

# Installation instruction do88 aluminum radiator for BMW M3 E46

Part number: WC-310

This instruction shows how to replace the OEM radiator with do88 performance radiator.

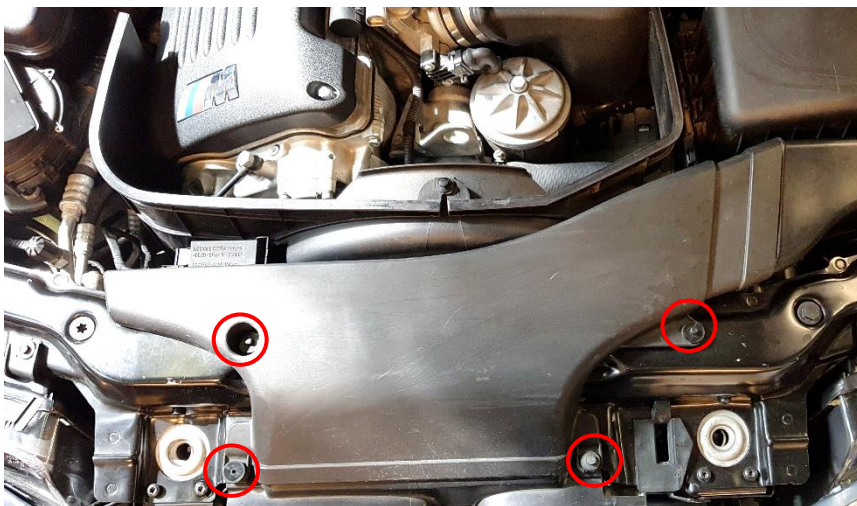
At this type of installation we always recommend that you have mechanical experience and knowledge about safety during work on vehicles.

## Parts included:

1. do88 Aluminum radiator
2. Upper radiator silicone hose
3. Lower radiator silicone hose
4. Expansion tank silicone hose
5. Temp sensor with copper washer
6. 2 x M5x10 Flange Screws
7. 1 x M5x16 Flange Screw
8. 2 x M6x16 Flange Screws
9. 2 x M6 Flat Washer (not on picture)
10. 4 x Rubber Washers
11. Thread locker
12. 6 x Hose clamps
13. Plastic screw 6x45 T30 (not on picture)



1. Remove 4x plastic clips and then remove the upper air guide.



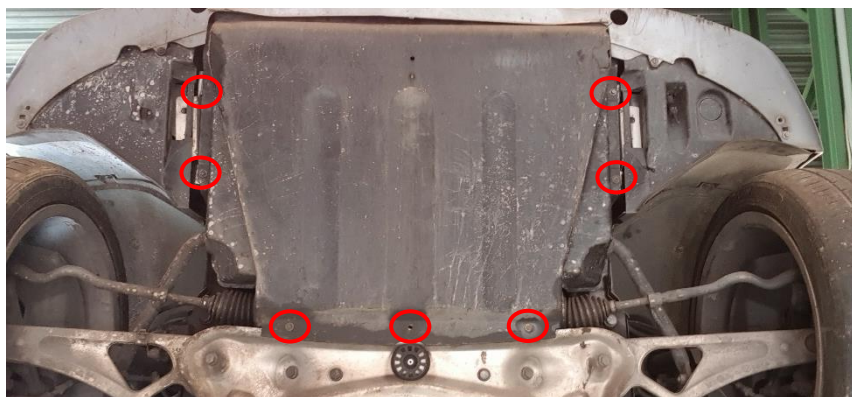
2. Remove the air filter box. 1x hose clamp, 1x cable connector and 2x 10mm Hex screws



3. Remove the expansion tank lid. Make sure the engine is cold before doing this!



4. Remove the plastic cover underneath the engine. 7x Hex 8mm screws.





5. Drain the coolant by disconnecting the lower radiator hose. Press the metal clip upwards with a flat screw driver to release it. Then pull the connection off the radiator. Make sure the engine is cold before doing this!



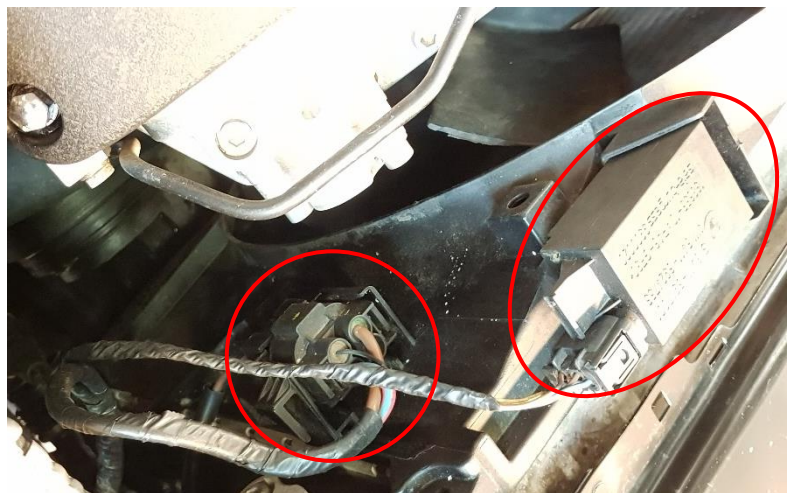
6. Remove the upper radiator hose (1x hose clamp & 1x metal clip) and also remove the bleeding hose (1x hose clamp & 1 plastic tab clips)



7. Remove the 3x plastic clips then remove the two radiator fan air guides.



8. Disconnect relay and cable connector from the radiator fan cover.





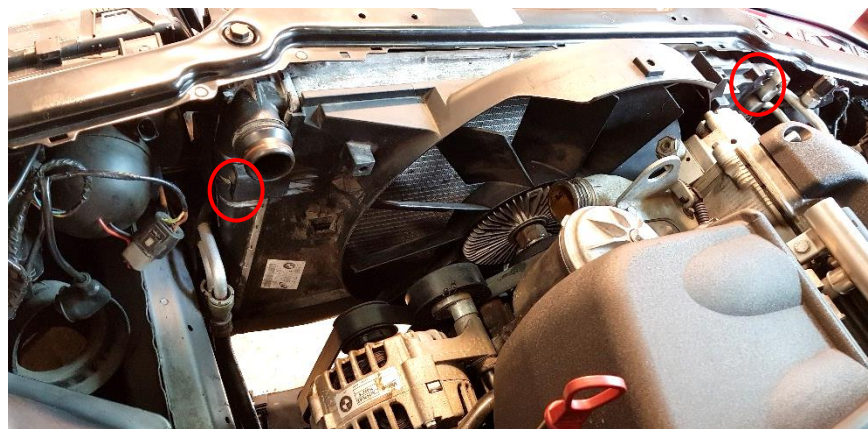
9. Remove the oil cooler from the radiator 2x Torx T25 screws. You don't need to disconnect the oil lines. Secure the oil cooler in a strap to the stabilizer sway bar.



11. Remove the radiator fan. Loosen it with a 32mm open-end wrench. NOTE! It is left hand threaded. You need to keep the shaft fixed with a big flat end screw driver while loosening it. Lift the fan out of the car together with the fan cover.

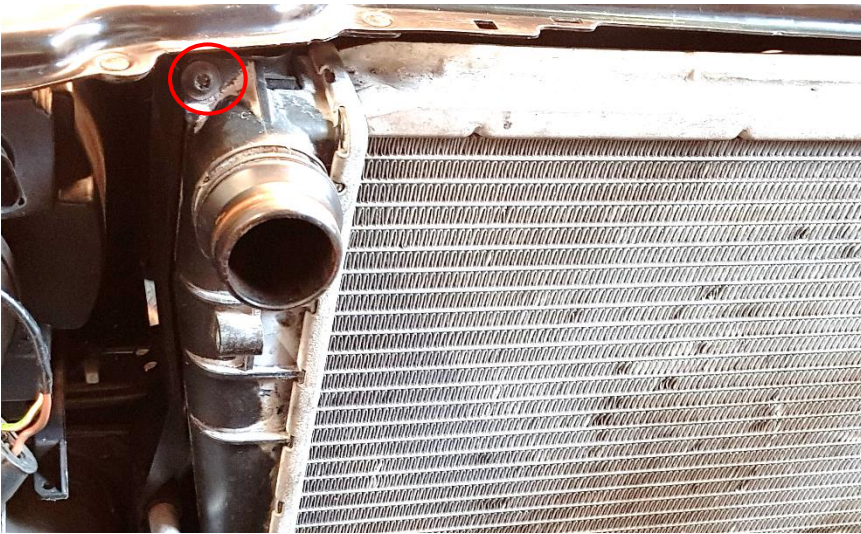


10. Remove all four radiator fan cover screws, Torx T25. Two in the top and two in the bottom.

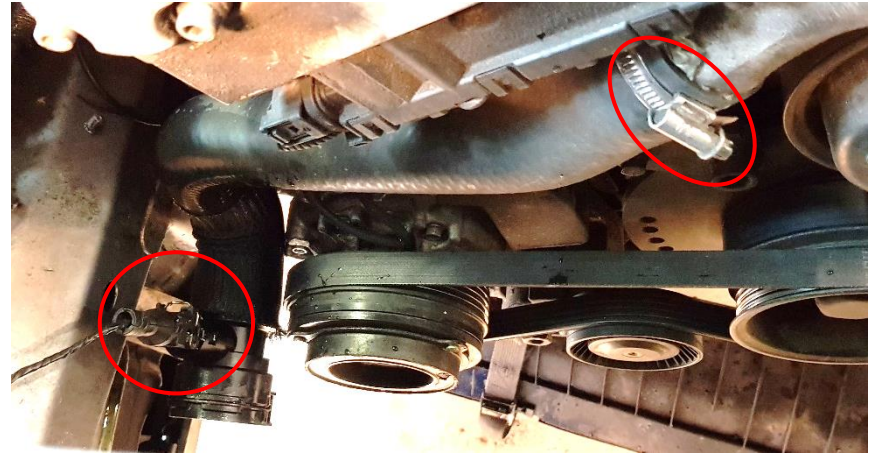




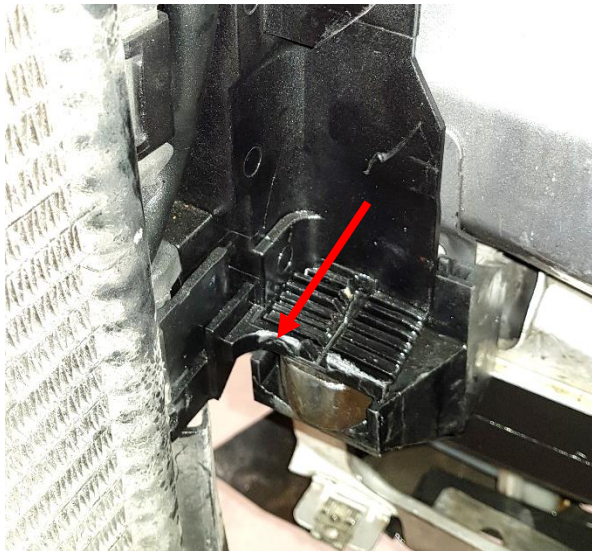
12. Remove 1x Torx T25 on the top left side of the radiator.



13. Now gently remove the radiator. You may take it up or downwards. After that remove the lower radiator hose 1x Hose clamp and 1x cable connector.



14. You may need to grind the plastic bracket slightly on the right-hand side. Keep in mind the radiators are hand build and deviation between units can occur.



- 15.** Remove the two large top plastic screws holding the radiator side brackets.



- 16.** Install the included temperature sensor together with the included copper washer according to photo.



- 17.** Now install the do88 radiator into your car. This can be done both from underneath (easiest) or from the top. To protect the new aluminum radiator during installation, put for example cardboard sheets over both sides of the core when putting it in place.

*Please note it is easier to install this radiator if you have also removed the front bumper, but it is not necessary.*

The easiest way to get the radiator into the two large plastic side brackets in the car is if you start to push in the left-hand side first then the right-hand side.

- 18.** Now install the plastic fan cover. Slide the cover into the L-shaped bracket on the right-side radiator tank. Then make sure the fan cover slides into the slot at the bottom of the radiator and also over the top core edge. Now fasten it with the included Hex screws 2x M5x10mm and 1x M5x16mm and 1x Plastic screw 6x45 T30 Torx.

After this, install the radiator fan by sliding it in place in the fan cover from the left side. It might be a good idea to protect the radiator core with a piece of cardboard when doing this.



19.

Now fasten the two top screws that fastens the radiator to the two large plastic side brackets. When you fasten these screws you might need to push the plastic brackets slightly for the holes to line up correctly.

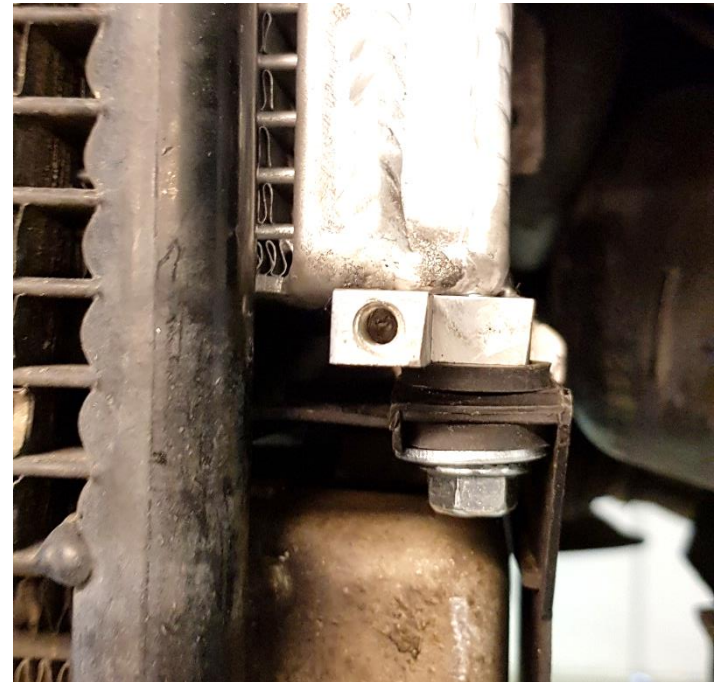
21.

Reinstall the performance radiator and all other removed parts in reverse order with these notes/exceptions:

1. Install the included bleeding hose and clamps between small radiator connection and expansion tank. You may need to trim the plastic corner on the radiator fan cover at the hose connection on the radiator if the bleeding hose interferes.
2. Install the oil cooler with the included 2x M6x16mm screws, rubber washers and flat washers according to photo. Use the included thread locker on these screws. Just tighten until the rubber washers are being a tad compressed as shown on picture.
3. Install the included top radiator hose and hose clamps.
4. When bleeding the radiator during refill of coolant use the build in bleed screw. Make sure to bleed it carefully as the triple pass design of this radiator can make it more tricky to get all air out of the system.

20.

Now install the included lower radiator hose and hose clamps.



Seen from the bottom:  
Screw head (M6X16mm) – Flat washer - Rubber washer – Oil cooler bracket - Rubber washer - Aluminum radiator.