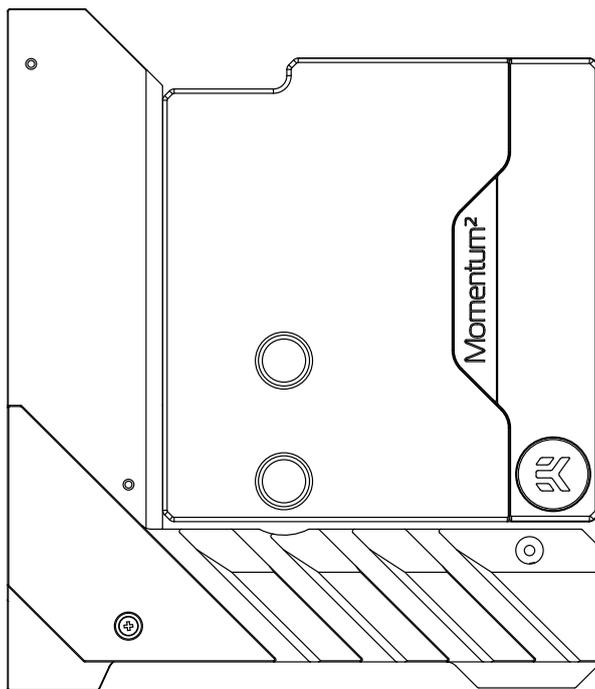


# EK-Quantum Momentum<sup>2</sup> ROG Strix Z690-I Gaming D-RGB - Plexi

MONOBLOCK



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.**

**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!**

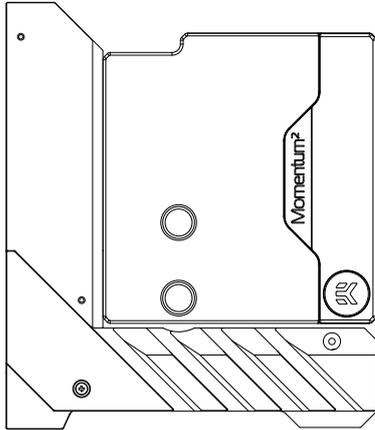
**Do not use pure distilled water!**

**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!**

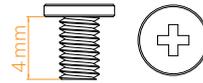
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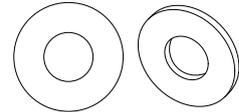
## BOX CONTENTS



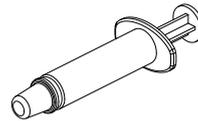
EK-Quantum Momentum² ROG Strix Z690-I Gaming D-RGB - Plexi



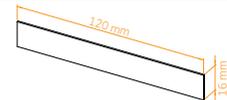
M2.5x4 AX1 Screw (5 pcs)



PVC Washer M2.5 (5 pcs)



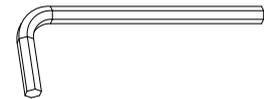
Thermal Grease (1 pc)



Thermal Pad F 1.5 mm  
120 x 16 mm (3 pcs)

