

This product is intended for installation only by expert users. Please consult with a qualified technician for installation. Improper installation may result in damage to your equipment. EK Water Blocks assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation. The following instructions are subject to change without notice. Please visit our web site at www.ekwb.com for updates. Before installation of this product please read important notice, disclosure and warranty conditions printed on the back of the box.

Before you start using this product please follow these basic guidelines:

1. **Please carefully read the manual before through before beginning with the installation process!**
2. **Please remove your motherboard from the computer to assure safest mounting process in order to prevent any possible damages to your RAM and/or motherboard's circuit board (PCB).**

STEP 1: GENERAL INFORMATION.

This product is a heatsink adapter which allows virtually any (DDR-)SDRAM memory module (of any generation) to employ EK-RAM Monarch series water block. Below is the sample photograph of modern (ECC) DDR3-SDRAM DIMM memory module without heat-spreader.



STEP 2 (optional): 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.



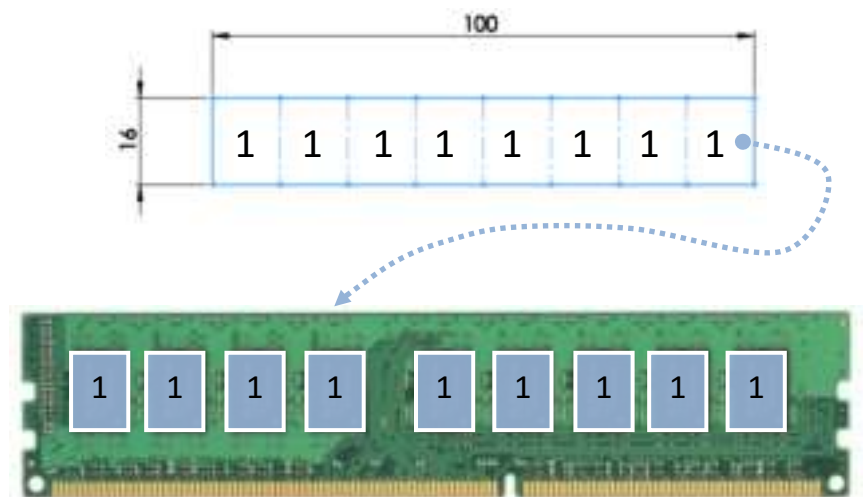
Carefully remove the factory installed heat spreaders using screwdriver, sharp blade or heat, depending on the type of assembly.

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.

PLEASE NOTE: Removing the factory heat spreader may void your warranty!

STEP 3: APPLYING THE THERMAL PADS

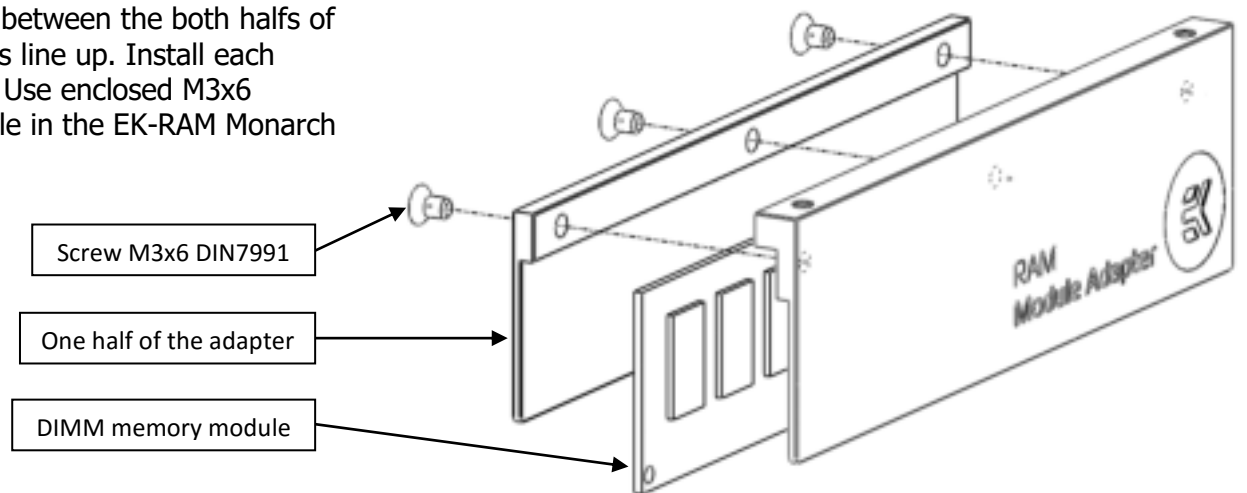
Each module comes with two Thermal Pad E – 0.5mm (100x16mm) thermal pads which need to be trimmed in order to fit eight (or nine in case of ECC) memory IC chips on each side of the memory module as shown on the picture below. Repeat the procedure for the IC on the back side of the PCB.



