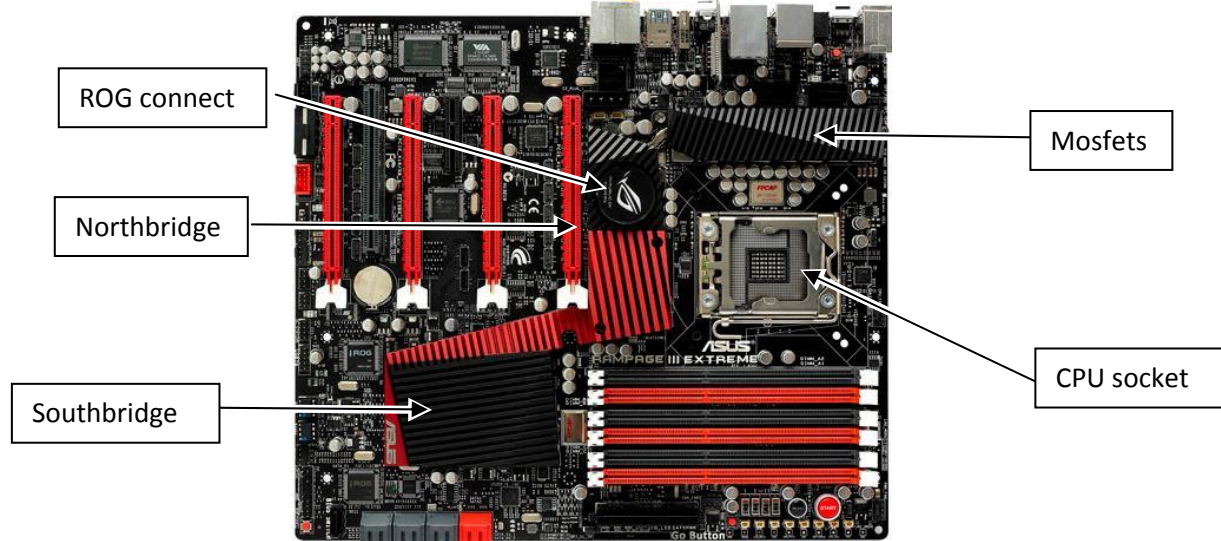




# Installation and mounting manual for EK-FB RE3 water block:

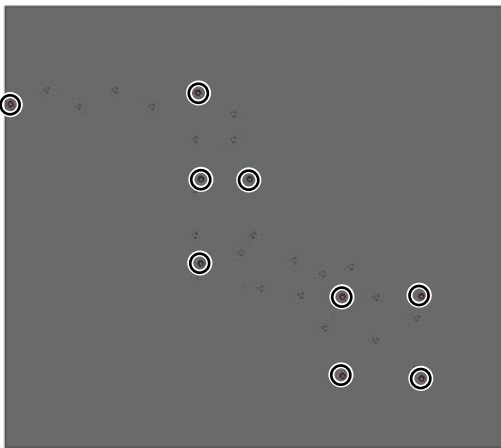
This product is intended for installation only by expert users. Please consult with a qualified technician for installation. Improper installation may result in damage to your equipment. EK Water Blocks assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation. 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 photo of ASUS RAMPAGE III EXTREME PCB design



## STEP 2: PREPARING YOUR MOTHERBOARD

1. REMOVING STOCK COOLER. Remove all screws under stock cooler. There should be 9 screws.

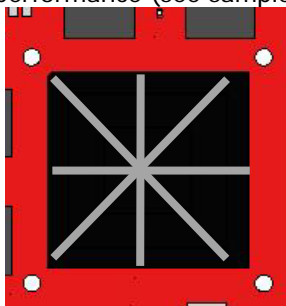


2. CLEANING THE PCB. Carefully detach the original stock cooler after removing **all** screws securing it to the board. Wipe off the remains (by using non-abrasive cloth or qtip, as shown on sample photo) of the original thermal compound until the components and circuit board are completely clean. EKWB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

