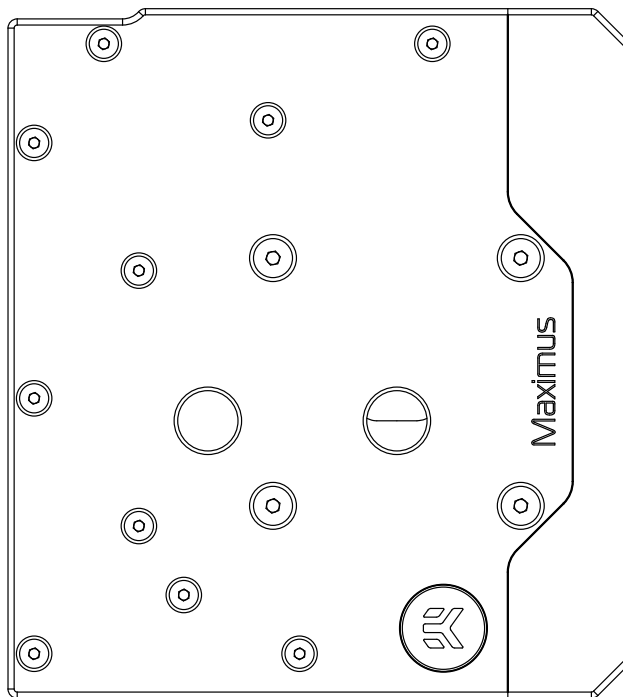


# EK-Quantum Momentum ROG Maximus XIII Hero D-RGB

MONOBLOCK



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 beginning with 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 motherboard from the chassis for the safest mounting process and to prevent damaging your CPU and/or motherboard's 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.**

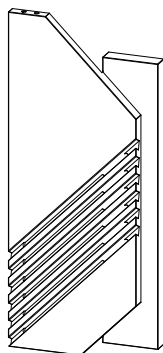
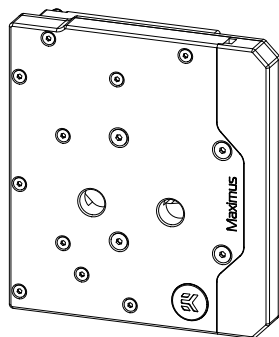
**Do not use pure distilled water as a cooling liquid! For best results, EK recommends the use of EK-CryoFuel Coolants. Make sure to bleed air out of your water block thoroughly in order to reach optimal performance.**

**EK only guarantees compatibility with included EK-brand thermal pads. Installation process, cooling performance and block contacts are tested exclusively with EK-brand thermal pads. Listed thermal pad thicknesses apply only to thermal pads included in the package. EK does not guarantee compatibility with aftermarket alternatives for thermal interface material.**

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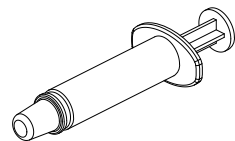
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## BOX CONTENTS

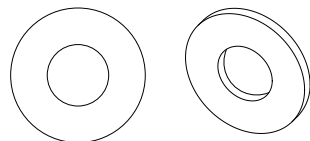


EK-Quantum Momentum ROG Maximus XIII Hero D-RGB

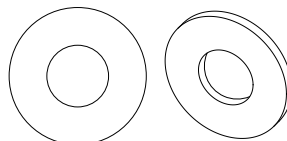
**Mounting Mechanism** – You may not need every screw from this package. EAN: 3831109872338



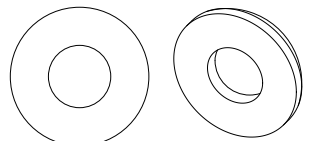
EK-TIM Ectotherm (1g) (1 pc)



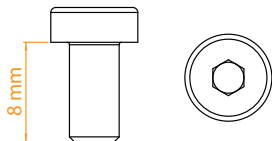
PA M4 Washer 0.8 mm (5 pcs)



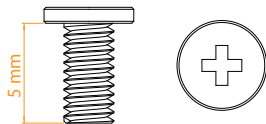
PA M2.5 Washer 0.5 mm (5 pcs)



PA Self Adhesive M2.5 PVC Washer 0.7 mm (5 pcs)



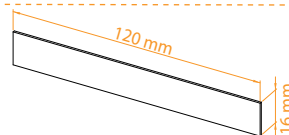
M4x8 DIN7984 Screw (5 pcs)



M2.5 x 5 AX1 Screw (5 pcs)



