

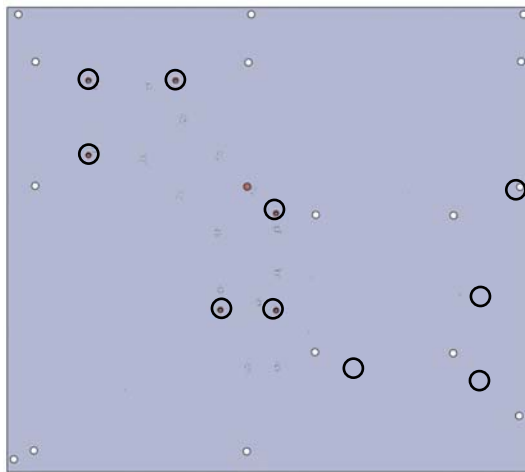
This product is intended for installation only by expert users. Please consult with a qualified technician for installation. Improper installation may result in damage to your equipment. EK Water Blocks assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation. The following instructions are subject to change without notice. Please visit our web site at [www.ekwaterblocks.com](http://www.ekwaterblocks.com) for updates. **Before installation of this product please read important notice, disclosure and warranty conditions printed on the back of the box.** The barb hose fittings require only a small amount of force to screw them in; otherwise the high flow fittings might break. These fittings do not need to be tightened with much force because the liquid seal is made using o-rings.

**STEP 1: GENERAL INFORMATION.** Sample picture of ASUS RAMPAGE EXTREME II motherboard.



**STEP 2: PREPARING YOUR MOTHERBOARD**

1. REMOVING STOCK COOLER. Remove all encircled screws or plugs. All heat sink assembly screws should be removed. There are 10 screws on the back of the motherboard.

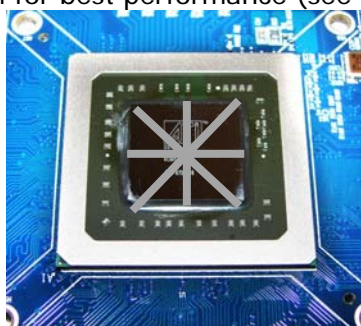


2. CLEANING THE PCB. Carefully detach the original heat sink after removing all fasteners securing it to the board and bracket. Wipe off the remains (by using non-abrasive cloth or qtip, as shown on sample photo) of the original thermal compound until the components and circuit board are completely clean. EKWB does not recommend using any liquids for removing paste.

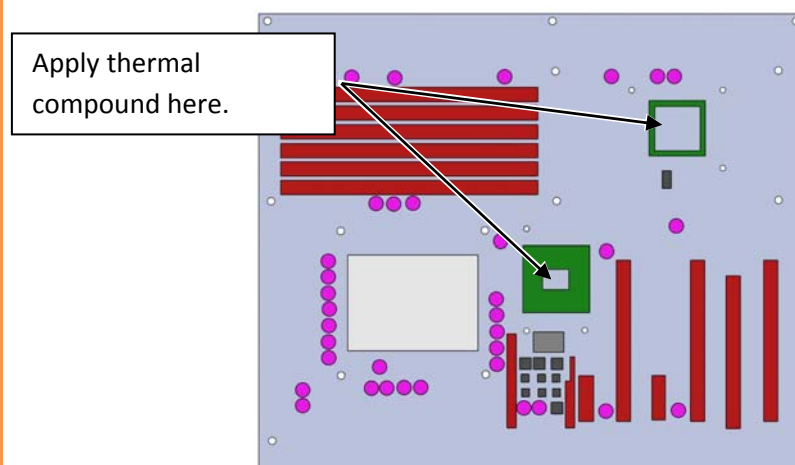


3. APPLYING THERMAL COMPOUND

Apply thermal compound: lightly coat the Southbridge with for example Céramique™ thermal compound. Follow this link [http://www.arctic-cooling.com/catalog/product\\_info.php?cPath=39\\_&mID=127&language=en](http://www.arctic-cooling.com/catalog/product_info.php?cPath=39_&mID=127&language=en) for detailed instructions. EKWB recommends non-conductive MX-2, which should be applied in cross form for best performance (see sample picture).

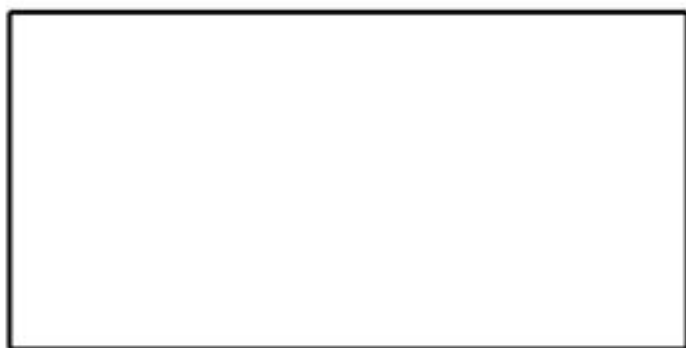


3.a. APPLYING THERMAL COMPOUND.

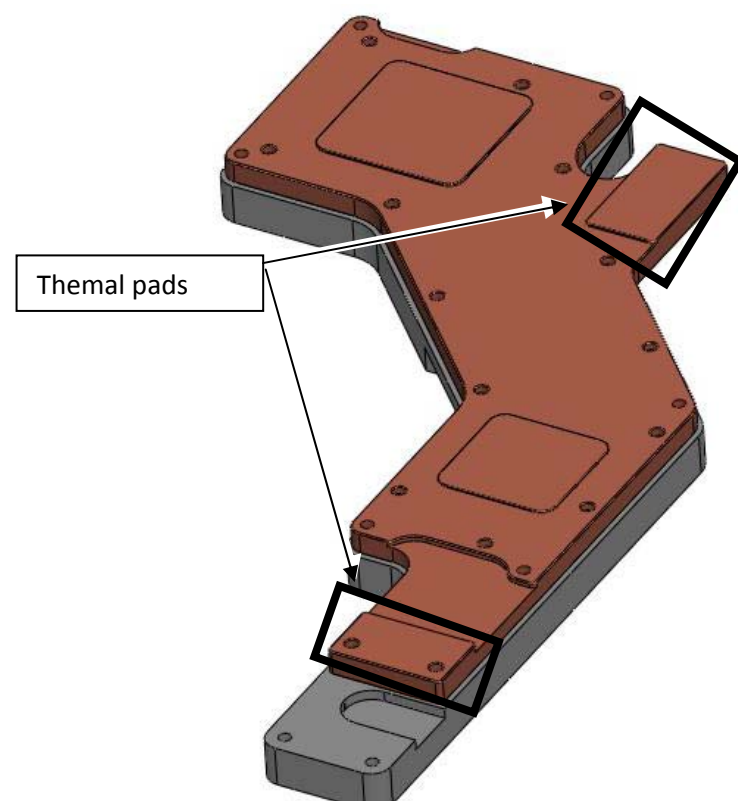


4. CUTTING THERMAL PADS. Your block comes with thermal pads, which have to be placed on chips. (PLEASE REMOVE FOIL OF THERMAL PADS PRIOR TO INSTALLATION. WARNING DIMENSIONS BELLOW ARE SCALED!)

Thermal pad 40X20 (thickness 1,5mm).