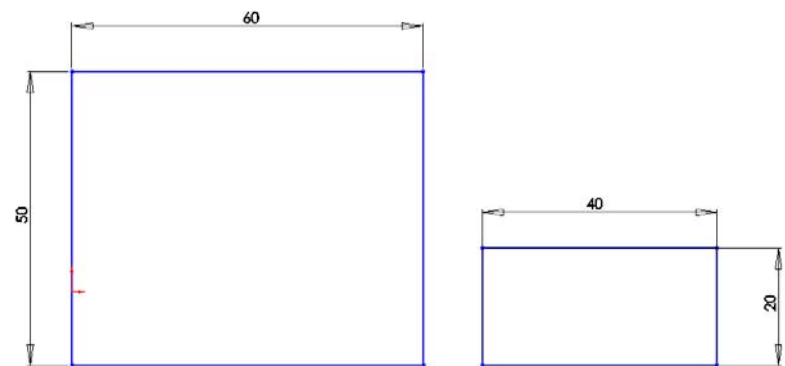


### 3. APPLYING THERMAL COMPOUND

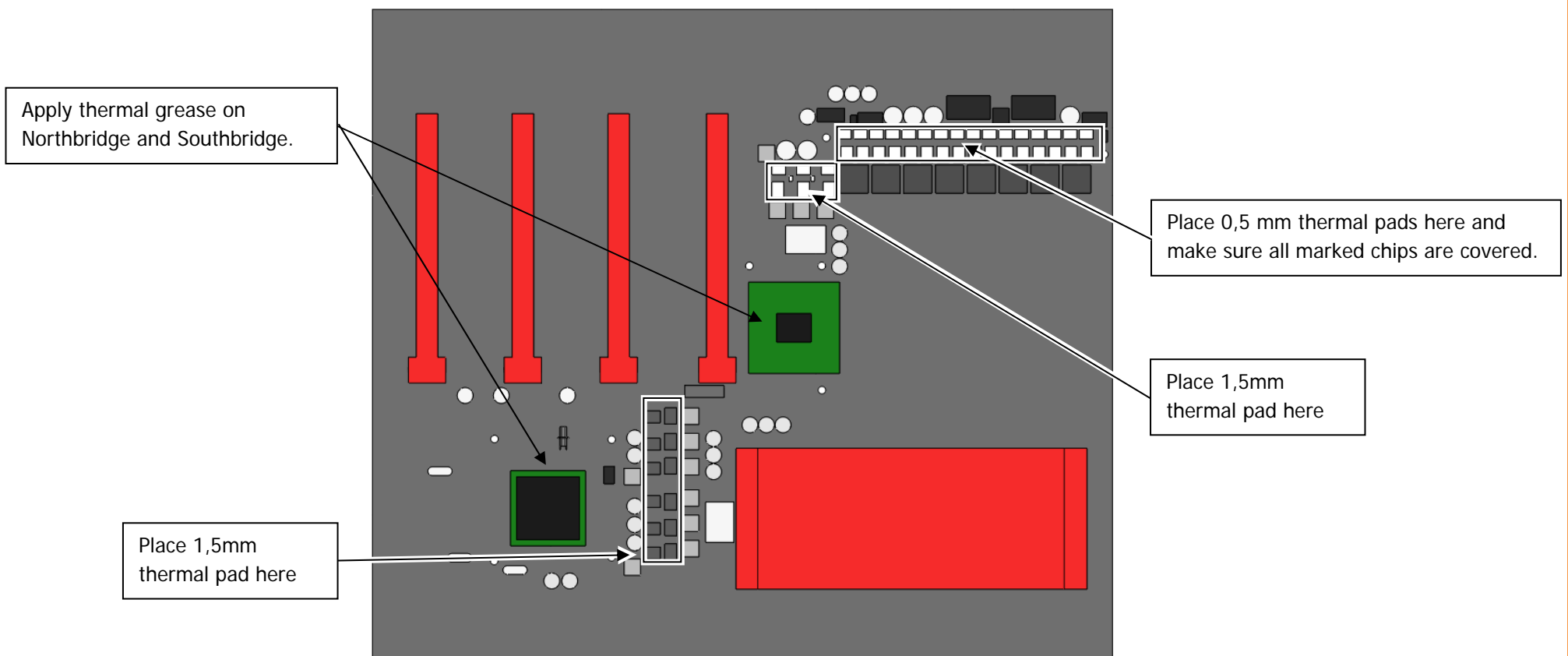
Apply thermal compound: lightly coat the Northbridge and Southbridge with for example Céramique™ thermal compound. Follow this link [http://www.arctic-cooling.com/catalog/product\\_info.php?cPath=39\\_&mID=127&language=en](http://www.arctic-cooling.com/catalog/product_info.php?cPath=39_&mID=127&language=en)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