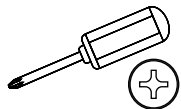
Allen Key 2.5. mm (1 pc)



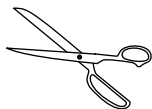
Thermal Pad F 1.0 mm (3 pcs)  
EAN 3830046996732

## REQUIRED TOOLS

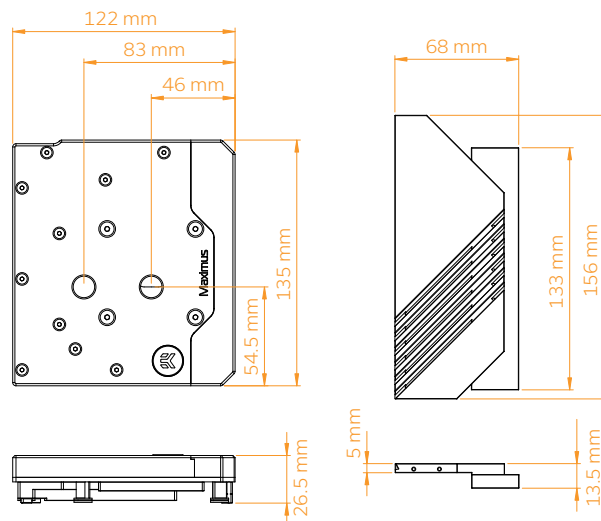
Phillips Head Screwdriver



Scissors



## MONOBLOCK DIMENSIONS



## TECHNICAL SPECIFICATIONS AND PRODUCT PARTS

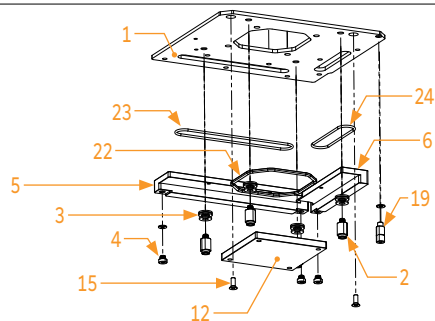
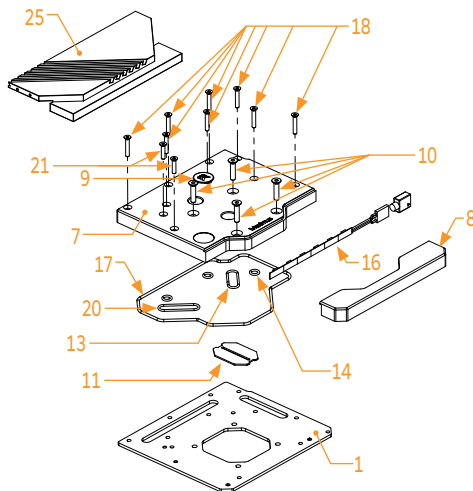
### Technical Specification:

Dimensions (monoblock) (L x H x W): 122 x 26.5 x 135 mm

D-RGB (Adressable RGB) Cable Length: 500 mm

D-RGB LED Count: 6 (Plexi version)

D-RGB Connector: Standard 3-Pin (+5V, Data, Blocked, Ground)

