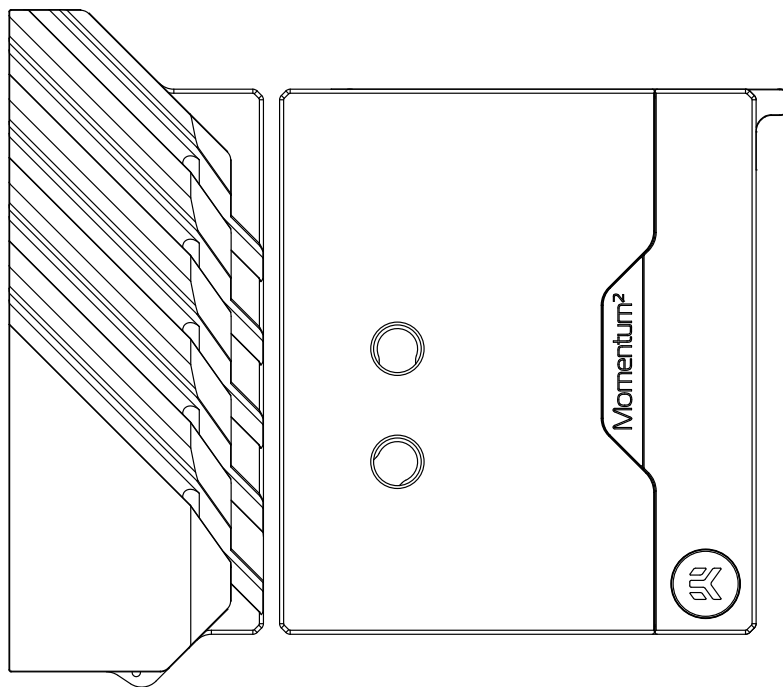


# EK-Quantum Momentum<sup>2</sup> ROG Crosshair VIII Extreme D-RGB

MONOBLOCK



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 website at [www.ekwb.com](http://www.ekwb.com) for updates. Before installation of this product please read the important notice, disclosure, and warranty conditions printed on the back of the box.

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

**Please carefully read the manual thoroughly before beginning the installation process!**

**Please remove your motherboard from the computer to assure the safest mounting process in order to prevent any possible damages to your CPU and/or motherboard's 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.**

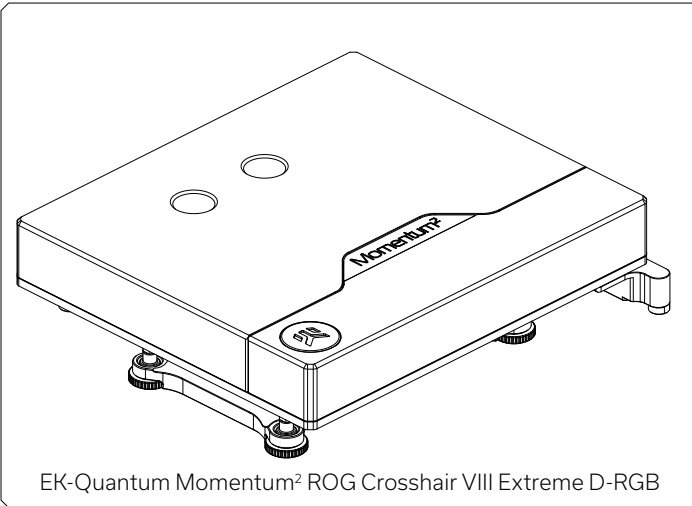
**The use of quality, market-proven corrosion inhibiting coolants is always strongly recommended for any liquid cooling system.**

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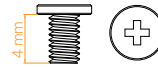
<b>BOX CONTENTS</b>	<b>4</b>
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# BOX CONTENTS

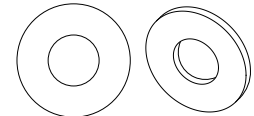
EAN: 105049



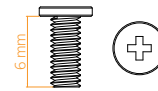
EK-Quantum Momentum² ROG Crosshair VIII Extreme D-RGB