4. CUTTING THERMAL PADS. Two thermal pads, (40x20x1,5 mm) and (60x50x0,5 mm) are enclosed with your water block kit. You will have to cut out small chunk from one thermal pad in order to cover all marked surfaces surfaces that are left exposed on mosfets. (WARNING: DIMENSIONS ON PICTURES BELLOW ARE SCALED!)

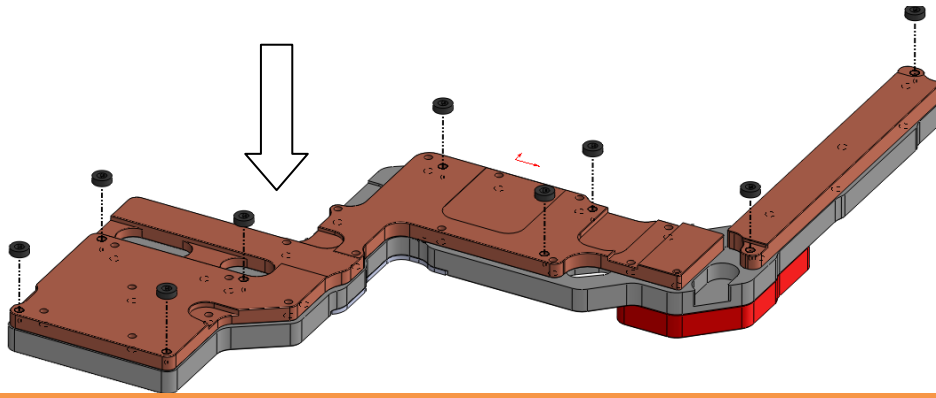


5. PLACING THERMAL PADS ON MOTHERBOARD. Place thermal pads you cut on PCB as shown on picture bellow. (PLEASE REMOVE FOIL OF THERMAL PADS ON BOTH SIDES PRIOR TO INSTALLATION.)



### STEP 3: PREPARING YOUR WATER BLOCK

1. ATTACHING STANDOFFS. Apply small amount of thermal grease around mounting holes and place acetal standoffs on NB/SB block (thickness 2,1 mm) so the holes are concentric. Thermal paste provides enough adhesive force for standoffs to stay in a place for easier installation. You can also attach standoffs onto motherboards stock cooler holes.