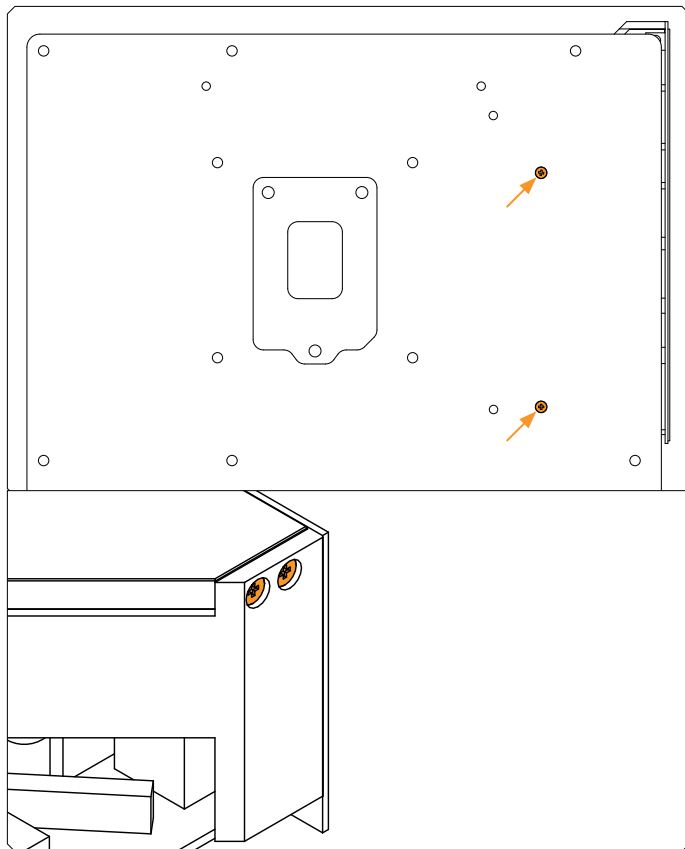


Position	EAN	Description	Quantity
1	103598	Metal plate	1
2	102725	Standoff M4/M4 x 11	4
3	103307	Standoff Ø9.9/5.5 x 2.3	4
4	8533	Standoff M4/M2.5 x 2.5	3
5	103592	Copper - MOSFET N (Ni)	1
6	103594	Copper - MOSFET W (Ni)	1
7	103595	Top Plexi	1
	103596	Top Acetal	
8	103597	Top Acetal Stickout	1
9	100663	EK RGB Badge	1
10	9039	M4 x 18 DIN7991 Screw	4
11	100629	Jet Plate	1
12	1724N	Copper - CPU Coldplate (Ni)	1
13	5163	O-ring 18 x 1.5	1
14	5209	O-ring 6 x 1.5 NBR70	3
15	8208	M3 x 8 DIN7991 Screw	2
16	100199	LED D-RGB Strip (for plexi version only)	1
17	5055	O-ring 118 x 2 N700	1
18	9017	M3 x 18 DIN7991 Screw	8
19	8980	Standoff M4/M2.5 x 11.65	1
20	5090	O-ring 23 x 1.5 NBR70	1
21	8203	M3x14 DIN7991 Screw	2
22	100078	Main O-ring	1
23	5024	O-ring 62 x 1.5 N700	1
24	5087	O-ring 37 x 1.5 NBR70	1
25	103600	Alu - I/O Cover	1

## PREPARING YOUR MOTHERBOARD

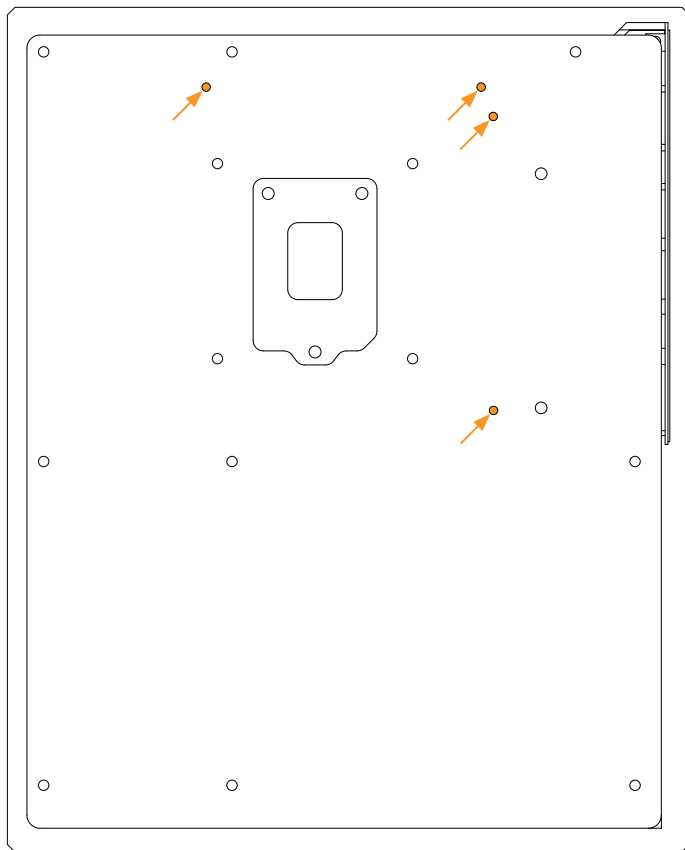
### REMOVING THE PLASTIC I/O COVER

Unscrew the two (2) bottom screws to remove the plastic I/O cover.



Unscrew the two pairs of screws holding the side covers in place. Put the screws aside as you will have to reattach the covers later. Remove the two standoffs from the I/O cover. You must use these two standoffs to attach the included aluminium I/O cover.

Unplug and remove the RGB LED module from the factory I/O cover and set it aside.



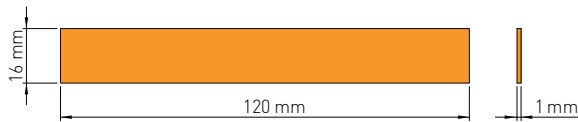
## REMOVING THE STOCK COOLER

Unscrew the four (4) screws. These must be removed in order to remove the factory-installed MOSFET cooling solution from the motherboard.

After removing the screws, carefully detach the stock cooler and pre-applied thermal pads. EK provides replacement thermal pads with the water block (see Chapter: CUTTING AND PLACING THERMAL PADS).



### Thermal Pad F – 1.0 mm



## CUTTING AND PLACING THERMAL PADS

Your monoblock comes with thermal pads that need to be trimmed to fit the voltage regulation area (MOSFET) on the motherboard's circuit board.

Place larger strips of thermal pads over the marked area and make sure all MOSFET and inductor chips are covered, as shown in the picture.

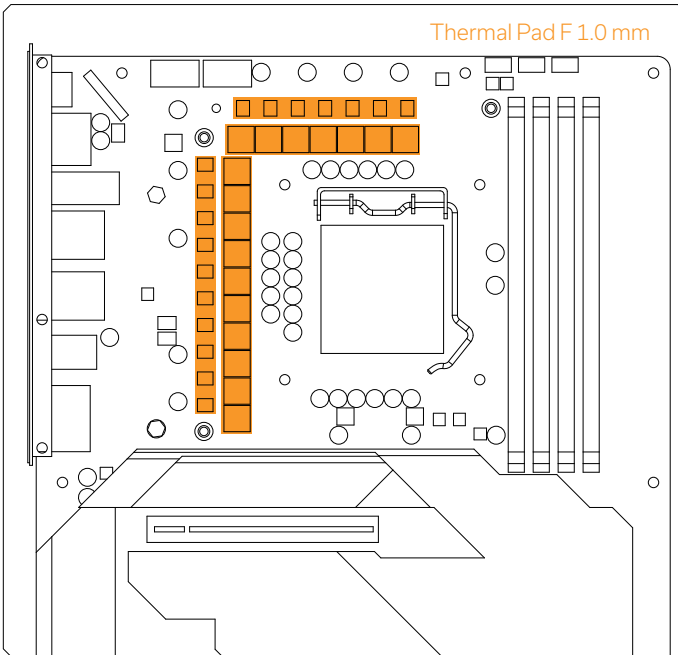


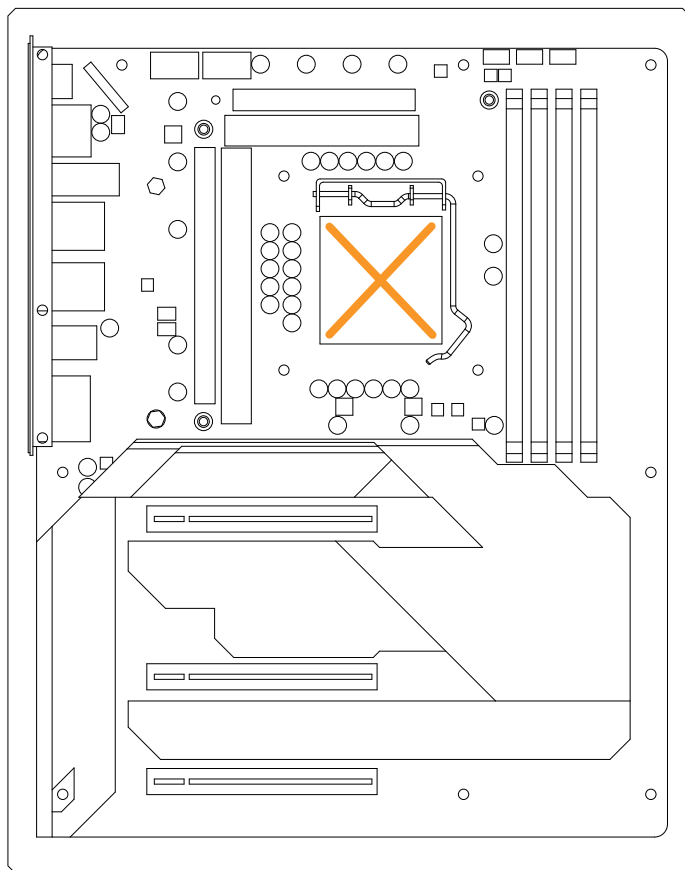
**CAUTION:** Remove the protective foil from both sides of the thermal pad before installation.