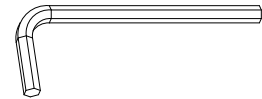
M2.5x4 AX1 Screw (5 pcs)



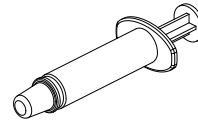
M2.5 PVC Washer (10 pcs)



M2.5x6 AX1 Screw (5 pcs)



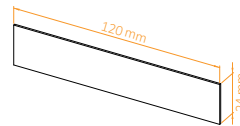
Allen Key 2.5 mm (1 pc)



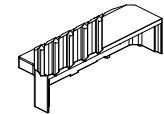
Thermal Grease (1 pc)



Allen Key 2 mm (1 pc)

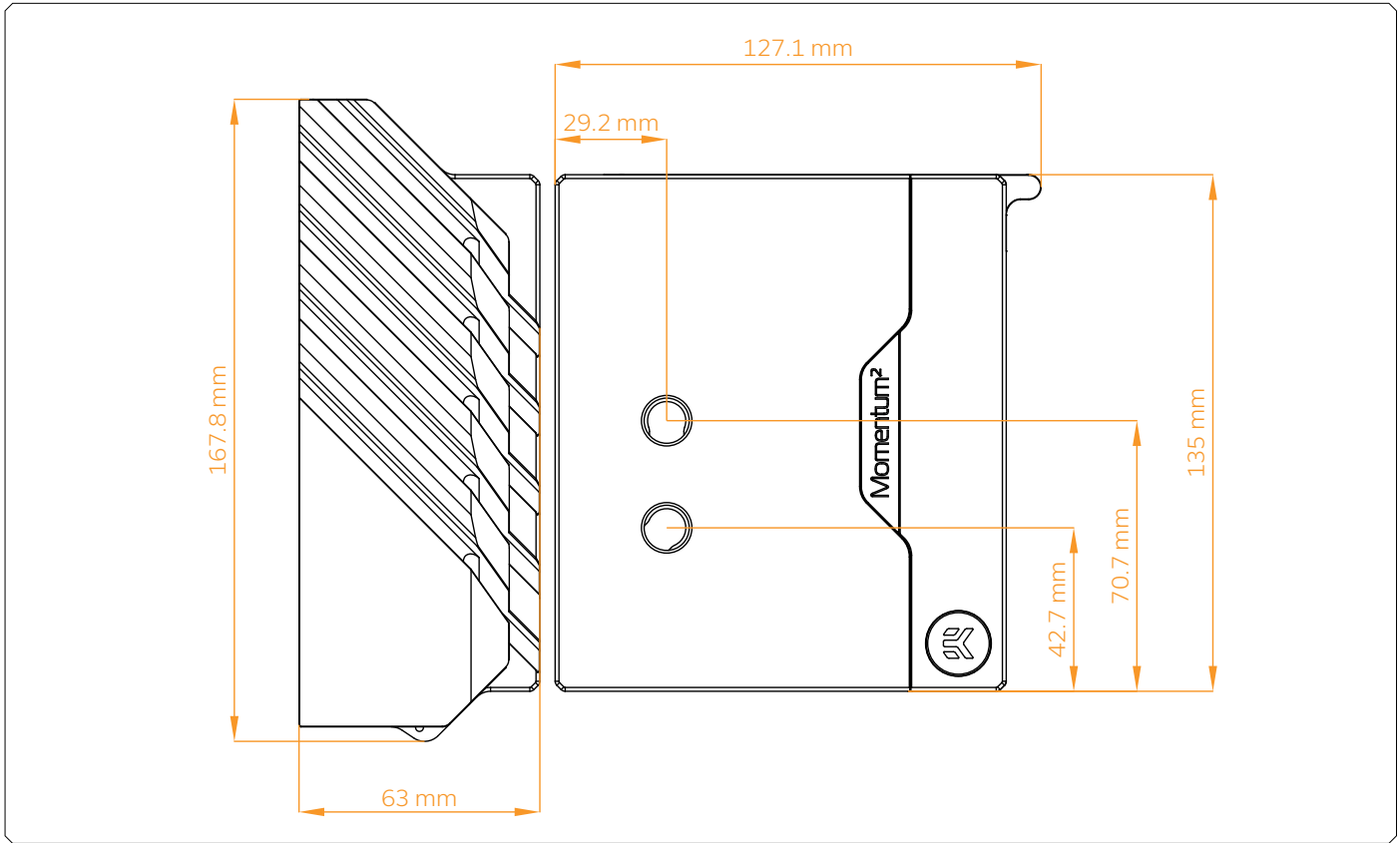


Thermal Pad G 1.0 mm (120x24) (2 pcs)



Replacement cover (1 pc)

# WATER BLOCK DIMENSIONS

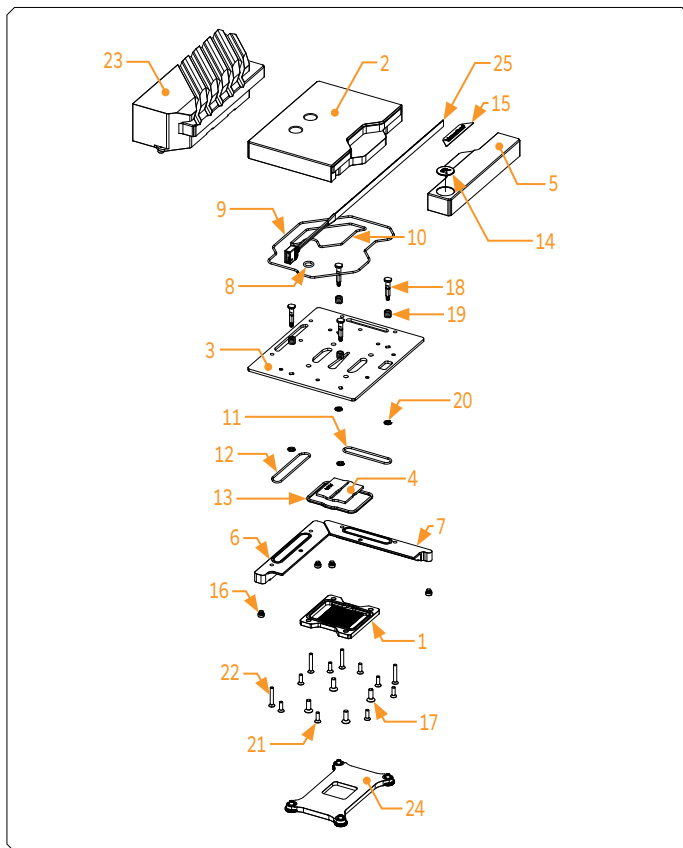


## TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS

### Technical Specification:

- Dimensions: (LxHxW) - 127 x 135 x 32.5mm
- D-RGB cable length: 500mm
- D-RGB LED count: 8
- D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground)

Position	EAN	Description	Quantity
1	103912	Coldplate (Nickel)	1
2	104666	Top plate (Plexi)	1
3	104668	Metal plate	1
4	103933	Jet plate	1
5	104667	Standout (Acetal)	1
6	104665	Mosfet W (Nickel)	1
7	104663	Mosfet N (Nickel)	1
8	104774	OR 6x1.5mm	1
9	5128	OR 117x1.5 NBR70	1
10	5081	OR 59x1.5 NBR70	1
11	5007	OR 33x1.5 EPDM 70	1
12	5159	OR 40x1.5 NBR70	1
13	104773	OR - Velocity 2 for Coldplate	1
14	100663	EK - Badge	1
15	104444	Mylar sticker	1
16	8533	Standoff M4/M2.5 x 2,5	4
17	100500	Screw M4x12 DIN7991	4
18	104913	Mounting screw	4
19	100747	Nut M3x10mm	4
20	104532	Seeger ring Velocity DIN6799	4
21	8252	Screw M3x10 7991DIN	8
22	104771	Screw M3x20 7991DIN	4
23	104671	Replacement ALU cover	1
24	104734	Backplate	1
25	101946	LED D-RGB Dense Strip - 500/200mm	1

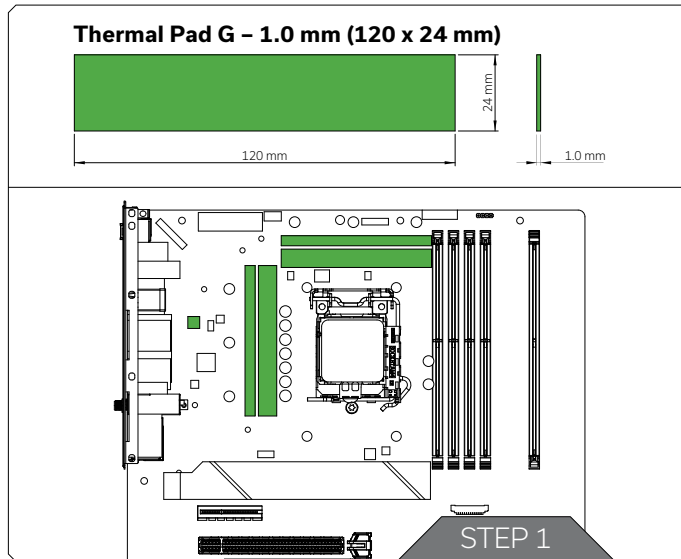


## PREPARING THE MOTHERBOARD

Place the motherboard on the flat surface and carefully remove the stock cooler and backplate. Do not forget to unplug all the LED connectors. Pay attention to the following steps in order to install the **EK-Quantum Momentum<sup>2</sup> ROG Crosshair VIII Extreme D-RGB** water block.

**Always remove the stock cooler and backplate slowly - it might be firmly glued to the motherboard via thermal pads.**

## CUTTING AND PLACING THERMAL PADS



### STEP 1

EK-Quantum Momentum<sup>2</sup> ROG Crosshair VIII Extreme D-RGB water block comes with Thermal Pads that have to be cut into smaller pieces to cover all the regulation area (Mosfet) on the motherboard.

EK made sure to provide you with more than an adequate quantity of Thermal Pads to complete this Step.



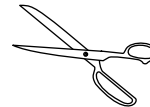
Please remove the protective foil from both sides of the thermal pads prior to installation!

Replacement thermal pads:

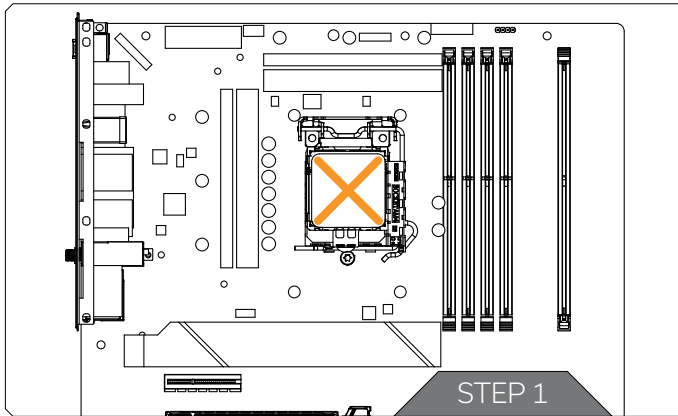
Thermal PAD G 1.0 mm - (120 x 24 mm) - 3830046996770

For this step, you will need:

Scissors



## APPLYING THERMAL COMPOUND



### STEP 1

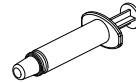
Apply the enclosed EK-TIM Ectotherm thermal grease (thermal compound) on the CPU heat spreader - IHS - as shown in the image. The layer of the thermal compound must be thin and even in thickness over the entire surface of the IHS.



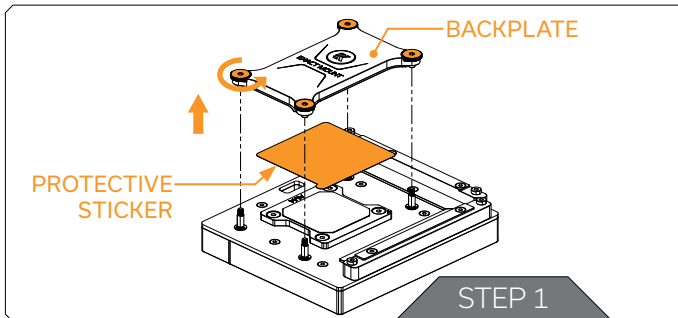
The excessive or uneven application of thermal grease may lead to poor performance!

For this step, you will need:

Thermal Grease



## PREPARING THE WATER BLOCK FOR INSTALLATION

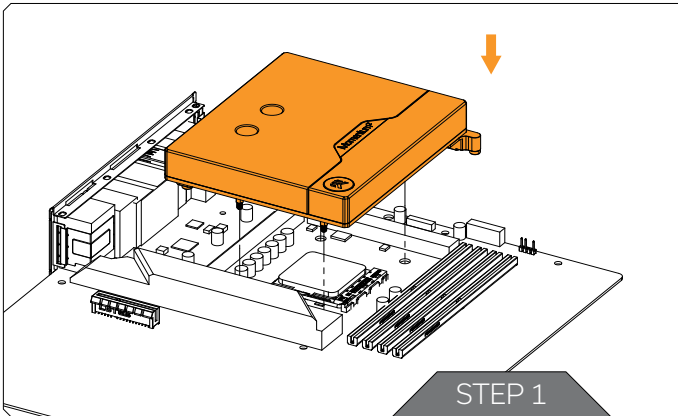


### STEP 1

Unscrew four (4) Velocity<sup>2</sup> mounting nuts (turn them in an anticlockwise direction to unscrew). Remove the backplate and save it for later steps. After the backplate is removed, do not forget to peel off the protective sticker.



## ATTACHING THE WATER BLOCK

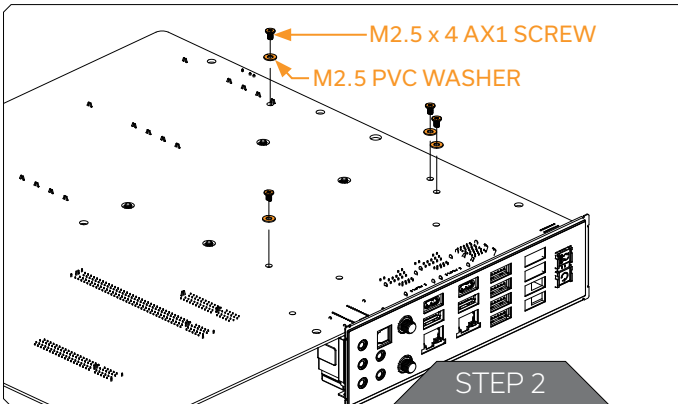


### STEP 1

Carefully place the water block onto the motherboard and align four (4) mounting screws with four (4) holes on the motherboard. Hold the water block and the motherboard and turn them upside down.



Before placing the Water Block on the motherboard, make sure all the Thermal Pads are placed correctly! (Chapter: Cutting and placing thermal pads).



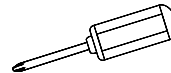
### STEP 2

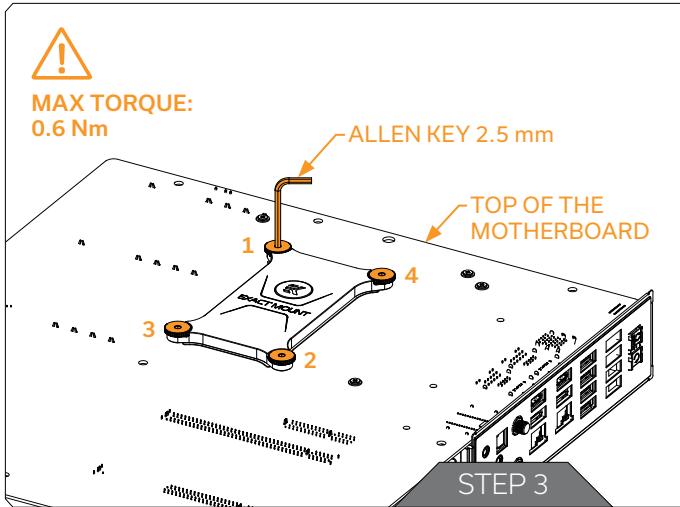
Secure the water block using four (4) M2.5x4 AX1 screws and M2.5 PVC washers. Do not use excessive force!

EK recommends using the EK-Loop Torque Screwdriver - 0.6Nm:  
<https://www.ekwb.com/shop/ek-loop-torque-screwdriver-0-6nm>

For this step you will need:

Phillips Head Screwdriver





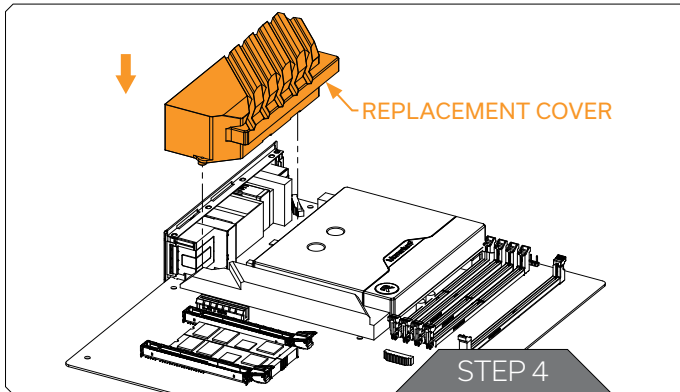
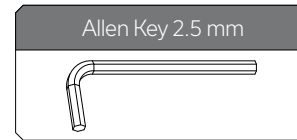
### STEP 3

After securing the water block, the stored backplate must be attached to the backside of the motherboard using Allen Key 2.5 mm (shown in the picture) or EK-Loop Torque Screwdriver. Start fastening the backplate screws in a cross pattern. Do not tighten fully until all of the nuts are partially screwed in. The Allen Key 2.5mm must be used in a standing position! Otherwise, the mounting screws may crack during tightening!

**Do not remove the protective sticker from the backplate!**

Make sure to orientate the backplate as illustrated. Incorrect installation of the backplate may result in damage to the motherboard.

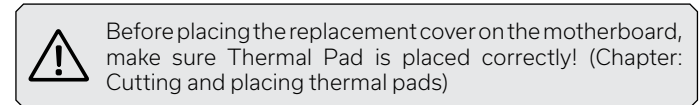
For this step you will need:

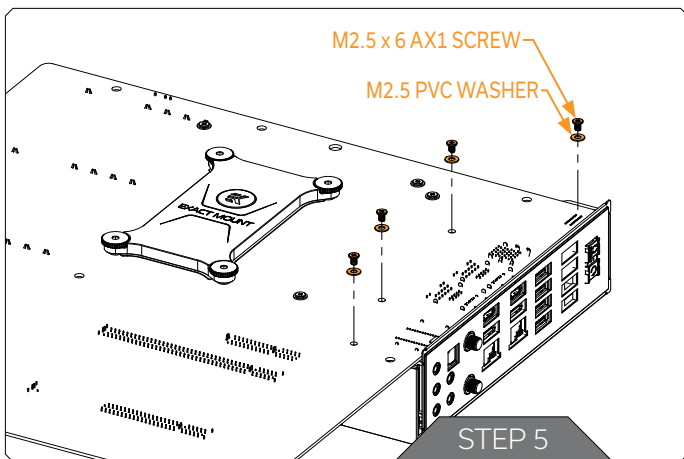


### STEP 4

Carefully place the replacement cover onto the motherboard and align four (4) mounting screws with four (4) holes on the motherboard.

Hold the replacement cover and the motherboard and turn them upside down.



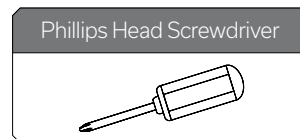


### STEP 5

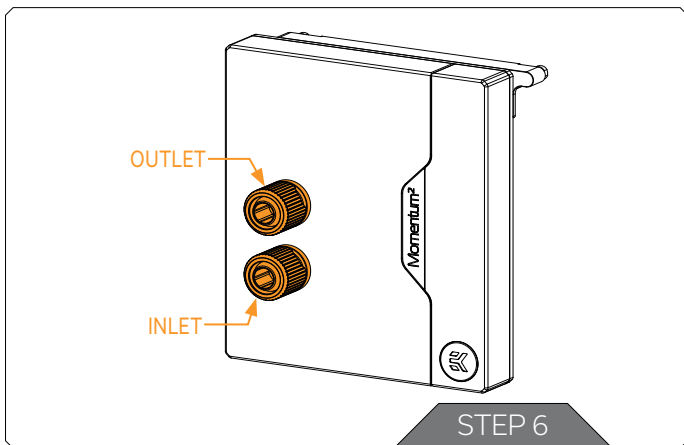
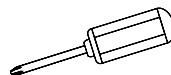
Secure the replacement cover using four (4) M2.5x6 AX1 screws and M2.5 PVC Washers. Do not use excessive force!

EK recommends using the EK-Loop Torque Screwdriver - 0.6Nm:  
<https://www.ekwb.com/shop/ek-loop-torque-screwdriver-0-6nm>

For this step you will need:



Phillips Head Screwdriver



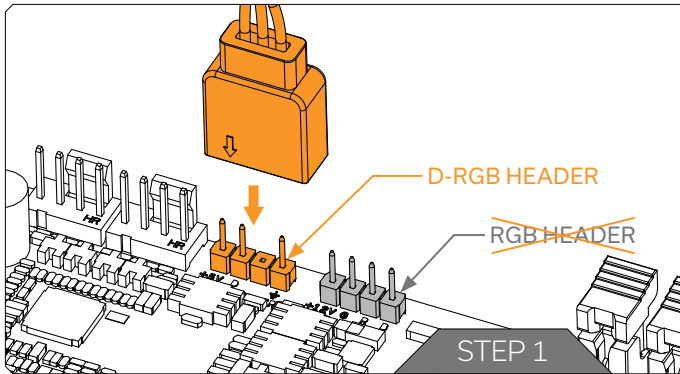
### STEP 6

With the **EK-Quantum Momentum<sup>2</sup> ROG Crosshair VIII Extreme D-RGB**, it is mandatory to use the bottom port as the INLET. Mixing the ports may result in poor thermal performance of the water block.

Tighten the fittings in a clockwise direction until the gasket underneath is compressed.

The installation of the water block is now complete.

## CONNECTING THE D-RGB LED STRIP



### STEP 1

Plug the 3-Pin connector from the water block's D-RGB LED light to the DRGB HEADER on the motherboard. The LED will work if the pin layout on the header is as follows: +5V, Digital, empty, Ground.



Please ensure that the arrow indicated on the connector is plugged into the +5V line as indicated on your motherboard. If you put the LED Diode to the 12V RGB HEADER you can damage the LEDs. Failure to do so will damage your motherboard or LED strip.

## 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.

## 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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