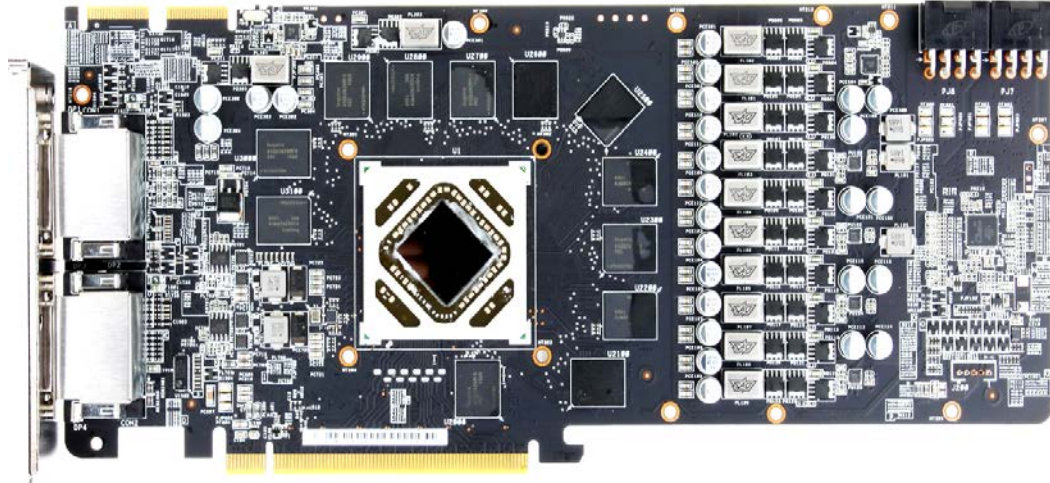


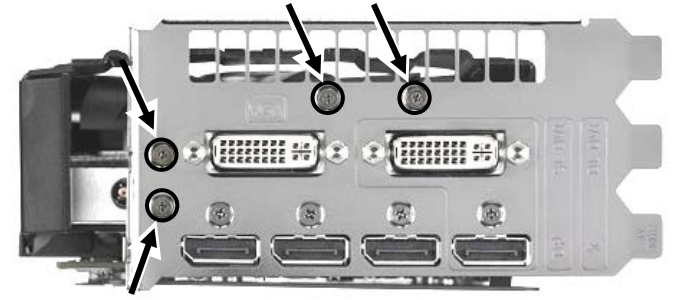
This product is intended for installation only by expert users. Please consult with a qualified technician for installation. Improper installation may result in damage to your equipment. EK Water Blocks assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation.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

STEP 1: GENERAL INFORMATION. Sample picture of ASUS HD7970 DC2(T) graphics card



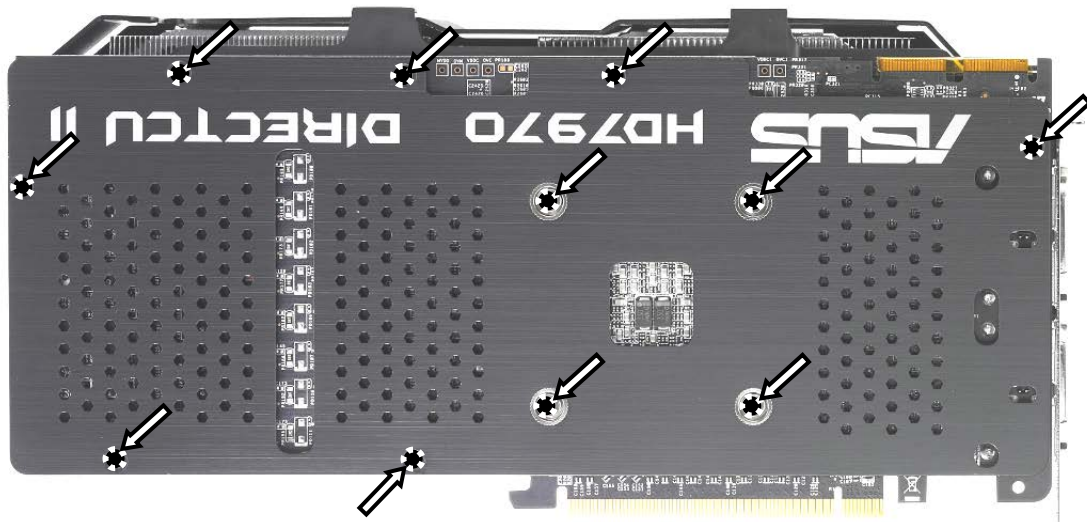
STEP 2: PREPARING YOUR GRAPHIC CARD.

