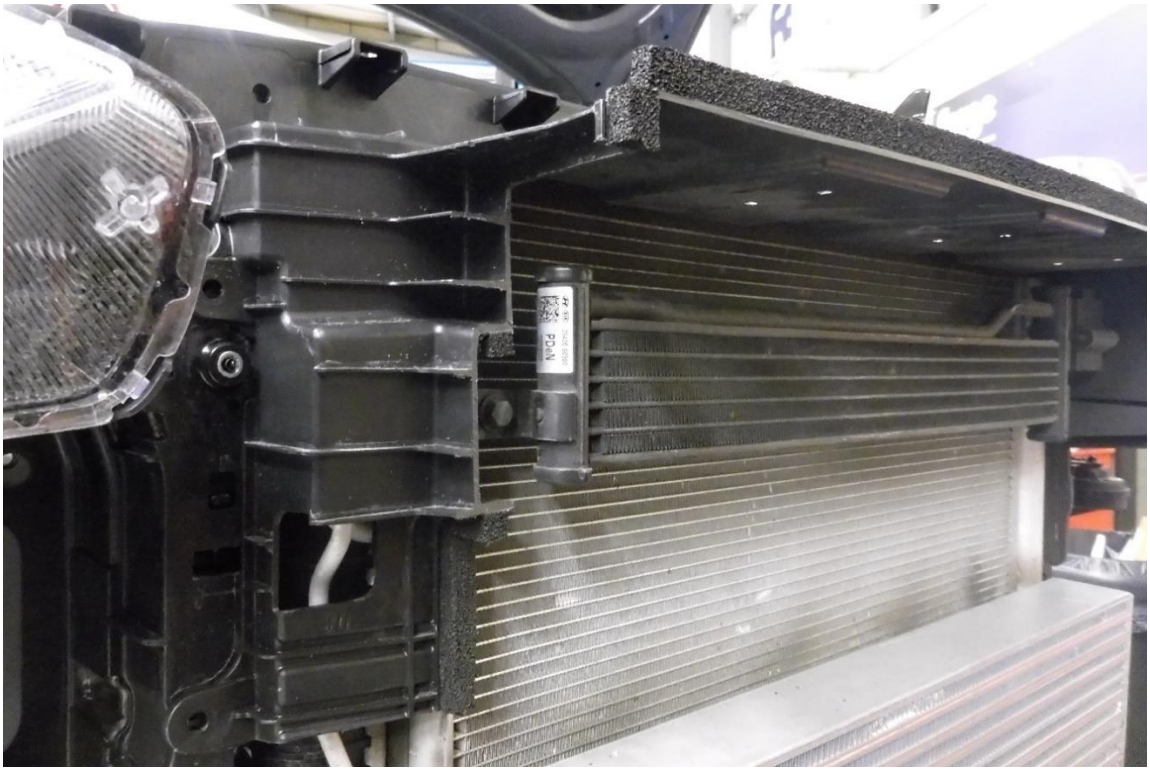


12. As before measure and mark out the area to be cut then use a junior hacksaw to remove the material. These cut areas will allow better access for the oil lines to run to the oil cooler.

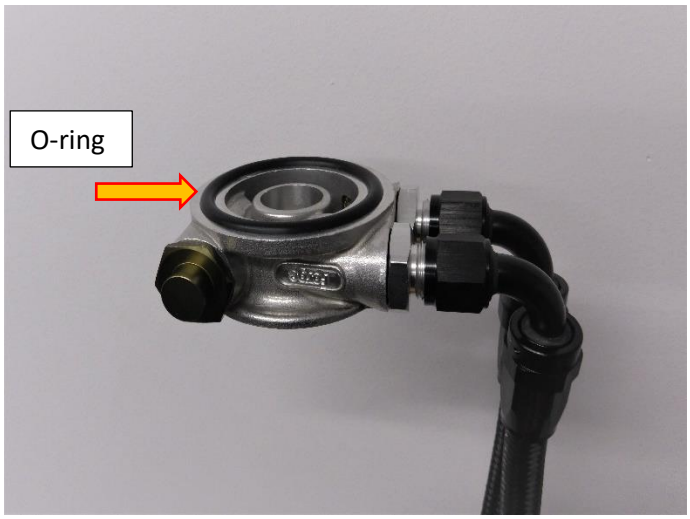




13. Using a junior hacksaw or knife cut out the shaded area of the radiator ducting.

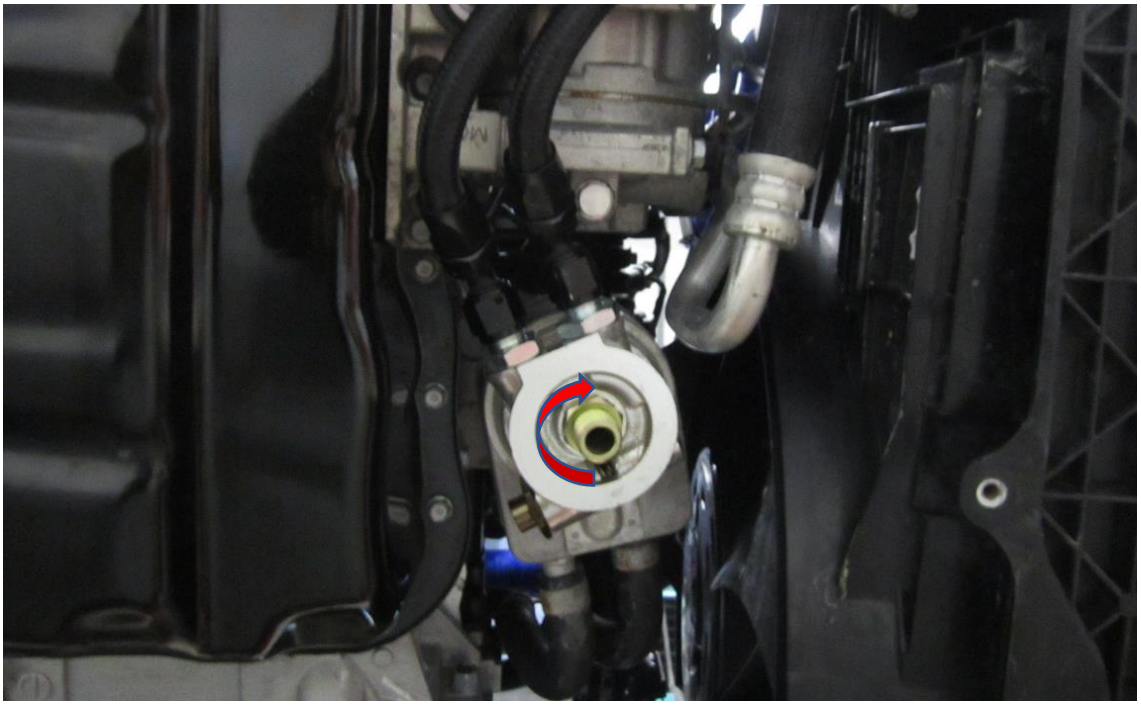


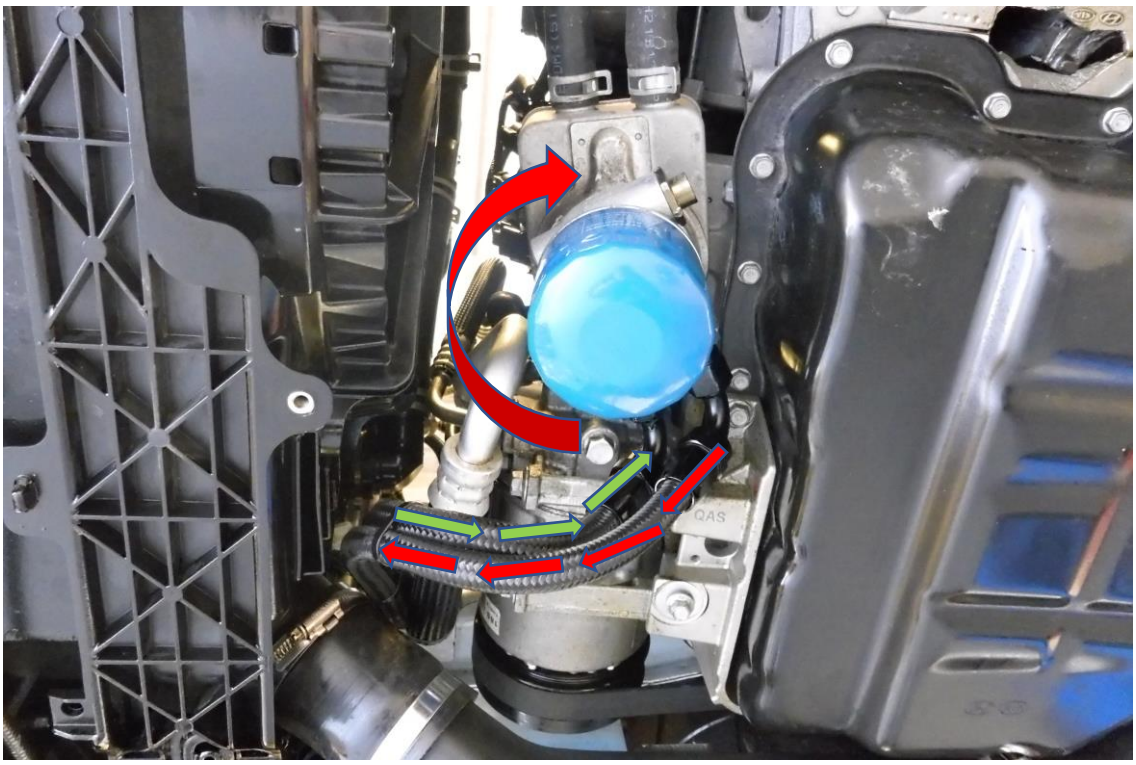
14. Assemble the oil take off plate with the AN fittings and O rings. Attach the 90 degree ends of the oil