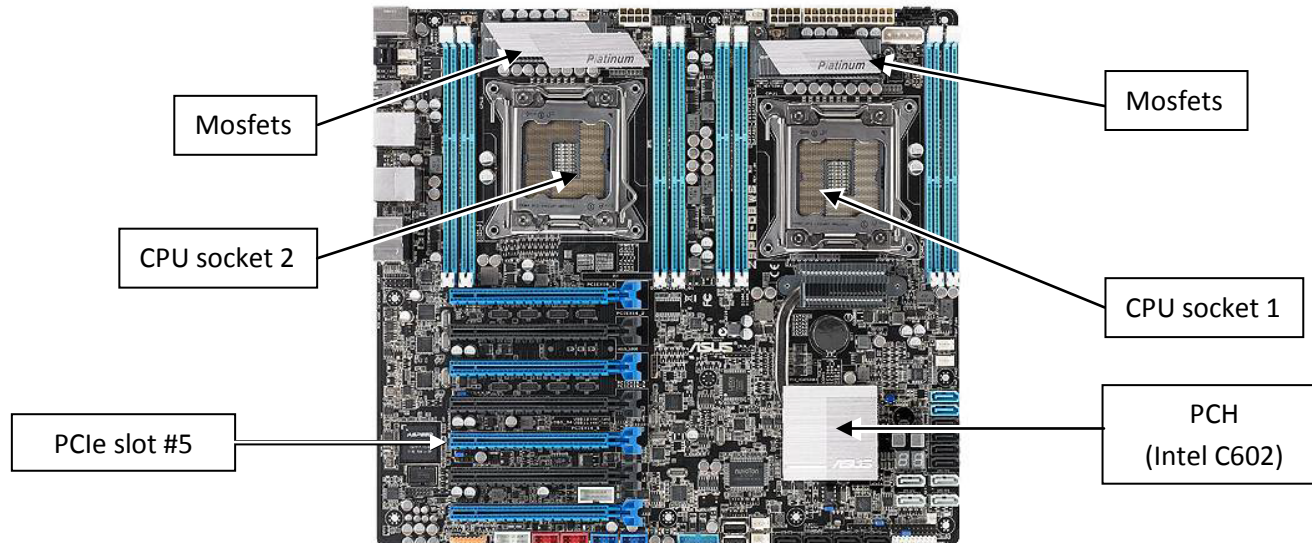


This product is intended for installation only by expert users. Please consult with a qualified technician for installation. Improper installation may result in damage to your equipment. EK Water Blocks assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation.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

Before you start using this product please follow these basic guidelines:

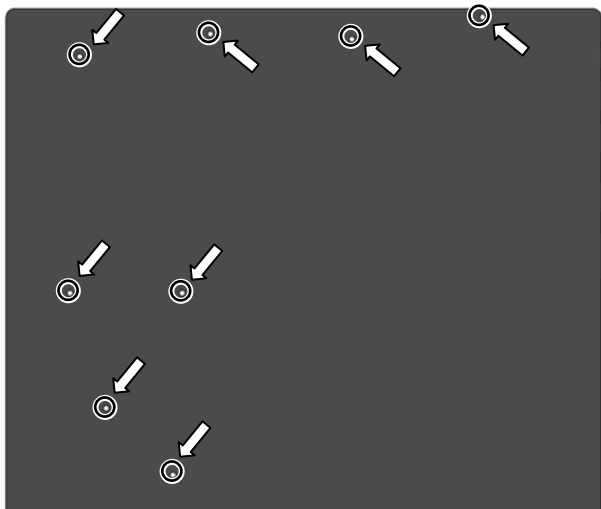
1. Please carefully read the manual before through before beginning with the installation process!
2. Please remove your motherboard from the computer to assure safest mounting process in order to prevent any possible damages to your CPU and/or motherboard's circuit board (PCB).
3. The EK High Flow and EK-PSC type fittings require only a small amount of force to screw them firmly in place since the liquid seal is ensured by the rubber o-ring gaskets.
4. The use of quality, market proved corrosion inhibiting coolants is always strongly recommended for any liquid cooling system.

STEP 1: GENERAL INFORMATION Sample photo of ASUS Z9PE-D8 WS motherboard



STEP 2: PREPARING YOUR MOTHERBOARD

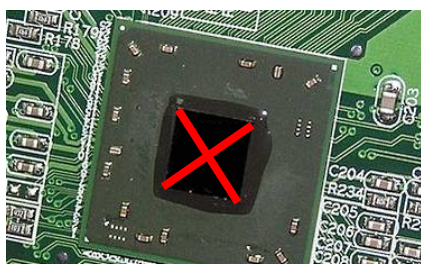
1. REMOVING STOCK COOLER. Remove all encircled screws. There are 8 screws on the back of the motherboard that needs to be removed in order to remove the factory installed SB/MOSFET heatpipe cooling solution.



