



# TOYOTA GR YARIS

## REAR DIFF OIL COOLER INSTALLATION GUIDE

REV 1. 2023

### THANK YOU FOR PURCHASING OUR REAR DIFF OIL COOLER (Part No. GRDIFF)



### TOOLS REQUIRED

ALLEN KEYS - 5mm, 10mm, 12mm  
SPANNERS - 10mm, 13mm, 26mm  
SOCKETS - 10mm  
AN8 SPANNER  
KNIFE



### ATTENTION

- READ THIS MANUAL FULLY BEFORE INSTALLATION
- MAKE SURE THIS KIT WILL FIT YOUR VEHICLE
- HEL RECOMMENDS THAT A TRAINED PROFESSIONAL INSTALLS THIS KIT

### PARTS LIST

X1 SETRAB COOLER ASSEMBLY	
X1 MOCAL PUMP + BRACKET ASSEMBLY	
X3 M6 BOLTS + WASHERS (PUMP BRACKET) + 18MM P-CLIP	
X3 HOSE SEPARATORS	
X3 AN8 HOSES	X1 PUMP HARNESS
X1 M22 AN8 SWIVEL BANJO	X1 M6 CHIMNEY NUT + BOLT + WASHER
X1 M22 AN8 M-M ADAPTER	X2 M8 WASHERS (EARTH)
X2 M18 X1.5 AN8 M-M ADAPTERS	X1 M8 X 1.5 NUT + WASHER (BATTERY)
X1 TEMP SWITCH ADAPTER ASSEMBLY	X2 M6 BOLTS + WASHERS

**PLEASE CHECK ALL PARTS ARE PRESENT BEFORE STARTING THIS MODIFICATION**





### ATTENTION

It is very important to take care when installing this kit. It operates in very close proximity to several moving components, hot areas, electrical components, and the fuel tank.

1.

Jack up the rear of the car and secure using axle stands.

2.

Remove the boot floor and foam inserts, disconnect the battery.



3.

Offer the assembled pump and mounting plate into position as shown, loosely install the mounting bolts and sleeves using the supplied hardware.



4.

Remove the grommet below the positive battery cable, cut a slot to allow the two oil lines to pass through it.

5.

Re-install the grommet and feed the two longer oil lines down through it, you should keep the 90 degree and 120 degree fittings in the boot compartment.

**\*DO NOT CONNECT THEM YET**



6.

Moving below the car, drain the differential fluid using the lowest drain port, refit the drain plug with a new crush washer once empty.

7.

Remove the two plugs on the side differential cover and install the two male-male adapters, lubricate the dowty washers with fresh oil prior to installation.



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**8.**

Remove the highlighted bolt located near the fuel tank filler neck.



**9.**

Pull the two oil cooler lines down through the grommet to allow for some slack, offer the assembled cooler up to them and install the 90 degree fitting to the top banjo fitting as shown



**10.**

Using the supplied hardware, install the cooler assembly to the previously removed bolt location, and the tab located under the anti-roll bar mounting point. Minor adjustments to the position of the cooler can be made as the bracket mounting bolts are not fully tightened yet. Ensure that no parts are fouling the fuel tank or anti-roll bar. Once you are happy with the cooler position, tighten everything down so that the O-rings are slightly compressed.

**10. Cont**



**11.**

Install the 45 degree end of the remaining short hose to the lower cooler port, and the straight end to the upper adapter on the differential.

**12.**

Install the switch adapter to the lower adapter on the differential. Position it as shown to avoid the driveshaft, anti-roll bar and upper hose.



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### 13.

Tighten the remaining straight hose fitting to the switch adapter, route below the anti-roll bar and above the exhaust. Use the large hose separator to position the hose so that it is not contacting anywhere, as shown.



### 14.

Back in the boot of the car, loosely install the two fittings to the pump, the 90 degree fitting should be closer to the battery. Tighten the 120 degree fitting fully.

### 15.

Using the supplied P-clip and hose separators, secure the lines as shown so that they are not touching the battery or battery cables. Once you are happy with the positioning, tighten the pump bracket down fully.



### 16.

Clip the supplied chimney nut to the highlighted location behind the battery. Bolt the relay here and offer the wiring harness into position using the labeled connections.

Route the temperature switch section down through the same grommet as the hoses run through.



### 17.

Connect the two ground ring terminals to the nearby earthing point, use X3 of the supplied M8 washers to space the terminals.



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**18.**

Connect the remainder of the wiring harness, use the remaining M8 nut and washer to connect the positive terminal to the location shown in the picture.



**19.**

Remove the 90 degree fitting from the pump, place a funnel or large syringe in the fitting and fill the differential and cooler system with 950ml of the manufacture recommended differential fluid. Reinstall the 90 degree fitting to the pump.

**20.**

Re-connect the battery and run the pump for 20 seconds to prime the system. To achieve this use a jumper wire, bridge the connection across the temperature switch.

**21.**

With the system primed, check for fluid leaks.

**22.**

Check all hoses, wiring and fittings for positioning so that are no potential chafing areas or contact points, ensure that nothing is touching the fuel tank, exhaust, battery, battery cables, driveshaft or anti-roll bar.

**23.**

Re-install the foam boot inserts and boot floor.

**24.**

Let the car down off of the axle stands.

Now it's time to grab a drink... sit back... & admire your new diff oil cooler kit from HEL.

We always love to see what our customers have been up to, please tag us on our social media accounts and show off your automotive builds.

 /HELPERFORMANCE  @HELPERFORMANCE

### Additional HEL products for your vehicle



HEL oil cooler kit  
**Part No. HOCK-TOY-005**



HEL braided brake lines  
**Part No. TOY-4-151**



HEL flexible braided clutch line  
**Part No. CCK172**



Carbon fibre brake pad shims  
**Part No. HCFS-1-001**



HEL oil catch can kit  
**Part No. GRYARISCK**