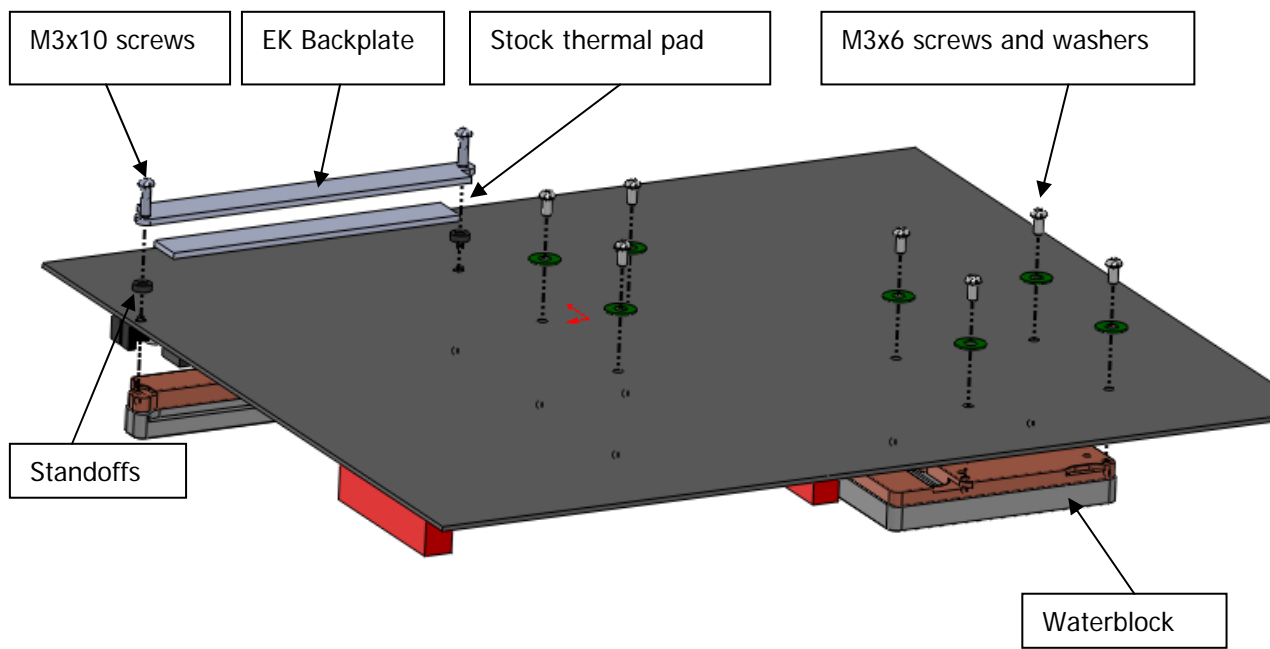


### STEP 4: ATTACHING BLOCK TO MOTHERBOARD

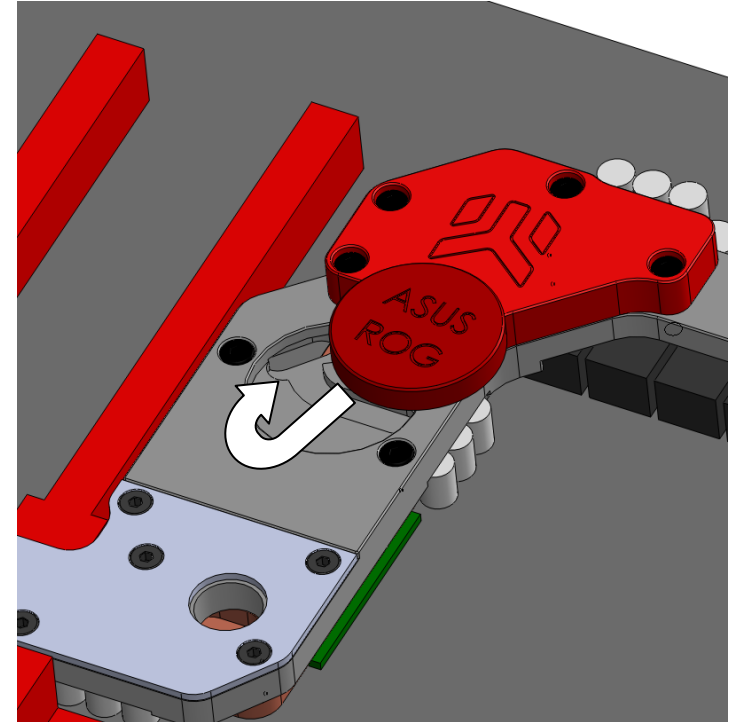
1. MOUNTING THE BLOCK. Place the motherboard on the inverted water blocks or vice versa and attach them with enclosed screws as shown. Make sure that mounting holes are aligned.

**Tighten the screws, beginning at 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.**

Use the enclosed screws and washers as shown in picture below:



2. RECONNECTING. Put small amount of magic glue or double sided duct tape on the surface as shown below. (Make sure that you do not block hole with tape!). Put cables with connector through hole on block and gently press ROG fan onto pre-glued surface.