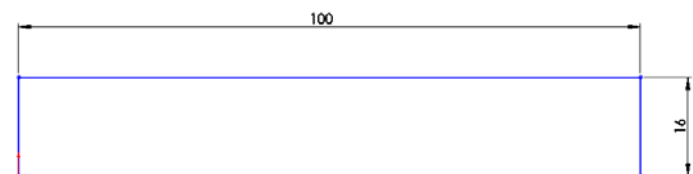
2. CLEANING THE PCB. Carefully detach the original stock cooler after removing all screws securing it to the board. Wipe off the remains (by using non-abrasive cloth or *qtip*, as shown on sample photo) of the original thermal compound until the components and circuit board are completely clean. EKWB recommends the use of denatured alcohol for removing TIM leftovers.



3. APPLYING THERMAL COMPOUND. Apply thermal compound: lightly coat the *Intel C602* (PCH) with electrically non-conductive thermal grease – for example Arctic Cooling MX-2™, MX-4™ or GELID GC-Extreme™ thermal grease. EKWB recommends to apply thermal grease in cross form for best performance (see sample picture).

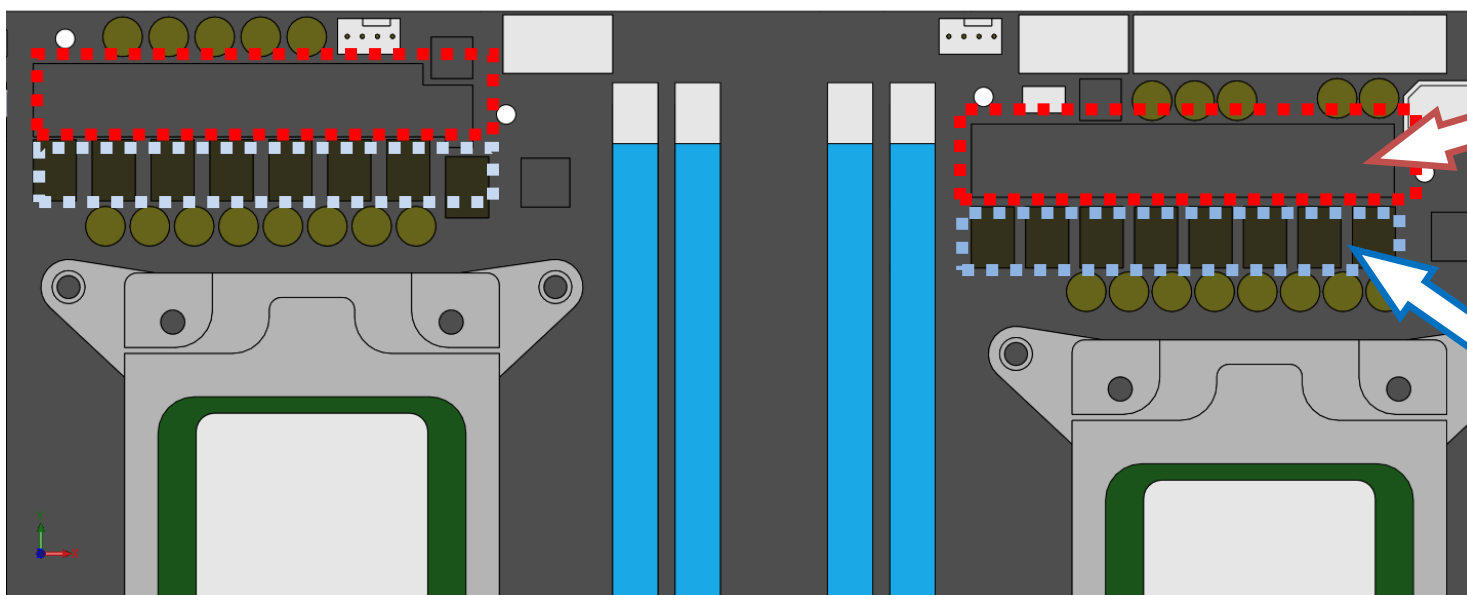


4. CUTTING THERMAL PADS. Your block comes with four (4) Thermal PAD A – 1mm (100x16mm) and two (2) Thermal PAD A – 0,5mm (100x16mm) which might need to be trimmed in order to fit the voltage regulation area (VRM) on the motherboard's circuit board.



