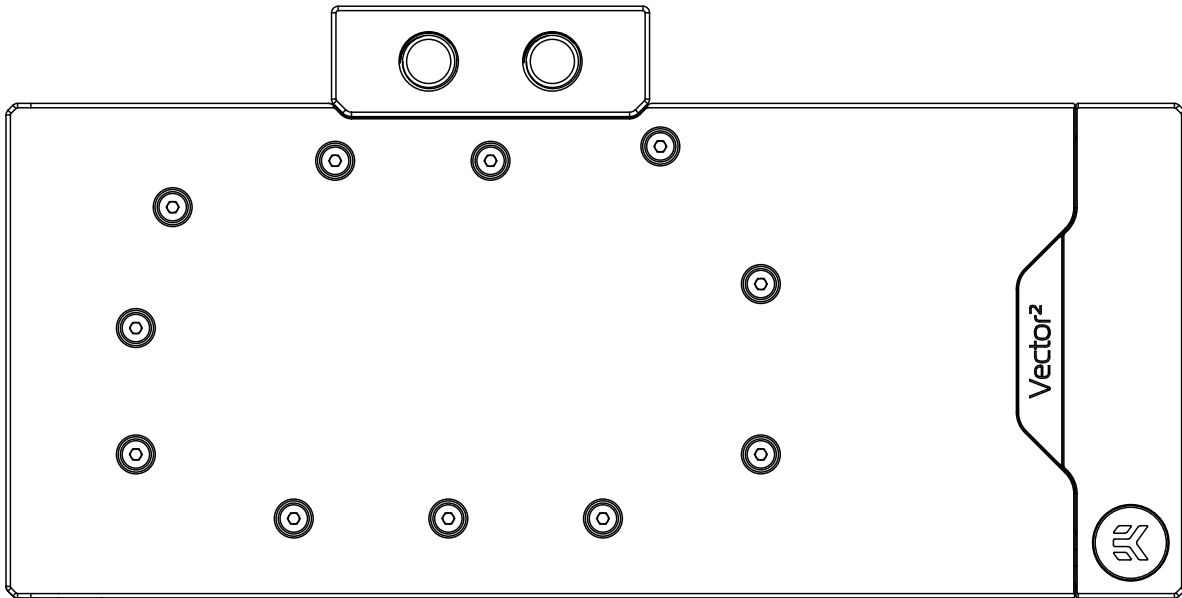


# EK-Quantum Vector<sup>2</sup> RE RTX 3080/3090 D-RGB

GPU WATER BLOCK



This product is intended for installation by expert users only. Please consult with a qualified technician. Improper installation may result in damage to your equipment. EK assumes no liability whatsoever, expressed or implied, for the use of this product or its installation. The following instructions are subject to change without notice. Please, read the manual carefully before starting the installation process. For updates, you can visit our official website [www.ekwb.com](http://www.ekwb.com).

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

**Carefully read the manual before beginning with the installation process.**

**Remove your graphics card from the computer for the safest mounting process to prevent any possible damage to your GPU or its circuit board (PCB).**

**The EK 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.**

**The use of corrosion inhibiting coolants is always recommended for liquid cooling systems and mandatory for nickel-plated water blocks!**

**Do not use pure distilled water! For best results, EK recommends the use of EK-CryoFuel coolants!**

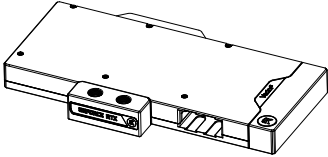
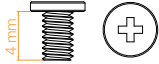
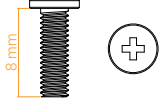
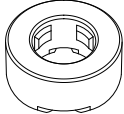
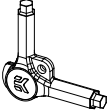
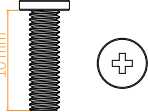
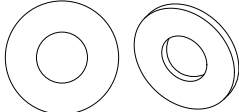
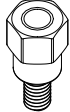

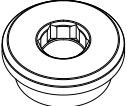

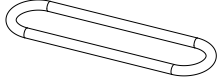
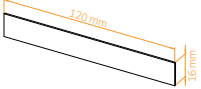
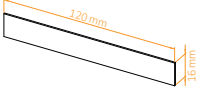
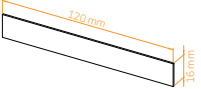
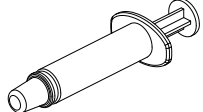
**To reach optimal performance, make sure to thoroughly bleed the air out of your water block!**

