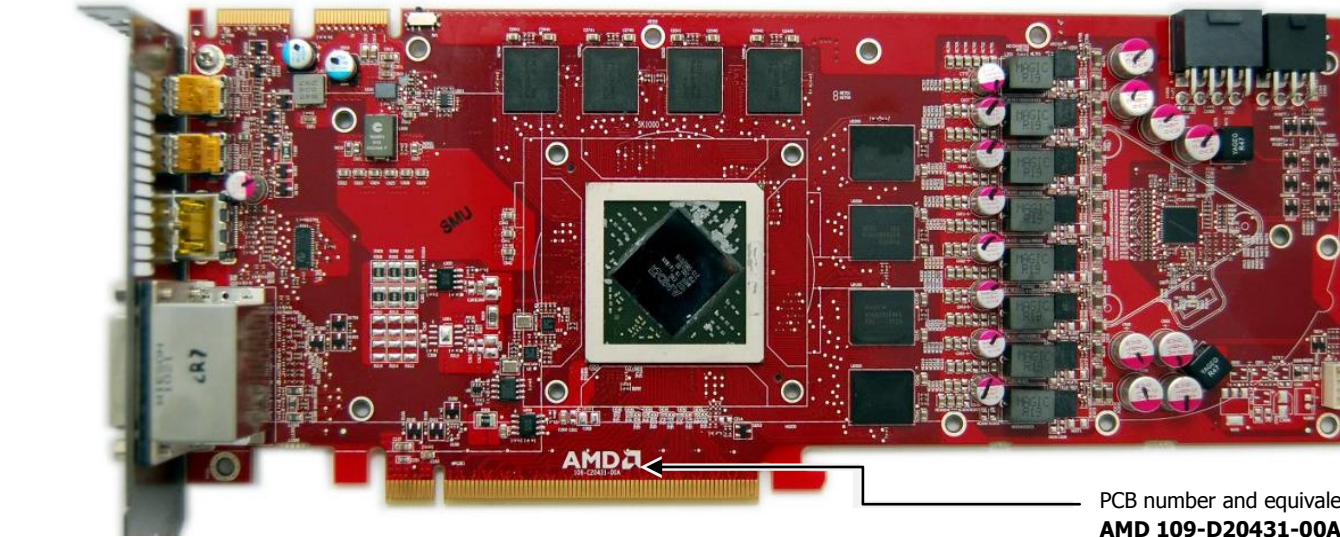


This product is intended for installation only by expert users. Please consult with a qualified technician for installation. Improper installation may result in damage to your equipment. EK Water Blocks assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation.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

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.

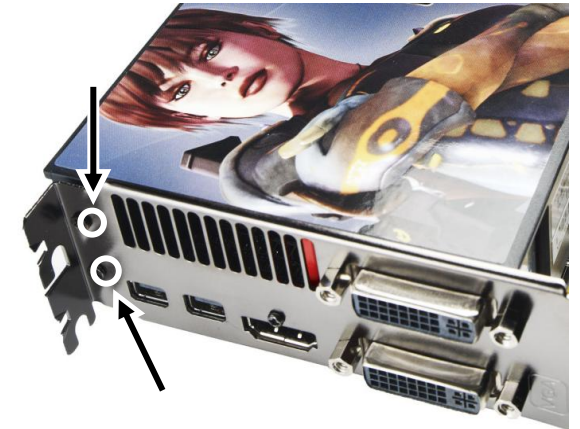
STEP 1: GENERAL INFORMATION. Sample picture of RADEON HD 6970 V2 graphic card



PCB number and equivalent:
AMD 109-D20431-00A

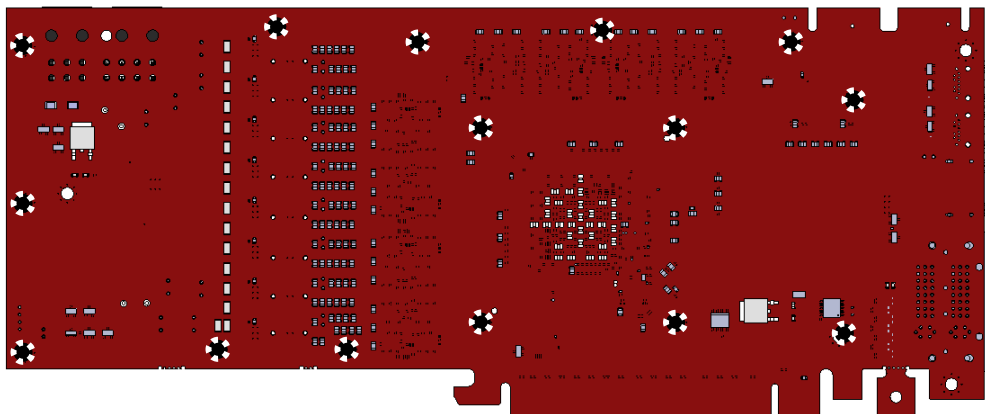
STEP 2: PREPARING YOUR GRAPHIC CARD.

