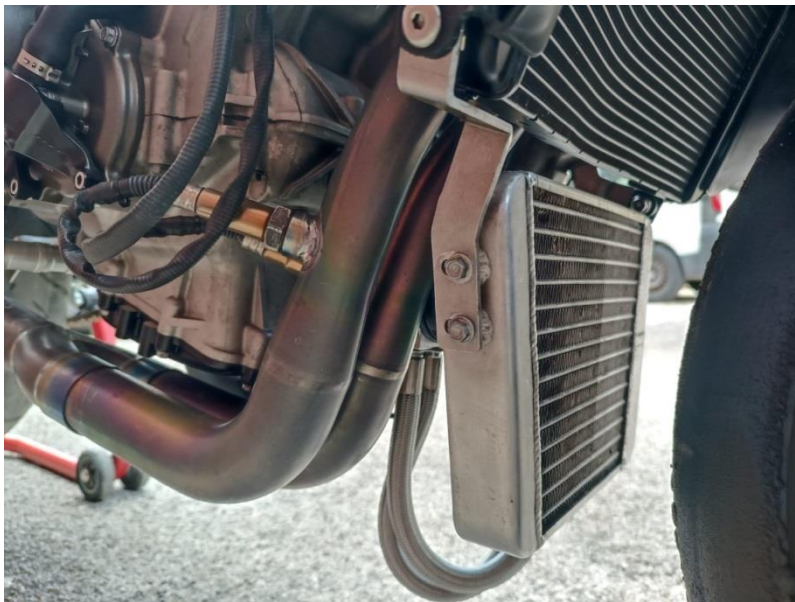


**Thanks for purchasing the Dilone / Gabro Racing  
Oil cooler kit for Aprilia RS660**



**Note 0:** *This manual is presently only a draft. Be sure to scan the QR code in last page and download the latest revision prior to start the installation.*

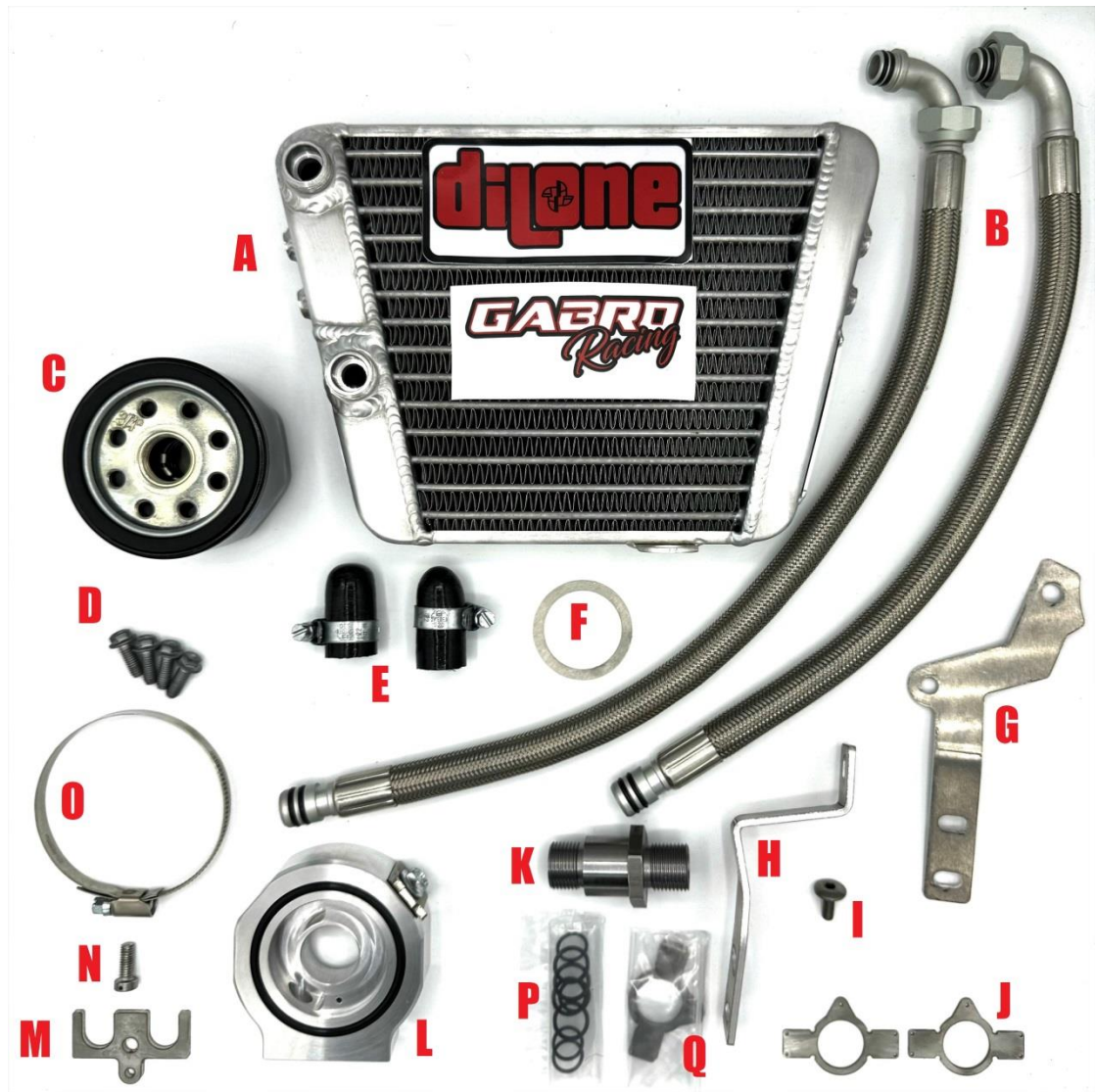
**Note 1:** *This kit is not compatible with street bodywork. This part may not be compatible with track bodywork either. Expect to have to enlarge the chin opening when fitting this kit with aftermarket track bodywork. Please check hoses for rubbing inside the bellypan as well, they may need accurate positioning to avoid this, or a protection rubber boot.*

**Note 2:** *This kit eliminate the stock cooling thermostat valve, this require you to monitor the engine temperature to always be in the 75-100C operating window (3<sup>rd</sup> dash shown in the bike temperature indicator) taping the coolant radiator to avoid running the motor in colder conditions. The most desired coolant temperature range is 85 to 88C.*

**Note 3:** *This kit uses the Tuareg 660 oil filter (Aprilia OEM p/n 82960R). Stock RS 660 oil filter is not compatible. One filter is supplied with the kit, be sure to have spare filters available. This radiator kit adds 400cc oil capacity to the motor, from 2.3lt to 2.7lt. It's a 20% more oil in the motor, have handy the needed oil quantity when install and at oil changes.*

**Note 3:** *this kit places HOT/COLD connection both on radiator left side, allowing fitment with the widest range of aftermarket exhausts: SC Project, Akrapovic, Leovince and stock exhaust have been proven to be a perfect fit while Spark is not (it's cyl1 header collides with the larger Tuareg oil filter).*

**Note 4:** *Professional installation is mandatory. This is a professional racing part for track use only.*



- A-** Oil radiator
- B-** Oil hoses
- C-** Oil filter
- D-** 4x M16x12 screws (radiator to brackets fitting)
- E-** 2x cooling system silicon plugs with clamps
- F-** Thermostatic valve delete ring
- G-** Radiator LH bracket
- H-** Radiator RH bracket
- I-** M5 screw for LH bracket and radiator plastic shroud
- K-** Oil filter nipple
- J-** 2x hoses connection lockwiring guards
- L-** Oil filter sandwich plate (preassembled with anti-rotation lug)
- M-** hose retainer plate for sandwich plate
- N-** M6x15 hose retainer plate (pre-drilled for lockwiring)
- O-** Clamp for oil filter lockwiring
- P-** SPARE PARTS: hoses o-ring set
- Q-** SPARE PARTS: item J - lockwiring hoses guards

## Attention:

- when not specified use bike shop manual procedures and torque setting.
- LH/RH side of the bike are intended as per rider view.
- The Oil filter sandwich plate **(ITEM L)** has a provision for stuffing a temperature or pressure sensor to your bike data-logging system, if any. Use that pilot hole drilling it out to the specific dimensions and thread needed by your sensor prior to start the kit installation.

## Installation:

Follow shop manual instruction to drop coolant first and then engine oil.

Remove and discard stock oil filter, remove the stock coolant/oil heat exchanger complete with coolant hoses. Fit silicone plugs with clamps **(ITEM E)** at head and radiator connections.

Remove the thermostat housing, replace the thermostat with the supplied thermostat delete **(ITEM F)** using the stock thermostat gasket.

Clean and degrease the engine block oil nipple port, fit the supplied oil filter nipple **(ITEM K)** in the oil filter plate **(ITEM L)**, apply hard Loctite on the nipple engine side, screw it in the block and tight it to 30Nm (be sure to correctly engaging the anti-rotation lip of the oil filter plate in the block strut). Screw in and hand tight the oil filter **(ITEM C)**.

Apply vaseline grease on hoses **(ITEM B)** o-rings, carefully fit hoses big end (the one with no nuts) in the oil filter plate. It's a tight fit, be sure to do not cut the o-rings at installation. Long hose must be fitted to RH port, short hose to LH port.

Place the hoses lock plate in place **(ITEM M)**, secure it with its screw **(ITEM N)** and lockwire the screw to the plate. Install the oil filter lockwiring clamp **(ITEM O)** on the oil filter, then lockwire it to the hoses lock plate.

Remove the OEM cooler bracket from engine block LH side and replace with the supplied one **(ITEM G)**. Place the oil radiator **(ITEM A)** on the LH bracket leaving it loose on the supplied M6 screws **(ITEM D)**, install hoses small end in the radiator ports using vaseline grease, place hoses fitting nuts in place, loose. Long hose must be fitted to the upper radiator port, short hose to the lower port. Fit the lockwiring guards but do not bend them yet **(ITEM J)**.

Install the RH bracket **(ITEM H)** on radiator RH side, attaching its upper support to the OEM radiator lug. Use the supplied screw **(ITEM I)** if your bike has the OEM radiator black plastic shroud fitted, use a commercially available M5 screws if you are not using the OEM shroud. Be sure the screw used isn't too long, otherwise it will damage the radiator.

## Final setup:

Tight both LH and RH fixing screws **(ITEM D)** using the built in slotted holes to find the best alignment possible. Be sure the oil radiator front part is flush with coolant radiator, or a bit recessed: that will ensure the front tyre will not touch the radiator assembly under hard braking.

Find the hoses best position possible to avoid them touching exhaust header or scrubbing in fairing bellypan. Be sure the hoses will not rub each other either. Once found the right position, tight the hoses nuts at radiator connection, bend and lockwire the guards **(ITEM J)**.

Complete bellypan modifications if needed: be sure the front opening to the oil radiator is large enough and there's no contact/rubbing.

Set apart and store in a safe place in the track toolbox the spare parts supplied **(ITEMS P and Q)**

**Starting the motor:**

Load coolant into radiator, and load 2.5liters oil in the sump.

Disconnect the fuel pump, prime the whole oil system cranking the motor on the starter. Usually 5x 5 second bursts are enough. When done re-connect the fuel pump and start the motor.

Purge coolant as well and fit back radiator cap. Let it reach operating temperature then stop the motor, check oil level and top-up it. Total oil quantity needed is about approx. 2.7lt.



**ATTENTION: this is a race product intended to be used on closed courses only.**