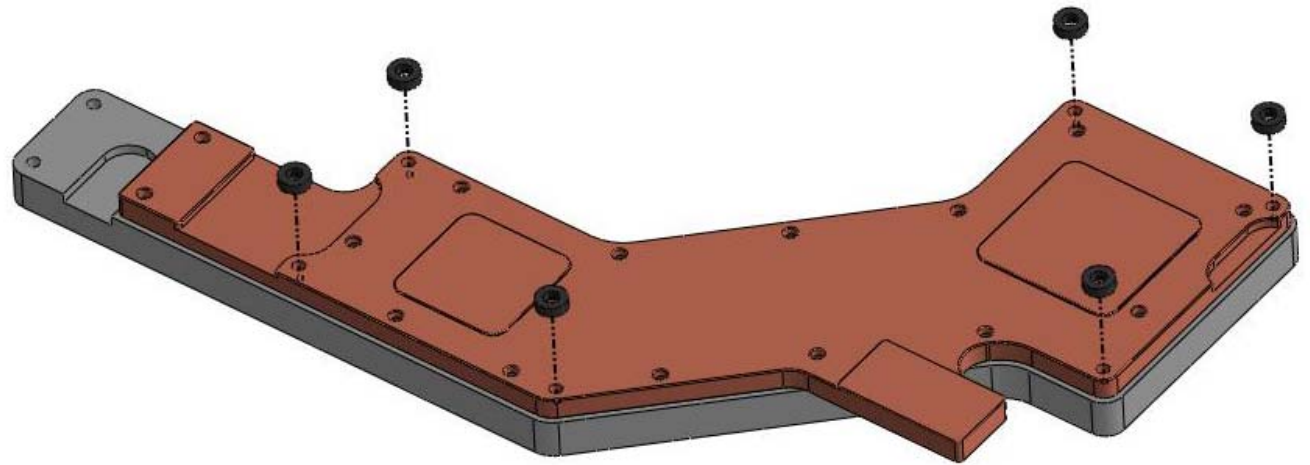


5. PLACING THERMAL PADS. Cut thermal pad in two adequate sizes in order to cover two marked areas.



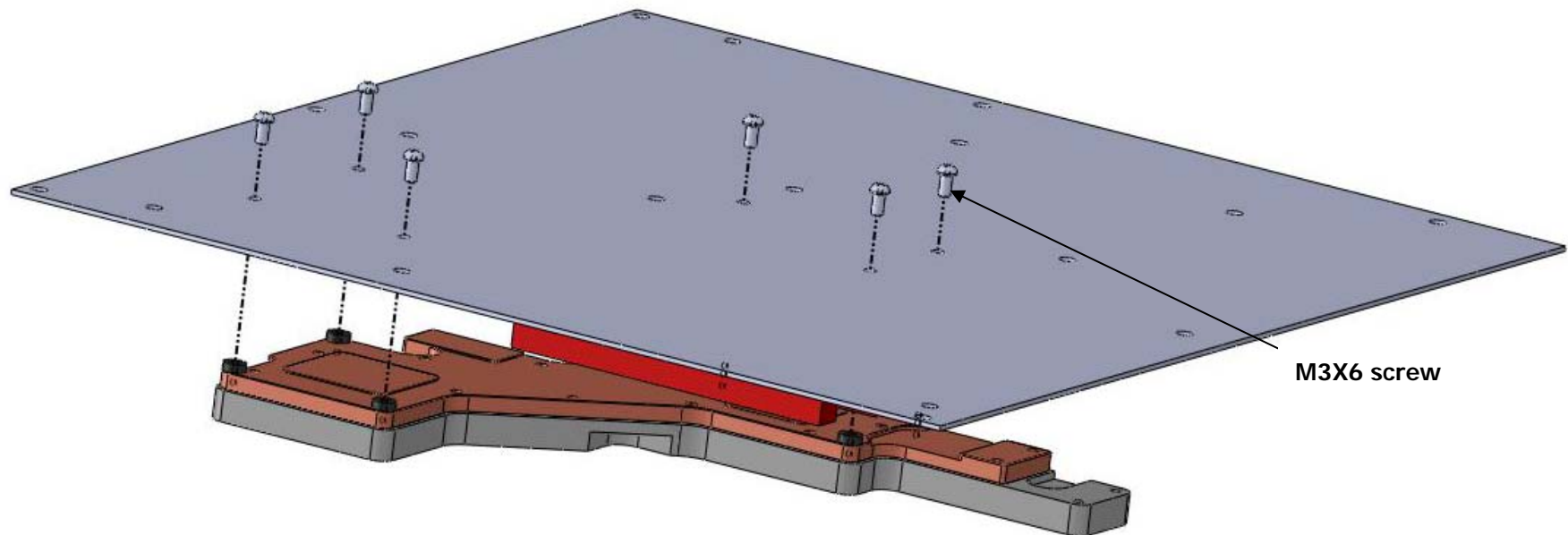
## STEP 2: PREPARING YOUR WATER BLOCK

6. ATTACHING STANDOFFS. Apply small amount of thermal grease around mounting holes and place acetal standoffs (thickness 2,5 mm) so the holes are concentric. Thermal paste provides enough adhesive force for standoffs to stay in a place. USE OF STANDOFFS IS OBLIGATORY TO PROVIDE FULLY FUNCTIONALITY OF WATER BLOCK AND TO AVOID ANY POTENTIAL DAMAGE TO CHIPSET.