**CAUTION:** EK only guarantees compatibility with included EK-brand thermal pads. Installation process, cooling performance and block contacts are tested exclusively with EK-brand thermal pads. Listed thermal pad thicknesses apply only to thermal pads included in the package. EK does not guarantee compatibility with aftermarket alternatives for thermal interface material.

Thermal Pad F 1.0 mm





## APPLYING THERMAL COMPOUND

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.

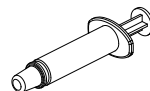
Use a plastic spatula (a credit card works great) to spread the thermal compound across the IHS evenly.



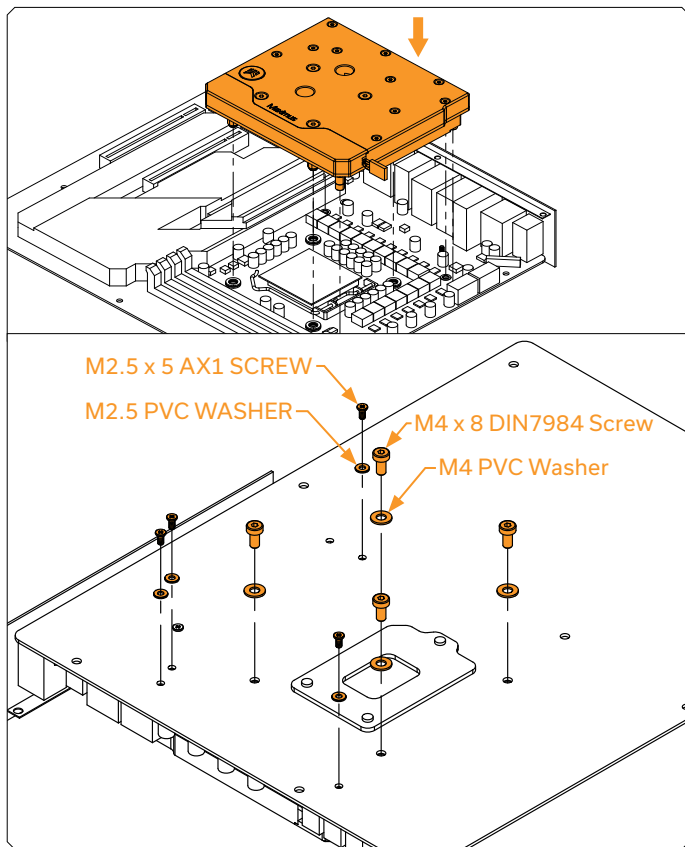
**CAUTION:** Excessive or uneven application of thermal grease may lead to poor performance!

For this Step, you will need:

Thermal Grease  
EAN: 3830046998446



## INSTALLING THE MONOBLOCK








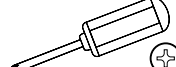
Carefully place your EK-Quantum Momentum ROG Maximus XIII Hero water block on the motherboard or vice versa, as shown in the picture. Make sure the holes are aligned.

Before you fasten the screws, make sure the mounting holes on the motherboard's circuit board are aligned with the water block. When tightening the screws, do not use excessive force!

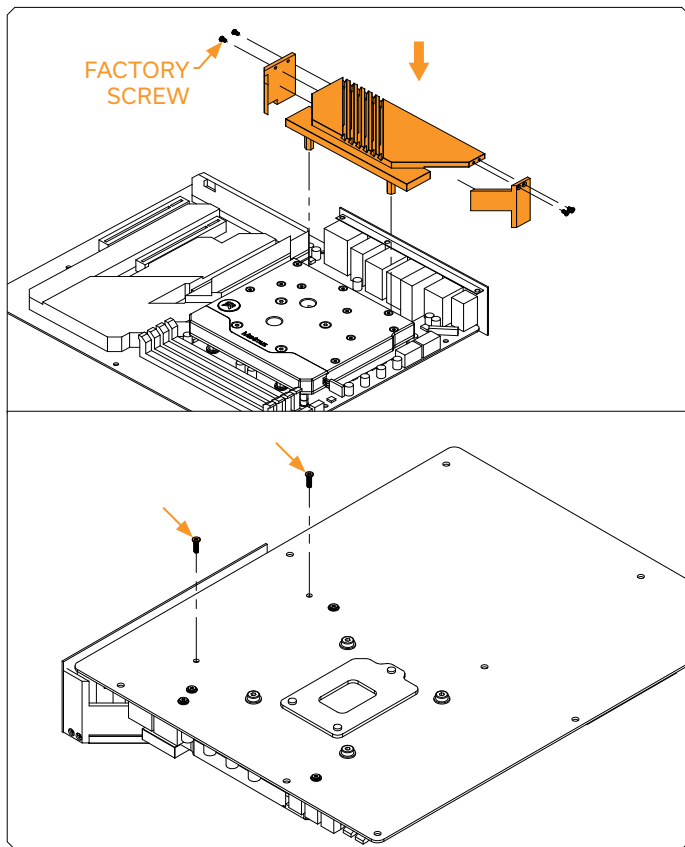
For the central 4 holes (CPU), use four (4) M4x8 DIN7984 screws with M4 polyamid washers. Tighten the screws evenly using the enclosed 2.5 mm Allen key.