1. REMOVING STOCK COOLER: Remove four encircled screws on the bracket:

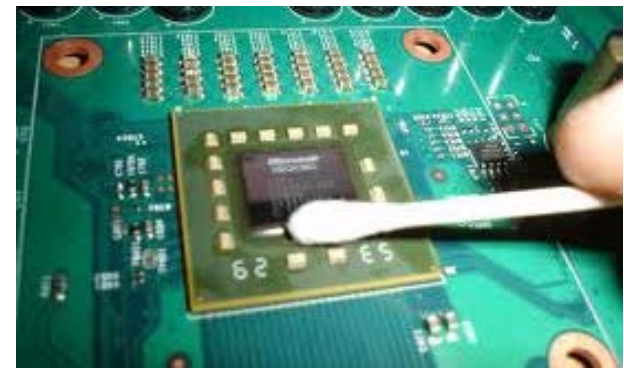


STEP 2 cont.: PREPARING YOUR GRAPHIC CARD

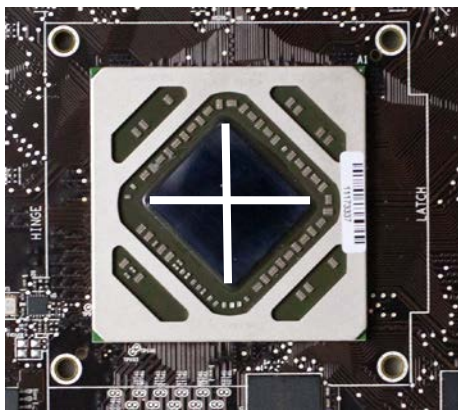
1 cont.. REMOVING STOCK COOLER. Remove all encircled screws. All heat sink assembly screws should be removed. There are 11 screws on the back of the graphic card.



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 recommends the use of denatured alcohol for removing TIM leftovers.

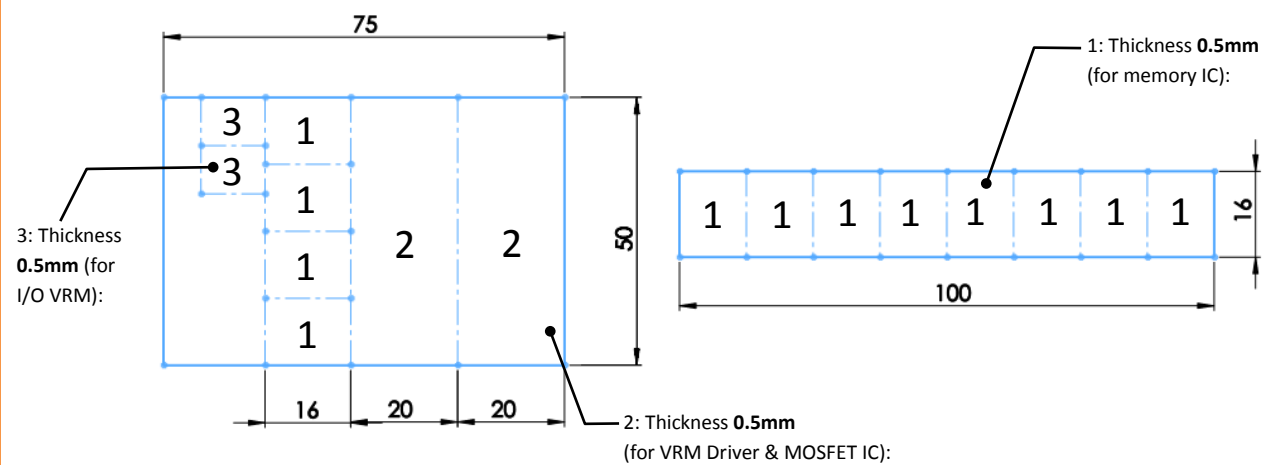


3. APPLYING THERMAL COMPOUND. Apply thermal compound: lightly coat AMD GPU chip with for example Arctic Cooling MX-2™ or MX-4™ thermal grease. EKWB recommends to apply thermal grease in cross form for best performance (see sample picture).



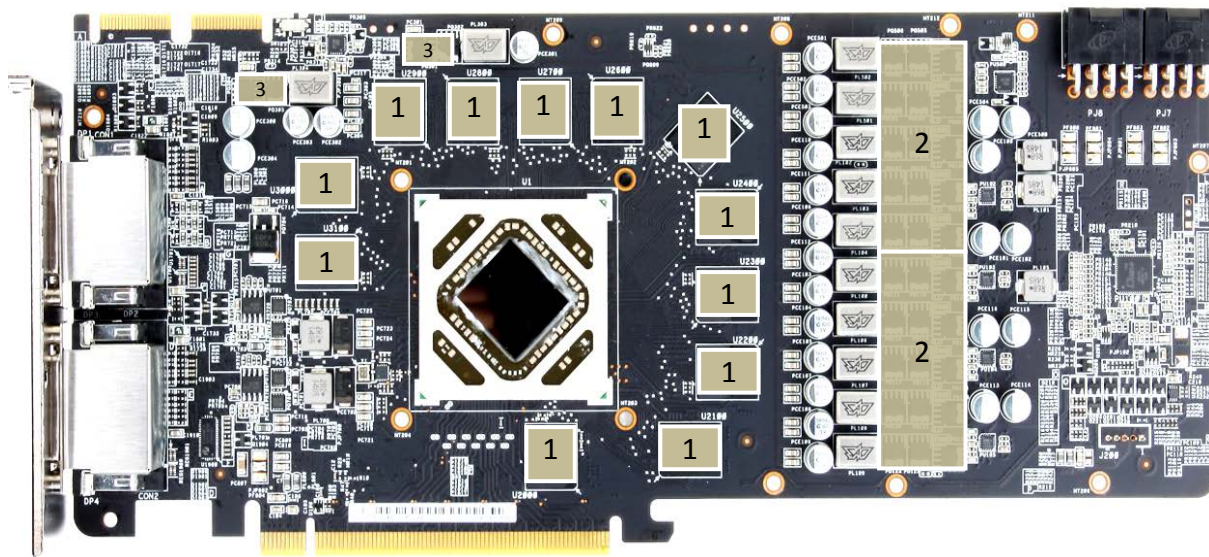
4. CUTTING THERMAL PADS. Your block comes with thermal pads, some of which are already pre-cut. Others have to be cut to smaller chunks in order to cover all the VRM components such as MOSFETs and drivers. PLEASE REMOVE THE PROTECTIVE FOIL FROM BOTH SIDES OF THE THERMAL PADS PRIOR TO INSTALLATION.

Replacement thermal pads: 1x Thermal Pad B – 0.5mm (75x50mm), Thermal Pad A – 0.5mm (100x16mm).