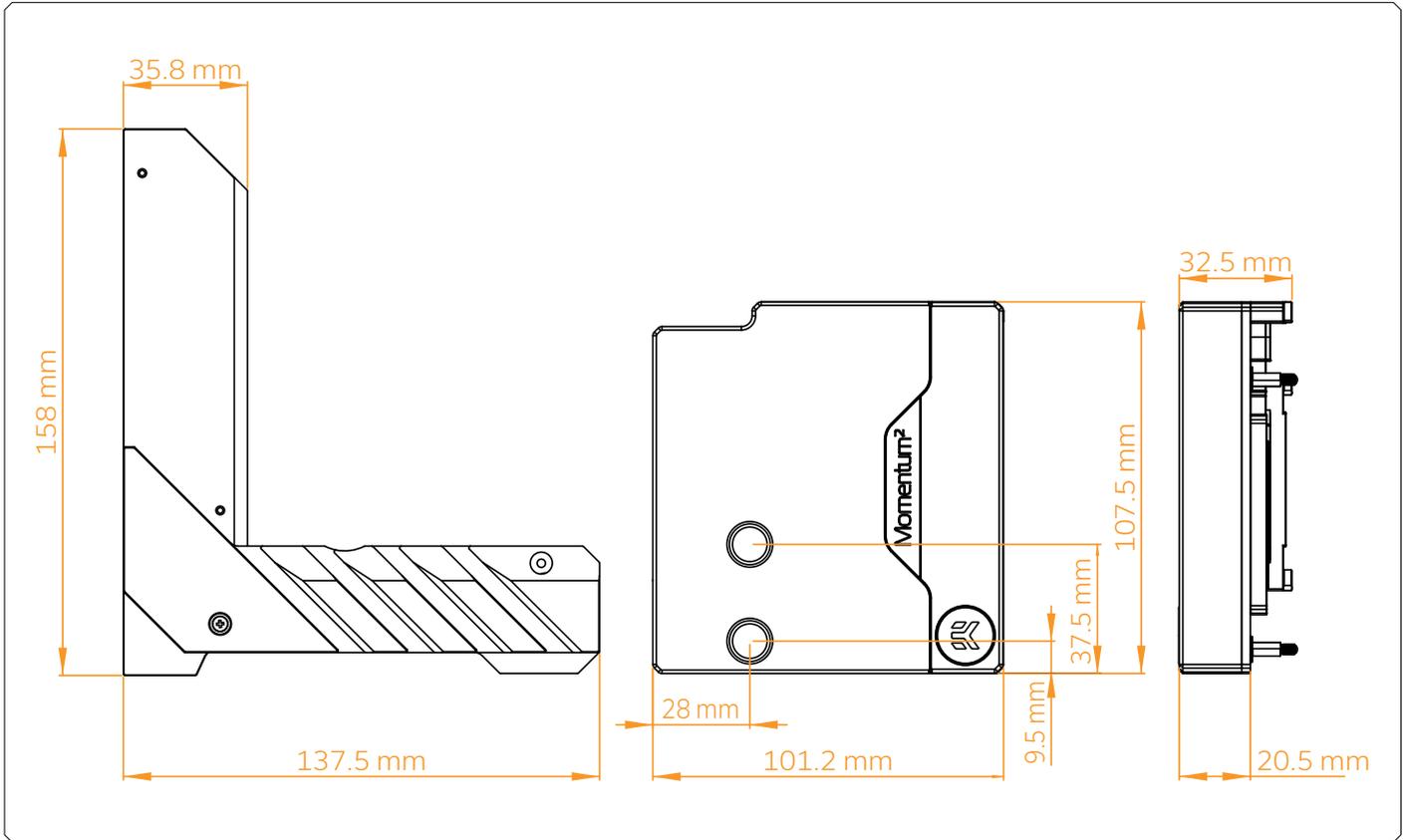


Allen Key 2 mm (1 pc)



Allen Key 2.5 mm (1 pc)

# WATER BLOCK DIMENSIONS

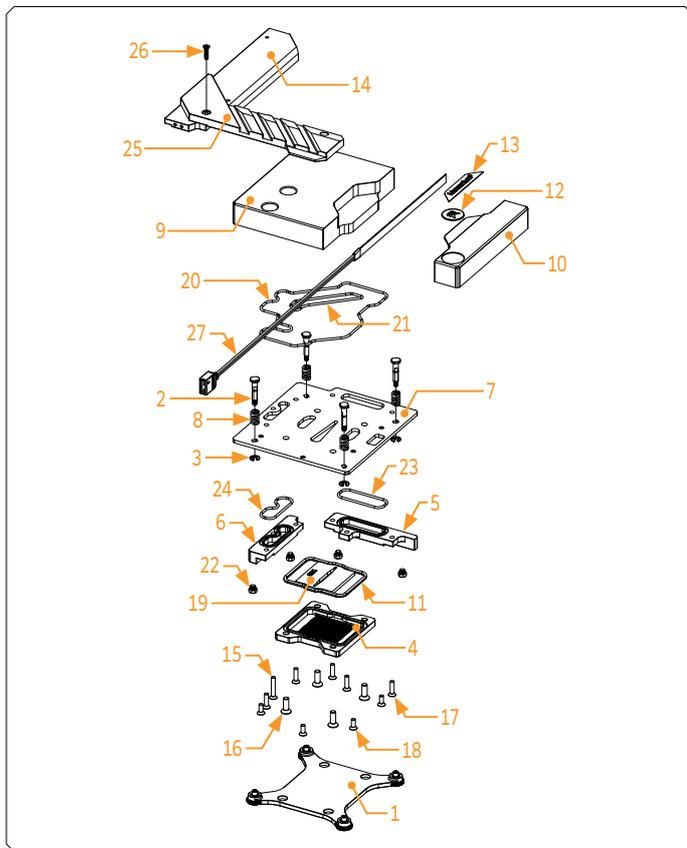


## TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS

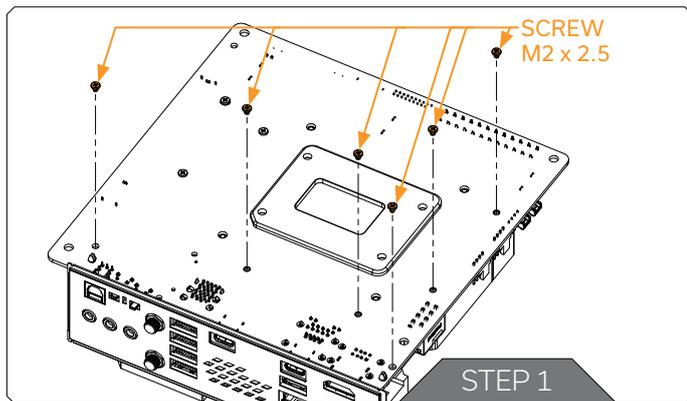
### Technical Specification:

- D-RGB cable length: 500 mm
- D-RGB LED count: 15
- D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground)

Position	EAN	Description	Quantity
1	104650	Backplate (Black e.)	1
2	104913	Mounting Screw (Ni)	4
3	104532	Seeger ring 2.3 mm	4
4	104028	Coldplate (Nickel)	1
5	105383	Mosfet N (Nickel)	1
6	105385	Mosfet W (Nickel)	1
7	105392	Mid plate	1
8	100747	Spring M3 x 10 mm	4
9	105391	Top Plate (Plexi)	1
10	105390	Standout (Acetal)	1
11	104773	Coldplate OR 53 x 2.5 mm	1
12	100663	EK - Badge	1
13	104444	Mylar sticker	1
14	105378	Replacement cover 1 (Black e.)	1
15	103734	Screw M3 x 18 7991DIN	1
16	100500	Screw M4 x 12 DIN7991	4
17	104353	Screw M3 x 12 DIN7991	5
18	8208N	Screw M3 x 8 7991DIN	4
19	104029	Jet Plate 1700	1
20	5091	OR 110 x 2 mm	1
21	5087	OR 38 x 2 mm	1
22	8533	Standoff M4/M2.5 x 2.5 mm	4
23	5018	OR 28 x 1.5 mm	1
24	5035	OR 25 x 1.5 mm	1
25	105381	Replacement cover 2 (Black e.)	1
26	104344	Screw M2.5 x 10 AX1	1
27	103155	LED D-RGB Strip - 500/130 mm	1



## PREPARING THE MOTHERBOARD



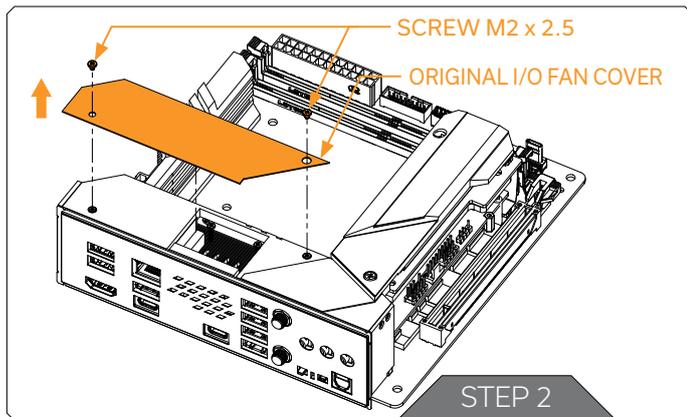
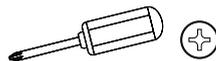
Important! Before starting, make sure to have a clean, flat surface to work on. It is recommended that you put foam or soft material to lay a motherboard and water block on.

### STEP 1

First, remove the six (6) M2 x 2.5 screws shown in the image.

For this step, you will need:

Phillips Head Screwdriver

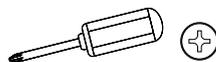


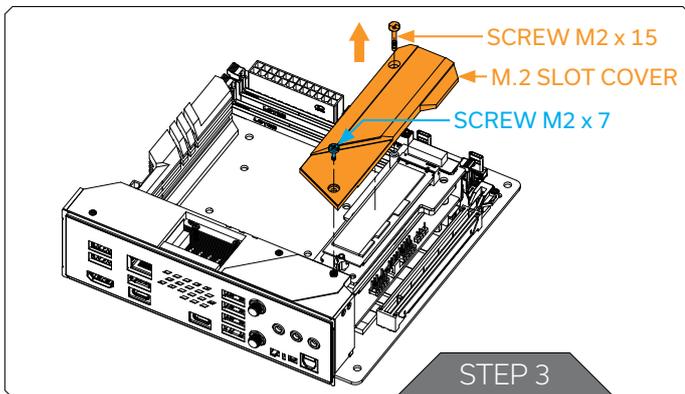
### STEP 2

Rotate the motherboard and remove an additional two (2) M2 x 2.5 screws. After removing the screws, detach the original I/O Fan Cover. Save the screws and cover for later use.

For this step, you will need:

Phillips Head Screwdriver





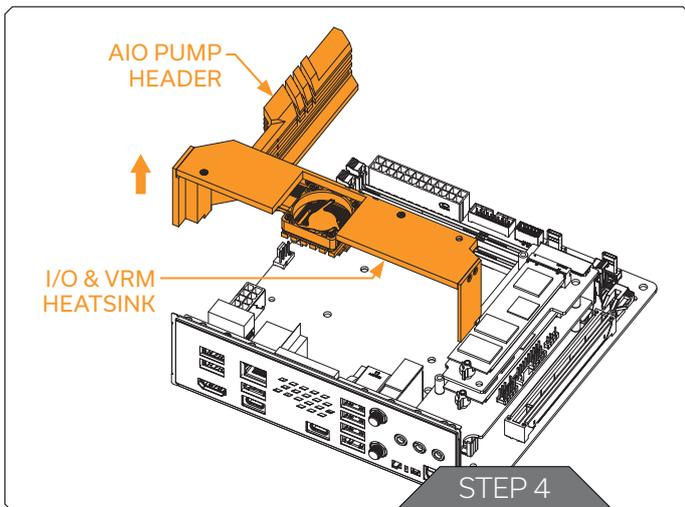
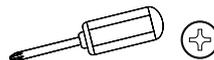
### STEP 3

The M.2 Slot Cover also needs to be removed. Unscrew one (1) M2 x 7 and one (1) M2 x 15 Screw.

Save the M.2 Slot Screws for the later steps.

For this step, you will need:

Phillips Head Screwdriver



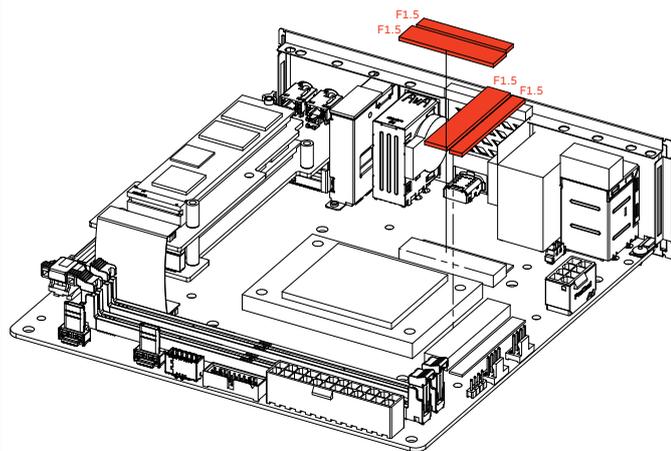
### STEP 4

Carefully detach the Stock Cooler and not forget to unplug the Fan Connector from the motherboard.

Save the Stock Cooler for later steps.

## CUTTING AND PLACING THERMAL PADS

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



F1.5 Thermal Pad - 120 x 16 x 1.5 mm

STEP 1

### STEP 1

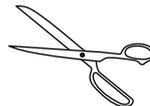
EK- Quantum Momentum<sup>2</sup> ROG Stix Z690-I Gaming D-RGB water block comes with Thermal pads that have to be cut into smaller pieces to cover all the regulation area (Mosfet) on the motherboard.