Replacement thermal pads @ EKWB web shop:
 Thermal PAD A 0,5mm - (100x16mm) [EAN: 3830046996619]
 Thermal PAD A 1,0mm - (100x16mm) [EAN: 3830046996626]

5. PLACING THERMAL PADS ON MOTHERBOARD. Place thermal pads you cut on PCB as shown on picture bellow (PLEASE REMOVE THE PROTECTIVE FOIL FROM BOTH SIDES OF THE THERMAL PADS PRIOR TO INSTALLATION). 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; see picture below) in order to even further improve the thermal performance of the EK-FB KIT ASUS Z9PE-D8 series water block.

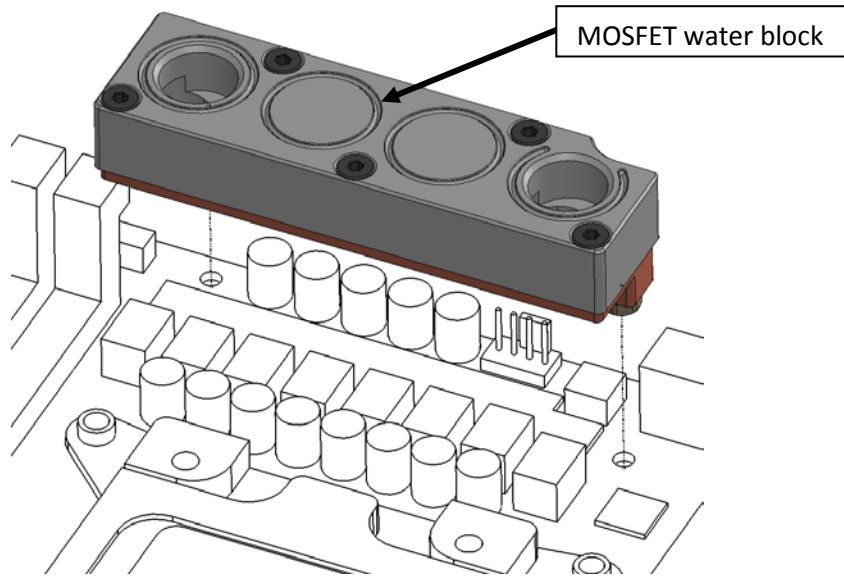


Place 0.5mm thermal pads (Thermal pad A – 0.5mm) in larger strips over marked area and make sure all mosfet chips are covered.

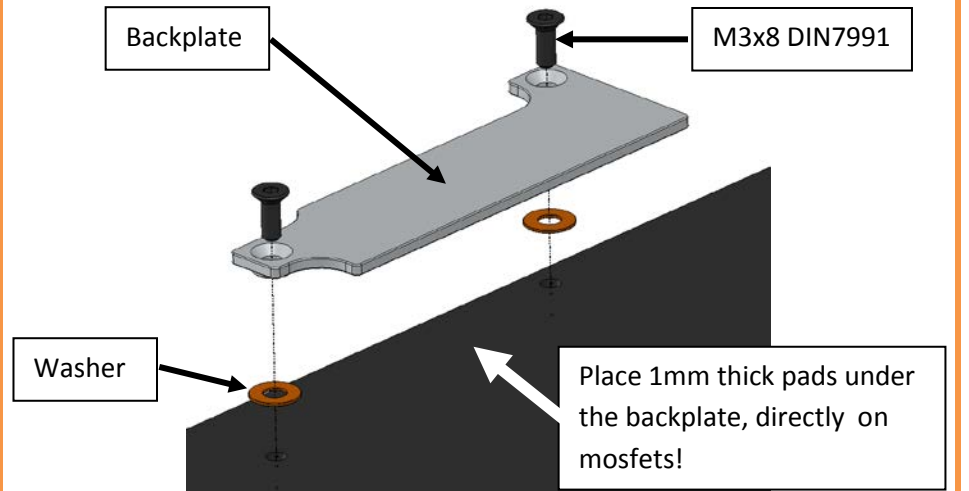
Place 1.0mm thermal pads (Thermal Pad A – 1.0mm) in larger strips over the coils (inductors). This is merely to prevent any possible short circuiting. Due to the uneven nature of motherboard manufacturing not all of the inductors will have contact with the thermal pad. This is normal.

STEP 3: PREPARING YOUR WATER BLOCKS

1. PLACING MOSFET BLOCK ON MOTHERBOARD. Place the MOSFET water block(s) with preinstalled 2.5mm standoffs gently onto the motherboard or vice versa. Make sure that mounting holes are aligned. Both enclosed MOSFET water blocks are identical.

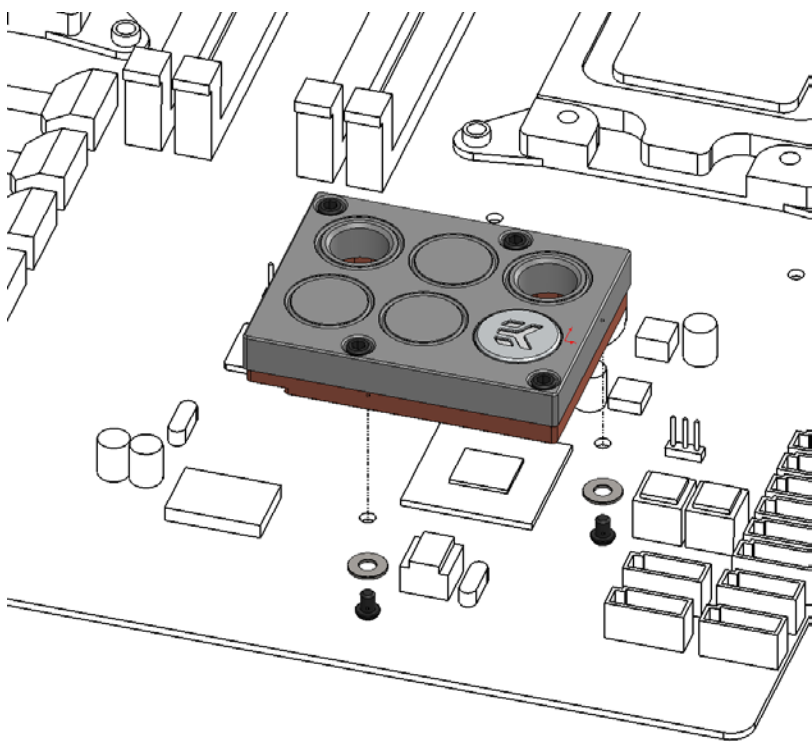


2. FASTENING MOSFET BLOCK ON MOTHERBOARD. While keeping the waterblock pressed gently towards the motherboard, flip the motherboard and place the enclosed MOSFET Backplate. **The orientation of the backplate is very important** – the correct orientation is shown on picture below. Apply 1mm thick thermal pad (Thermal Pad A – 1.0mm) on MOSFETs prior to installing backplate. Make sure you use PVC washers underneath both standoffs of the backplate. Fasten the water block using M3x8 DIN7991 screws using enclosed 2mm Allen key.



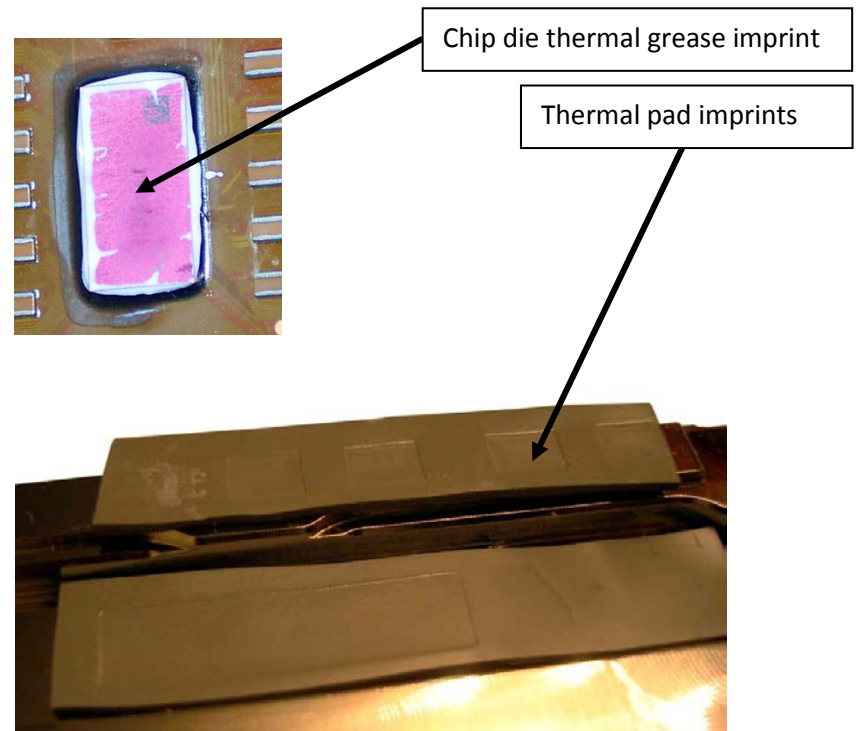
STEP 4: ATTACHING SB BLOCK TO MOTHERBOARD

Place the SB part of the water block with preinstalled 2.1mm standoffs gently to the motherboard or vice versa. Make sure that mounting holes are aligned and chip is lightly coated with TIM grease. Use M2.5x4 DIN7985 and washers. Do not use excessive force when tightening the screws! Do not forget to use plastic washer underneath each screw!



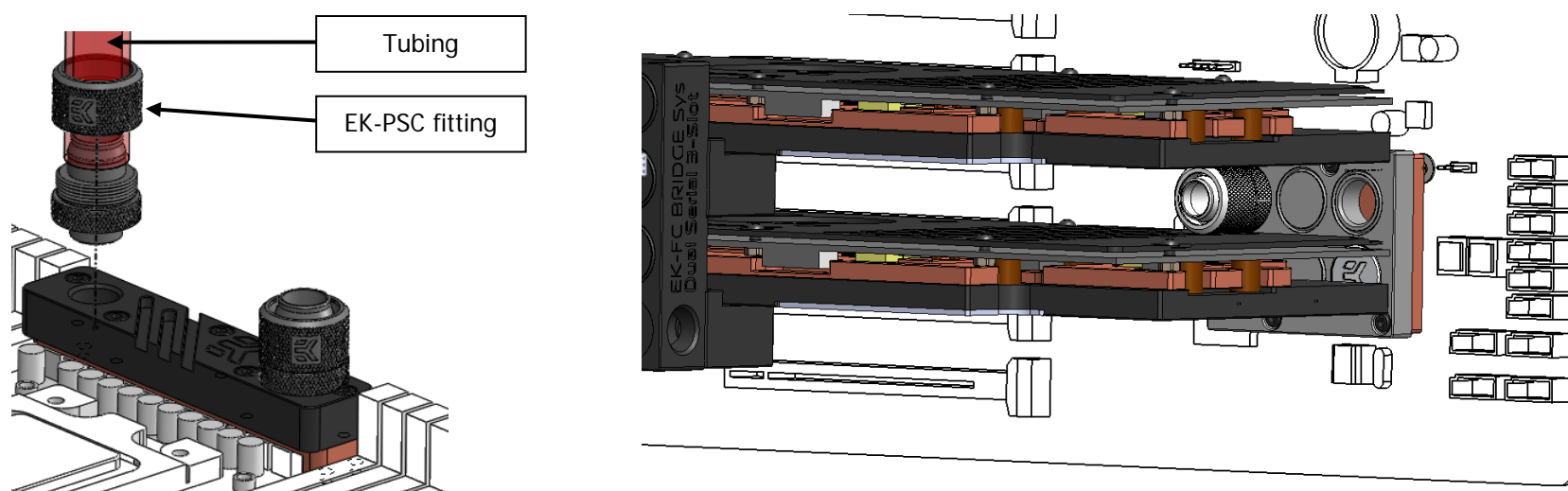
STEP 5: CHECKING FOR CONTACTS

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 applying more or less pressure to the areas where you have found it necessary. Note that there is no need for perfect thermal pad imprint on the inductors/coils (mentioned in STEP2).



STEP 6: POSITIONING FITTINGS AND CONNECTING TO WATER CIRCUIT

Attach the liquid cooling tubes and connect the water-block(s) into the cooling circuit. EKWB recommends using EK-PSC 10mm compression fittings as a must with the EK-FB KIT ASUS Z9PE-D8 series water block. For fittings having male threads G1/4 longer than 5mm, we recommend using spacers on MOSFET water blocks such as EK-Spacer G1/4-3mm [3830046996060]. You can use any opening as an inlet/outlet port. **Plan your tubing routing in advance as SB block's ports may obstruct or collide VGA cards!** The use of EK-FC Backplates might be impossible. The southbridge (PCH) water block is designed to obstruct (sacrifice) one PCI-express x8 expansion slot yet the use of of EK-FC Backplate might be impossible in the PCI-e slot #5 (see STEP 1). If all PCIe slots are in use it is mandatory to reinstall the factory provided PCH/SB heat sink.



REQUIRED TOOLS AND MOUNTING SCREWS:

