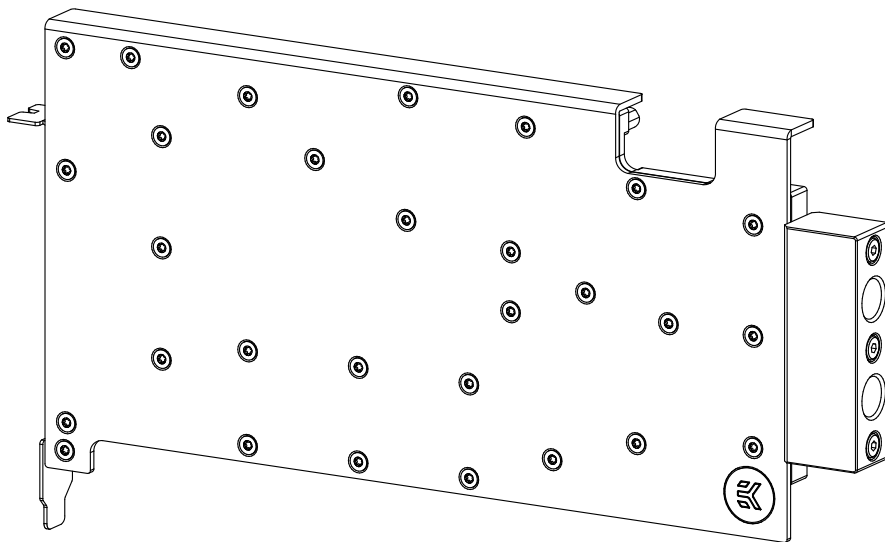


# EK-PRO

## GPU WB AMP-Trinity RTX 4090 Rack Ni+Inox

GPU WATER BLOCK



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).**

**EK Fittings require only a small amount of force to screw them firmly in place since the liquid seal is ensured with the rubber O-ring gaskets.**

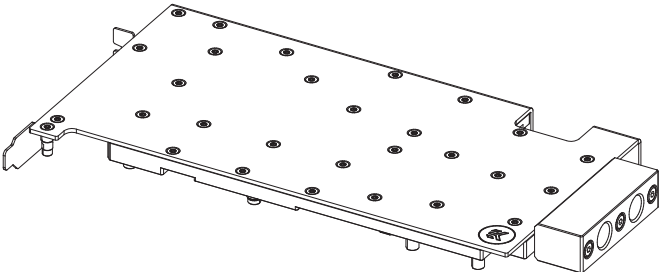
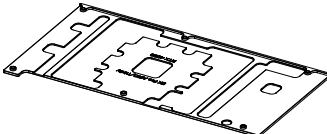
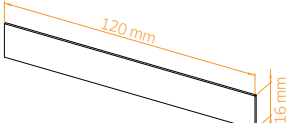
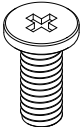
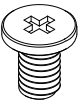
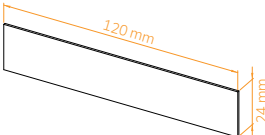
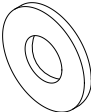
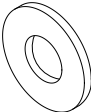
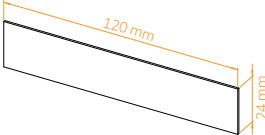
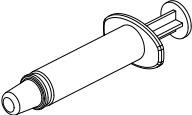
**The use of quality market-proven corrosion-inhibiting coolants is always strongly recommended for any liquid cooling system.**

**Do not use pure distilled water as a cooling liquid! For best results, EK recommends the use of EK-CryoFuel Coolants. Make sure to bleed air out of your water block thoroughly in order to reach optimal performance.**

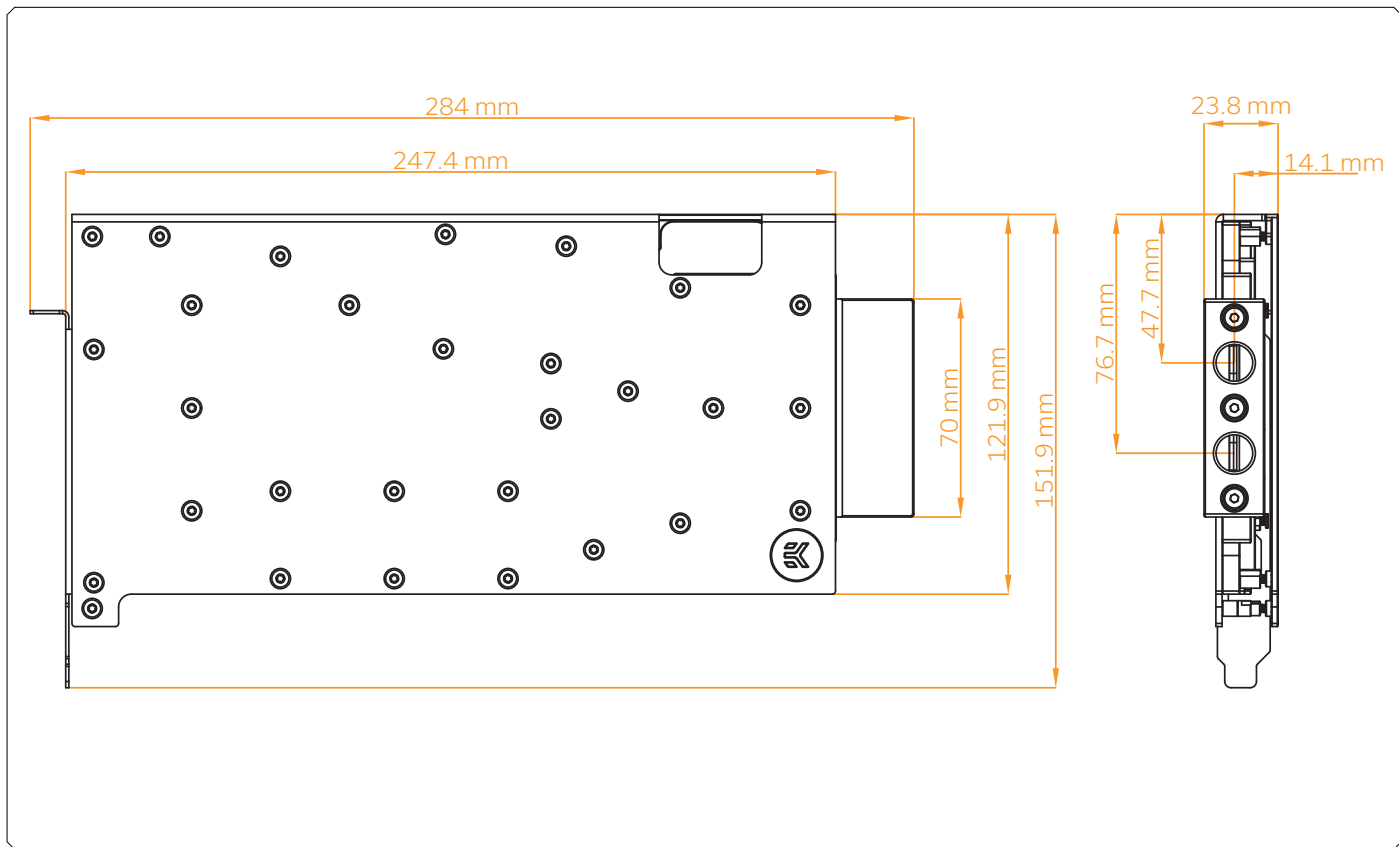
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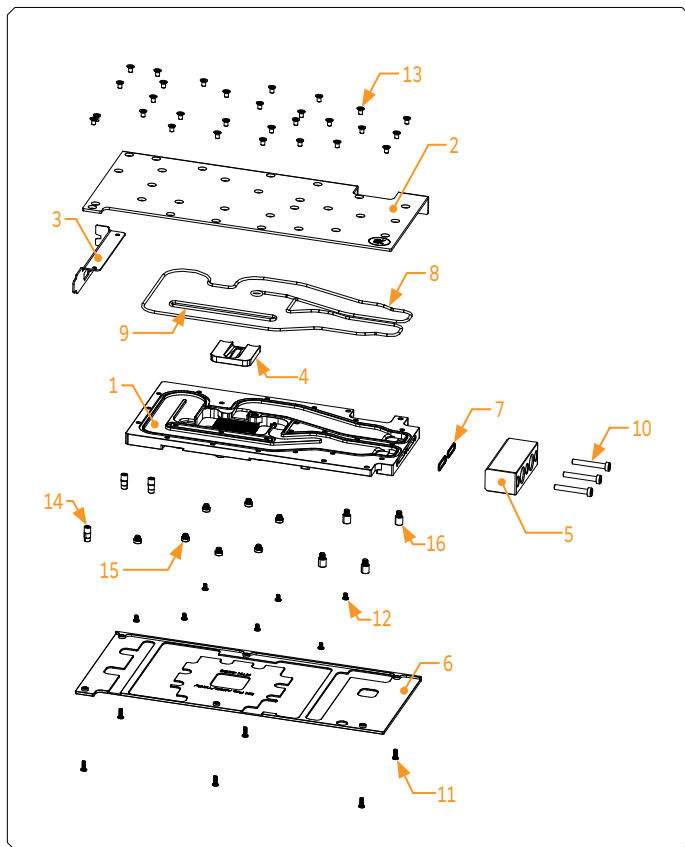
## BOX CONTENTS

 <p>EK-Pro GPU WB AMP-Trinity RTX 4090 Rack Ni+Inox</p>	 <p>Zotac RTX Pro Backplate (1x) 106362</p>	 <p>Thermal PAD F 1.0 mm - (120 x 16 mm) (2x)</p>
 <p>Screw M2.5 x 7 AX1 (7x) 9049</p>	 <p>Screw M2.5 x 4 ax1 (9x) 9047</p>	 <p>Thermal PAD G 0.5 mm - (120 x 24 mm) (2x)</p>
 <p>Screw size guide (1x)</p>	 <p>Washer POLYAMID M2.5 0.5 mm (9x) 8623</p>	 <p>Thermal PAD G 2.0 mm - (120 x 24 mm) (2x)</p>
		 <p>Thermal Grizzly Hydronaut (1g) (1x)</p> <p><b>088 - Mounting Trinity RTX 4090 Rack</b> 107238</p>

## WATER BLOCK DIMENSIONS

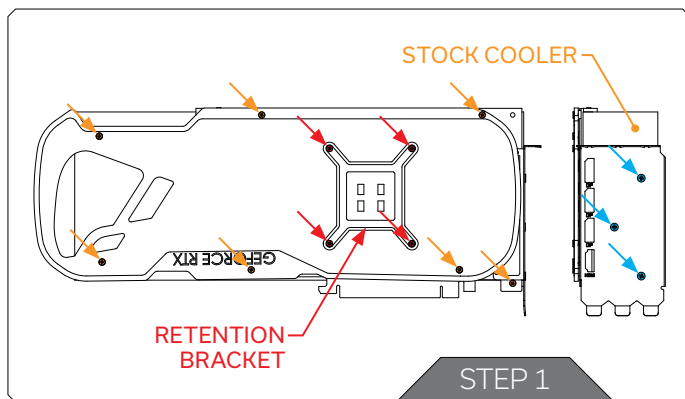


## TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS



Position	EAN	Description	Quantity
1	106351	Coldplate (Nickel)	1
2	106355	Top plate (Inox)	1
3	106359	IO Bracket (Nickel)	1
4	106133	Plexi insert	1
5	103767	FC terminal Direct (Acetal)	1
6	106362	Backplate (Bl. elox)	1
7	5155	Terminal OR 15 x 1 mm	2
8	106360	Main OR Zotac RTX 4090 Pro	1
9	106367	Inner OR 170 x 2 mm	1
10	10006	Screw M4 x 27 DIN7984	3
11	9049	Screw M2.5 x 7 AX1	6
12	9047	Screw M2.5 x 4 AX1	8
13	103089	Screw M3 x 5 ISO14581 TX Inox	29
14	106357	Standoff M3-M2.5 x 12.3 Brass (female)	3
15	103988	Standoff M4-M2.5 x 3 Brass	7
16	8541	Standoff M4-M2.5 x 6.6 Brass	4

## PREPARING YOUR GRAPHICS CARD



### REMOVING THE STOCK COOLER

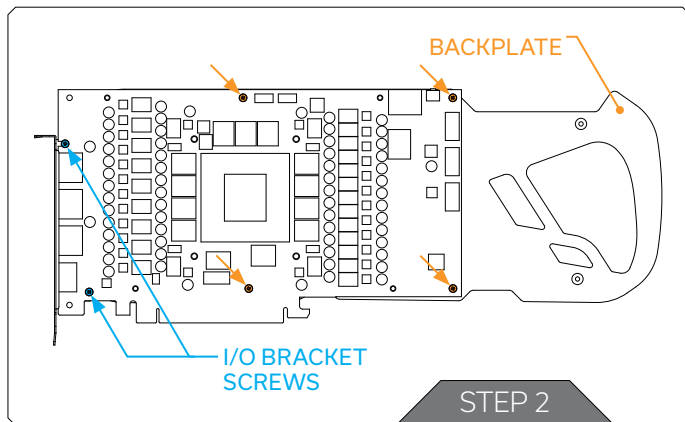
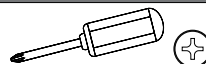
#### ZOTAC GAMING GeForce RTX 4090 AMP Extreme AIRO

##### STEP 1

Using a Philips-head screwdriver, unscrew marked screws to detach the stock cooler and retention bracket from the GPU PCB. After removing, carefully unplug all the LEDs and FANs cables.

For this step, you will need:

Phillips Head Screwdriver

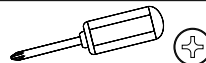


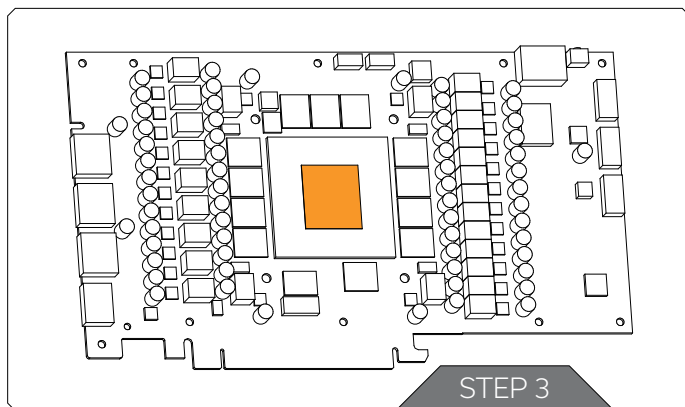
##### STEP 2

From the front side of the GPU PCB, additional two (2) screws must be unscrewed to remove the I/O Bracket from the GPU PCB. Lastly, unscrew four (4) backplate screws. Remove the Backplate.

For this step, you will need:

Phillips Head Screwdriver



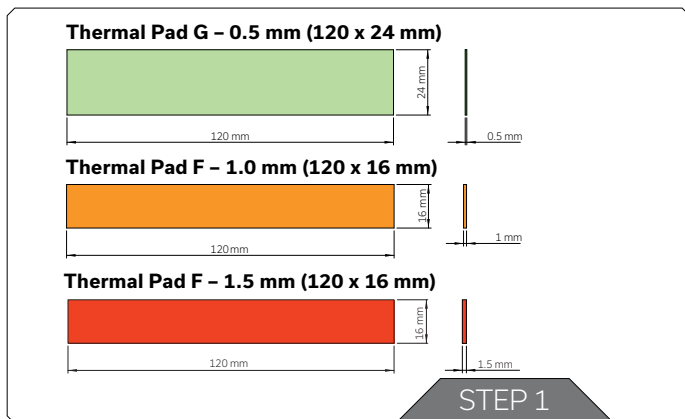


### STEP 3

#### 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.

## CUTTING AND PLACING THERMAL PADS



### STEP 1

The GPU water block comes with thermal pads that have to be cut into smaller pieces to cover all the VRM components, such as COILS, MOSFETs, and drivers.



Remove the protective foil from both sides of the thermal pad before installation.

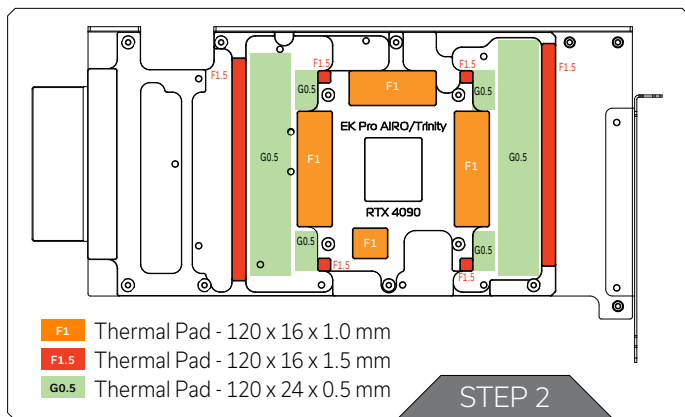
Replacement thermal pads:

Thermal Pad G 0.5 mm – (120 x 24 mm) EAN: 3830046996763

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

Thermal Pad F 1.5 mm – (120 x 16 mm) EAN: 3830046996756

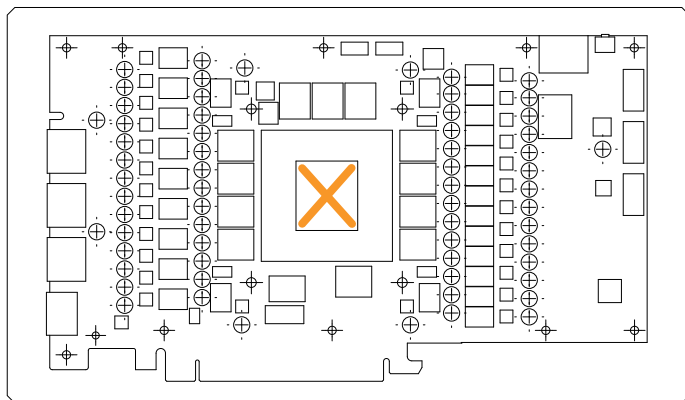




## STEP 2

Once cut to the size, Thermal Pads should be placed on the coldplate, as shown in the picture.

## APPLYING THERMAL COMPOUND



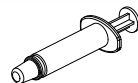
Apply the enclosed EK-TIM Ectotherm thermal grease (thermal compound) on the GPU heat spreader – IHS – as shown in the image. The layer of the thermal compound must be thin and even over the entire surface of the IHS.



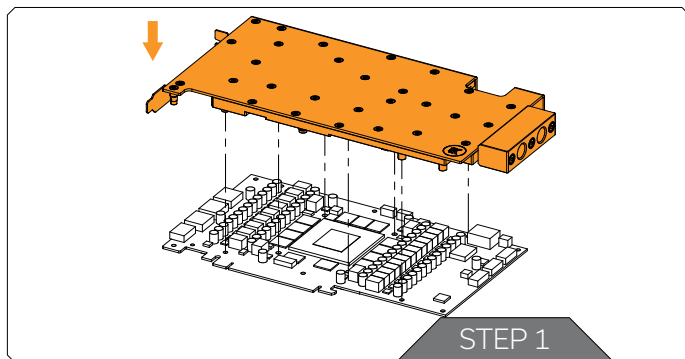
The excessive or uneven application of thermal grease may lead to poor performance!

For this step, you will need:

Thermal Grease



## ATTACHING THE WATER BLOCK



### STEP 1

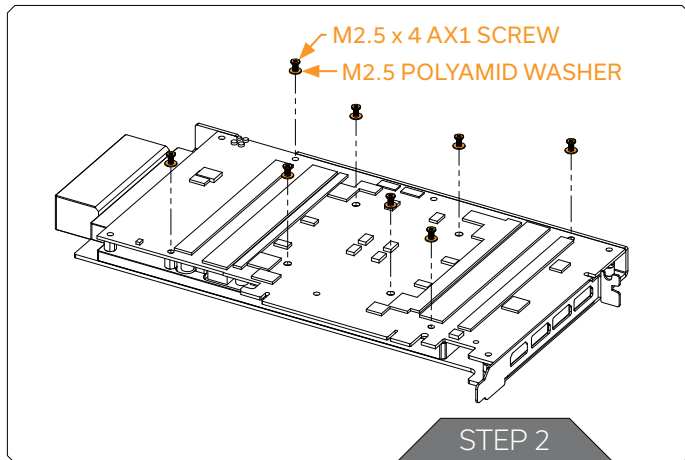
Carefully position the water block with preinstalled standoffs on the graphics card. During this process, make sure you have aligned the mounting holes of the PCB with the holes of the water block.



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



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



### STEP 2

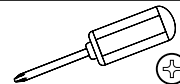
Use eight (8) M2.5 x 4 AX1 Screws and eight (8) Polyamid washers M2.5 0.5 mm and tighten the PCB on the water block. Tighten the screws evenly using the Phillips-head screwdriver. EK recommends you start tightening the screws around the GPU core first and then continuing outwards to prevent damage to the GPU.

For this Step, you will need:

M2.5 x 4 AX1  
Screw (8 pcs)



Phillips Head  
Screwdriver



Washer Polyamid M2.5  
0.5mm (8 pcs) 8623



## INSTALLING THE BACKPLATE

**Thermal Pad F – 2.0 mm (120 x 16 mm)**



**Thermal Pad G – 2.0 mm (120 x 24 mm)**



STEP 1

### STEP 1

After attaching the water block, a few more thermal pads needs to be cut into smaller pieces to cover all the necessary componets. EK made sure to provide with more than an adequate quantity of thermal pads to complete this step.



Remove the protective foil from both sides of the thermal pad before installation.

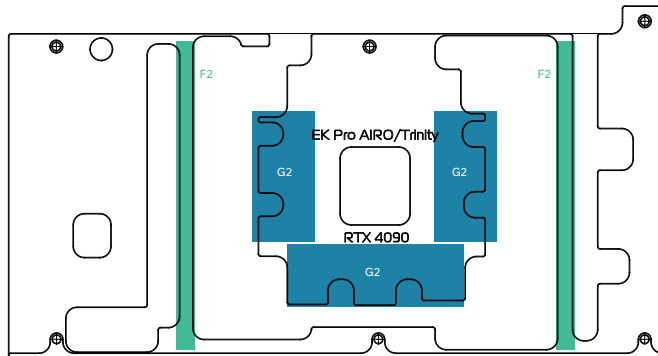
Replacement thermal pads:

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

Thermal Pad G 2.0 mm – (120 x 20 mm) EAN: 3830046996794

### STEP 2

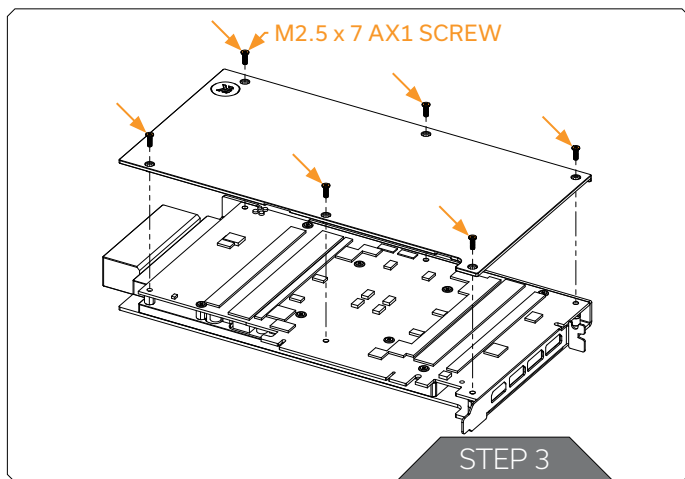
Apply the thermal pads onto the Backplate as shown in the image.



F2 Thermal Pad - 120 x 16 x 2.0 mm

G2 Thermal Pad - 120 x 24 x 2.0 mm

STEP 2

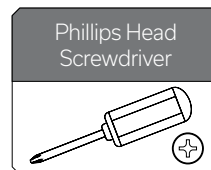
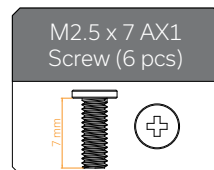


### STEP 3

#### ATTACHING THE BACKPLATE

Use six (6) M2.5 x 7 AX1 screws. Tighten the screws evenly using the Phillips head screwdriver.

The screws must be present on the places marked in the picture.



## CHECKING THE CONTACT IN CASE OF HIGH TEMPERATURES

If necessary, temporarily remove the water block to check for uniform surface contact between the block and components. Pay special attention to the VRM section of the graphics card. Check whether the water block makes contact with the intended integrated circuit. Then repeat Steps from the previous section to re-attach the block.



In case you fail to obtain good contact, please check again or contact our support service at <https://www.ekwb.com/customer-support/>.

## 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.

## TESTING THE LOOP

To ensure the installation of EK components was successful, we recommend you perform a 24-hour leak test.

When your loop is complete and filled with coolant, connect the pump to a PSU outside your system. Do not connect power to any of the other components. Turn on the PSU and let the pump run continuously.

Inspect all parts of the loop, and in case the coolant leaks, fix the issue and repeat the testing process. To prevent possible damage, please ensure all hardware is dry before the system is powered on.

## 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

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