



Installation Guide
Toyota 86 / Subaru BRZ
Engine Oil Cooler Kit



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ENGINEERING PERFORMANCE SINCE 1955

INSTALLATION GUIDE

FT86 ENGINE OIL COOLER KIT



For 60 years Harrop Engineering has been at the forefront of designing, developing and manufacturing precision performance components. Today our innovative and logical approach is applied to low volume automotive OEMs and the performance aftermarket through a dedicated team of 65 staff. Core performance products include Superchargers, Engine Components, Brakes, Differentials and we are also the exclusive Australian Distributor for Forgieline Motorsport Wheels & Lingenfelter Performance Parts.

Harrop are also the preferred supplier of Eaton Supercharger and Traction Control technology including dual branded product designed and manufactured in-house. There are currently over 4000 components in our portfolio and this is growing daily as we continually develop more Harrop Performance Products.

Our high profile car manufacturing customers include Holden, HSV, FPV, Roush and Lotus.

We also supply to race teams from categories including F1, NASCAR and V8 Supercars and an extensive range of drag, circuit and off-road competitors. Just as importantly, a large portion of our customers are performance enthusiasts and weekend warriors who are highly passionate about their ride.

Please take a moment to review the following pages and learn why Harrop is the first choice in performance products.

Thank you for choosing Harrop and enjoy your Harrop enhanced ride.

-Team HARROP



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ATTENTION: READ BEFORE PROCEEDING



IMPORTANT INFORMATION

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.

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 FT86 Harrop Engine Oil Cooler kit. 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 manufacturer's recommendation.**
- **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.**

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:

Please refer to Harrop Engineering's full warranty terms and conditions and applicable warranty registration forms which can be found at www.harrop.com.au.

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

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QUICK START GUIDE FOR EXPERIENCED TECHNICIANS



PROCEDURE

1. Remove the engine oil filter and clean the sealing face where the filter would seal on the engine.



2. Assemble the large 'O' ring to mounting face. Assemble the 'O' ring supplied with the dash fittings to the dash fittings, now assemble the dash fittings to the adaptor using some engine oil to lubricate the 'O' rings.



3. Install the sandwich plate on top of the riser plate having smeared some oil on the 'O' ring. Fit and screw the retaining socket to align and hold the two in place. Tighten to 30 Nm torque.

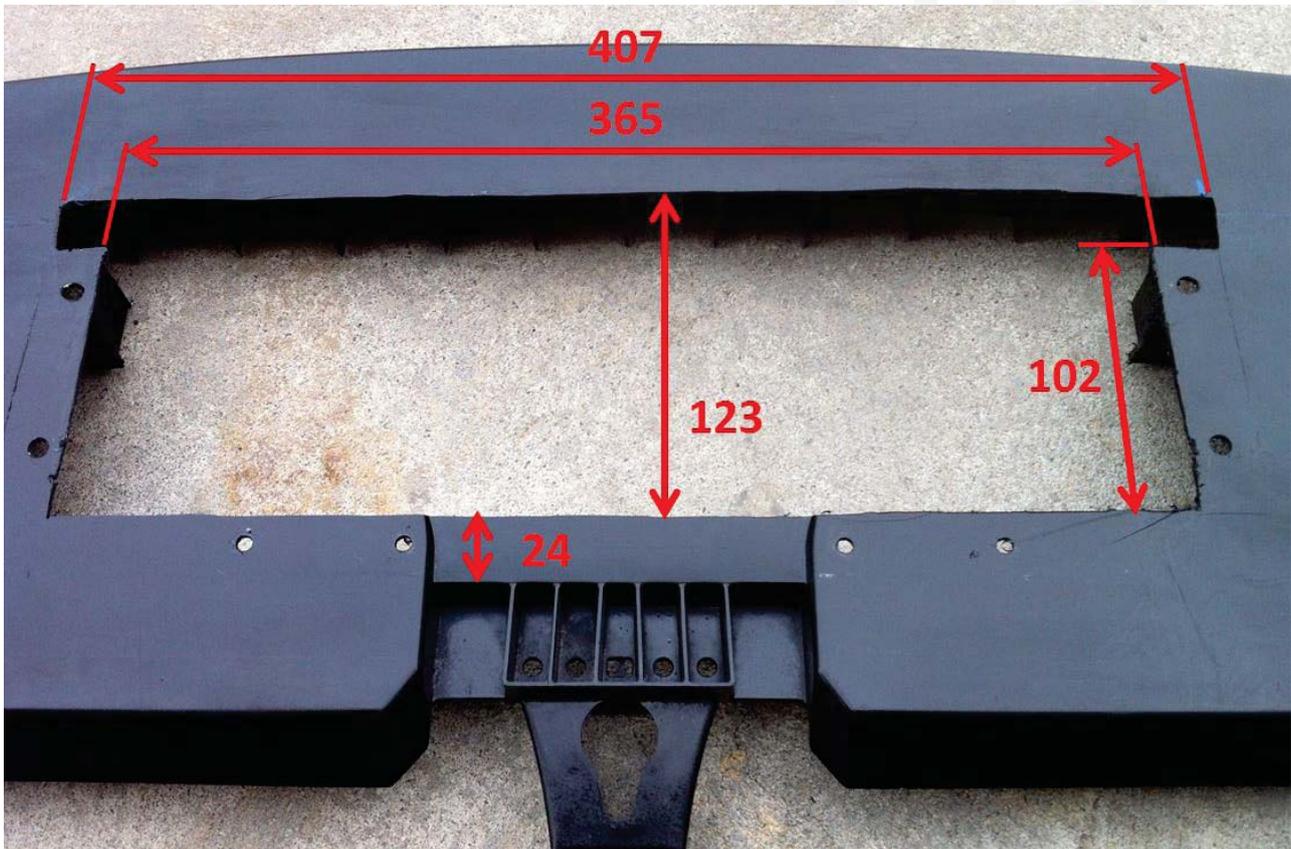


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4. Remove the front under tray from underneath the car. We will now mark out and cut the pocket for the engine oil cooler as per image. See the image below for sizes. The mounting holes will be transferred through the holes once the engine oil cooler has been placed in position



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5. Assemble brackets onto oil cooler using the M6 screws and nuts supplied. Ensure that the brackets are fitted as per image on right.



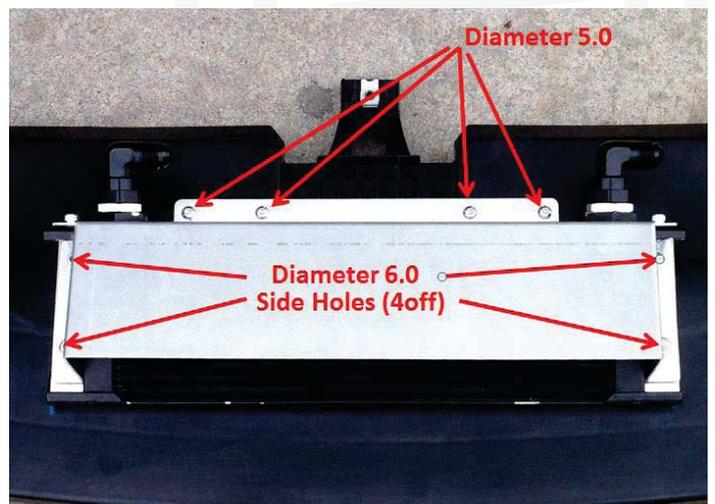
6. Assemble the threaded bush and 'O' ring onto the oil cooler along with the 90o swivel fitting remembering to smear some oil onto the 'O' rings.



7. Assemble/fit the oil cooler assembly with the duct into the under tray.

Using a 6.0mm drill transfer the mounting holes through into the under tray. Using the M6 screws provided screw the assembly to the under tray.

Using a 5.0mm drill transfer the rear duct holes through into the under tray. Using the M5 screws provided screw the assembly to the under tray.

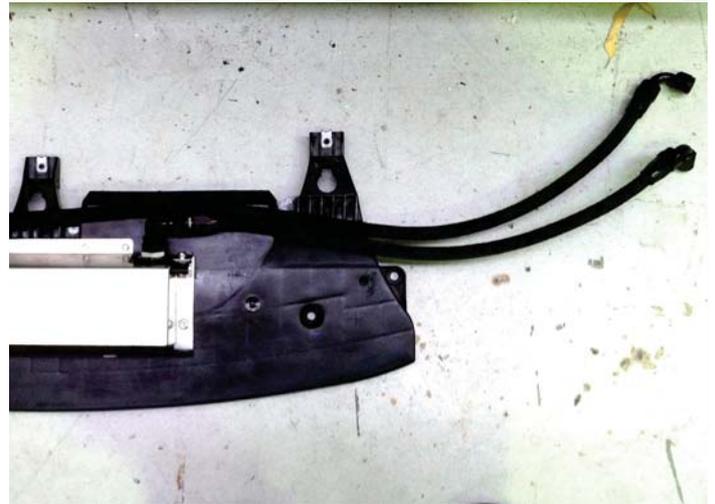


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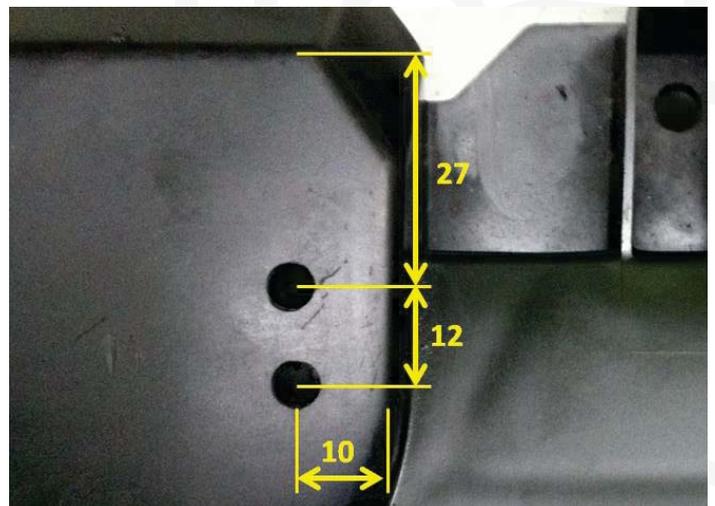


8. Assemble the hoses to the oil cooler ensuring the longer hose is fitted to the oil cooler connection that will be on the right hand side of the car.



9. Using the 5.0mm drill bit drill 2 holes for the fixing of the hoses with a cable tie to the under tray on the left hand side.

Using the cable tie provided, secure the two hoses to the under tray.



10. Refitting the under tray back into its position under the car.

Firstly you need to feed some of the hose through the gap between the condenser line and the radiator support panel as per image on left. Now slide the under tray back into the bottom of the front bumper bar being careful not to squash the hoses, you may need to pull the hoses through a bit as you feed the under tray in.



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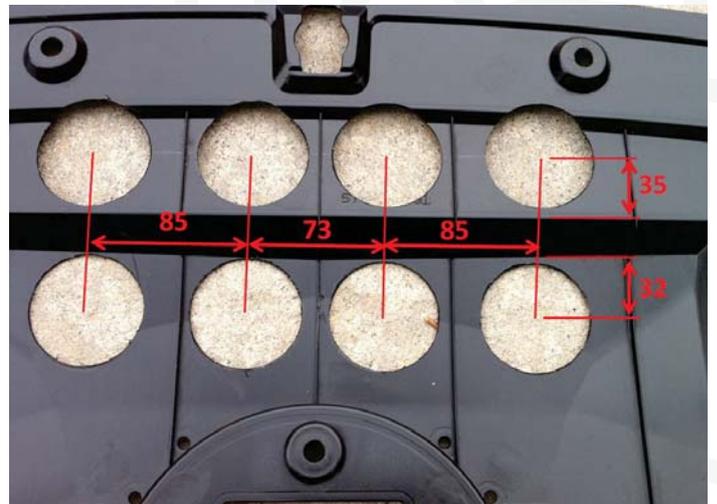
11. Connect the oil cooler lines to the sandwich plate fittings. (Note it doesn't matter which hose goes to which side, just look at the hose routing to ensure that they are not twisted to ensure a neat install).

Refit the oil filter to the sandwich plate as per normal oil filter fitting instructions.

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. Once this has been completed check the engine oil level and add oil if required.



12. Drill air exit holes in the lower under tray as per image on right using a 60mm hole saw.



13. Refit the lower under tray to underside of the vehicle. (Note the front 3 centre scriverets can no longer be used as the engine oil cooler is located in the mounting hole area).