cooler lines to the AN fitting's as shown in the picture below. Use an adjustable and a 22mm spanner to tighten these fittings, make sure all fittings are tightened firmly.



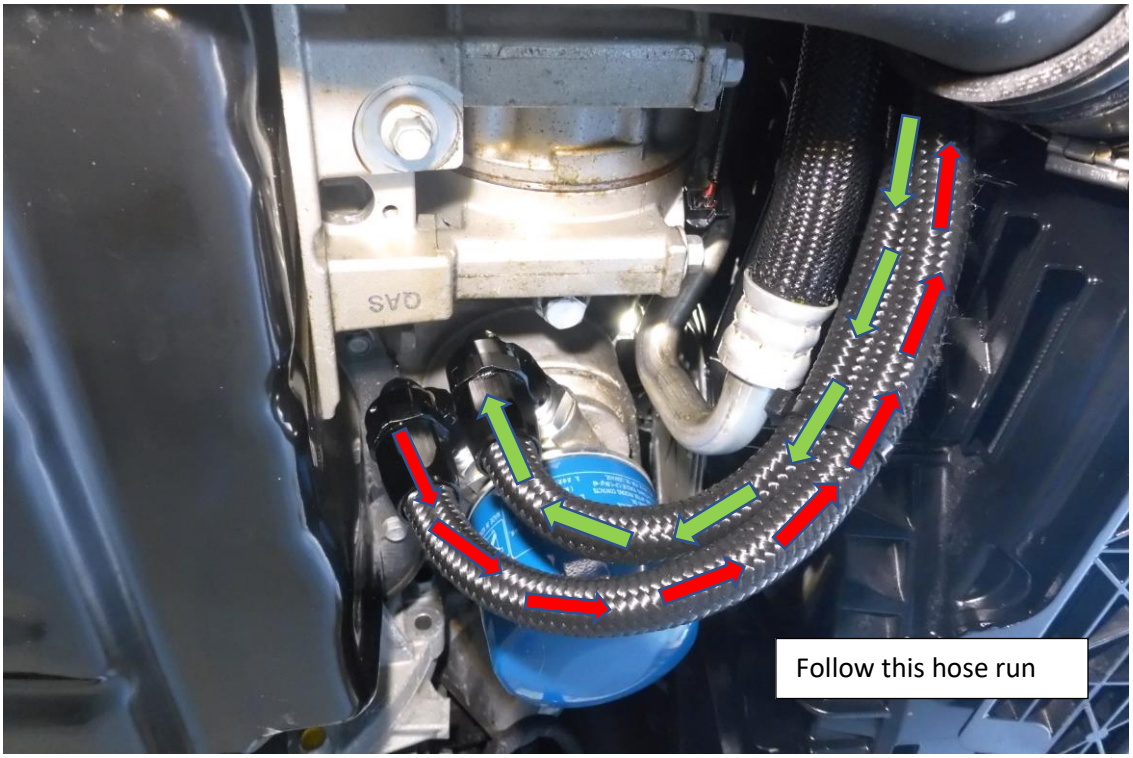
15. Using an oil filter removal tool remove the oil filter, turn the filter anti clockwise to release it.

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.

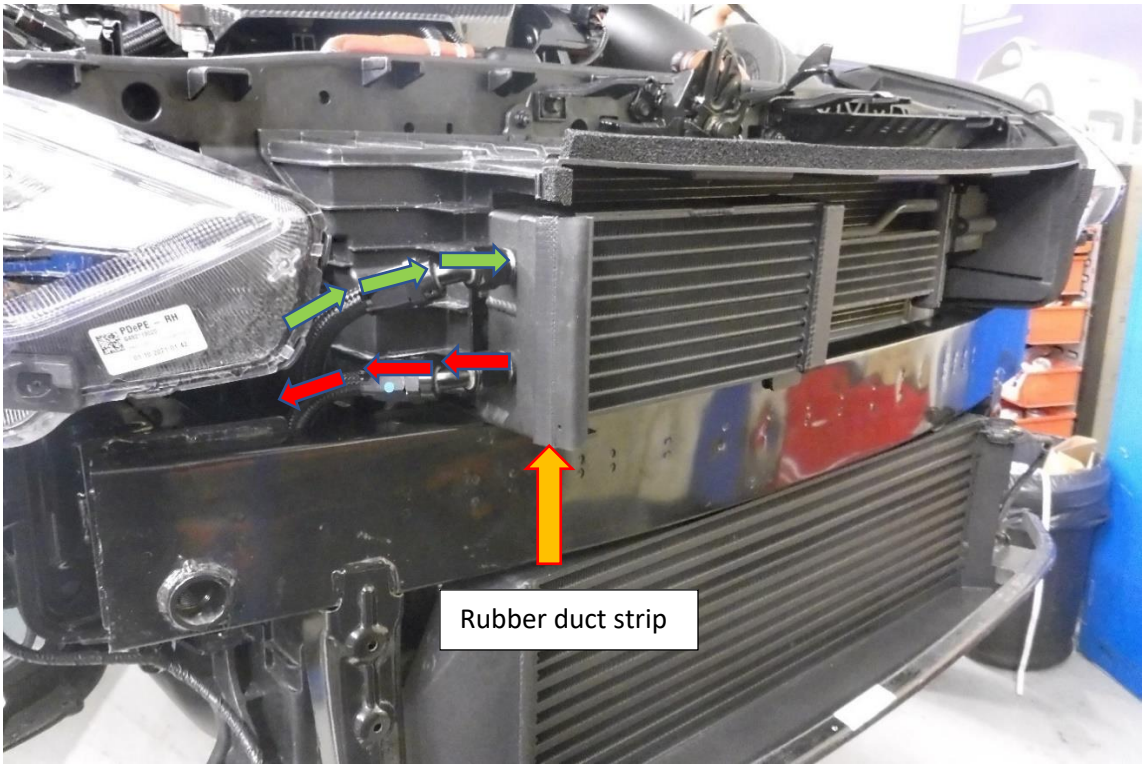




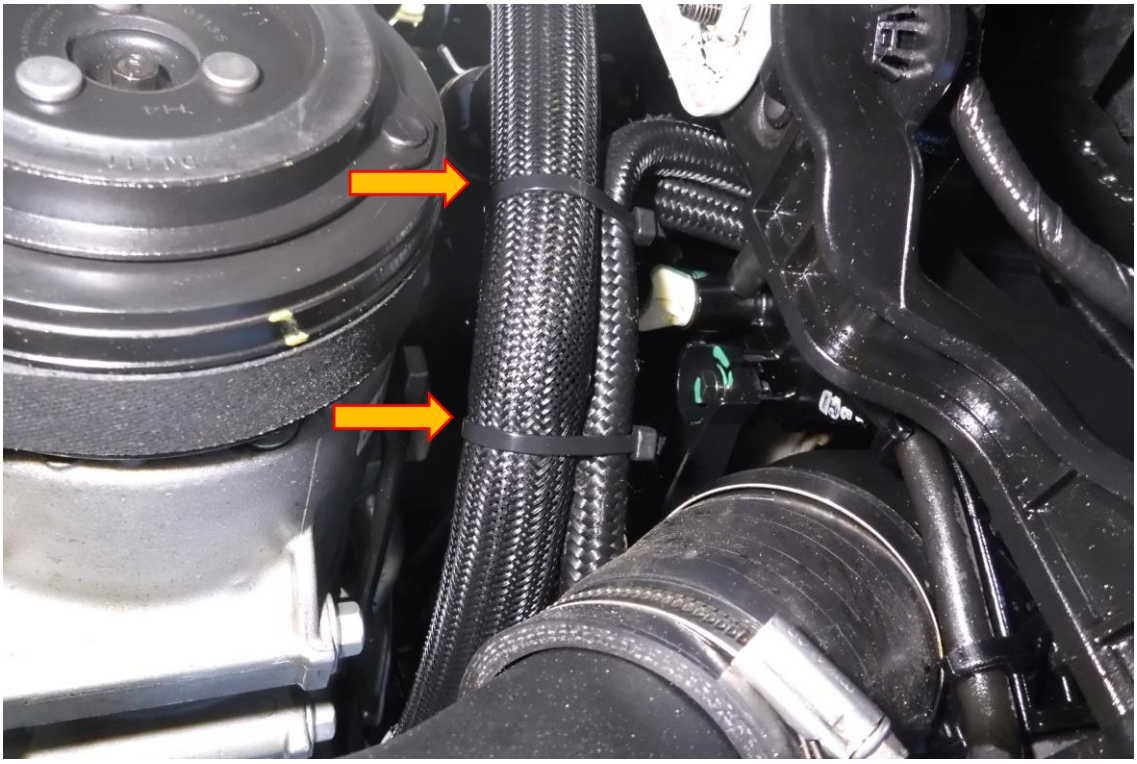
17. Run the hoses as shown in the pictures below, we would suggest you mark one of the hoses with a pen or pencil, so you know which the feed, and which is the return hose. The arrows in green show the feed direction and the red arrows show the return.



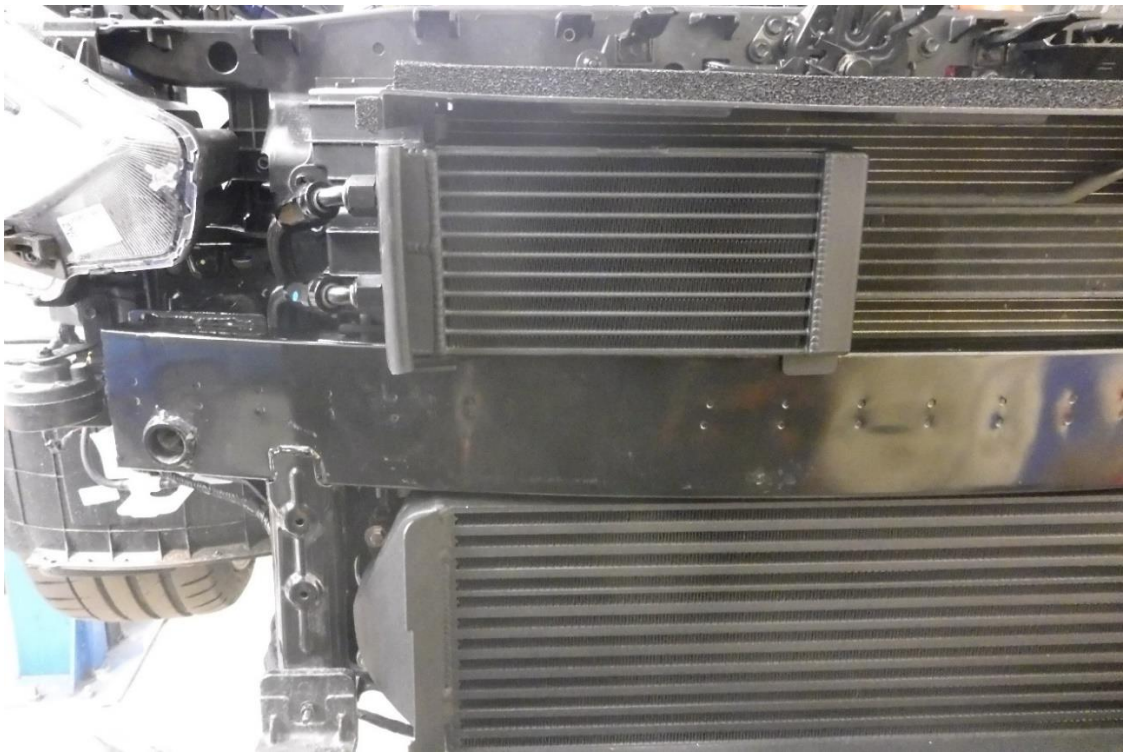
18. Offer up the crash bar with the fitted oil cooler to the front of the vehicle and follow step 8 in reverse. Attach the oil line to the oil cooler with the feed hose at the top and the return hose at the bottom of the cooler as shown below. Use a 22mm spanner to tighten the oil lines to the oil cooler, make sure they are tightened firm and fully. Fit supplied rubber duct strip to the oil cooler.



19. Use the supplied cable ties 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.



21. This is the installation of FMOC13 now complete, enjoy the benefits of the cool oil temperatures. Make sure to check you oil level over the next couple of days and top up if required.

Check out www.forgemotorsport.co.uk
and www.forgemotorsport.com
For a full range of performance products for your vehicle.

If you have any questions or concerns about this product or anything else, please feel free to contact your local or preferred Forge Motorsport Dealer/Installer or you may contact us directly.

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Important Information Regarding Your New Forge Cooling Product

Thank you for purchasing a Forge Motorsport cooling product. You now have a product that simply leaves the competition behind – made in Great Britain, with a lifetime warranty. All you need to do now is install and maintain the product correctly to maximise its full potential.

All Forge products are tested before leaving our facility to ensure you 100% satisfaction and reliability.

General information and care for your Forge cooling product:

- On installing your intercooler/radiator, be sure that all hose clamps and fittings are tightened to prevent any leakage.
- Ensure that the intercooler/radiator and the associated plumbing components are not rubbing on any body parts. This can cause premature failure and warranty invalidation from Forge.
- Do not use any car cleaning products, particularly traffic film remover solutions or shampoos to clean your intercooler, radiator or oil cooler. The use of these products can damage the Forge cooling systems and invalidate your warranty.
- Any cleaning should be done with hot soapy water and well rinsed.
- We recommend that you should inspect your product on a regular basis for bent and/or crushed fins. Any bent fins should be carefully straightened to allow ambient air to pass through the core face.
- At the time of installing your Forge product, an approved coolant must be used and added to the coolant system. Be sure you never mix coolant and always use distilled water.
- On Forge Oil Coolers, please ensure all hose clamps and fixings are tightened and secured to prevent leakage.
- Do not exceed 9 bar (130 psi) rating on your oil cooler.

What should you do if a fault develops?

If you suspect that you have an issue, you should take your vehicle back to where the installation of your Forge product was carried out, or to a suitable and qualified tuner for investigation of the problem.

If you suspect that the problem has occurred due to faulty manufacture, please contact your Forge dealer or Forge Motorsport UK, Forge Motorsport USA or Forge Motorsport Asia, depending on your geographical location, to discuss the issue.

How to get the Best from your Forge cooling products

- Ensure the fitting is carried out by a reputable and competent garage, tuner, or mechanic.
- Carry out regular visual checks, inspections, and servicing.
- Only fit the Forge cooling product for the application that it was designed for.
- Do not fit other parts that could detrimentally affect the efficiency of your Forge cooling product.

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