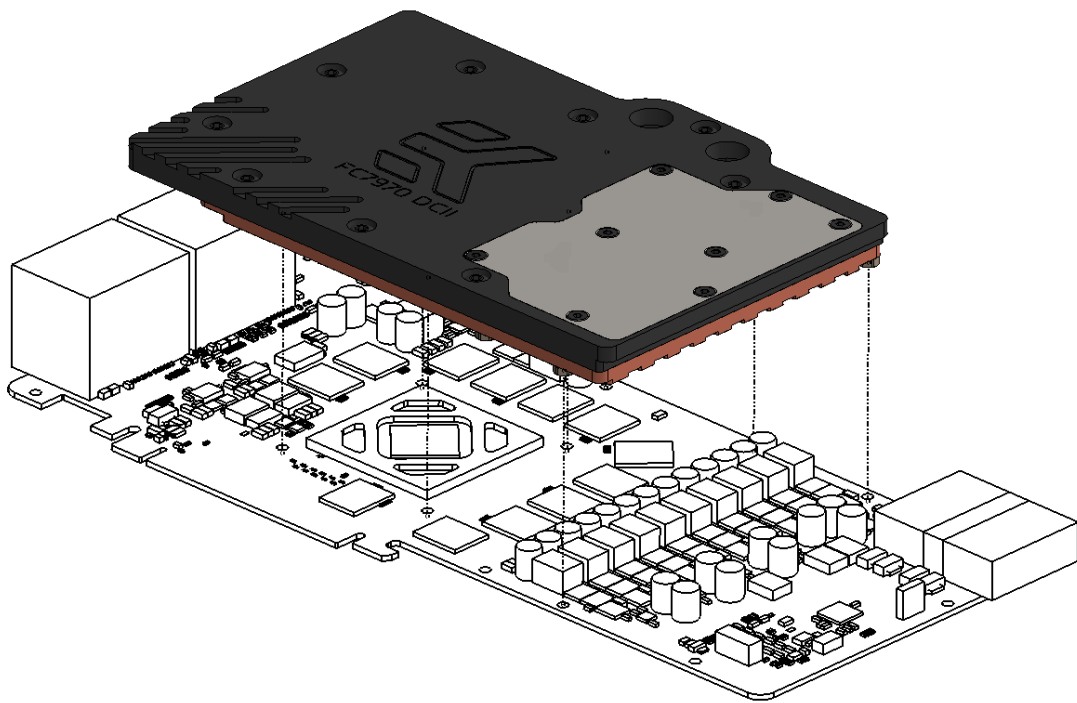


STEP 3: INSTALLING WATER BLOCK

1. PLACING THERMAL PADS ON PCB. Place thermal pads on chips so that numbers on chips match size of thermal pads. EKWB made sure users have more than enough pads to cover all surfaces that need to be covered to make block fully functional). EKWB recommends using small drops of electrically non-conductive (for example: Arctic Cooling MX-2™, MX-4™ or GELID GC-Extreme™) thermal grease on each phase regulator (that is being covered with thermal pad) in order to even further improve the thermal performance of the EK-FC7970 DCII series water block.



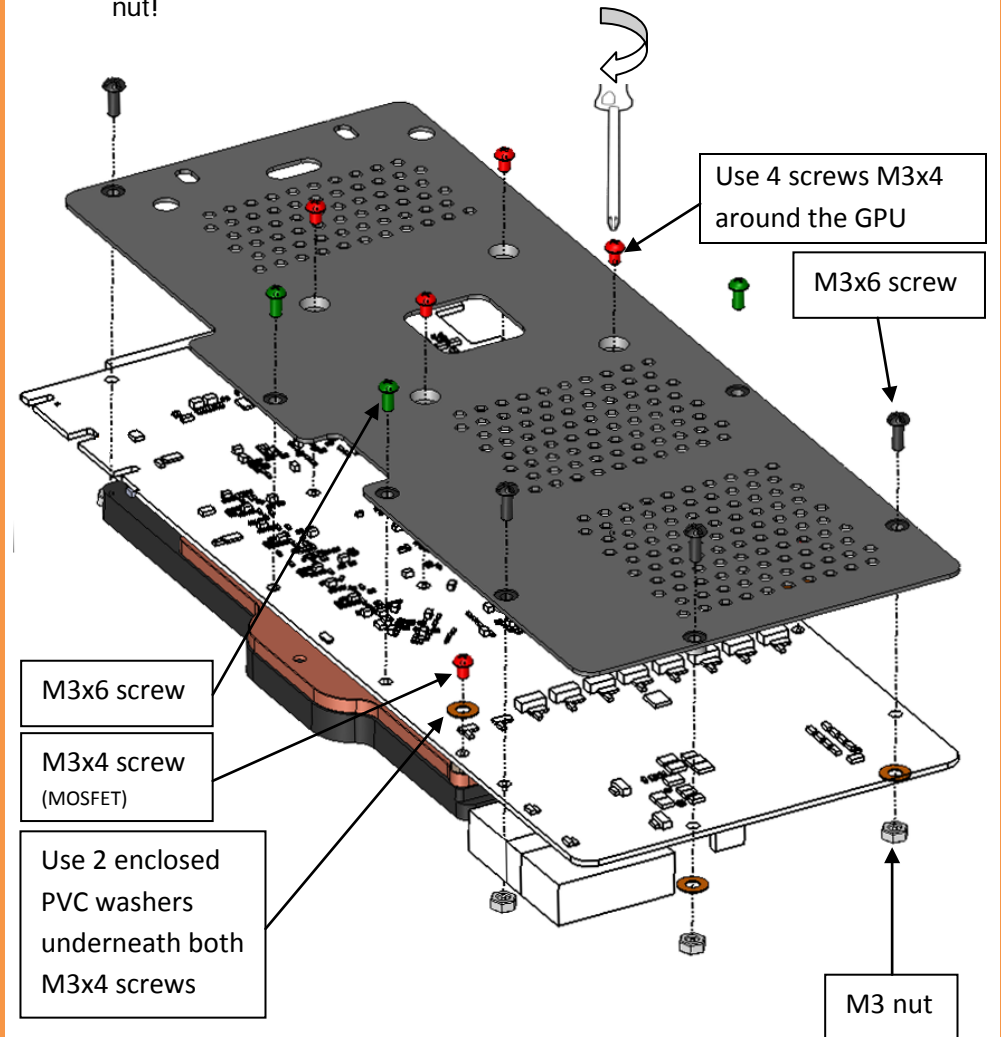
2. **PLACING BLOCK TO GRAPHIC CARD.** Carefully position the water block with preinstalled 2.5mm standoffs on to the graphics card. During this process please make sure you align mounting holes on PCB with holes on the water block. Also pay attention not to use too much force by pressing block down to PCB. Chip dies are prone to cracking.



3B. **ALTERNATIVE MOUNTING OPTION WITHOUT USING ASUS BACKPLATE.** By using Philips screwdriver screw in nine (9) enclosed M3x4 DIN7985 screws into each and every standoff on the water block. EKWB recommends start screwing the screws around the GPU core and continue outwards. Always use a PVC washer under each and every screw!

3A. **ATTACHING BLOCK AND ASUS BACKPLATE TO GRAPHIC CARD.** By using Philips screwdriver screw in enclosed M3 DIN7985 screws, washers and M3 nuts. EKWB recommends the following procedure:

1. Start screwing two (2) M3x4 DIN7985 screws on the MOSFET area and continue outwards. Use a PVC washer underneath both screws!
2. Place the ASUS factory backplate onto the graphics card circuit board
3. Screw in four (4) M3x4 DIN7985 screws around the GPU core and three (3) surrounding M3x6 DIN7985 screws directly to the standoffs on the water block.
4. Screw in the remaining four (4) M3x8 DIN7985 screws (which go through PCB) and secure them with M3 nuts. Use PVC washer underneath each nut!

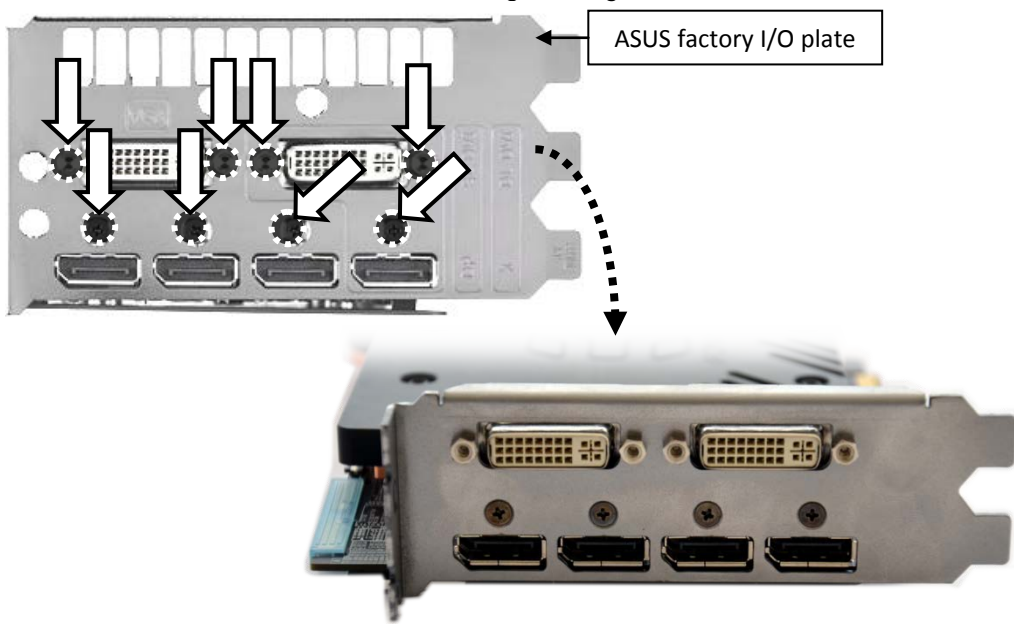


STEP 4: CHECKING FOR CONTACTS

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 substeps in previous section to reattach the block. **In case you fail to obtain good contact, please check again your thermal pad thickness or contact our support service.**

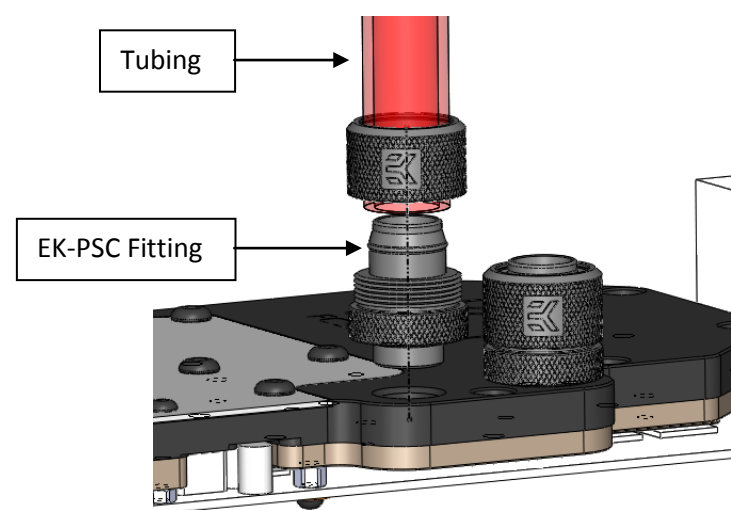
STEP 5: REPLACING THE ORIGINAL I/O BRACKET

Remove the four (4) screws and four (4) hexagonal nuts securing the original three-slot I/O bracket to the circuit board. Replace the original I/O bracket with enclosed EK FC7970 DCII I/O bracket and install it using the original screws.



STEP 6: FITTING POSITIONING

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-PSC fittings with the EK-FC7970 DCII series water blocks. To ensure that the tubes are securely attached to the barb/fittings, please use hose clamps or an appropriate substitute. You can use any opening as an inlet/outlet port.



STEP 7: INSERTING CARD IN YOUR PC CASE

Carefully lift your graphics card with installed block and insert it in your PC's motherboard PCIe expansion slot. Please bear in mind that your cards is probably heavier than when it was equipped with original heatsink fan assembly. One needs to be very careful when handling the graphics card. Avoid all un-needed manipulation of the VGA/water block assembly that might damage your card or water block during final installation.

REQUIRED TOOLS AND MOUNTING SCREWS:

