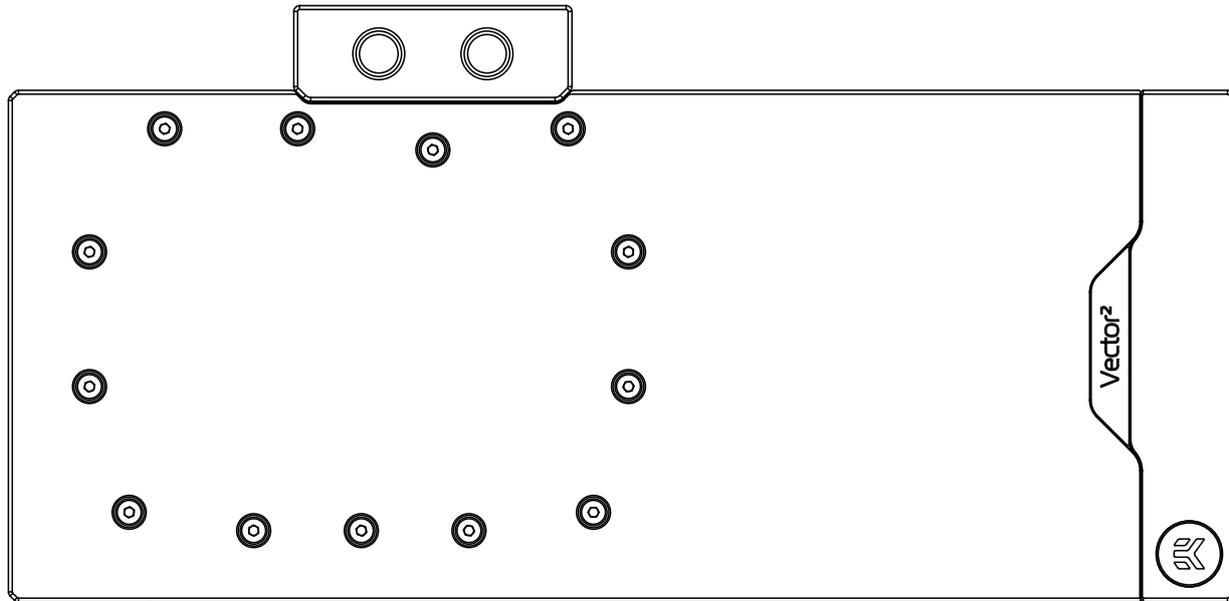


EK-Quantum Vector² FTW3 RTX 3090 Ti D-RGB

GPU WATER BLOCK



Please note the installation of the product is intended to be undertaken by an adequately trained and experienced person. You are installing the product at your own risk. If you are not properly trained or experienced or feel unsure about the installation procedure, please refrain from installing the product yourself and contact our tech support for assistance. We disclaim our liability for any damages to the product as well as incidental, consequential, or indirect damages incurred due to improper or inappropriate installation.

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!

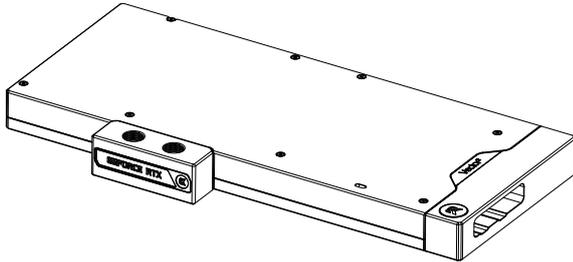
For best results, EK recommends the use of EK-CryoFuel coolants! To reach optimal performance, make sure to thoroughly bleed the air out of your water block!

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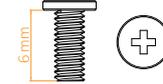
EAN: 105444



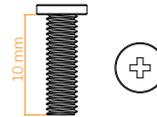
EK-Quantum Vector² FTW3 RTX 3090 Ti D-RGB



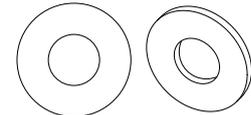
M2.5x4 AX1 Screw (13 pcs)



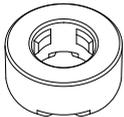
M2.5x6 AX1 Screw (1 pc)



M3x10 AX1 Screw (1 pc)



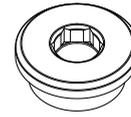
Polyamid Washer M2.5 0.5mm (13 pcs)



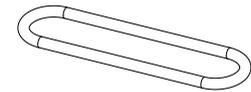
Standoff Ø4.5/2.5 (1 pc)



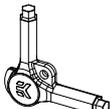
Standoff M2.5-M3 x 6.6mm (1 pc)



Quantum Plug (2 pcs)



Terminal OR - Vector² 14x1 mm (2 pcs)



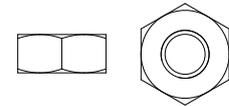
EK-Loop Multi Allen Key (1 pc)



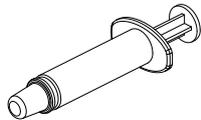
Allen Key 2 mm (1 pc)



Allen Key 2.5 mm (1 pc)



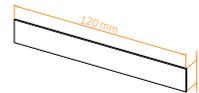
Nut M2.5 (2 pcs)



Thermal Grease (1 pc)



EK-Plug Out Spludger Tool (1 pc)



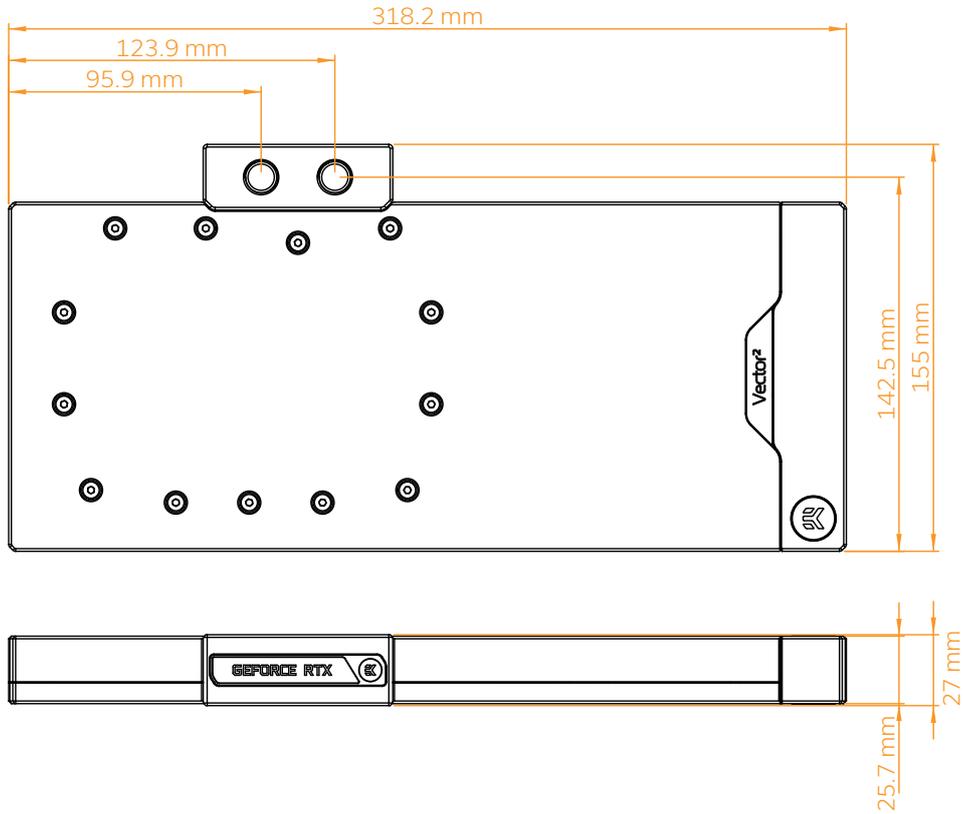
Thermal Pad F 1.0 mm (8 pcs)
(3830046996732)



Thermal Pad G 2.0 mm (4 pcs)
(3830046996794)

EAN: 104549

WATER BLOCK DIMENSIONS

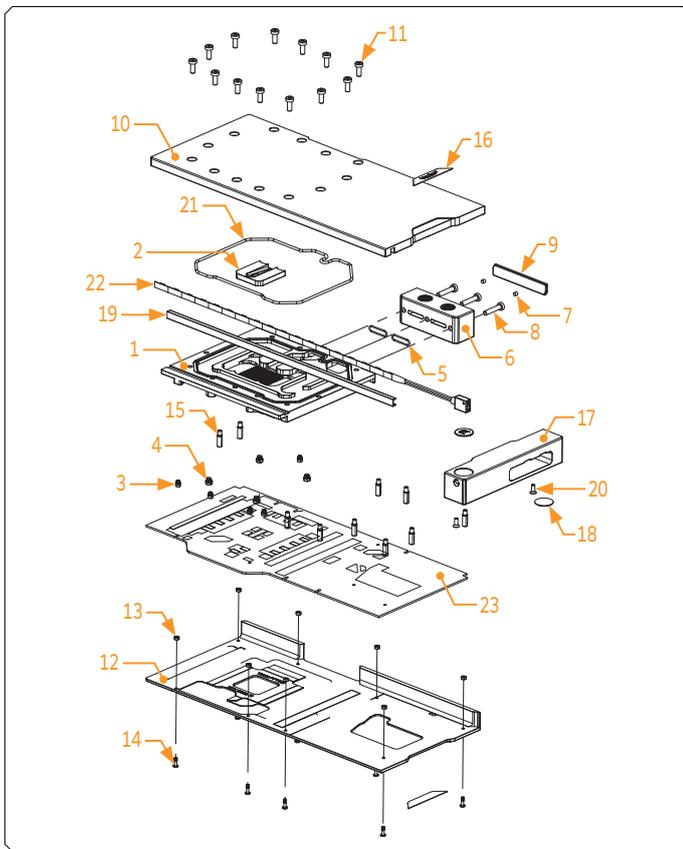


TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS

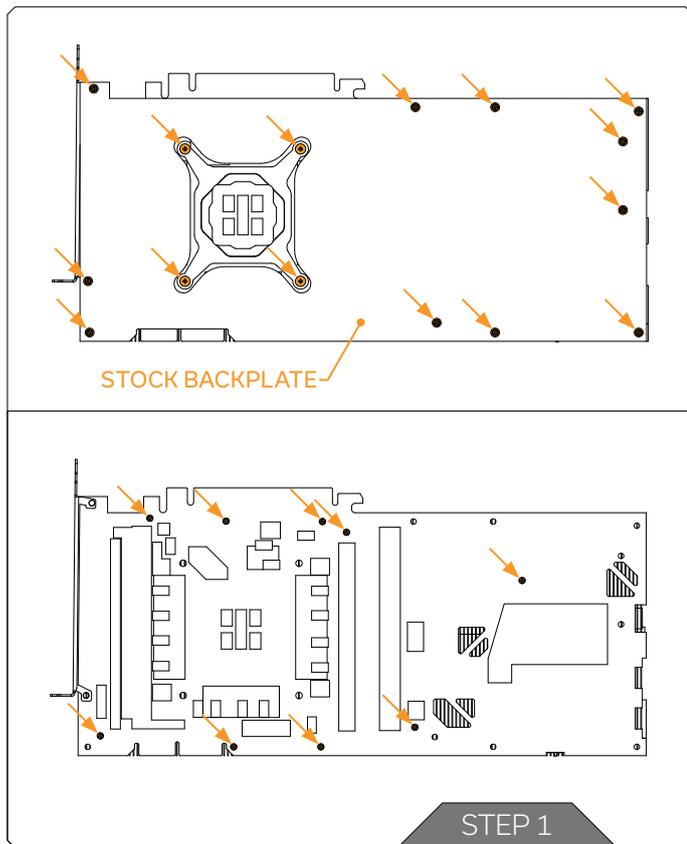
NICKEL PLEXI:

- Dimensions: (LxHxW): 318.2 x 155 x 27 mm
- D-RGB LED count: 17
- D-RGB cable length: 50cm
- D-RGB connector 3-pin 5V digital LED header

Position	EAN	Description	Quantity
1	105424	Coldplate (Nickel)	1
2	103962	Plexi insert	1
3	103987	Standoff M3.5-M2.5 x 3	5
4	103988	Standoff M4-M2.5 x 3 mm	4
5	104106	Terminal OR - 14 x 1 mm	2
6	103947	FC Terminal (Acetal)	1
7	104216	Disc magnet 3 x 3	2
8	8311	Screw M4 x 20 DIN7984	3
9	103942	Terminal Badge	1
10	105425	Top plate (Plexi)	1
11	9024	Screw M4 x 10 DIN7984	13
12	105429	Backplate (Black e.)	1
13	104188	Standoff fi 4.5/2.5	8
14	104187	Screw M2.5 x 8 AX1	8
15	103986	Standoff M3.5-M2.5 x 11.3 mm	10
16	103964	Mylar sticker	2
17	105426	Stand out (Acetal)	1
18	100663	EK - Badge	2
19	105434	LED Cover	1
20	8208	Screw M3 x 8 7991DIN	2
21	5064	Main O-ring 140 x2 mm	1
22	100815	LED D-RGB strip 500/300 mm	1
23	105445	PCB cardboard	1



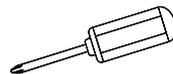
PREPARING THE GRAPHICS CARD



STEP 1 REMOVING THE STOCK COOLER

For this step, you will need:

Phillips Head Screwdriver



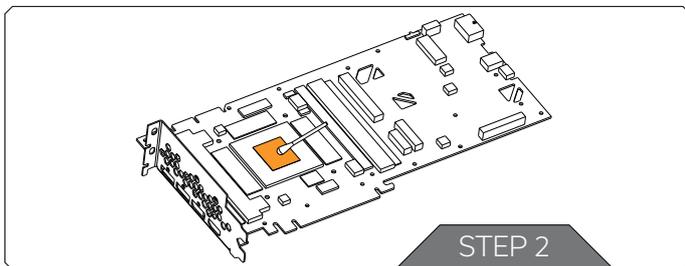
Use the Phillips head screwdriver to remove the fifteen marked screws and the Stock Cooler Backplate from the backside of the GPU. Carefully detach the Stock Cooler Backplate from the PCB.

Use the Phillips head screwdriver to remove the nine marked screws to detach the Stock Cooler from the PCB of the GPU.

Carefully detach the PCB from the stock cooler and disconnect all cables connecting the stock cooler to the PCB.



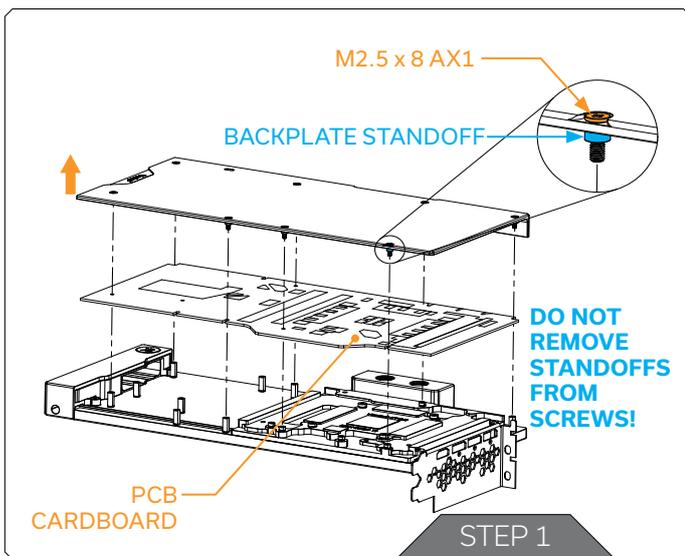
Always remove the stock cooler slowly - it might be firmly glued to the PCB with thermal pads.



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 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



STEP 1

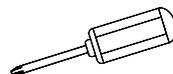
Unscrew eight (8) Screws AX1 M2.5x8 as shown in the image. Remove the backplate together with eight (8) Screws M2.5x8 AX1 and backplate standoffs. Standoffs must stay on Screws M2.5x8 AX1. Remove cardboard. Save the backplate set for later steps.



Do not remove standoffs from screws! In case the standoff detaches from the screw, replace it with a spare one. When replacing the standoff make sure that you screw it on the 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

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



Thermal Pad G - 2.0 mm (120 x 24 mm)



Your EK-Quantum Vector2 FTW3 RTX 3090 Ti D-RGB block comes with Thermal Pads that have to be cut into smaller pieces to cover all the VRM components. EK made sure to provide you with more than an adequate quantity of Thermal Pads to complete this Step.



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

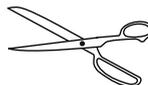
Replacement thermal pads:

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

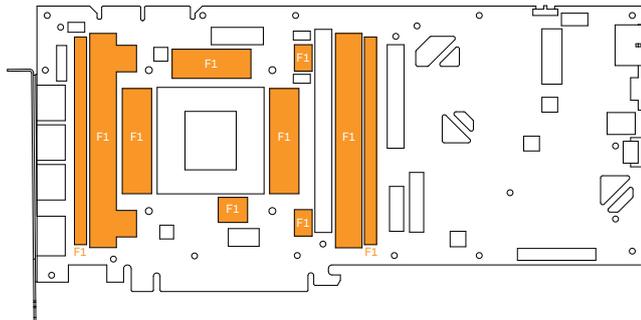
Thermal Pad G 2.0 mm - (120 x 24 mm) EAN: 3830046996794

For this step, you will need:

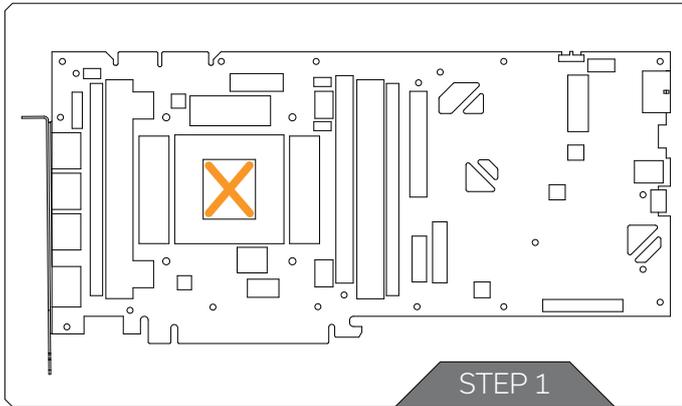
Scissors



F1 Thermal Pad - 120 x 16 x 1.0 mm



APPLYING THERMAL COMPOUND



STEP 1

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 even over the entire surface of the IHS.



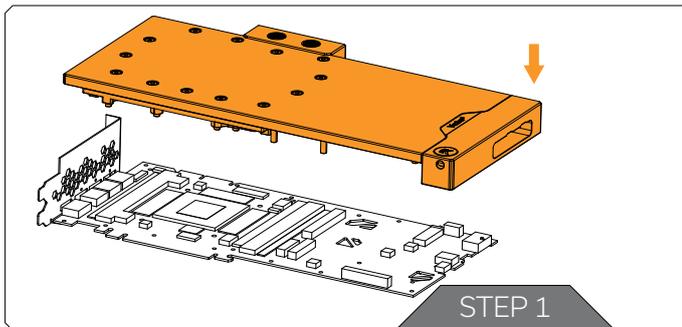
The excessive or uneven application of thermal grease may lead to poor performance!

For this step, you will need:

Thermal Grease



ATTACHING THE WATER BLOCK



STEP 1

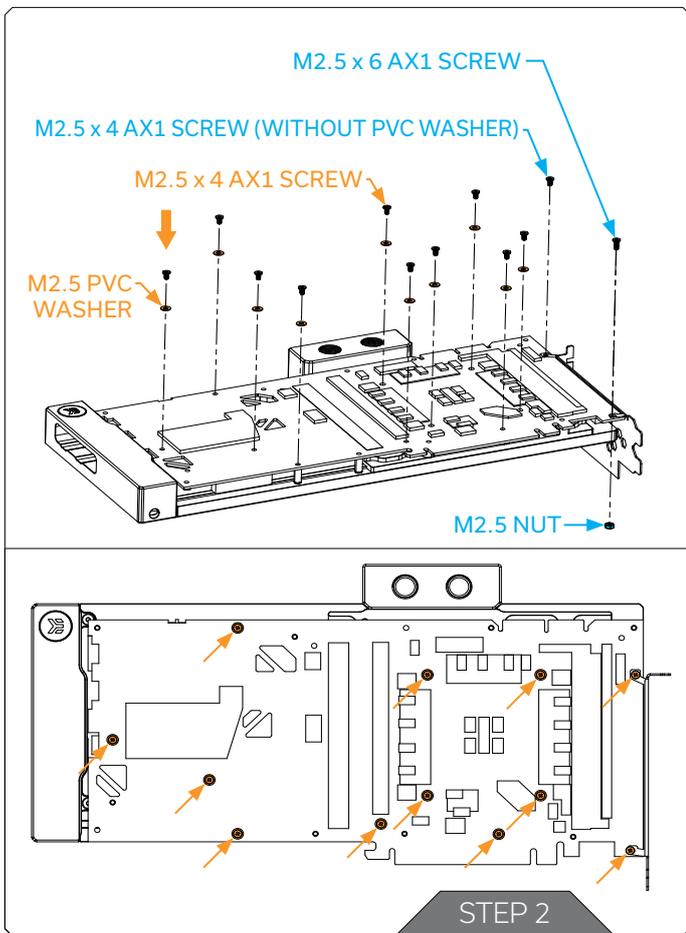
Carefully position the water block with preinstalled standoffs on the graphics card. During this process, make sure you have aligned mounting holes of the PCB with holes of the water block.



Pay attention not to use too much force when pressing the block down to the PCB since chip dies are prone to cracking.



Before placing the Water Block, make sure all the Thermal Pads are placed correctly!

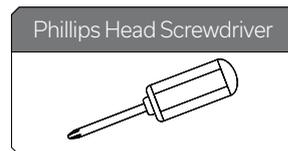


STEP 2

After placing the water block, use ten (10) M2.5 x 4 AX1 screws and PVC washers to tighten the GPU PCB. 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 damaging the GPU. Always use a plastic washer under each screw.

After attaching the PCB, use one (1) M2.5 x 6 AX1 Screw in combination with (1) M2.5 Nut and one (1) additional M2.5 x 4 AX1 Screw to secure the I/O Bracket.

For this step, you will need:



Screws must be present in the places marked on the picture.

PREPARING THE BACKPLATE



STEP 1

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.



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

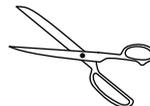
Replacement thermal pads:

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

Thermal Pad G 2.0 mm – (120 x 24 mm) EAN: 3830046996794

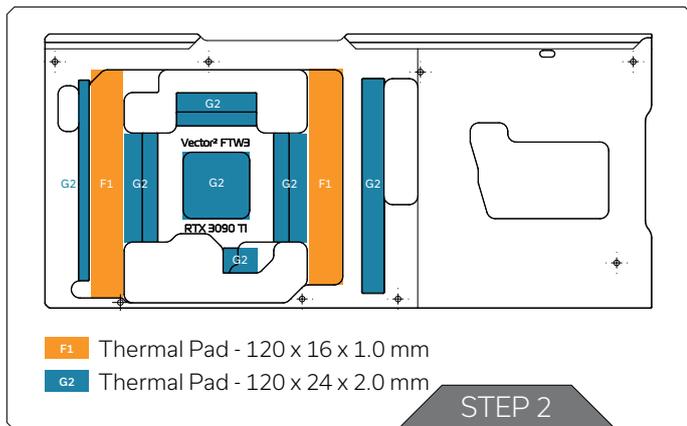
For this step, you will need:

Scissors

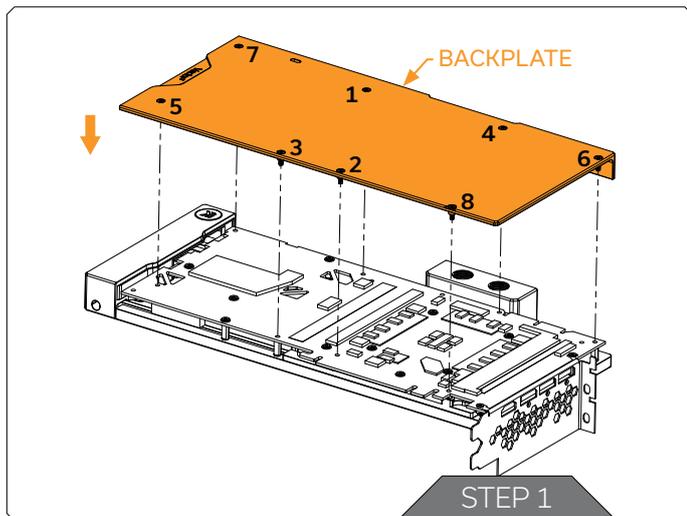


STEP 2

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



ATTACHING THE BACKPLATE



STEP 1

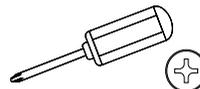
Place the backplate with eight (8) M2.5 x 8 AX1 Screws and Standoffs onto the PCB. Make sure all the holes are aligned.

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

Do not use excessive force!

For this step, you will need:

Phillips Head Screwdriver



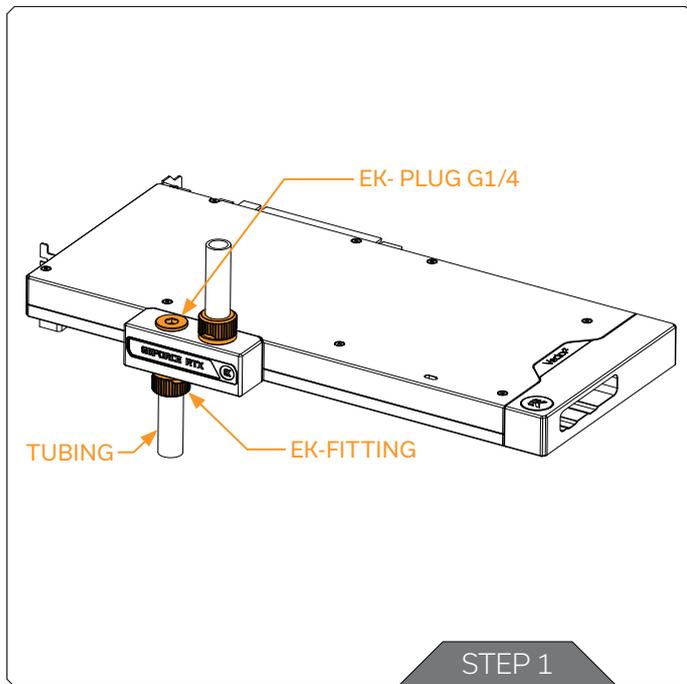
INSERTING THE GRAPHICS CARD INTO THE CHASSIS

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.

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.

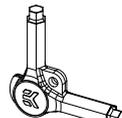
EK recommends using EK fittings with all EK water blocks.



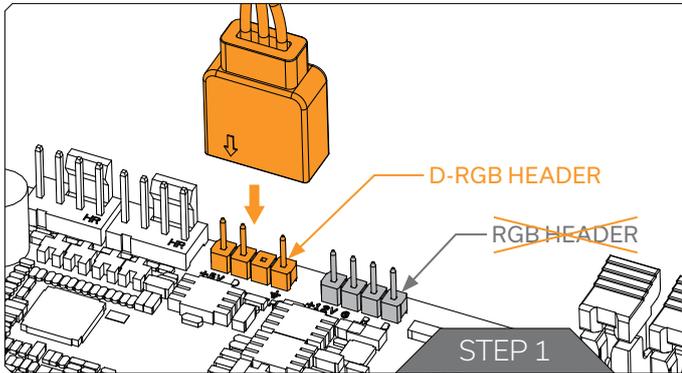
CAUTION: When using connectors other than EK fittings, pay special attention to the length of the fittings' male G1/4" thread - 5mm is the maximum G1/4" thread length allowed!

For this step, you will need:

EK-Loop Multi Allen Key



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 you perform a leak test for 24 hours. When your loop is complete and filled with coolant, connect the pump to a PSU outside of your system. Do not connect power to any of the other components. Turn on the PSU and let the pump run continuously. It is normal for the coolant level to drop during this process as air collects in the distribution plate. Inspect all parts of the loop, and in the eventuality that coolant leaks, fix the issue and repeat the testing process. Ensure that all hardware is dry before the system is powered on in order to prevent any damage.

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 instructions 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 guarantee, but not the guarantee on the product itself. Any other RMA issues can be reported to EK Customer Support at 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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 EKWBofficial

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