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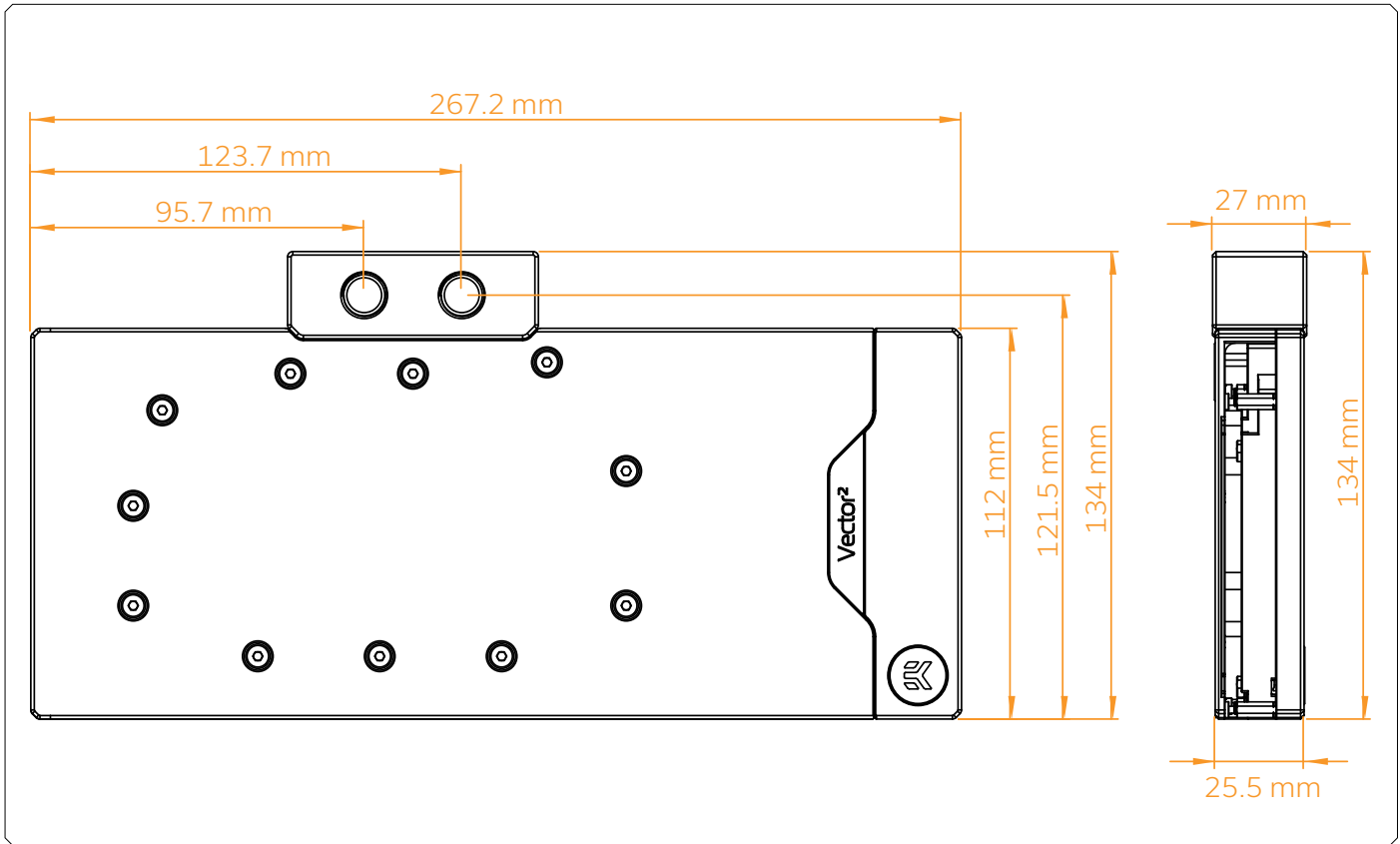
# BOX CONTENTS

EAN: 104905

 <p>EK-Quantum Vector<sup>2</sup> RE RTX 3080/90 D-RGB</p>	 <p>M2.5x4 AX1 Screw (8 pcs)</p>	 <p>M2.5x8 AX1 Screw (1 pc)</p>	 <p>Standoff Ø4.5/2.5 (1 pc)</p>
 <p>EK-Loop Multi Allen Key (1 pc)</p>	 <p>M3x10 AX1 Screw (1 pc)</p>	 <p>Polyamid Washer M2.5 0.5mm (8 pcs)</p>	 <p>Standoff M2.5-M3 x 6.6mm (1 pc)</p>
 <p>Allen Key 2.5 mm (1 pc)</p>	 <p>Quantum Plug (2 pcs)</p>	 <p>Nut M2.5 (2 pcs)</p>	 <p>Terminal OR - Vector2 14x1 mm (2 pcs)</p>
 <p>Thermal Pad F 1.0 mm (6 pcs) (3830046996732)</p>	 <p>Thermal Pad F 1.5 mm (1 pc) (3830046996749)</p>	 <p>Thermal Pad F 2.0 mm (2 pcs) (3830046996756)</p>	 <p>Thermal Grease (1 pc)</p>

EAN: 104549

# WATER BLOCK DIMENSIONS

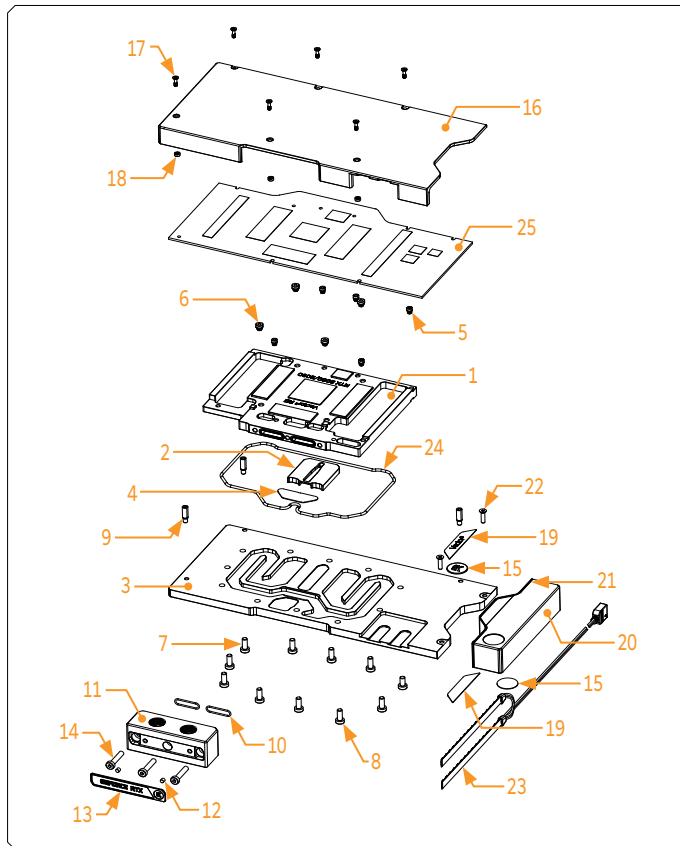


## TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS (Nickel + Acetal)

**EAN: 3831109858882**

**Technical Specification:**

- Dimensions: (LxHxW) – 267.15x134x27 mm
- D-RGB (Addressable RGB) cable length: 500 mm
- D-RGB LED COUNT: 32
- D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground)



Position	EAN	Description	Quantity
1	103944	Coldplate (Nickel)	1
2	103962	Plexi Insert	1
3	103946	TOP Acetal	1
4	103975	Bridge Plate	1
5	103987	Standoff M3.5-M2.5 x 3	5
6	103988	Standoff M4-M2.5 x 3mm	4
7	9024	Screw M4x10 DIN7984	10
8	9013	Screw M4x8 DIN7984	1
9	103986	Standoff M3.5-M2.5 x 11.3mm	3
10	104106	Terminal OR - 14x1 mm	2
11	103947	Terminal	1
12	104216	Disc Magnet 3x3	2
13	103942	Terminal Badge	1
14	8311	Screw M4x20 DIN7984	3
15	100663	EK Badge	2
16	103980	Backplate	1
17	104187	Screw M2.5x8 AX1n	6
18	104188	Standoff fi 4.5/2.5	6
19	104211	Mylar Sticker	2
20	103972	Stand Out	1
21	103966	Light Guide	1
22	8202	Screw M3x12 DIN7991	2
23	104295	LED Strip	1
24	103965	Main OR	1
25	104899	PCB Cardboard	1

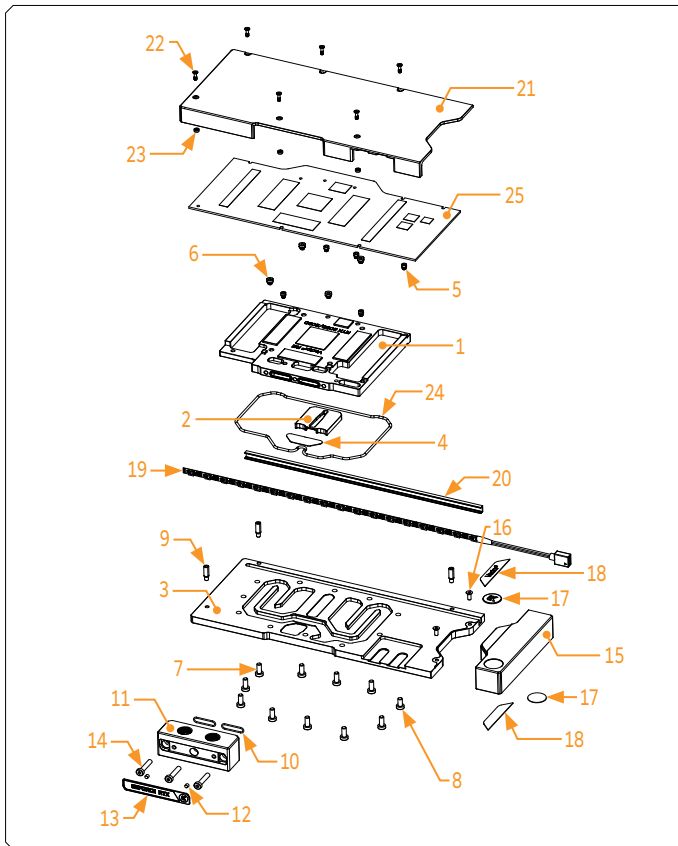
## TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS (Nickel + Plexi)

**EAN: 3831109858899**

**Technical Specification:**

- Dimensions: (LxHxW) – 267.15x134x27 mm
- D-RGB (Addressable RGB) cable length: 500 mm
- D-RGB LED COUNT: 14
- D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground)

Position	EAN	Description	Quantity
1	103944	Coldplate (Nickel)	1
2	103962	Plexi Insert	1
3	103945	TOP Plexi	1
4	103975	Bridge Plate	1
5	103987	Standoff M3.5-M2.5 x 3	5
6	103988	Standoff M4-M2.5 x 3mm	4
7	9024	Screw M4x10 DIN7984	10
8	9013	Screw M4x8 DIN7984	1
9	103986	Standoff M3.5-M2.5 x 11.3mm	3
10	104106	Terminal OR - 14x1 mm	2
11	103947	Terminal	1
12	104216	Disc Magnet 3x3	2
13	103942	Terminal Badge	1
14	8311	Screw M4x20 DIN7984	3
15	103969	Stand Out	1
16	8208	Screw M3x8 7991DIN	2
17	100663	EK RGB Badge	2
18	103964	Mylar Sticker	2
19	101556	LED Strip	1
20	103949	LED Extrusion	1
21	103980	Backplate	1
22	104187	Screw M2,5x8 AX1n	6
23	104188	Standoff fi 4.5/2.5	6
24	103965	Main OR	1
25	104899	PCB Cardboard	1



## PREPARING THE GRAPHICS CARD

### STEP 1 REMOVING THE STOCK COOLER

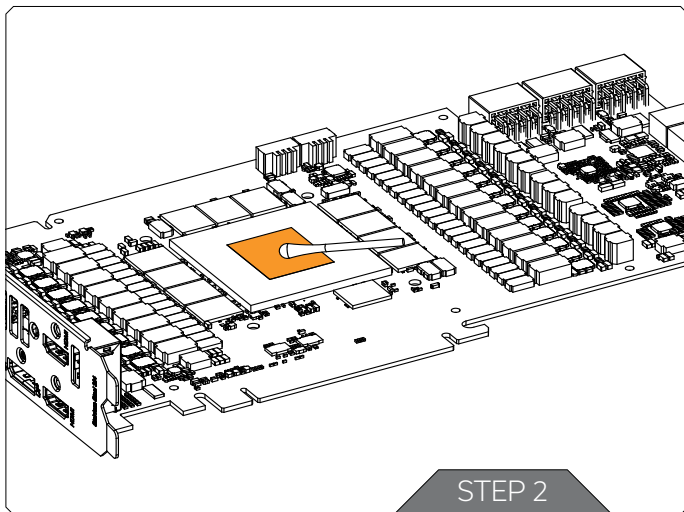
Place your graphics card on the flat surface and carefully remove the stock cooler. Do not forget to unplug all the LED and fan connectors. Pay attention to the following steps in order to install the EK-Quantum Vector2 RE RTX 3080/3090 D-RGB water block onto the graphics card.



Always remove the stock cooler slowly - it might be firmly glued to the PCB via thermal pads.

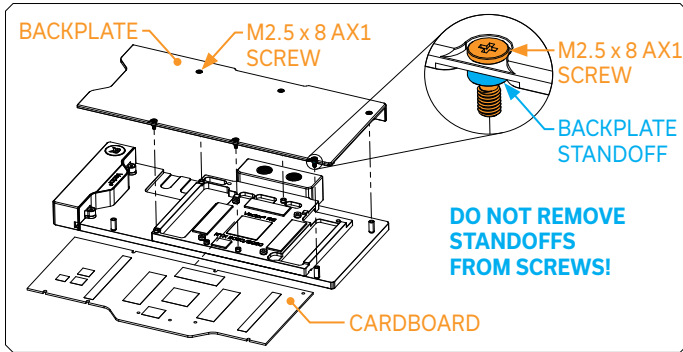
### STEP 2 CLEANING THE PCB

Wipe off the remains of the original thermal compound using a nonabrasive cloth or Q-tip, as shown in the sample image, until the components and the circuit board are completely clean. EK recommends the use of denatured alcohol for removing TIM leftovers. After that, remove all remaining stock thermal pads from the PCB.





