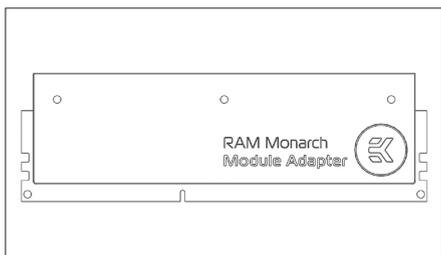


EK-RAM Monarch

USER GUIDE

GENERAL INFORMATIONS



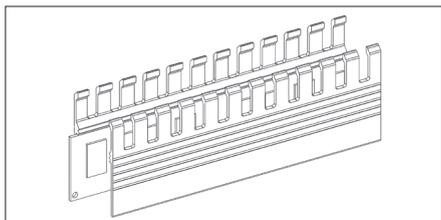
EK-RAM Monarch Module is a heatsink adapter which allows virtually any (DDR-)SDRAM memory module (of any generation) to employ EK-RAM Monarch series water blocks.

Not compatible with Memory Kits with taller PCB!

/1/

REMOVING THE FACTORY INSTALLED HEAT-SPREADERS

In case your DIMM memory modules are equipped with heat spreaders by default it is mandatory to remove those prior to continuing the installation process. Because there is no prescribed standard on how the heat spreader should be attached to the memory module, many methods are used, most common being self-adhesive tape between the heat spreader and memory IC.



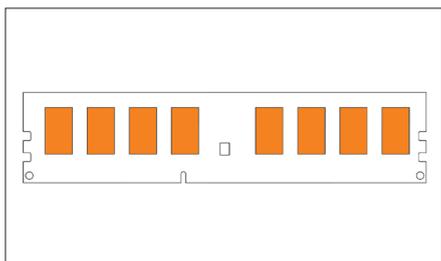
Wipe off the remains (by using non-abrasive cloth or qtip) of the original thermal compound or adhesive tape until the components and circuit board are completely clean. EKWB recommends the use of denatured alcohol for removing such leftovers.



Removing the factory heat spreader may void your warranty!

/2/

APPLYING THE THERMAL PADS



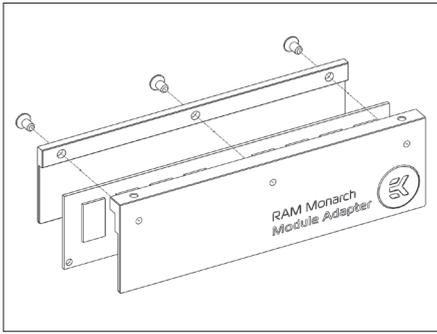
Each module comes with two Thermal Pad E – 0.5mm thermal pads which are trimmed in order to fit eight memory IC chips on each side of the memory module as shown on the picture. Repeat the procedure for the IC on the back side of the PCB.



In case of single-sided memory modules it is mandatory to use 1,5mm thick thermal pad in place of the missing memory IC

/3/

APPLYING THE THERMAL PADS



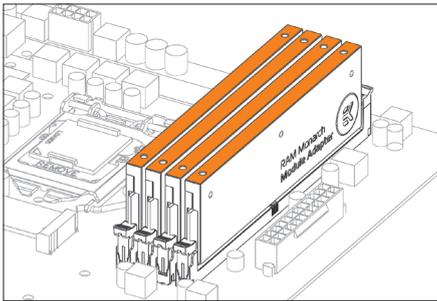
Sandwich the memory module with adhered thermal pads gently between the both halves of the EK-RAM Monarch Module Adapter while making sure the holes line up. Install each adapter in such way the side locking latch will not be obstructed. Use enclosed M3x6 DIN7991 screws and 2mm Allen key to secure the memory module in the EK-RAM Monarch Module Adapter.



Do not use excessive force as you might strip the threading in the soft aluminum body. Repeat the step with the second module adapter.

/ 4 /

INSTALLING EK-RAM MONARCH BLOCK ON EACH MEMORY



Apply thermal compound: lightly coat the top of the DIMM modules with electrically non-conductive thermal compound.

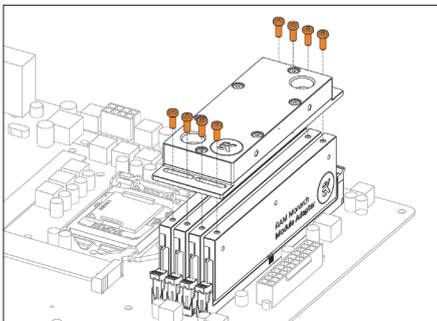


EKWB recommends to apply thermal grease in line form due to the specific design of this water block (see sample picture).

You can also use enclosed Thermal PAD F 0,5mm (120x16mm). Avoid applying the paste into the threaded openings!

/ 5 /

ATTACHING BLOCK TO DIMM MODULES



During this process please make sure you align threaded holes on the memory modules with holes on the water block.

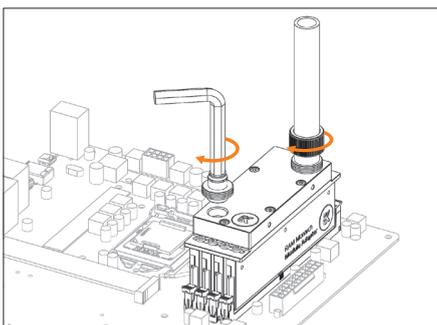
By using 2mm Allen key, screw enclosed M3X6 ISO 7380 screws to secure EK-RAM Monarch water block to EK-RAM Monarch Modules. EKWB recommends start screwing the other most screws and continue inwards.



Do not tighten the screw completely until you have aligned all memory modules as straight as possible.

/ 6 /

ATTACHING THE FITTINGS



Screw in the two G1/4 threaded male fittings. Attach the liquid cooling tubes and connect the water-block(s) into the cooling circuit. EKWB recommends using EK-ACF fittings with the EK-RAM Monarch series water blocks. To ensure that the tubes are securely attached to the barb/fittings, please use hose clamps or an appropriate substitute. These fittings do not need to be tightened with much force because the liquid seal is made using o-rings.

Any G1/4 opening can be used as an inlet/outlet port or vice versa, flow orientation is not important and is thus not prescribed.

/ 7 /