## STEP 3: ATTACHING WATER BLOCK TO MOTHERBOARD AND CHECKING FOR CONTACTS

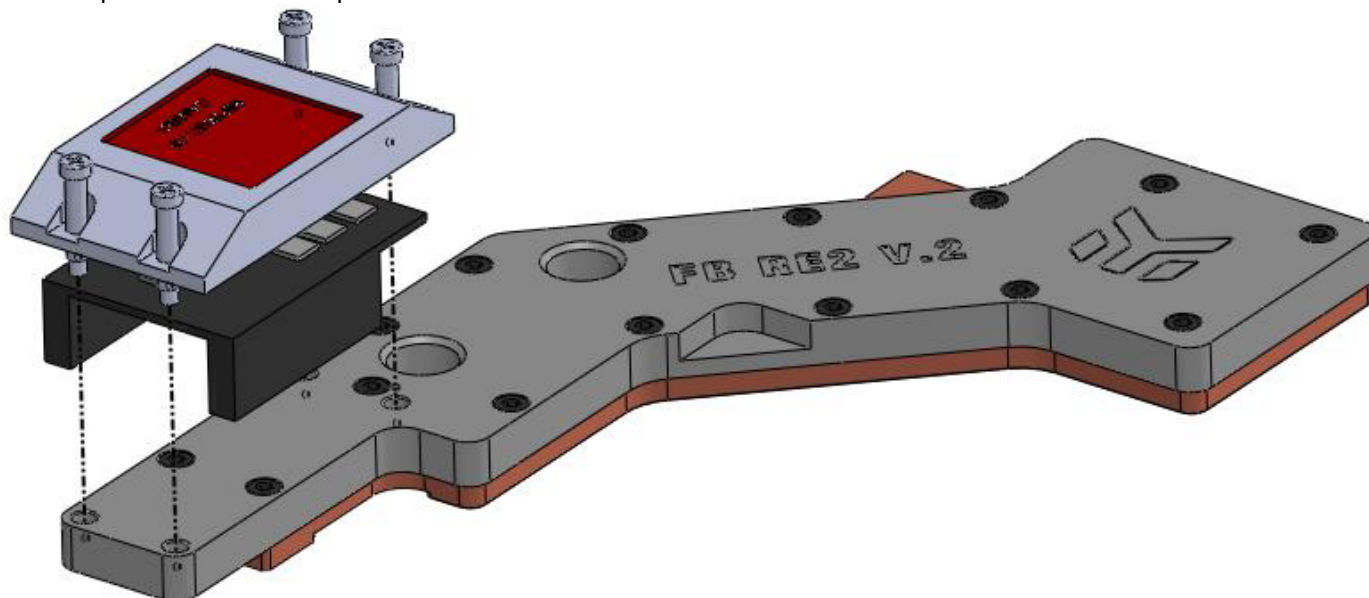
1. MOUNTING THE BLOCK. For perfect thermal contact, the block does not use a spring mounting system; therefore when attaching be very careful to tighten all screws equally. **Tightening the screws beginning in the center of the block near the northbridge, and continue evenly outwards. Do not use too much pressure on screws, because motherboard might bend and either cause bad contact with water block, or break a connection on the board.**



Temporarily remove the water blocks to check for uniform surface contact between the block and the components. Note the pattern of contact on a piece of paper. Then repeat steps to reattach the block applying more or less pressure to the areas where you have found it necessary.

## STEP 4: POSITIONING ROG FAN, FITTINGS AND CONNECTING TO WATER CIRCUIT

Once water block is securely positioned on motherboard please carefully reinstall the QPI card and place back the ROG stock cooler. Use stock screws to mount the ROG stock cooler. The threads for the screws to mount ROG stock cooler are equipped with seat so once you feel the grip do not tighten any more. Reattach the wire connection to the motherboard. Make sure orientation of parts is same as on picture below.



Screw in fittings, attach the liquid cooling tubes and connect the water-block(s) into the cooling circuit. The EK-FB RE2 series are usually sold with high flow fittings. To ensure that the tubes are securely attached to the barb fittings, please use hose clamps or an appropriate substitute. The use of an algicide is always recommended for any liquid cooling system. You can use any hole as an inlet/outlet hole.

### REQUIRED TOOLS AND MOUNTING SCREWS:



scissors



philips screwdriver



6 screws M3X6 DIN7985