STEP 4: INSTALLING THE EK-RAM MONARCH MODULE ADAPTERS

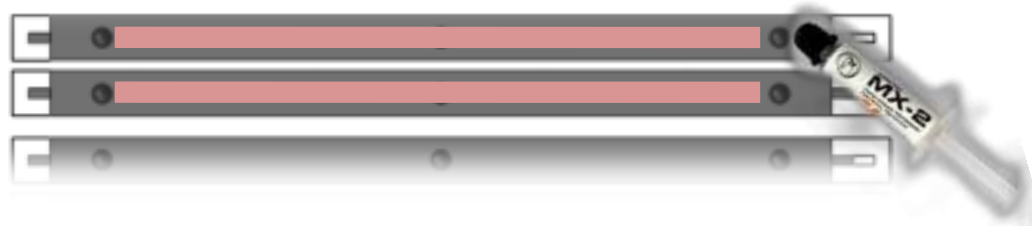
Sandwich the memory module with adhered thermal pads gently between the both halves of the EK-RAM Monarch Module Adapter while making sure the holes line up. Install each adapter in such way the side locking latch will not be obstructed. Use enclosed M3x6 DIN7991 screws and 2mm Allen key to secure the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



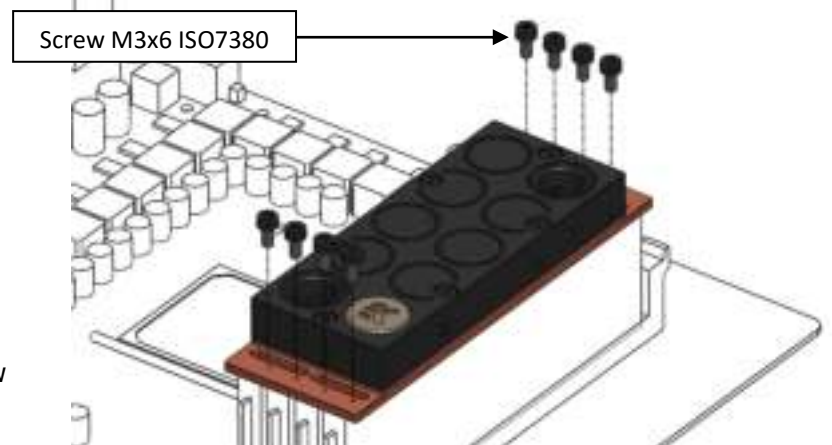
STEP 5: INSTALLING EK-RAM MONARCH ON EACH MEMORY

Prior to continuing to STEP 5 we recommend users to consult EK-RAM Monarch installation manual. Apply thermal grease as requested in STEP 5 of the aforementioned manual.



During this process please make sure you align holes on PCB with holes on block. By using 2mm Allen key screw in the M3x6 ISO7380 screws (enclosed with each EK-RAM Monarch Module). Do not tighten the screw completely until you have aligned all memory modules as straight as possible.

After tightening the screws please consult the EK-RAM Monarch manual continuing from STEP 8.



REQUIRED TOOLS:

