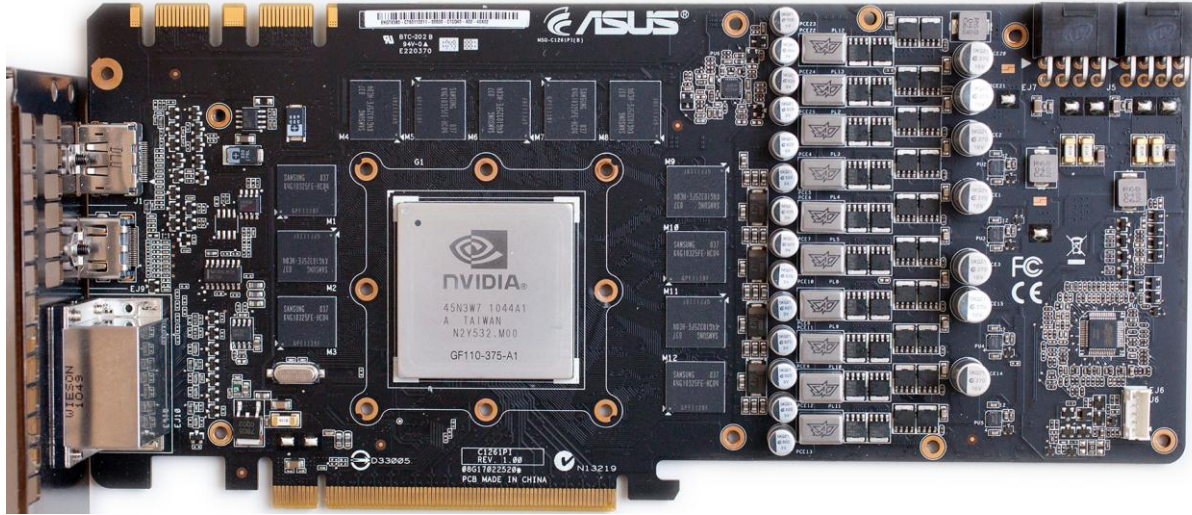


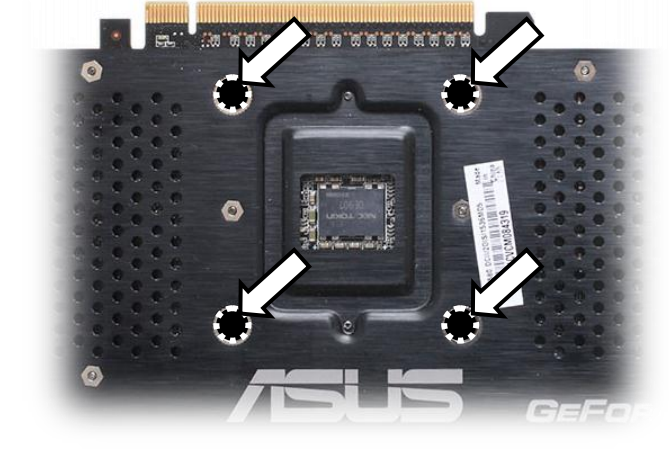
This product is intended for installation only by expert users. Please consult with a qualified technician for installation. Improper installation may result in damage to your equipment. EK Water Blocks assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation. 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 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 GeForce 580 GTX DirectCU II graphics card



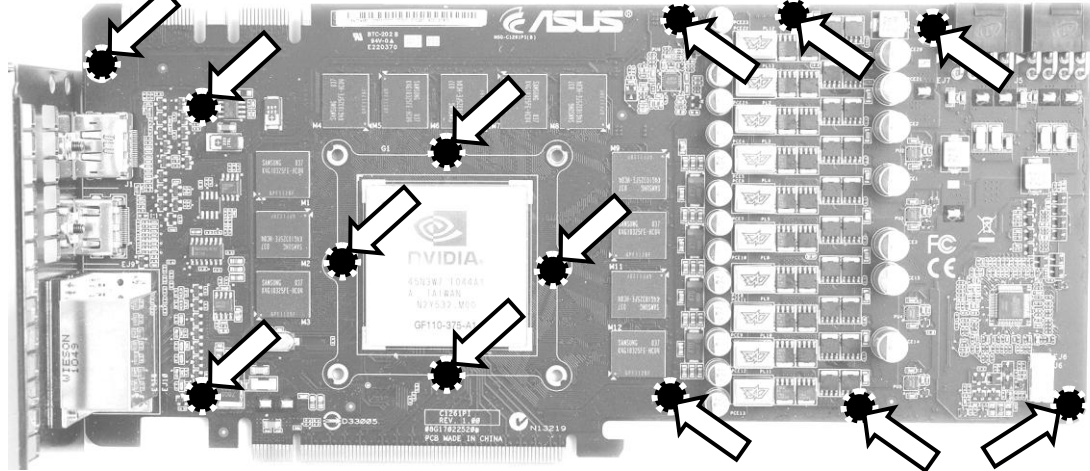
**STEP 2: PREPARING YOUR GRAPHIC CARD.**

1. REMOVING STOCK COOLER: Remove four encircled screw on the back side of the graphics card:



**STEP 2 cont.: PREPARING YOUR GRAPHIC CARD**

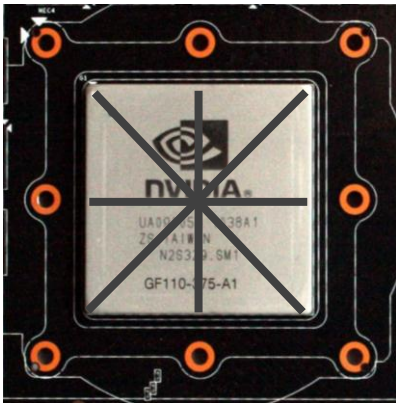
1 cont.. REMOVING STOCK COOLER. Remove the stock GPU HSF assembly. Remove all encircled screws attaching the backplate and VRM heatsink to the circuit board. There are 13 screws on the front of the graphic card.



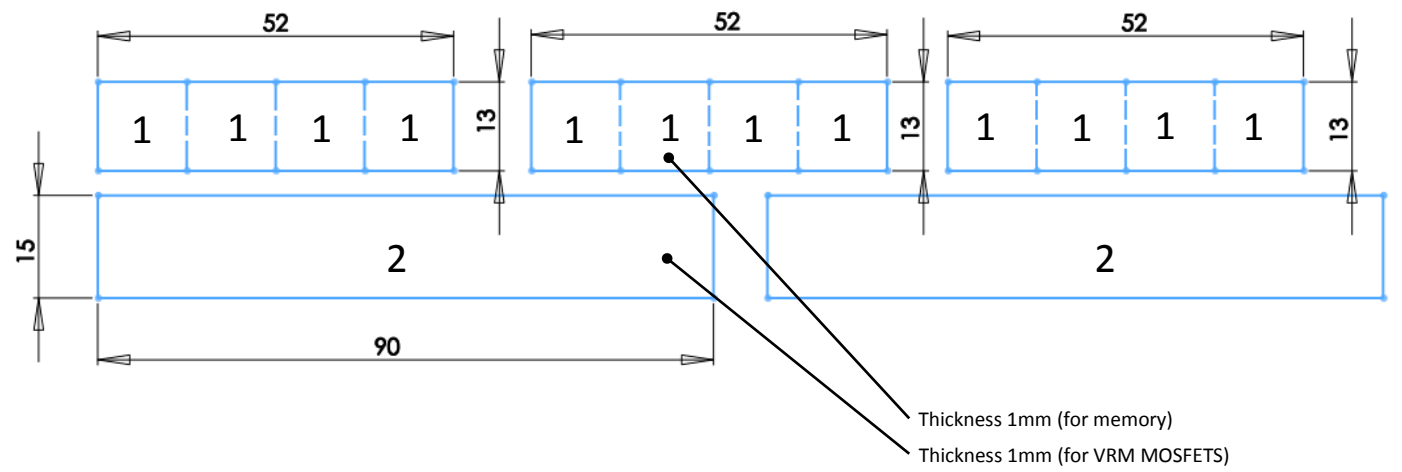
2. CLEANING THE PCB. Carefully detach the original heat sink after removing all fasteners securing it to the board and bracket. Wipe off the remains (by using non-abrasive cloth or Q-tip, as shown on sample photo) of the original thermal compound until the components and circuit board are completely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



3. APPLYING THERMAL COMPOUND. Apply thermal compound: lightly coat nVidia GF110 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).

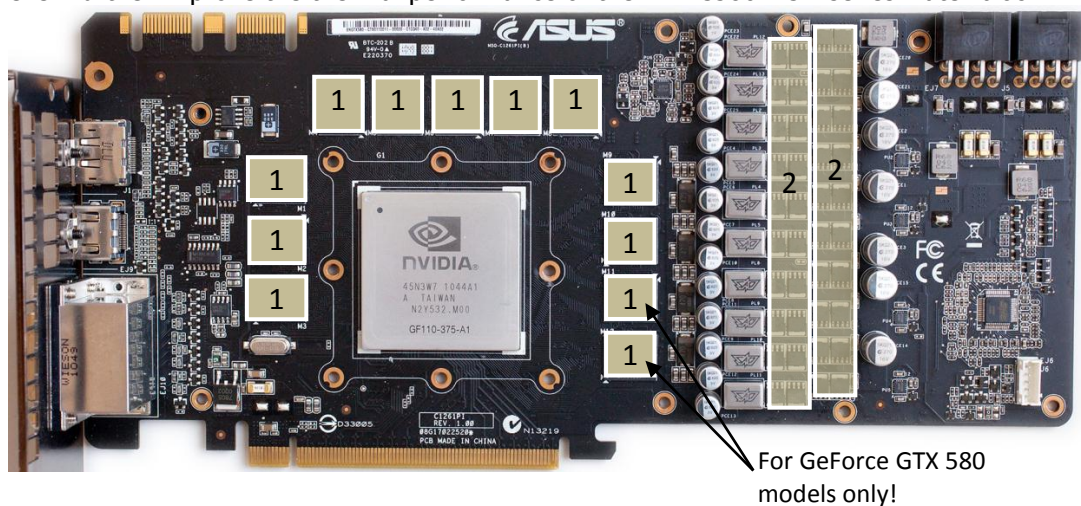


4. CUTTING THERMAL PADS. Your block comes with thermal pads, some of which are already pre-cut. Others have to be cut to smaller chunks in order to cover all the VRM components such as MOSFETs and inductors (chokes). PLEASE REMOVE THE PROTECTIVE FOIL FROM BOTH SIDES OF THE THERMAL PADS PRIOR TO INSTALLATION.

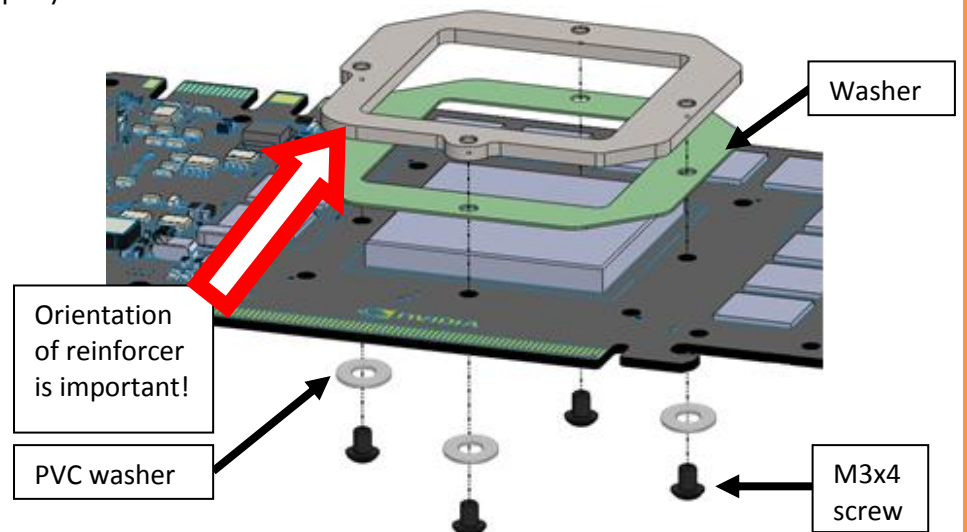


**STEP 3: INSTALLING WATER BLOCK**

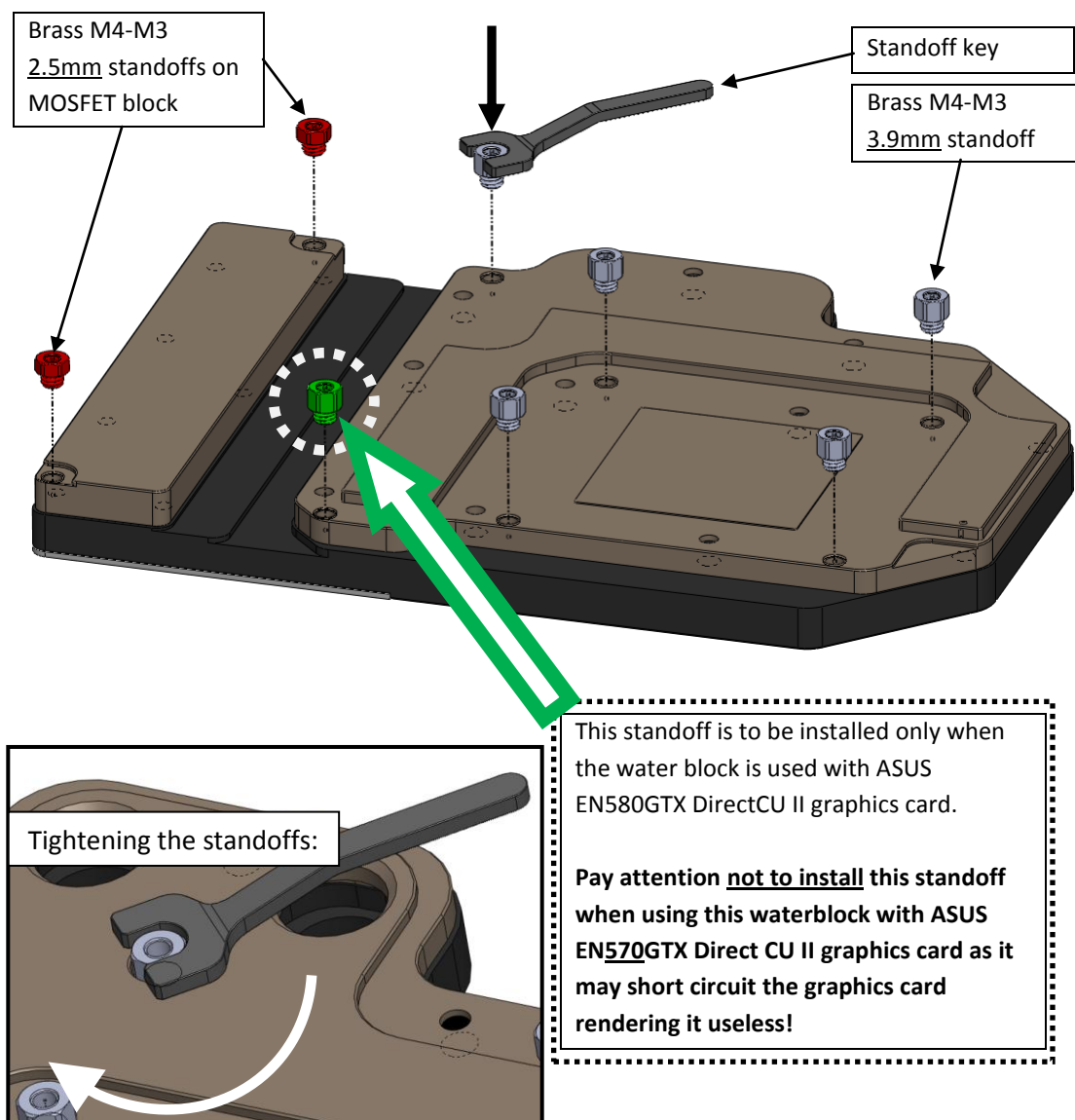
1. PLACING THERMAL PADS ON PCB. Place thermal pads on chips so that numbers on chips match size of thermal pads. EKWB made sure users have more than enough pads to cover all surfaces that need to be covered to make block fully functional). EK recommends using small drops of electrically non-conductive (for example: Arctic Cooling MX-2™ or MX-4™) 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-FC580 DCII series water block.



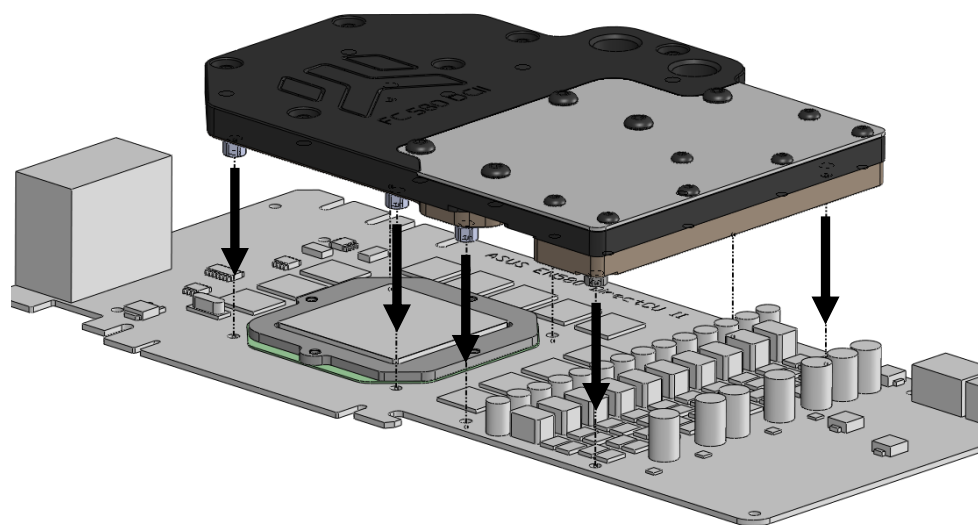
2. PLACING GPU REINFORCE PLATE ON PCB. Place metal reinforce and washer on PCB as shown on picture below and screw it in with enclosed M3x4 screws. Please use enclosed PVC washers under each screw. Make sure you use fasten screws equally and do not use too much force.



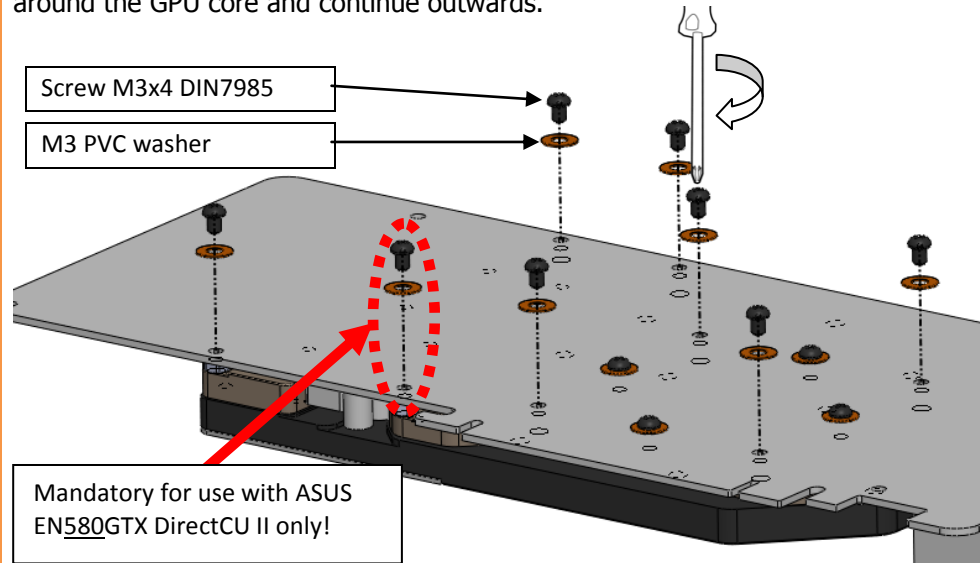
3. PLACING STANDOFFS ON BLOCK. Brass standoffs are recommended in order to attach this water block to the printed circuit board of the graphics card. Please use the enclosed key to screw the five (four in case of EN570GTX DCII) 3.9mm standoffs to the copper base of the water block. Also install two 2.5mm standoffs on the MOSFET portion of the waterblock.



4. PLACING BLOCK TO GRAPHIC CARD. During this process please make sure you align holes on PCB with holes on block. Also pay attention not to use too much force by pressing block down to PCB. Chip dies are prone to cracking.



5. ATTACHING BLOCK TO GRAPHIC CARD. By using Philips screwdriver screw in enclosed M3x4 DIN7985 screws. EKWB recommends start screwing the screws around the GPU core and continue outwards.

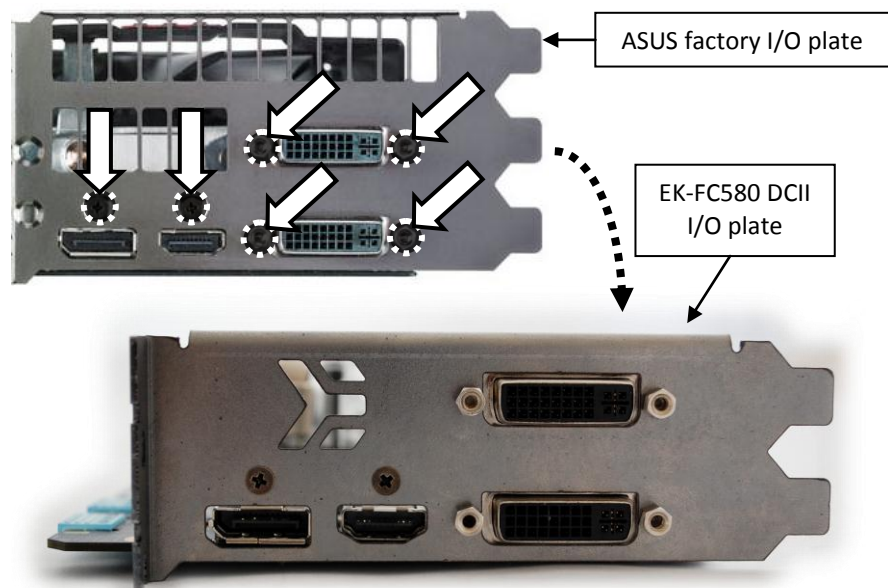


#### STEP 4: CHECKING FOR CONTACTS

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.**

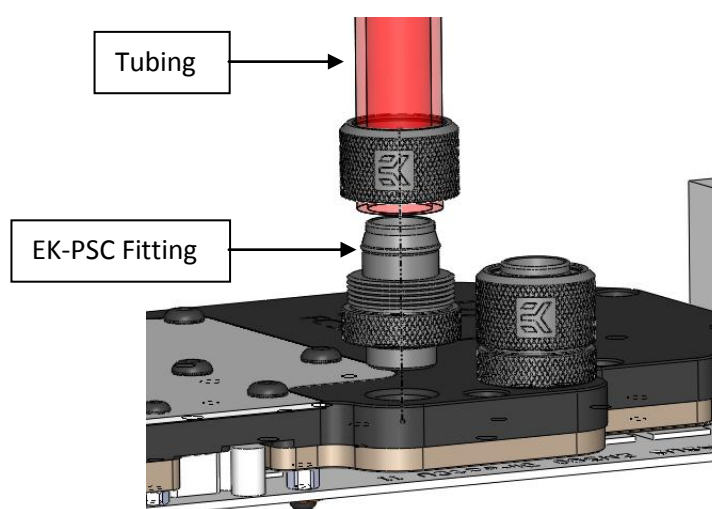
#### STEP 5: REPLACING THE ORIGINAL I/O BRACKET

Remove the two screws and four hexagonal nuts securing the original three-slot I/O bracket to the circuit board. Replace the original I/O bracket with enclosed EK FC580 DCII I/O bracket and install it using the original screws.



#### STEP 6: INSTALLATION OF FITTINGS AND TUBING

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-FC580 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 6: FINISHING INSTALLATION - INSERTING THE GRAPHICS CARD IN YOUR PC CHASSIS

Carefully lift your card with installed water block and insert it into the appropriate motherboard slot in your computer chassis. Please bear in mind that your card suddenly withstands extra weight thus again be very careful not to bend it or cause any other unneeded moves that might damage your card or block during installation.

REQUIRED TOOLS AND MOUNTING SCREWS:

