

Installation instruction do88

BMW M3 E90 DKG / DCT Oil cooler Racing

Part number: OC-110



This instruction shows how to replace the OEM oil cooler with our performance oil cooler.

At this type of installation we always recommend that you have mechanical experience and knowledge about safety during work on vehicles.

Parts included:

1. do88 DKG Performance oil cooler
2. Air guide
3. O-rings 2pcs
4. Washers 2pcs
5. Screws 2x M5x12mm, 2x M6x12mm, 2x M4x10mm

Special parts required:

1. Heating gun
2. Tape
3. Snap-off blade knife
4. BMW OEM oil for the DKG gearbox. (Pentosin FFL-4).

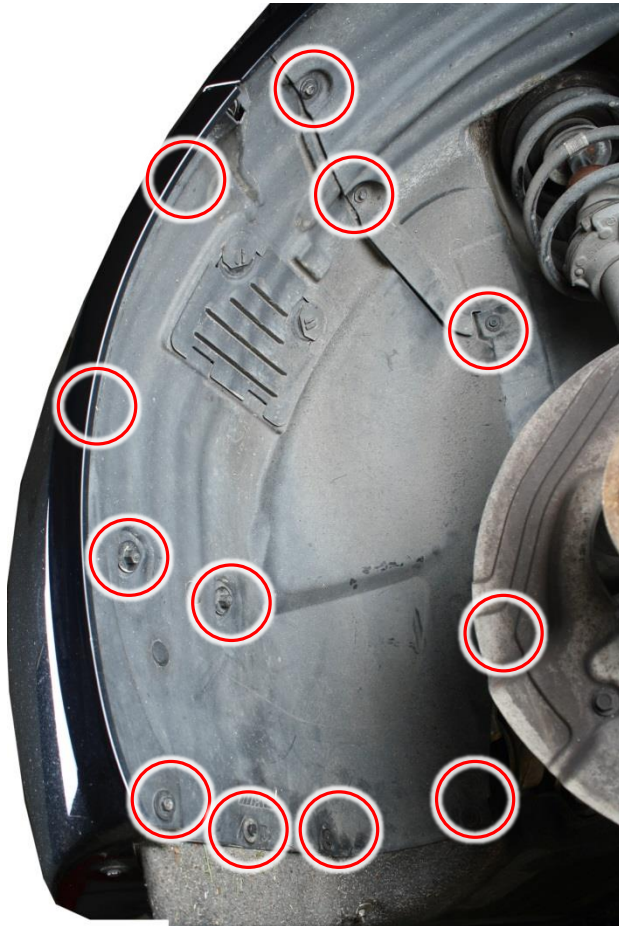
1.

Remove inner fenders.

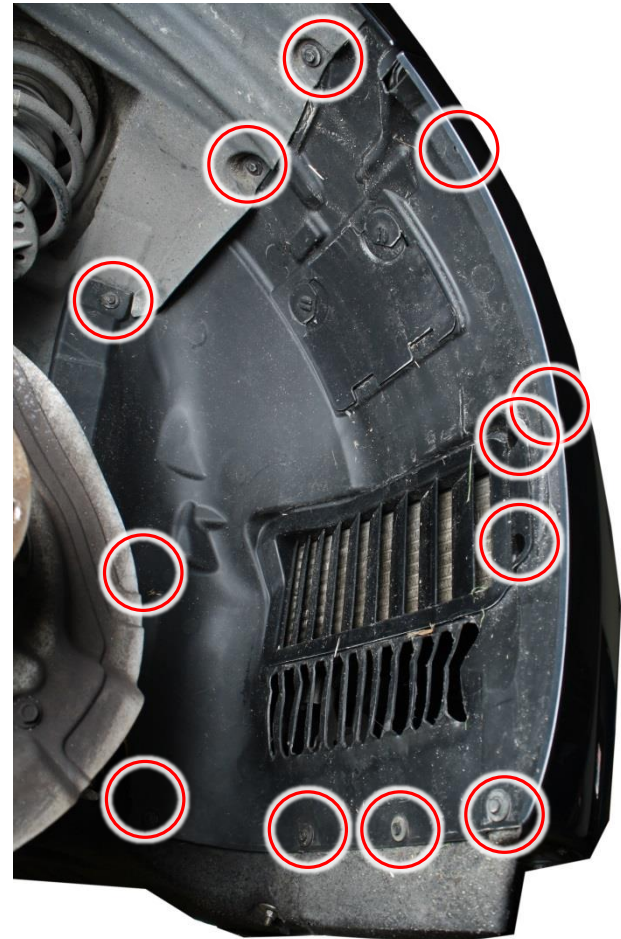
Left side: 9 pcs Hex 8mm and 3pcs Hex 10mm

Right side: 11 pcs Hex 8mm and 1pc Hex 10mm

Left side



Right side



2. Release the steel wire fasteners on both sides of the bumper. Turn the wire bracket 90 degrees and pull it forward.



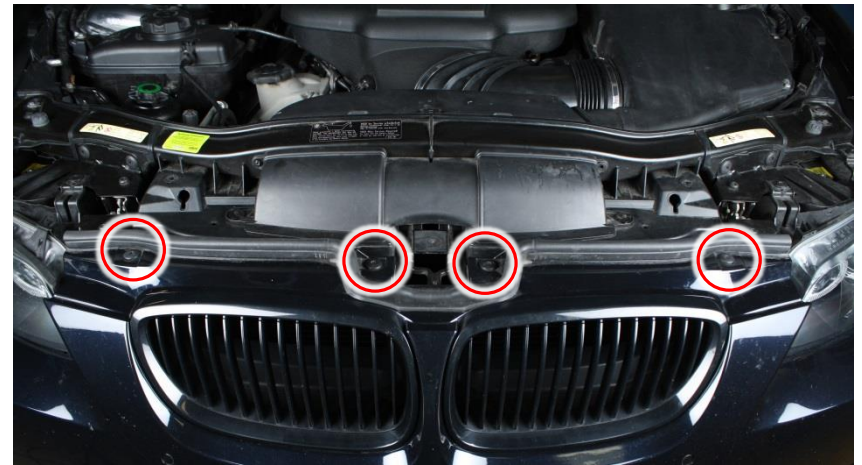
3. Remove 2x Hex 8mm in each upper corner of the bumper on both sides. (These become visible after you have removed the inner fenders).



4. Remove 3x Hex 10mm from the “under engine cover”.

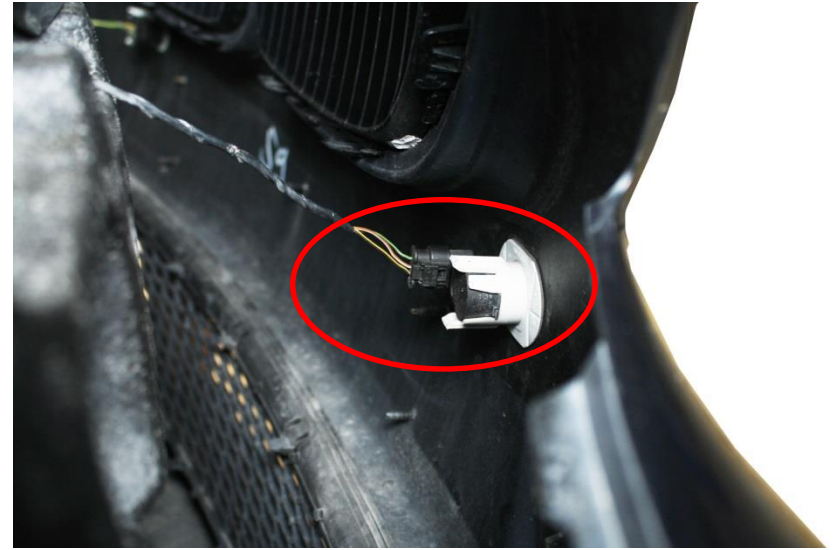


5. Remove the 4x Torx T30 on top of the bumper.

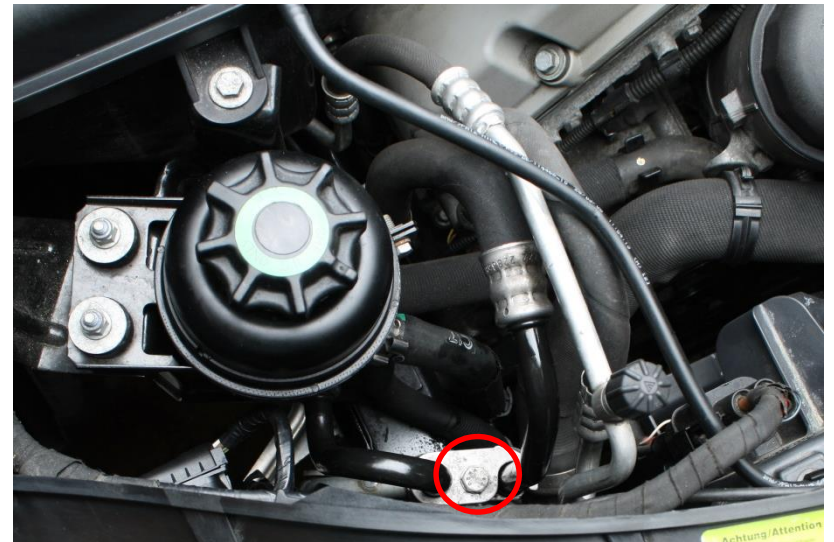


6. With help from a friend bend out the bumper on each side behind the head lights. And then pull it forward about 15cm and hold it in this position.

Now release the cables to the PDC sensors and remove bumper from vehicle.



7. Remove 1x Hex 13mm and gently pull out the two oil pipes. Have a cloth prepared to wipe away a small oil leakage from the oil pipes.



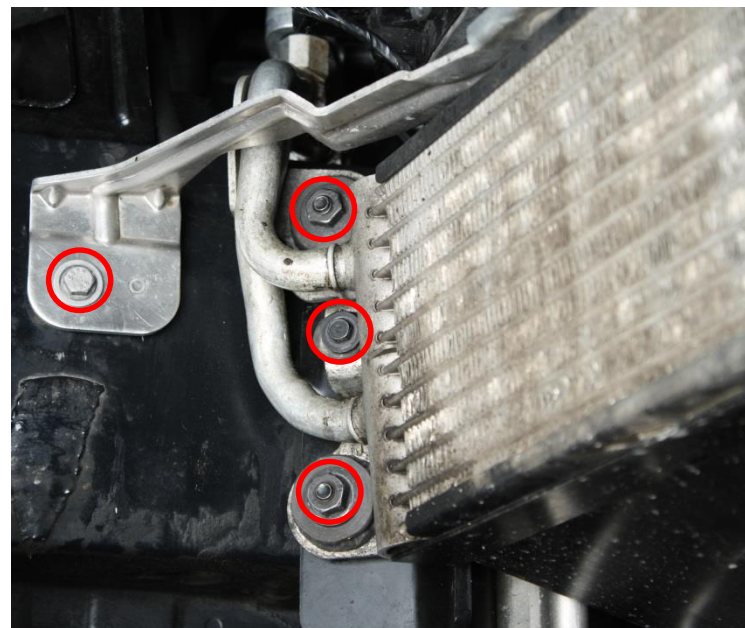
8.

Remove 2x Hex 8mm from the air guide.



9.

Remove 1x Hex 8mm and pull out the air guide.
Remove 1x Hex 10mm Screw and 2x Hex 13mm Nuts and
gently lift out the oil cooler.

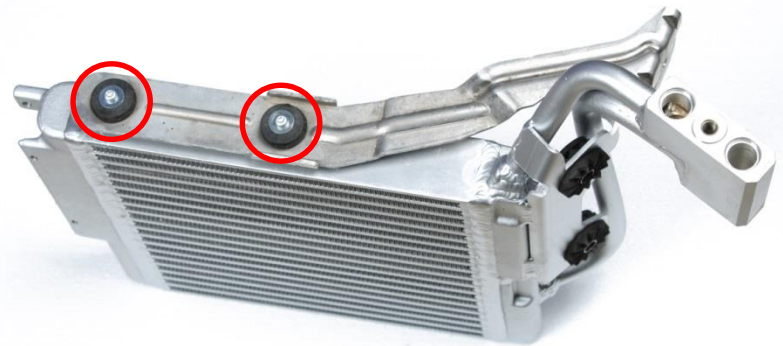


10.

Remove the top bracket from the OEM oil cooler and fasten it on the do88 performance oil cooler.

Fasten the bracket together with the two included Torx T20x10mm screws and washers.

Reuse the two OEM plastic washers and install them between the rubber bussing and the metal washer.



11.

Move the two large rubber bushings and the metal sleeves from the OEM oil cooler to the do88 performance oil cooler.

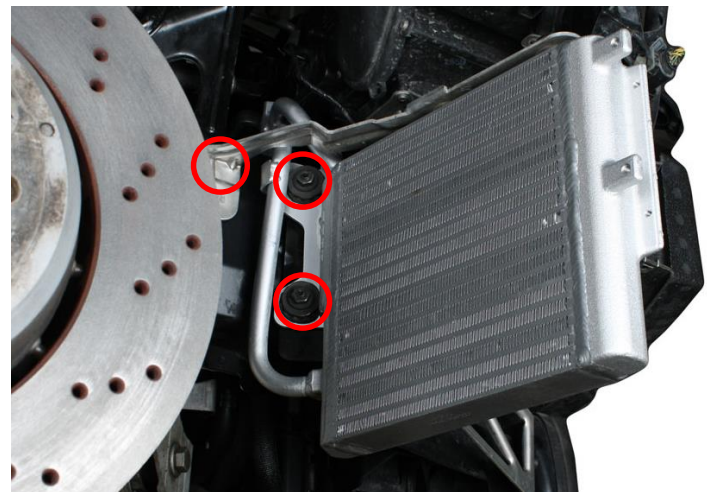


12.

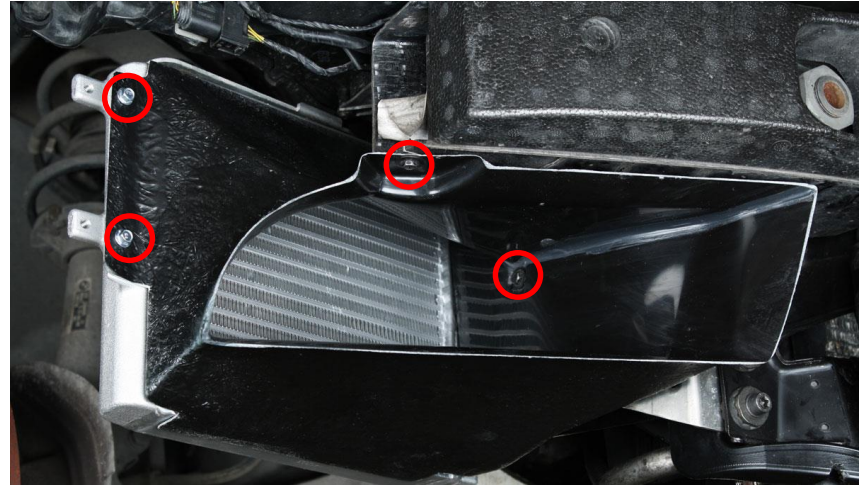
Before installing the oil cooler we recommend to prefill the oil cooler with 6,5dl of Pentosin FFL-4 oil. Contact you local BMW dealer to get the correct oil.

14.

Install the oil cooler in the car and fasten it with 1x Hex 10mm screw and 2x Hex 13mm nuts you removed in step 9.



- 14.** Install the new do88 air guide using 2x Hex 8mm you removed in step 8 and the two included 2x M5x12mm towards the oil cooler.



- 15.** Install the oil pipes. Remove the old O-rings and install the two new included O-rings. Fasten the oil pipes with the Hex 13mm screw you removed in step 7.

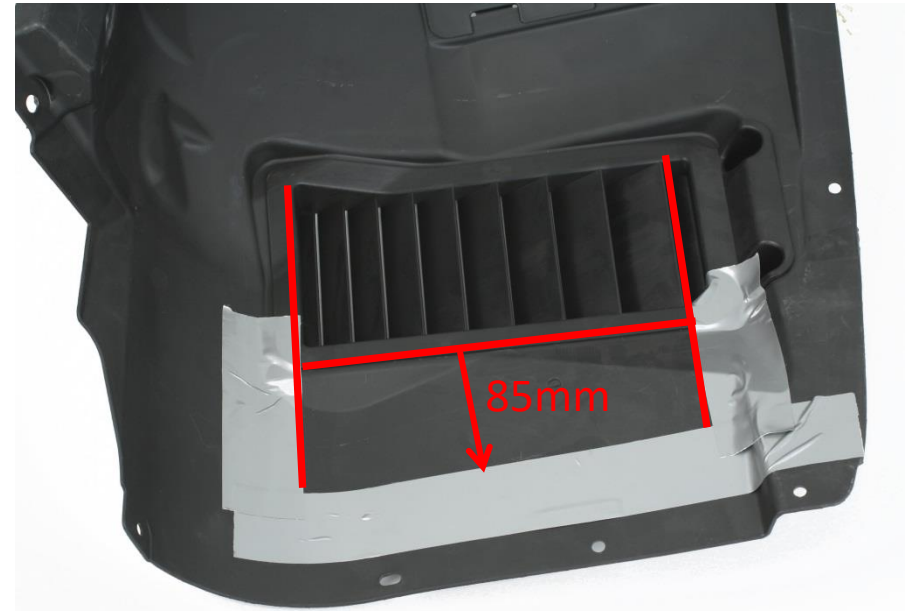
Be gentle when fastening this screw. So you don't twist the oil cooler pipes. We recommend that you support the oil pipe connection block when fastening this screw.

- 16.** Reinstall all other parts in reverse order except the right hand side inner fender. See step 17 how it should be modified and installed.

17. The inner fender need to be modified because of the increased size. To cut in correct position mark with tape.

The horizontal tape line should be 85mm from the bottom of the OEM air outlet frame. And the two vertical tape lines as wide as OEM air outlet.

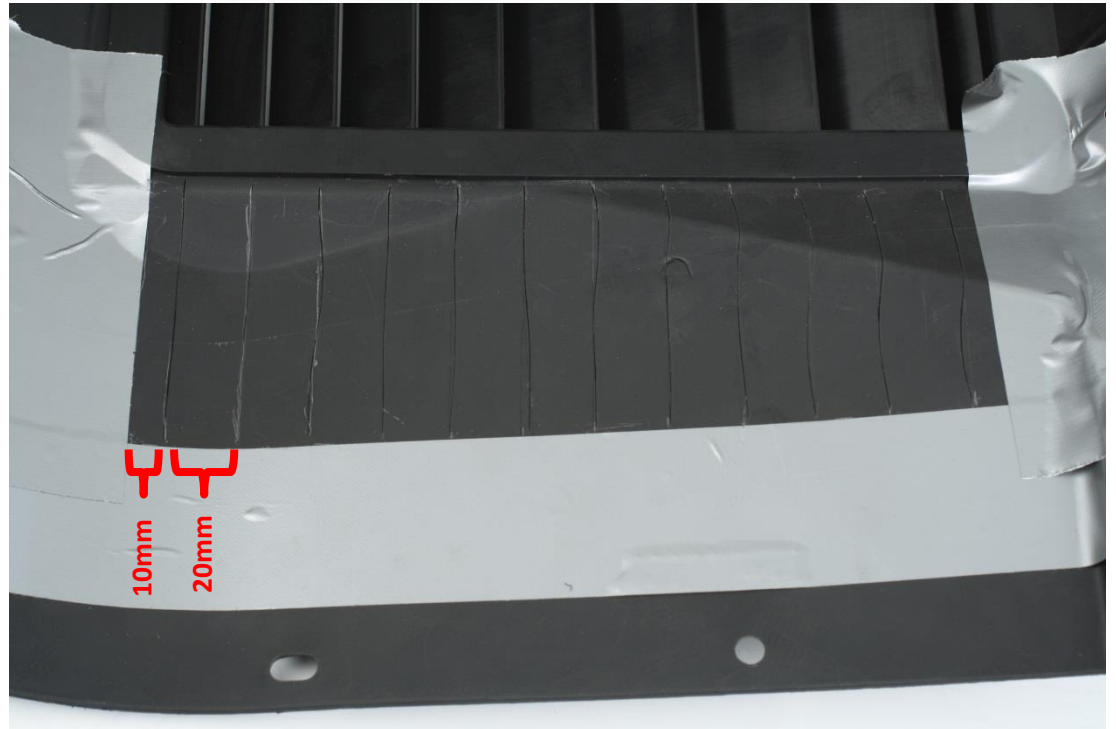
Tape a rectangular area as shown on the photo. The tape should be parallel with the OEM air outlet fins as on the photo.



18. Carefully cut 12 vertical cuts from the bottom of the OEM air outlet down to the tape edge (85mm). Use a Snap-off blade knife, with sharp blade!

Be careful not to cut yourself!

The first cut should be 10mm from the left vertical tape edge, then each cut should be 20mm from each other.



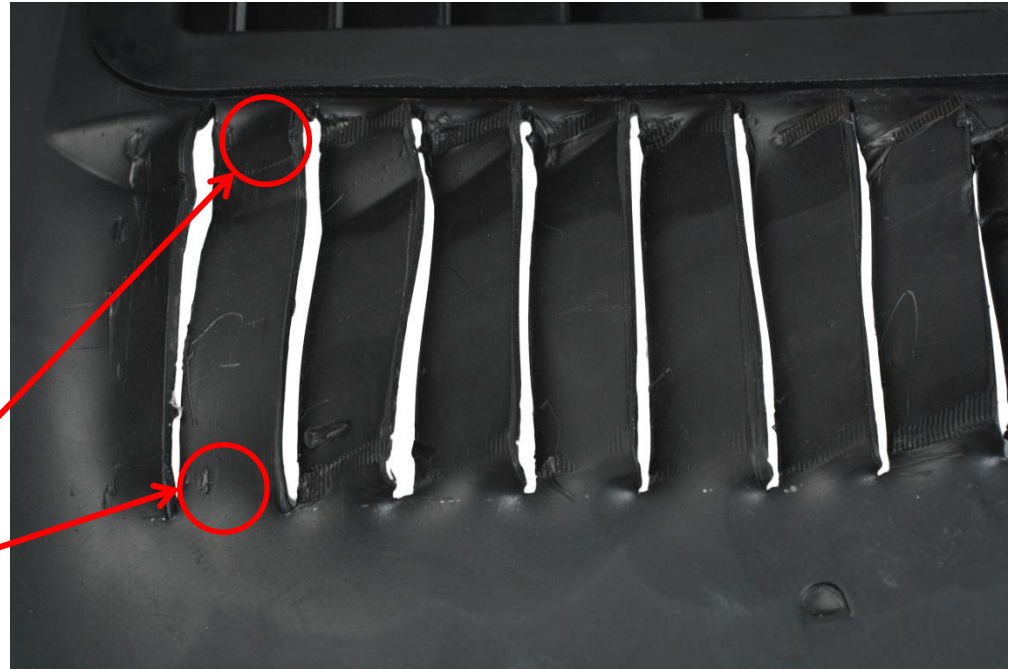
19.

With a heating gun heat the top and bottom area of one fin at the time.

Immediately after heating take 2 plyers and gently bend the plastic in an angle as shown on the photo. Hold the pliers in fixed position for about 15 seconds until the plastic has hardened again.

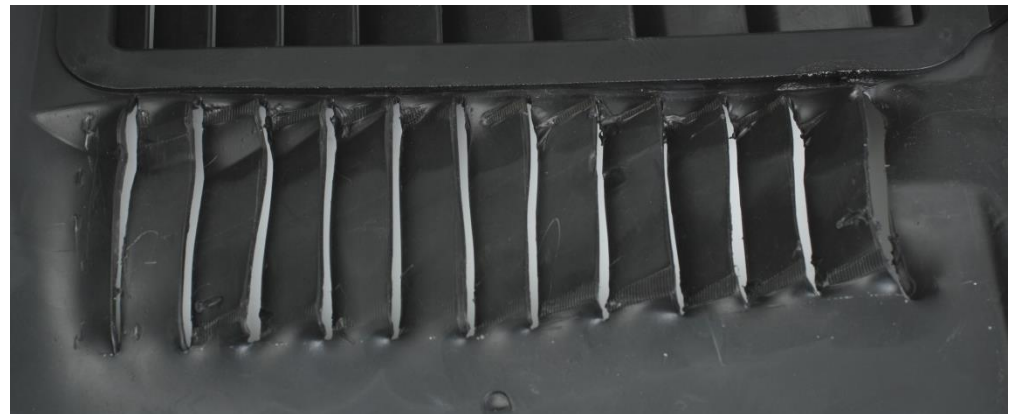
Repeat this procedure on all fins except the last fin to the right. This fin should be bent in the opposite direction.

Heat here:



20.

The finished result should look like this:



21.

Install this inner fender with 9 pcs Hex 8mm and 1pc Hex 10mm removed in step 1.

Install the two included M6x12mm where the OEM air outlet is screwed to the oil cooler.



22.

Finished.