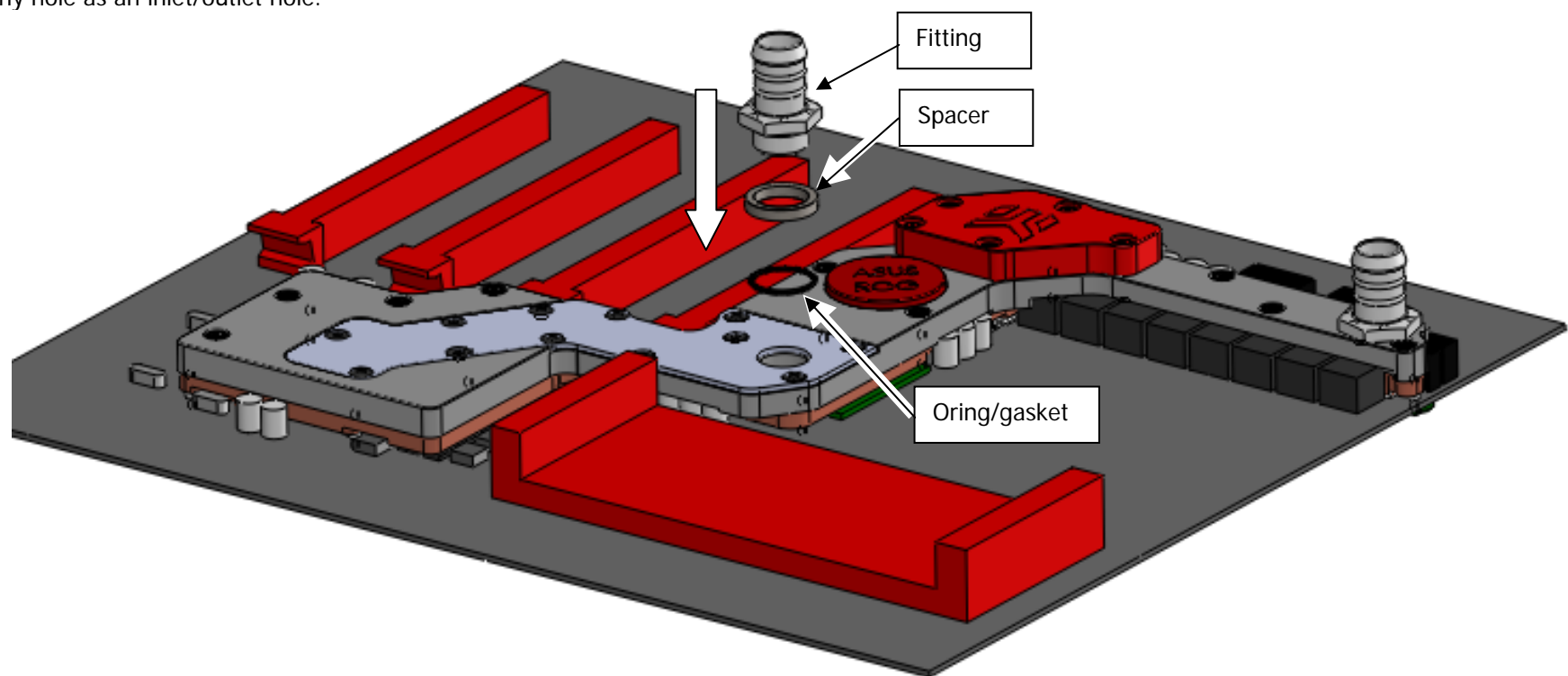


### STEP 5: CHECKING FOR CONTACTS

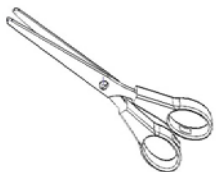
Temporarily remove the water block to check for uniform surface contact between the block and the components. Note the pattern of contact on a piece of paper. Then repeat steps 3 and 4 to reattach the block. Block was tested on physical hardware. Due to height variations of chipset some differences may occur. In case you have problem with block contacts please contact our support mail.

### STEP 6: POSITIONING FITTINGS AND CONNECTING TO WATER CIRCUIT

Please use spacer on shown hole only if you use fitting with G1/4 thread longer than 5mm (see sample picture). Attach the liquid cooling tubes and connect the water-block(s) into the cooling circuit. EKWB recommends using high flow fittings with the EK-FB RE3 series water blocks. To ensure that the tubes are securely attached to the barb/fittings, please use hose clamps or an appropriate substitute. The use of an algacide 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



9 screws M3x6 DIN7985



2 screws M3x10 DIN7985