1. REMOVING STOCK COOLER: Remove encircled screws:



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 up to 15 screws on the back of the graphic card.



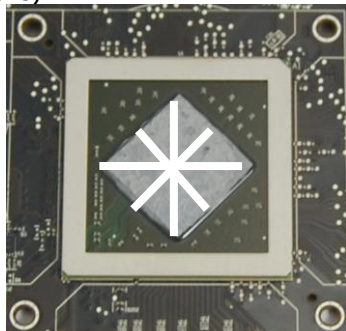
2. CLEANING THE PCB. Carefully detach the original heat sink after removing all fasteners securing it to the board and bracket. Wipe off the remains (by using non-abrasive cloth or Q-tip, as shown on sample photo) of the original thermal compound until the components and circuit board are completely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



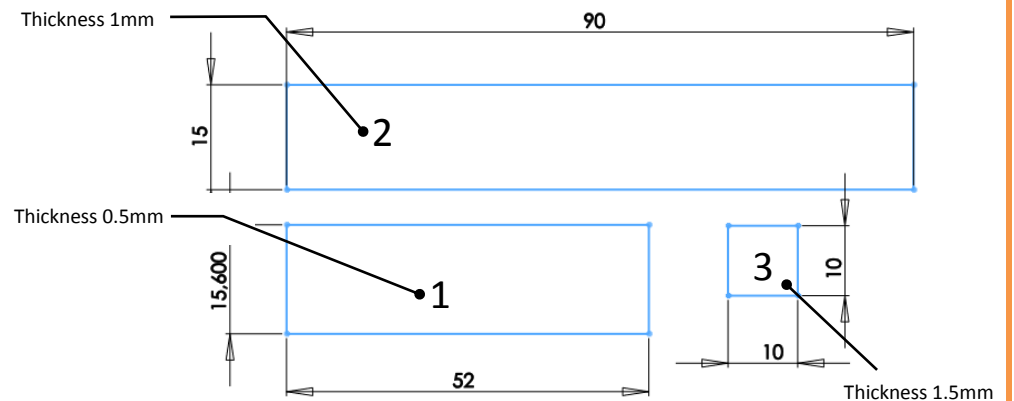
3. APPLYING THERMAL COMPOUND

Apply thermal compound: lightly coat the GPU with for example Arctic Cooling MX2™ or MX3™ thermal compound. Follow this link:

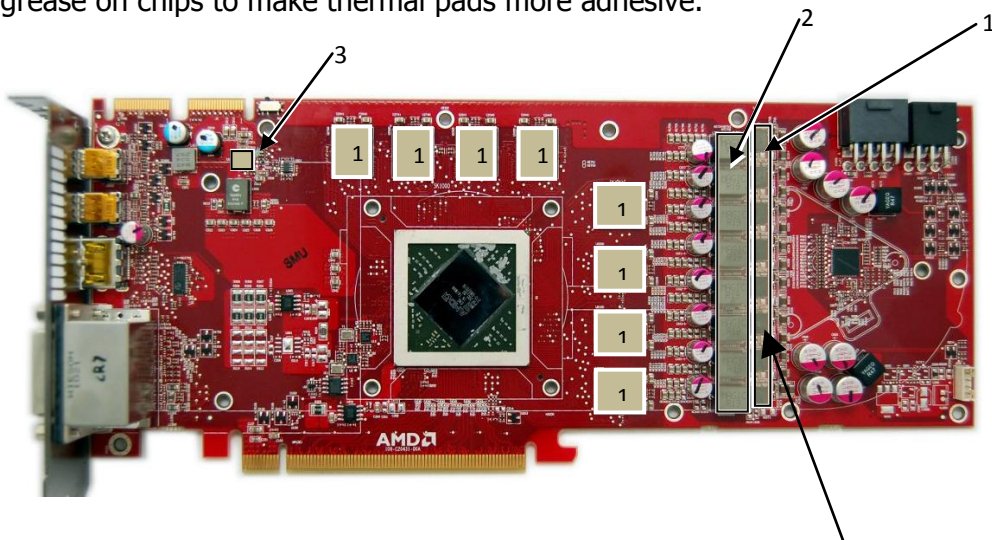
http://www.arctic-cooling.com/catalog/images/install_mx2_retail.pdf for detailed instructions. EKWB recommends to apply thermal grease in cross form for best performance (see sample picture).



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

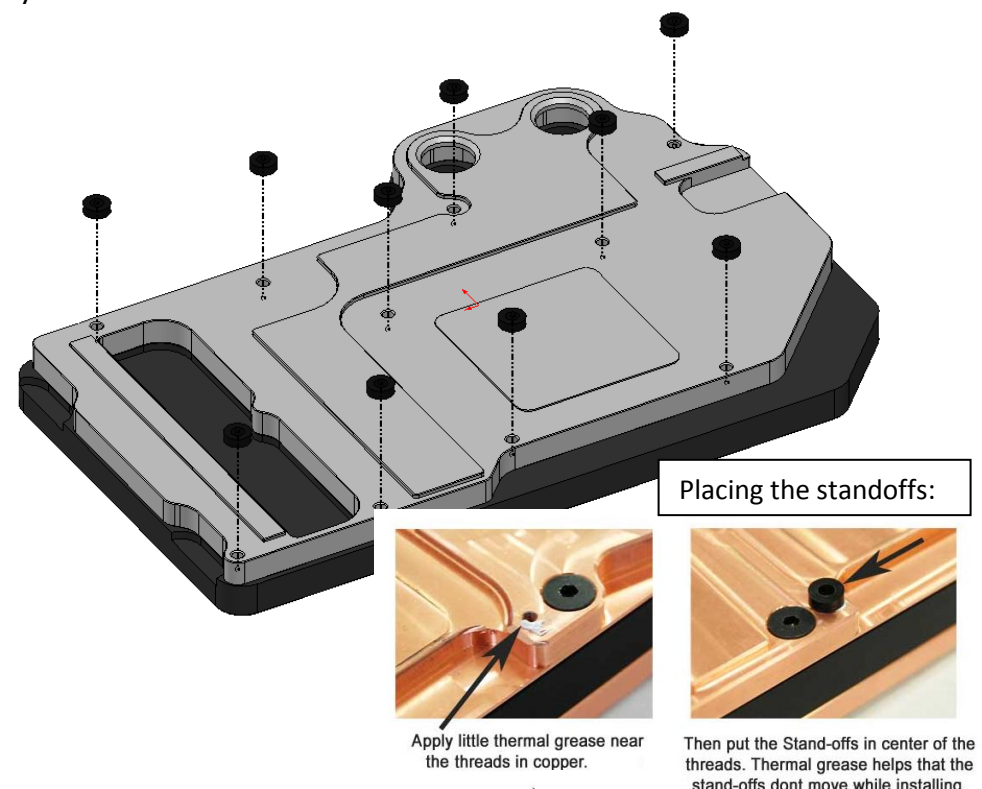


5. PLACING THERMAL PADS ON PCB. Place thermal pads on chips so that numbers on chips match size of thermal pads. Thermal pad number 1, 2 and 3 will have to be cut by user to match all small power regulation chips (EKWB made sure users have more than enough pads to cover all surfaces that need to be covered to make block fully function). You can also use small drop of thermal grease on chips to make thermal pads more adhesive.



We highly recommend using small droplets of electrically non-conductive thermal grease over each phase regulator!

6. PLACING STANDOFFS ON BLOCK. Standoffs are obligatory to make this block fully functional. Please use small amount of thermal grease on standoffs and glue them so they are concentric with mounting holes. Once they are stuck to block be careful not to move them.

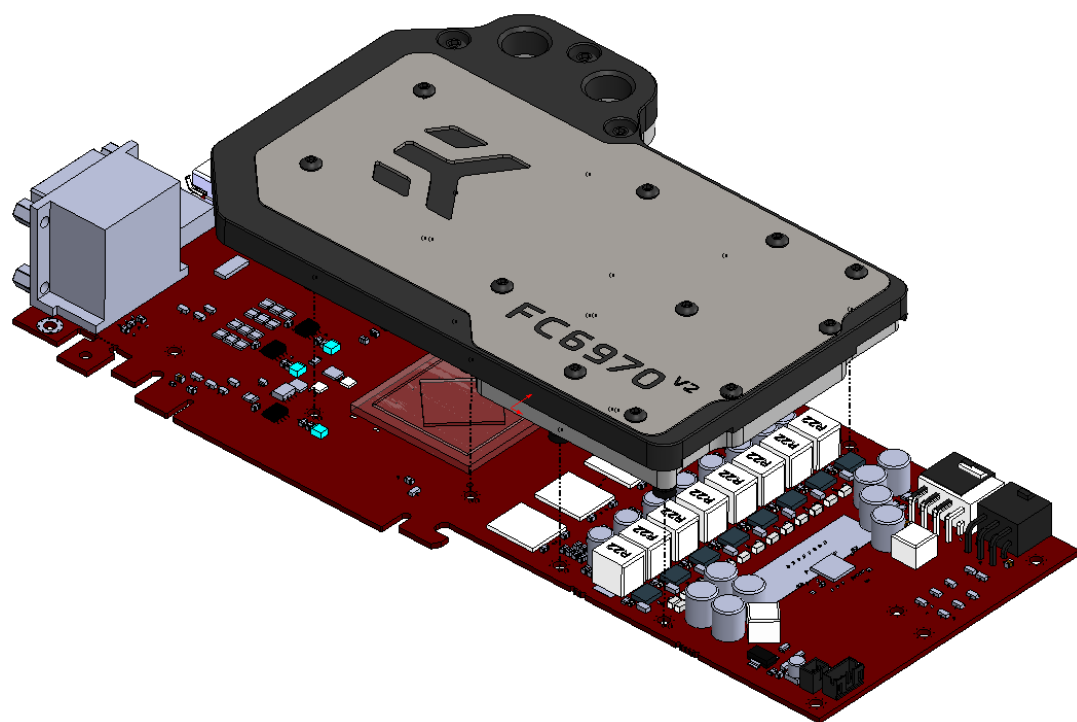


Placing the standoffs:

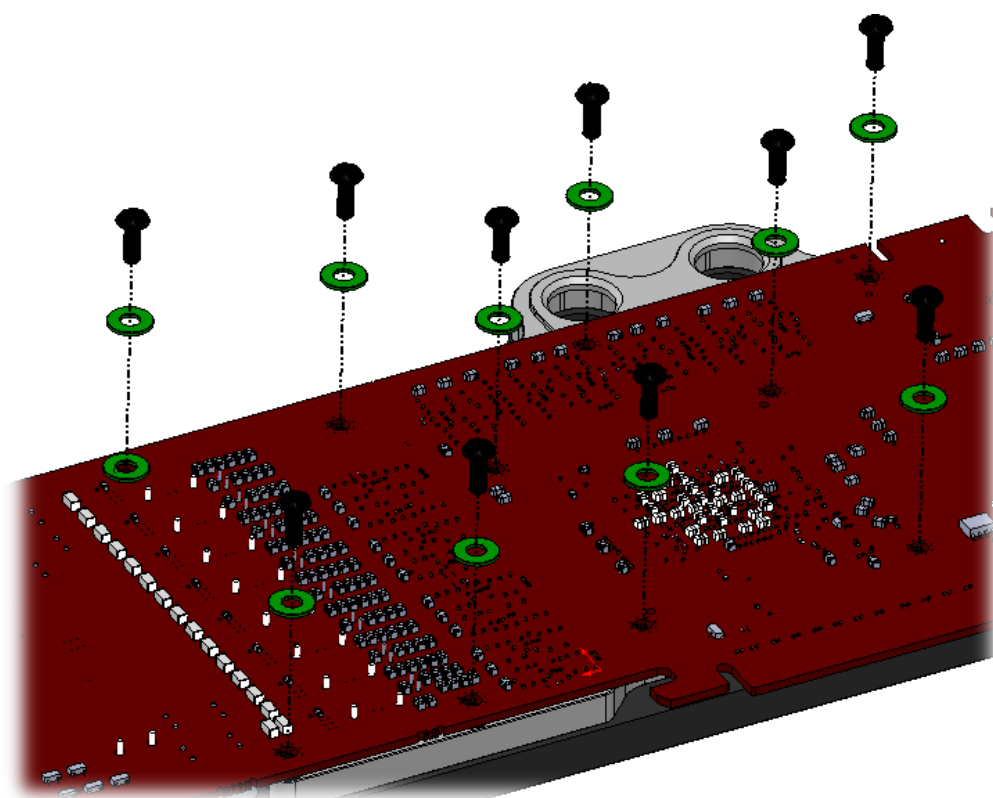
Apply little thermal grease near the threads in copper.

Then put the Stand-offs in center of the threads. Thermal grease helps that the stand-offs don't move while installing.

7. 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. Chips are prone to cracking.



8. ATTACHING BLOCK TO GRAPHIC CARD. By using Philips screwdriver screw in ten enclosed M3x8 screws. EKWB recommends start screwing the screws around the GPU core and continue outwards.

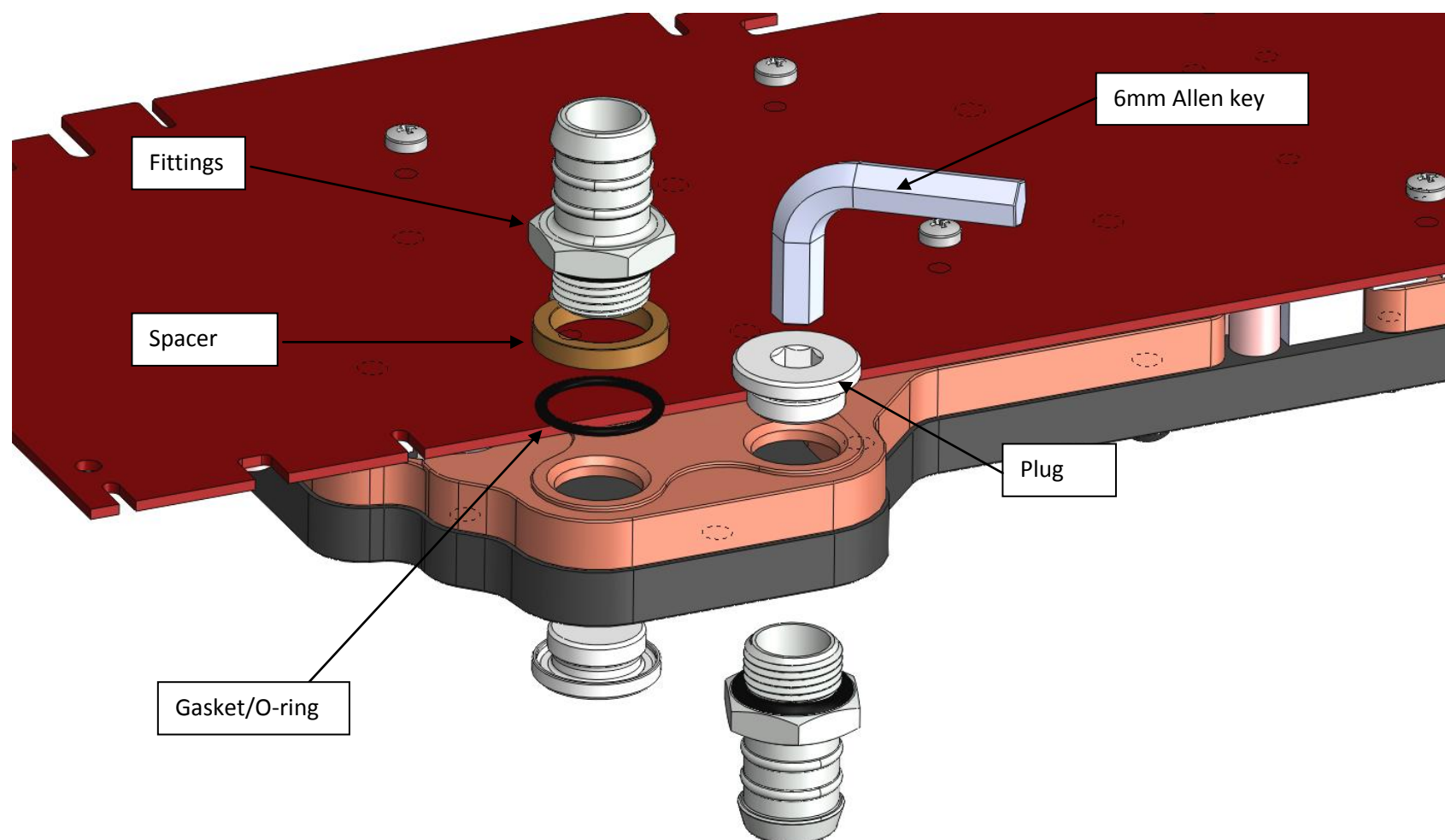


STEP 3: CHECKING FOR CONTACTS

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 5 and 8 to reattach the block applying more or less pressure to the areas where you have found it necessary.

STEP 4: POSITIONING FITTINGS

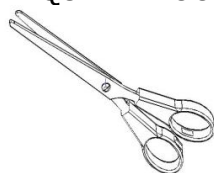
Please use spacer on copper base (see sample picture). Screw in the fittings and plugs (please use spacers only on copper base), attach the liquid cooling tubes and connect the water-block(s) into the cooling circuit. EKWB recommends using high flow fittings with the EK-FC 6970 V2 series water blocks. 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 opening as an inlet/outlet port.



STEP 5: INSERTING CARD IN YOUR PC CASE

Carefully lift your card with installed block and insert it in your PC case. 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:



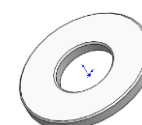
scissors



philips screwdriver



10 x screws M3x8 DIN7985



10 x M3 PVC washers

Installation and mounting manual for installing $\phi 3\text{mm}$ LED diodes in EK-FC 6970 V2 water block*

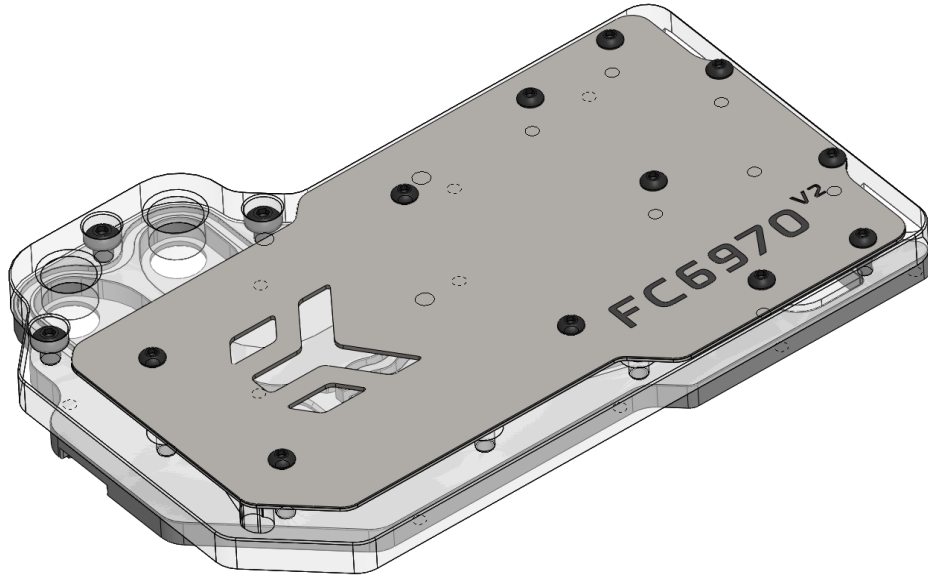
This product is intended for installation only by expert users. Please consult with a qualified technician for installation. Improper installation may result in damage to your equipment. EK Water Blocks assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation.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

IMPORTANT NOTICE: PLEASE NOTE THAT BY INSTALLING THE LED DIODES AND SUBSEQUENTLY REMOVING THE METAL LID WE CANNOT GUARANTEE THE WATER BLOCK AS FACTORY TESTED LEAK-FREE!

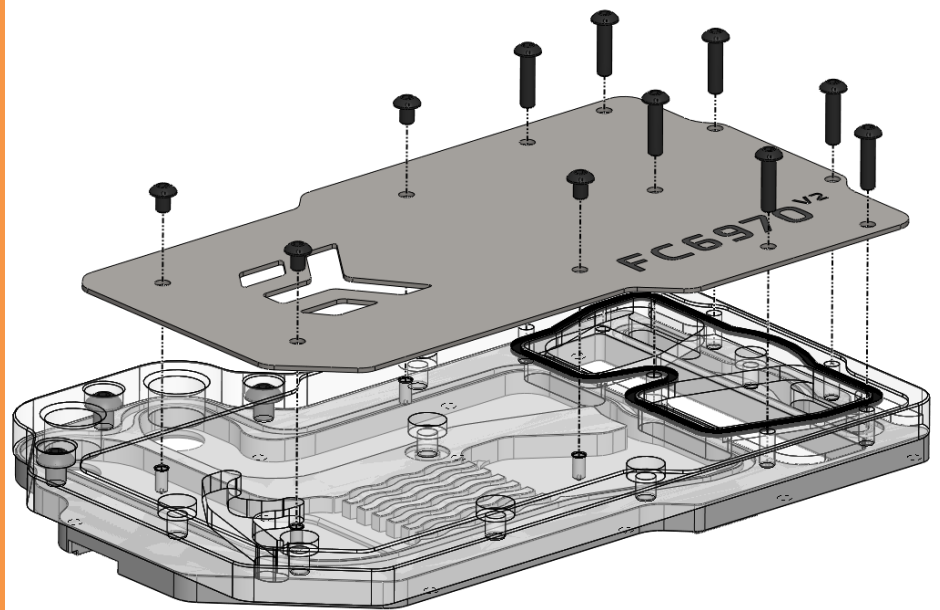
* Only applies to EK-FC6970 V2 Nickel & EK-FC6970 V2 White Acetal

STEP 5: DISASSEMBLING THE WATER BLOCK

Please remove the EK-FC6970 V2 water block from your graphics card in case you have already installed it. Drain the coolant in case the block was already operational.

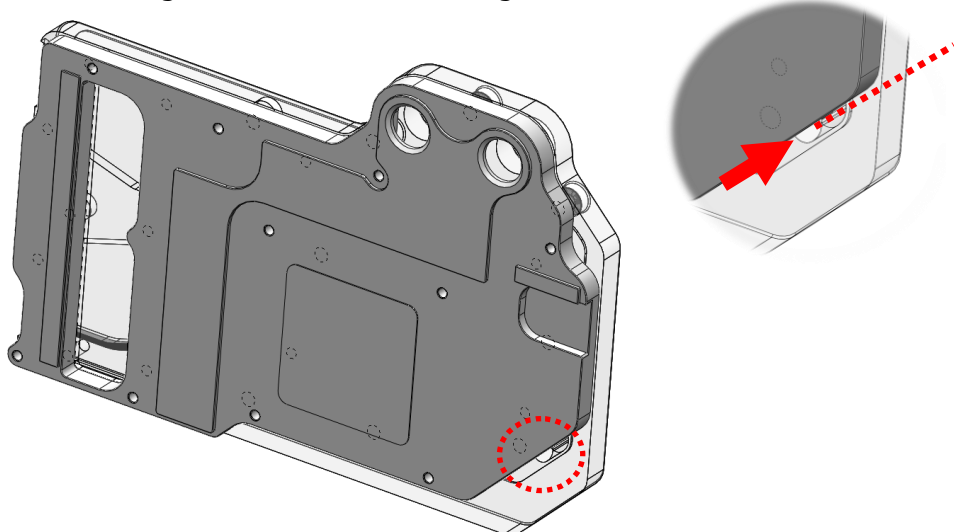


Remove all M3x6 and M3x12 screws securing the metal plate to the acrylic / POM top. There is eleven (11) screw to remove all together. Make sure they don't get lost!

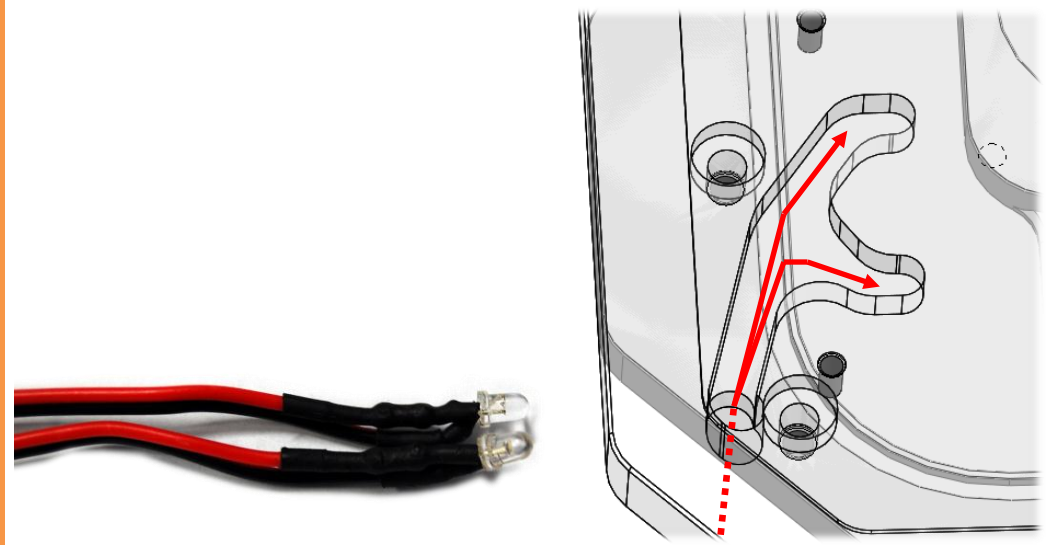


STEP 6: INSERTING THE $\phi 3\text{mm}$ LED DIODES

Slide the $\phi 3\text{mm}$ LED diodes through the opening (one by one). We recommend using two LED diodes on a single cable:



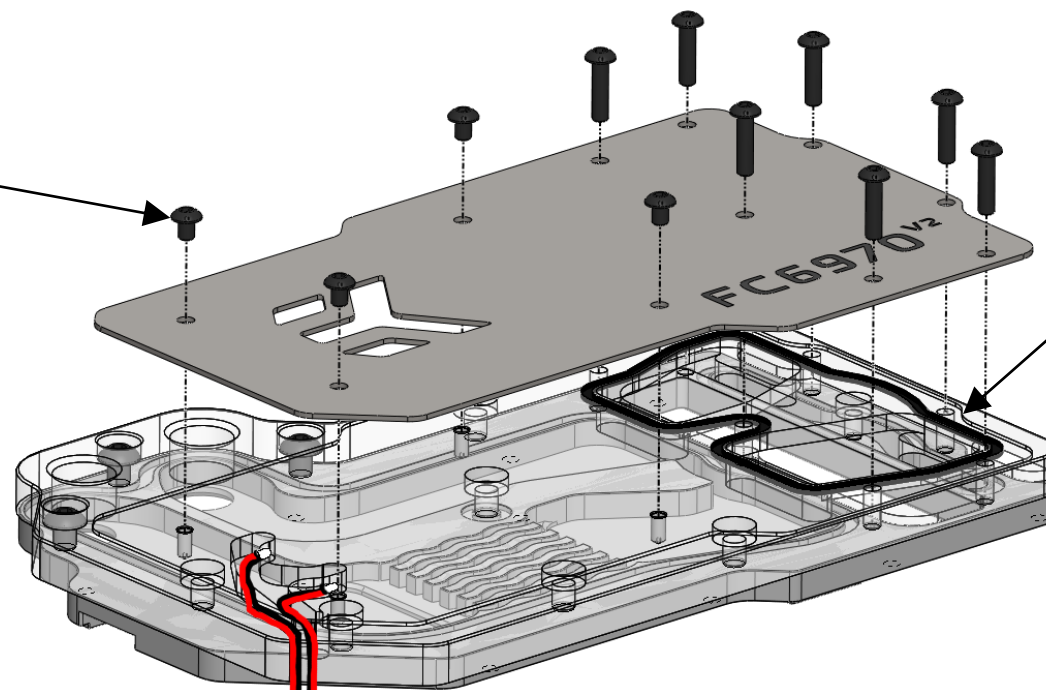
STEP 6. Cont.: Align the cables into the pre-milled grooves.



STEP 7: RE-ASSEMBLE THE WATERBLOCK

Place the metal lid back on top of the water block. It is crucial that the rubber seal O-ring is positioned and aligned perfectly into its groove. Screw back all M3x6 and M3x12 screws which are securing the metal plate to the acrylic / POM top. There is eleven (11) screw to screw in all together. **Be especially careful when screwing the M3x6 screws into the acrylic / POM top** and use appropriate amount of force. Excessive force will strip the threads rendering the block useless!

Do not use excessive force when screwing in the M3x6 screws attaching metal lid to the acrylic / POM top!



Make sure the O-ring is aligned and sitting perfectly in the milled groove.

REQUIRED TOOLS AND MOUNTING SCREWS:



allen key 2.5mm