

Installation Guide

for

Harrop Engine Oil Cooler

Into

5.4 Litre V8 FG Falcon



ATTENTION

Installing the engine oil cooler kit indicates your acceptance of the liability associated with the fitment and use of this product.

Thank you for purchasing this Harrop Engine Oil Cooler Kit. The owner of the vehicle must be aware that fitment of a Harrop Engine Oil Cooler may affect the vehicle's factory warranty.

Warranty.

This Engine Oil Cooler Kit is covered by a limited warranty on components and workmanship for a period of 12 months from the date of purchase, subject to the following:

- Installation must be completed by a qualified motor mechanic or technician.

No warranty shall apply where Harrop have determined improper fitment or handling, misuse in operation, neglect, or accident damage. Engine modifications made prior to or in conjunction with the Oil Cooler Kit fitment may invalidate the Harrop limited warranty. Any warranty claims must be made immediately & directly in writing to Harrop Engineering so that a determination can be made promptly. Involvement of a third party or an attempt to repair a perceived/actual fault may invalidate the warranty. To the extent of the law, the determination on any warranty claim & associated costs will be at the sole discretion of Harrop Engineering.

By installing the engine oil cooler kit you acknowledge that all conditions pertaining to this Kit and its operation have been read, understood and accepted.



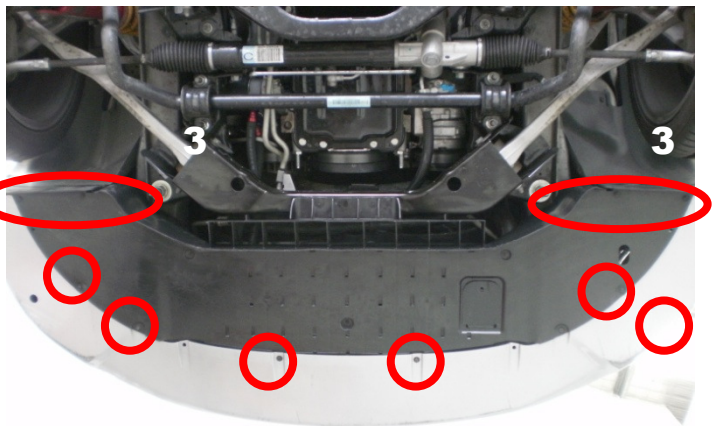
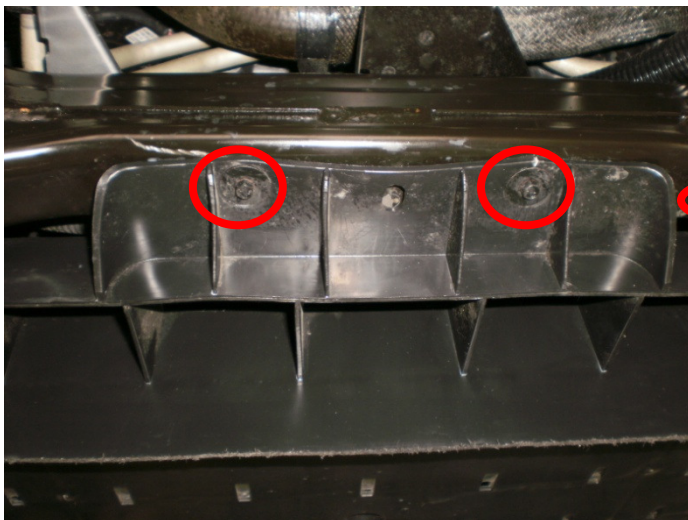
Start guide for experienced Automotive Technicians.

This document is meant only as a guide, as any vehicle modification should be completed by a certified technician who has the relevant experience and equipment to be competent of a safe and effective installation.

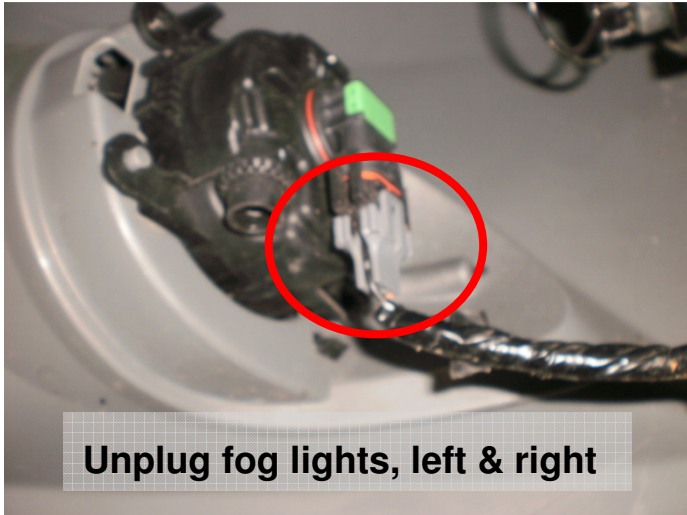
The following notes will highlight most of the primary steps needed during the installation of a Harrop Engine Oil Cooler kit into a Holden VE Commodore. Some images may vary from kit supplied and instructions may be omitted or irrelevant due to variations between vehicle models and applications.

Please ensure the safe operation of all tools and equipment are adhered to in accordance with the vehicle and equipment manufacture's recommendation.

1. Prepare to mount the engine oil cooler by removing the front bar. Remove plastic fixings and screws as per images below on left and right hand sides.



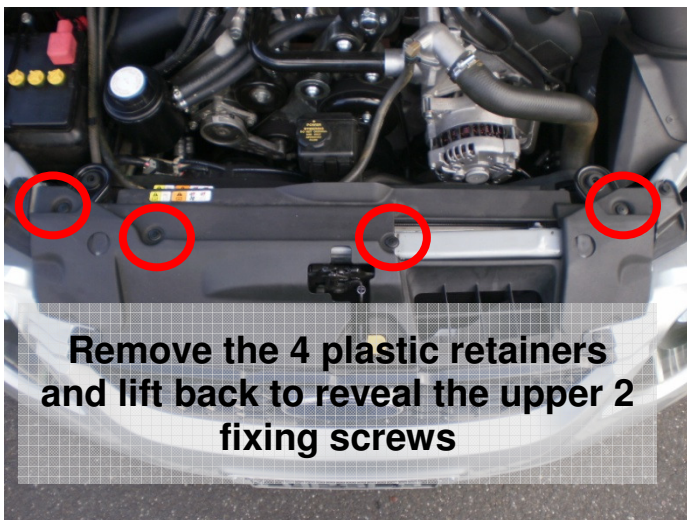
12 Screws in total



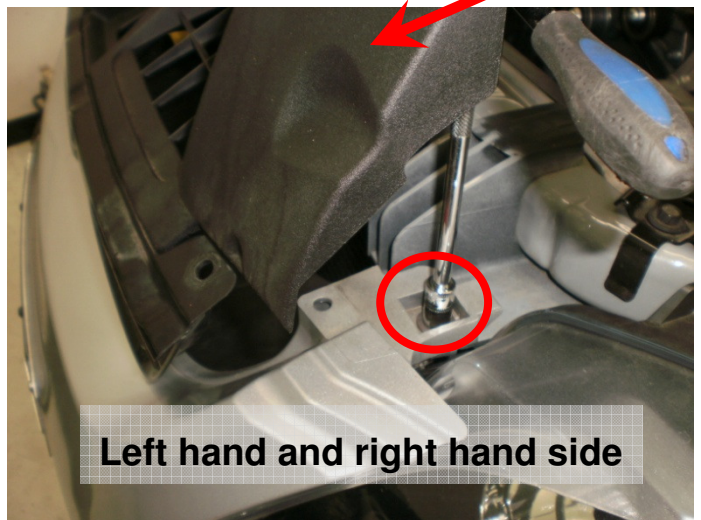
Unplug fog lights, left & right



Pull in this direction to release

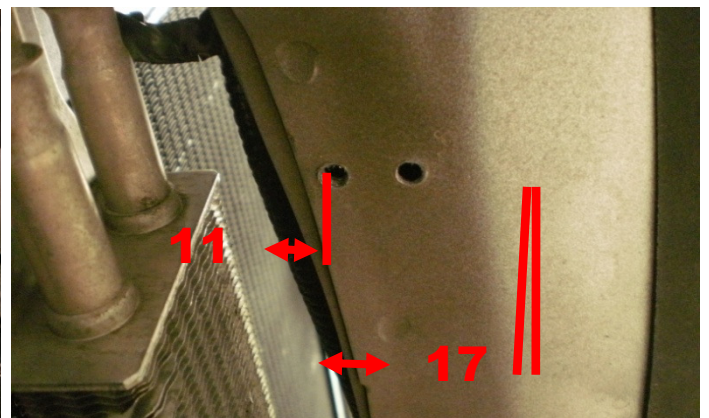
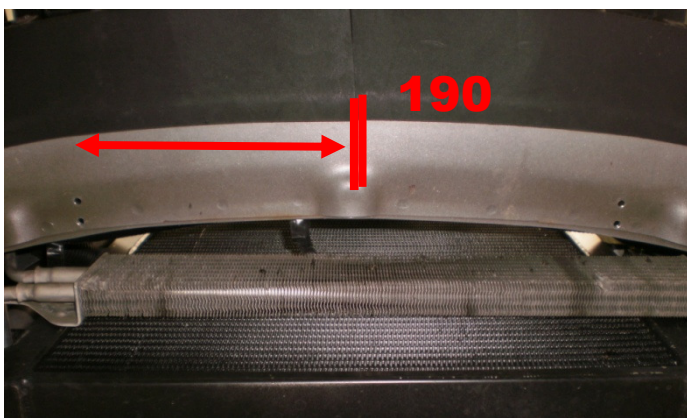


Remove the 4 plastic retainers and lift back to reveal the upper 2 fixing screws



Left hand and right hand side

2. Mark out and pre drill the oil cooler mounting plate holes on the underside of the steel crash beam as follows:
- Starting from the centre, measure out 190 mm to the left and right on the underneath side of the steel crash beam and scribe a line.
 - Measure and scribe two more lines from the rear face of the crash beam to intersect the line above, first line is to be 11 mm from the rear edge, the second line is to be 28 mm from the rear edge or 17 from the first hole.
 - Repeat this for the other side and using a 4.5 mm drill bit, pre drill the four scribed holes.



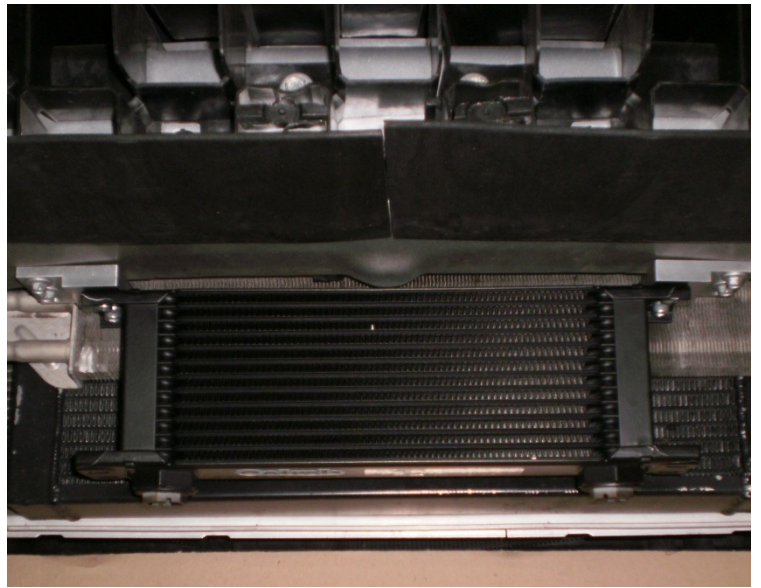
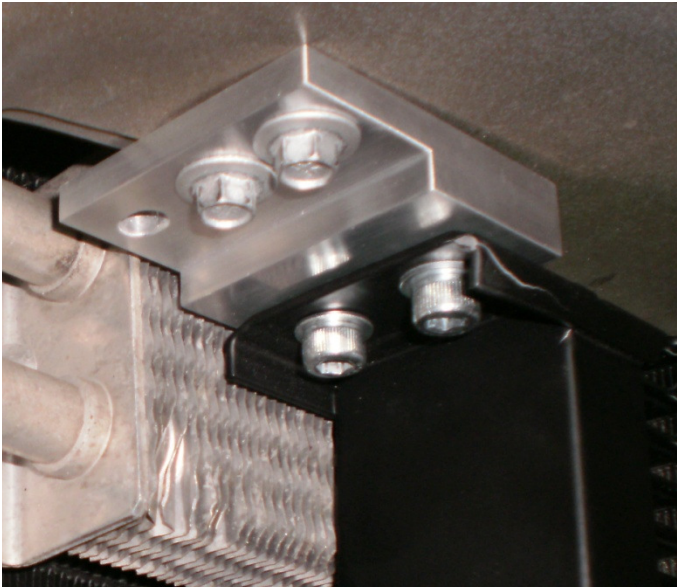
3. Assemble the mounting bracket to the oil cooler as per picture below using the two M6 screws supplied, even though the brackets are handed at this stage it doesn't matter which one goes on which side.



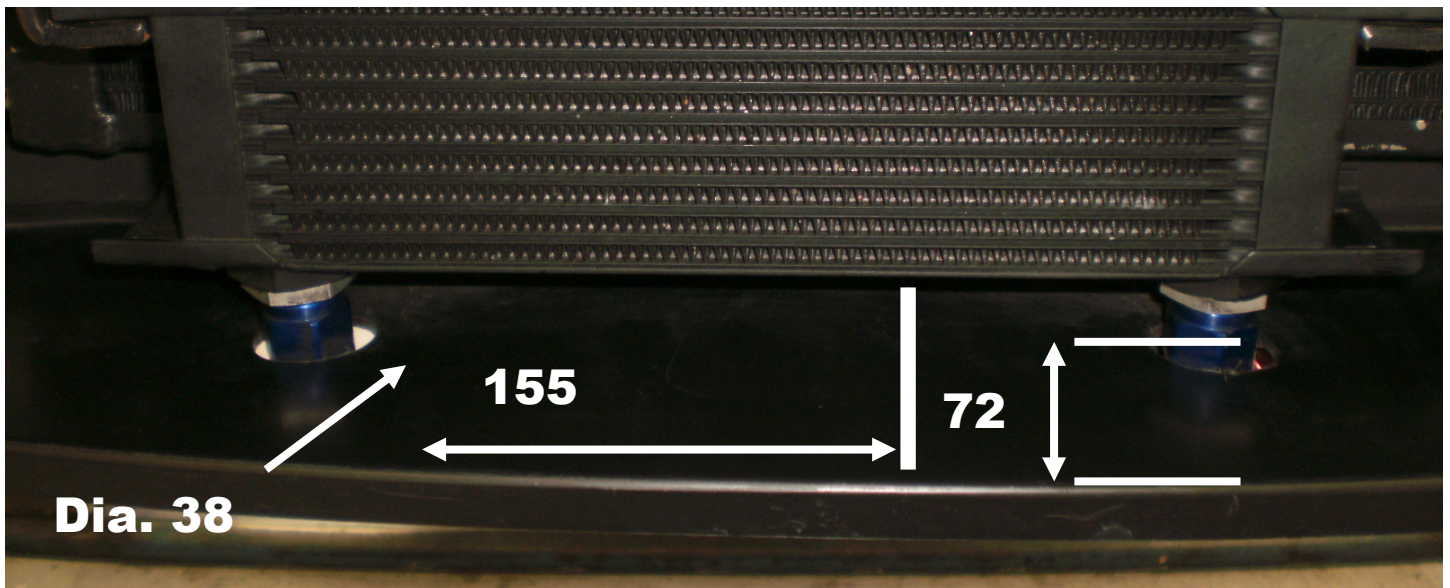
4. Assemble the two adaptor fittings into the oil cooler ensuring that the 'O' rings have been lightly lubricated with some engine oil. Note; Ensure that the hex fitting on the oil cooler is held with a spanner when tightening the fitting, no warranty given on twisted oil cooler fittings.



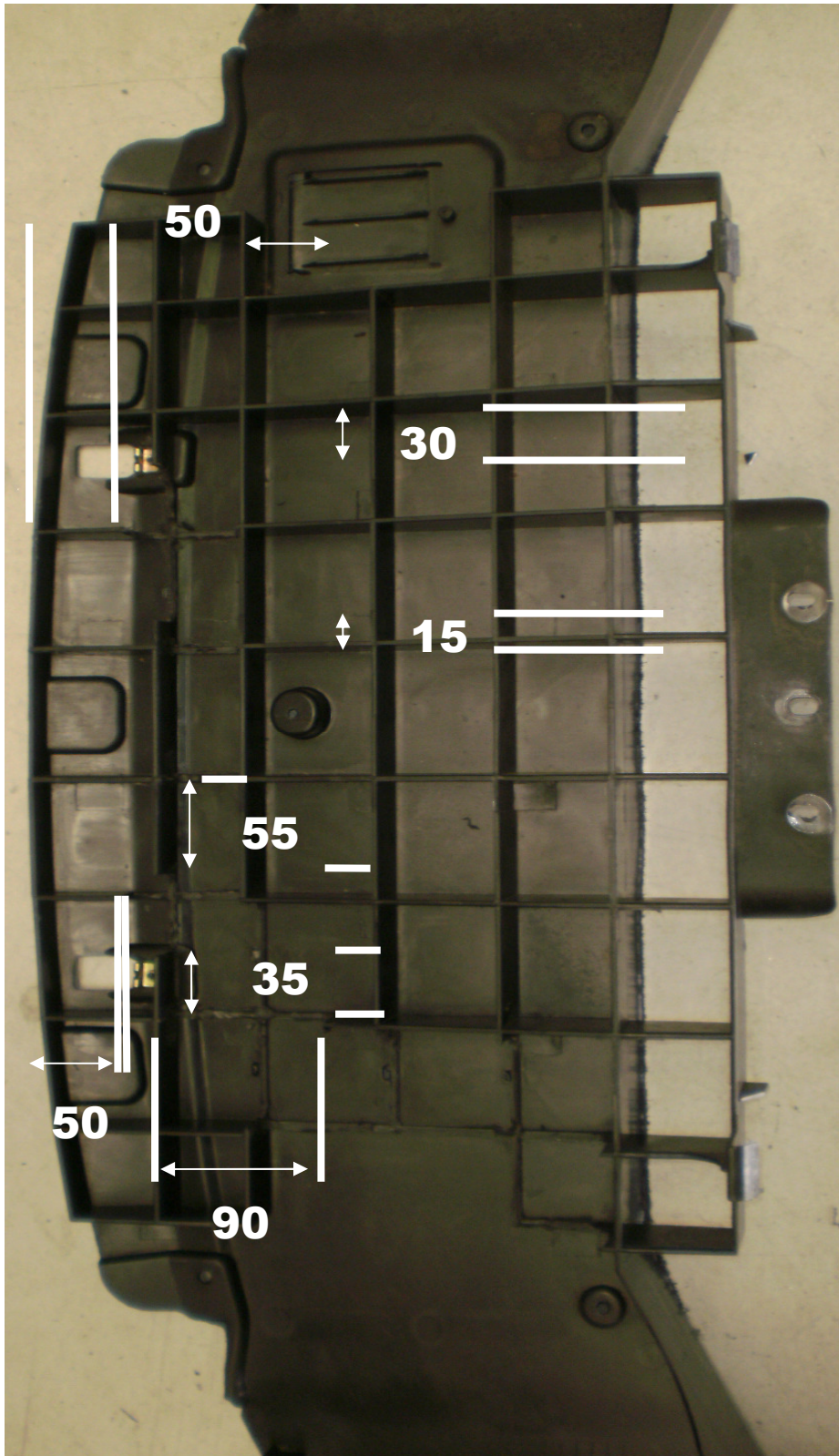
5. Using the four self drilling/tapping screws supplied, fit the oil cooler to the steel crash beam as per picture below.



6. With the oil cooler mounted you now need to separate the lower air duct and under tray.
7. In the upper part of the under tray mark out two holes as per the image below, remember the oil cooler is mounted centrally from left to right so these holes should be central in the lower air duct.



8. The under tray now requires the removal of some of its ribs to provide clearance for the oil lines. This can best be done with a pneumatic de-burr tool.



- Fit the dash 8 fittings to the oil cooler sandwich plate using a suitable thread sealant.
- Fit the oil cooler sandwich plate in between the oil filter and engine block, do not tighten it yet, leave it loose until the oil lines have been fitted. The angle of the sandwich plate should be about 45 degrees.



- Feed the hoses through the underside of the car as per pictures below. Connect the short length hose to the front of the sandwich plate and to the left hand side of the oil cooler. Connect the longer hose to the rear of the sandwich plate and to the right hand side of the oil cooler.



- Cable tie the right hand hose to the left hand hose close to where the left hand connects to the oil cooler.
- Ensure all hose connections are tight. Tighten up the sandwich plate and re fit an engine oil cooler. Start the engine and thoroughly check all connection points for possible leaks and along the hose route to ensure no damage has occurred to the hoses during the install.
- Fit the under tray back to the lower air duct on the car and then re fit the front bumper back in place and check the engine oil level. Start the engine and run it up to normal operating temperature. Once again check all connection points for leaks.