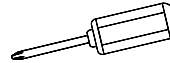
## PREPARING THE WATER BLOCK FOR INSTALLATION



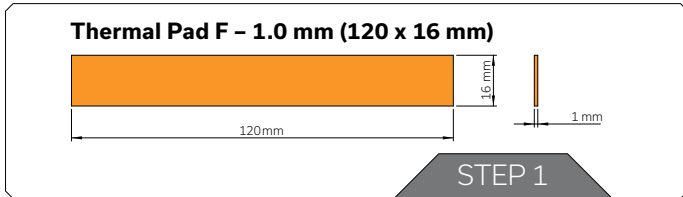
Unscrew six (6) Screws AX1 M2.5x8 as shown in the image. Remove the backplate together with six (6) Screws AX1 M2.5x8 and six (6) backplate standoffs. Standoffs must stay on Screws AX1 M2.5x8. Remove PCB cardboard. **Do not remove standoffs from screws! In case the standoff detaches from screw, replace it with a spare one. When replacing the standoff make sure that you screw it onto AX1 M2.5x8 screw. Do not push the standoff onto the screw AX1 M2.5x8!**

For this step you will need:

Phillips Head Screwdriver



## CUTTING AND PLACING THERMAL PADS



### STEP 1



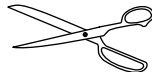
**CAUTION:** You must remove the protective foil from both sides of the thermal pad before installation.

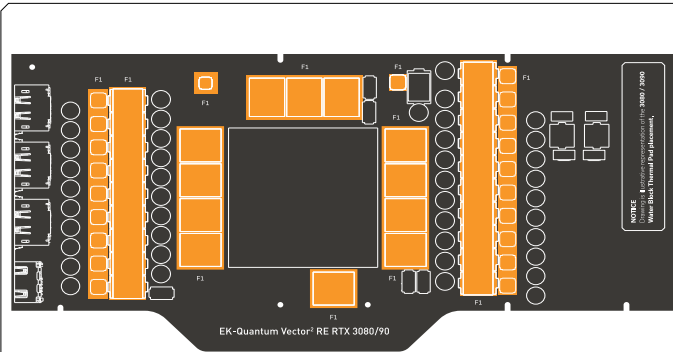
Replacement thermal pads:

Thermal Pad F 1.0mm - (120 x 16mm) EAN: 3830046996732

For this step, you will need:

Scissors





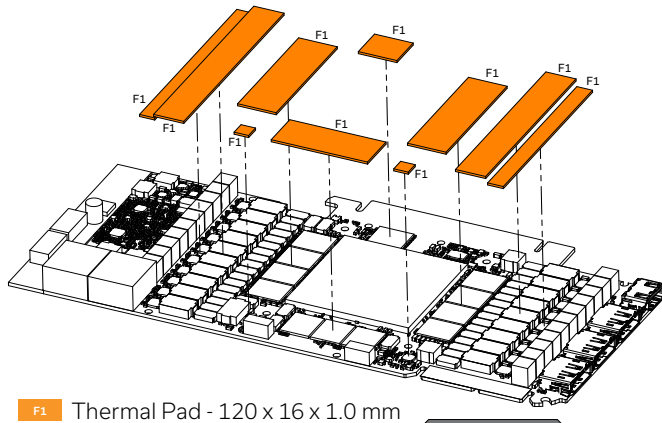
## STEP 2

The cardboard is printed in scale 1:1. Cut Thermal Pads to the size printed on the PCB cardboard. Once cut to the size, Thermal Pads should be placed on the PCB, as shown in the picture (step 2). Thermal Pads of thickness 1, 1.5 and 2 mm are included.



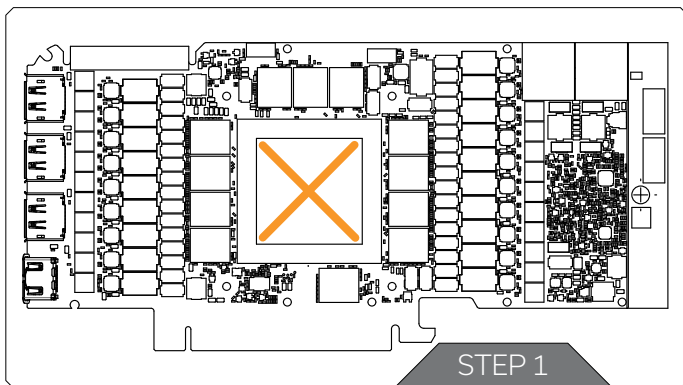
Before attaching the PCB on the Water Block, make sure all the Thermal Pads are placed correctly!

### 3080/3080Ti/3090



## STEP 2

## APPLYING THERMAL COMPOUND



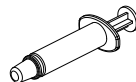
Apply the enclosed EK-TIM Ectotherm thermal grease (thermal compound) on the GPU heat spreader - IHS - as shown in the image. The layer of the thermal compound must be thin and evenly spread over the entire surface of the IHS.



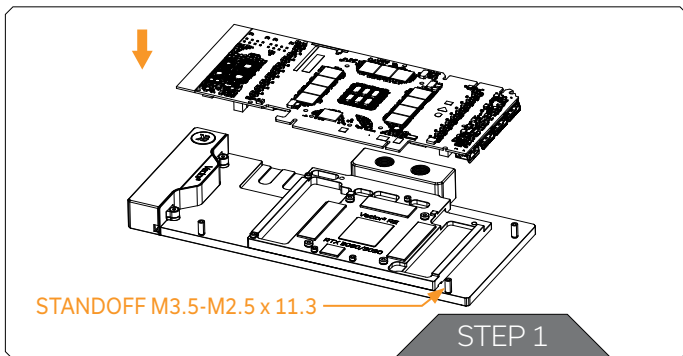
The excessive or uneven application of thermal grease may lead to poor performance!

For this step, you will need:

Thermal Grease



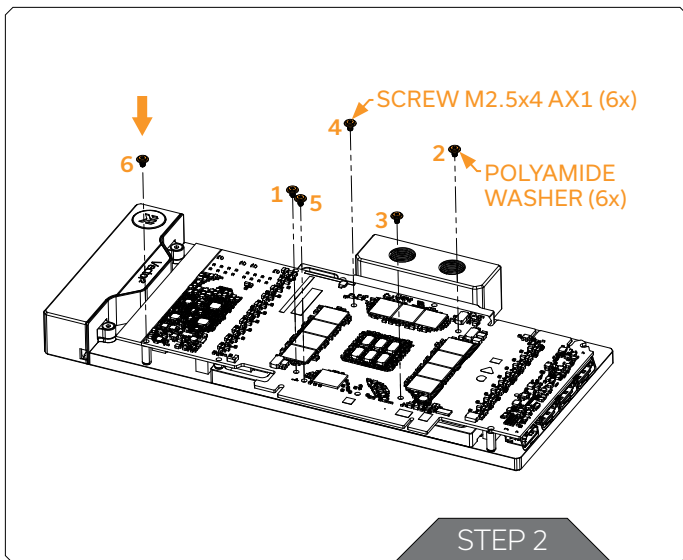
## ATTACHING THE WATER BLOCK



Before attaching the PCB on the Water Block, make sure all the Thermal Pads are placed correctly!

### STEP 1

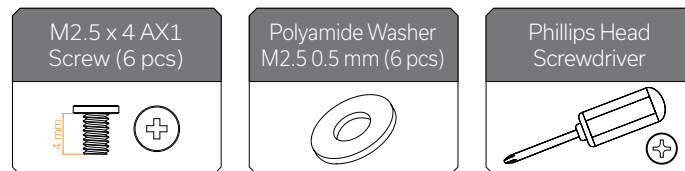
Carefully position the water block with preinstalled standoffs on the graphics card. During this process, make sure you have aligned mounting holes of the PCB with holes of the water block.



## STEP 2

Use six (6) M2.5x4 AX1 Screws and PVC washers to tighten the PCB on the water block. Tighten the screws evenly using the Phillips head screwdriver. EK recommends you start tightening the screws around the GPU core first, and then continuing outward to prevent the damage to the GPU. Always use a plastic washer under each screw! Turn M2.5x4 AX1 Screws in the clockwise direction according to the numerical order shown in the image (STEP 2).

For this step, you will need:



## INSTALLING THE BACKPLATE

### Thermal Pad F - 1.0 mm (120 x 16 mm)



### Thermal Pad F - 1.5 mm (120 x 16 mm)



### Thermal Pad F - 2.0 mm (120 x 16 mm)



STEP 1

### STEP 1



**CAUTION:** You must remove the protective foil from both sides of the thermal pad before installation.

Replacement thermal pads:

Thermal Pad F 1.0mm - (120 x 16mm) EAN: 3830046996732

Thermal Pad F 1.5mm - (120 x 16mm) EAN: 3830046996749

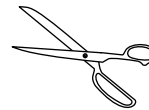
Thermal Pad F 2.0mm - (120 x 16mm) EAN: 3830046996756

After attaching the water block, a few more thermal pads need to be cut into smaller pieces to cover all the necessary components.

EK made sure to provide you with more than an adequate quantity of thermal pads to complete this step.

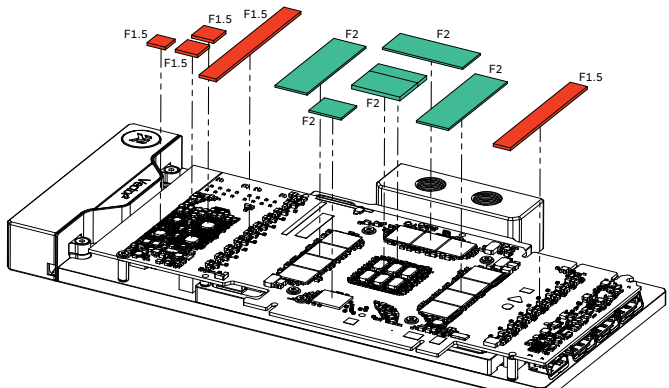
For this step, you will need:

Scissors

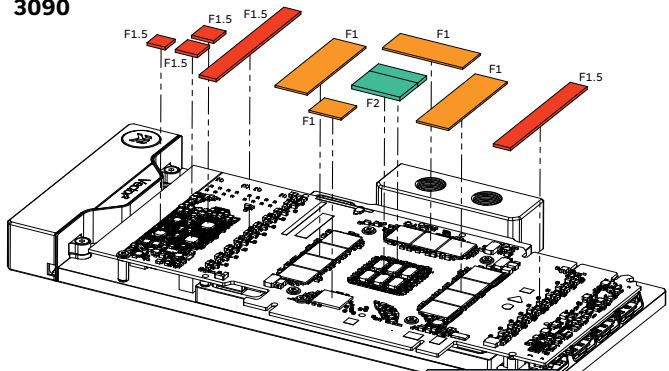


### 3080/3080Ti

- F1 Thermal Pad - 120 x 16 x 1.0 mm
- F1.5 Thermal Pad - 120 x 16 x 1.5 mm
- F2 Thermal Pad - 120 x 16 x 2.0 mm



### 3090

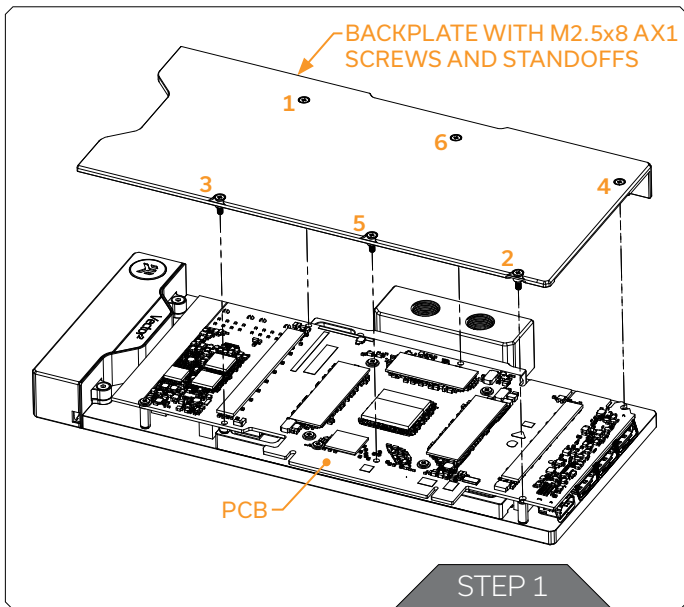


STEP 2

## STEP 2

Apply the thermal pads onto the backplate as shown in the image.

## ATTACHING THE BACKPLATE



Before attaching the Active Backplate on the PCB, make sure all the Thermal Pads are placed correctly!

### STEP 1

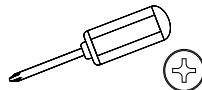
Place the backplate with six (6) M2.5x8 AX1 Screws with Standoffs onto the PCB. Make sure all the holes are aligned.

**Tighten screws according to the numerical order shown in the image!**

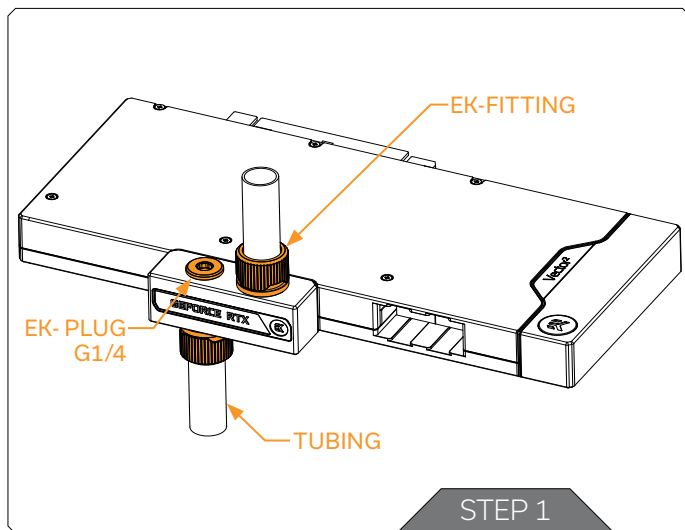
**Do not use excessive force!**

For this step, you will need:

Phillips Head Screwdriver



## FITTINGS AND TUBING



### STEP 1

Screw-in two (2) G1/4 threaded male fittings. Attach the liquid cooling tubes and connect the water block to the cooling loop.



Do not forget to plug the remaining two openings using the enclosed EK-Plug G1/4 or its equivalent.

**EK recommends using EK fittings with all EK water blocks.**



CAUTION: When using connectors other than EK fittings, pay special attention to the length of the fittings' male G1/4" thread - 5mm is the maximum G1/4" thread length allowed!

For this step, you will need:

EK-Loop Multi Allen Key



## INSERTING THE GRAPHICS CARD INTO THE CHASSIS

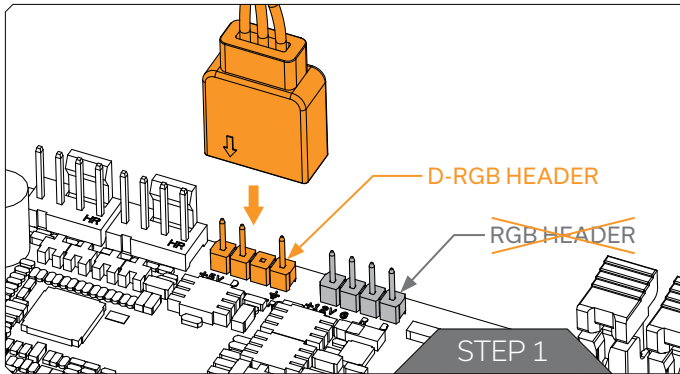
Carefully lift your graphics card with the installed water block and insert it into your PC's motherboard PCI express expansion slot. Please keep in mind that your graphics card is heavier than before it was equipped with the water block.



You need to be very careful when handling the graphics card. Avoid all unnecessary manipulation of the water block assembly that might damage your card or water block.



## CONNECTING THE D-RGB LED STRIP



### STEP 1

Plug the **3-pin connector** of the distribution plate D-RGB LED light to the **D-RGB HEADER** on the motherboard. The LED will work if the pin layout on the header is as follows: **+5V, Digital, Empty, Ground**.



Incorrect installation or installation to a wrong header can damage the LED strip or the header itself!

## TESTING THE LOOP

To make sure the installation of EK components was successful, we recommend performing a 24-hour leak test. When your loop is complete and filled with coolant, connect the pump to a PSU outside your system. Make sure all the other components are not connected to a power source. Turn on the PSU and let the pump run continuously. It is normal for the coolant level to drop during this process as air accumulates in the distribution plate. Inspect all parts of the loop, and if there is any coolant leak, fix the issue and repeat the testing process until there are no coolant leaks. In order to prevent any damage, ensure that all hardware is dry before the system is powered back on.

## WARRANTY

Our products are warranted against defects of materials and quality for a period of 24 months, starting with the date of delivery to the end-user. During this period, products will be repaired or have parts replaced at our discretion, provided that 1) the product is returned to the agent from whom it was purchased; 2) the product has been purchased by the end-user and has not been used for commercial purposes; 3) the product has not been misused, handled carelessly, or used in a manner other than the way described in the instruction manual. This warranty does not confer rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This warranty is offered as an extra benefit and does not affect your statutory rights as a consumer. This warranty is voided if the product comes in contact with aggressive UV additives or other improper liquids. EK water blocks are sealed with a warranty-voiding circular label, proving the water block has withstood a pressure leak test. Removing the label will void the leak-free warranty, but not the warranty of the product itself. Any other RMA issues can be reported to EK Customer Support at [www.ekwb.com/support](http://www.ekwb.com/support) for further analysis.

## SUPPORT AND SERVICE

In case you need assistance or wish to order spare parts or a new mounting mechanism, please contact:

**<https://www.ekwb.com/customer-support/>**

For spare parts orders, refer to the page with "TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS" where you can find the EAN number of each part you might need.


Include the EAN number with quantity in your request. Mounting Mechanism EAN can be found under "BOX CONTENTS"

Thermal pads are readily available in the EK shop

## SOCIAL MEDIA

 EKWaterBlocks

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