For the outer 4 holes (MOSFET), use four (4) M2.5x5 AX1 screws with M2.5 polyamid washers. Tighten the screws evenly using a Phillips head screwdriver.

For this Step, you will need:

<p>M4 x 8 Screw DIN7984 (4 pcs)</p> 	<p>M 4 PVC Washer (4 pcs)</p> 	<p>Allen Key 2.5 mm</p> 
<p>M2.5 x 5 AX1 Screw (5 pcs)</p> 	<p>Self Adhesive M2.5 PVC Washer (5 pcs)</p> 	<p>Phillips Head Screwdriver</p> 

## INSTALLING THE I/O COVER



Make sure the factory standoffs are attached to the enclosed I/O cover before proceeding. Reattach the LED module to the cover.

Place the I/O cover on the motherboard and attach the two side covers with the factory screws.

Turn the motherboard over and use the original two (2) screws to attach the I/O cover to the motherboard.

For this Step, you will need:

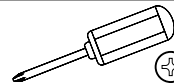
M2.5 x 5 AX1  
Screw (5 pcs)



Self Adhesive M2.5  
PVC Washer (5 pcs)

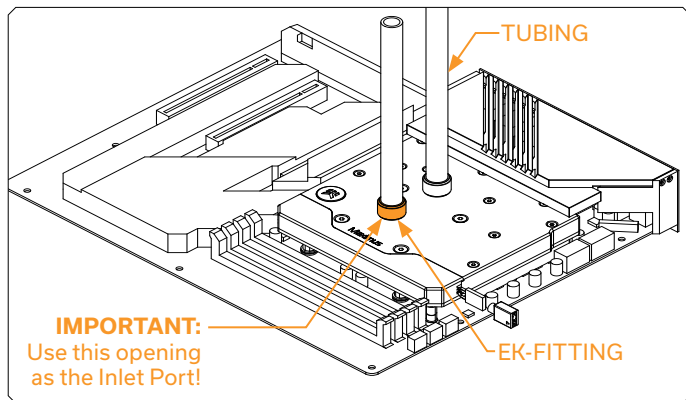


Phillips Head  
Screwdriver



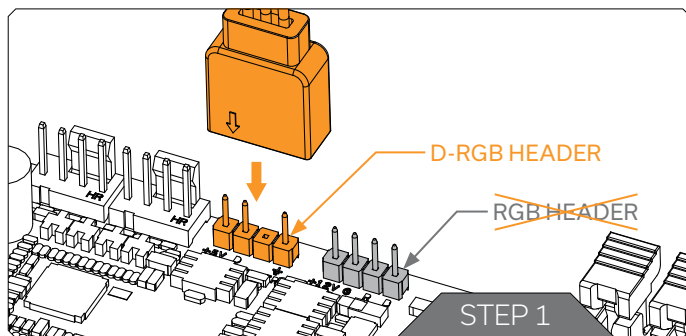
Do not forget to plug in the I/O cover LED connector before securing the screws!

## INSTALLING FITTINGS AND TUBING



For the EK-Quantum Momentum ROG Maximus XIII Hero D-RGB monoblock to operate properly, the G1/4 port nearest to the right side of the water block (and the EK badge) **MUST BE USED AS THE INLET PORT**.

## CONNECTING THE D-RGB LED STRIP



Plug the 3-pin connector from the monoblock's D-RGB LED light to the D-RGB Header on the motherboard. The LEDs will work if the pin layout on the header is as follows: **+5V, Data, Empty, Ground**.

## TESTING THE LOOP

To make sure 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 of 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, ensure that 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 PRODUCT 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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