Replacement thermal pads:

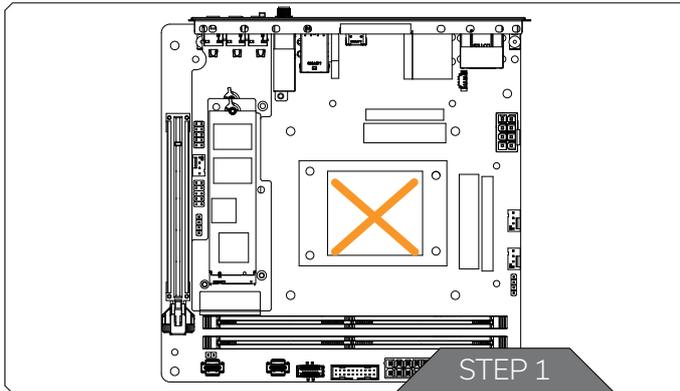
Thermal PAD F 1.5 mm - (120 x 16 mm) - 3830046996749

For this step, you will need:

Scissors



## APPLYING THERMAL COMPOUND



### STEP 1

Apply the thermal paste (thermal compound) on the CPU heat spreader - IHS. The layer of the thermal compound must be thin and even in thickness over the entire surface.



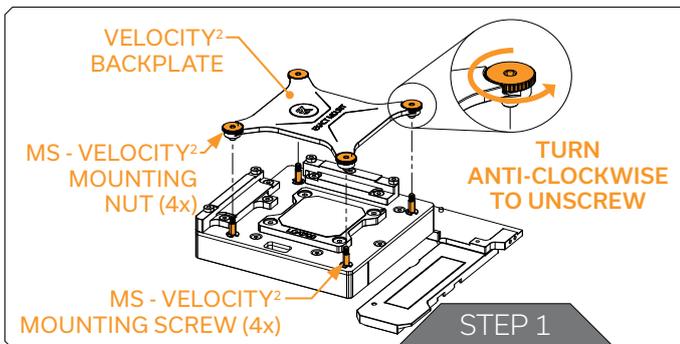
The excessive or uneven application of thermal grease may lead to poor performance!

For this step, you will need:

Thermal Grease



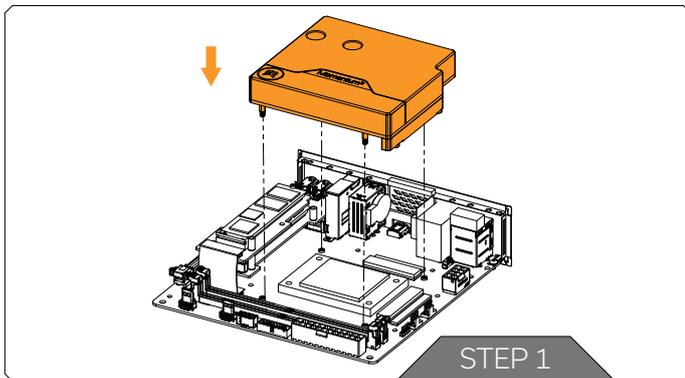
## PREPARING THE WATER BLOCK FOR INSTALLATION



### 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

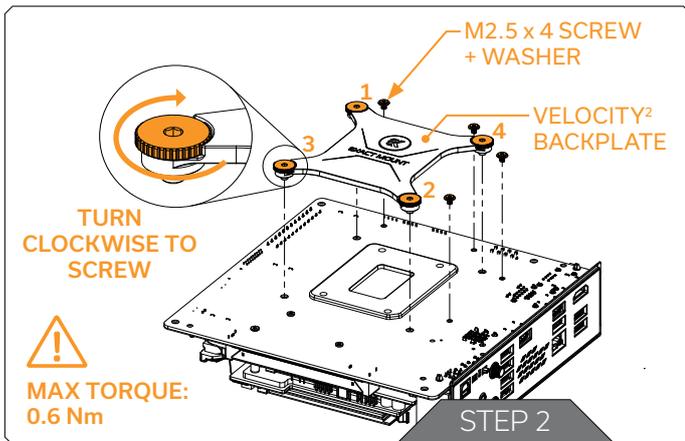


### STEP 1

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

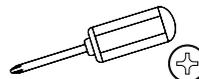
Align the Backplate with the water block mounting screws. Turn the backplate mounting nuts in the clockwise direction according to the numerical order shown in the image.

After securing the backplate, screw in four (4) M2.5 x 4 Screws and Washers (from the mounting bag) as shown in the picture.

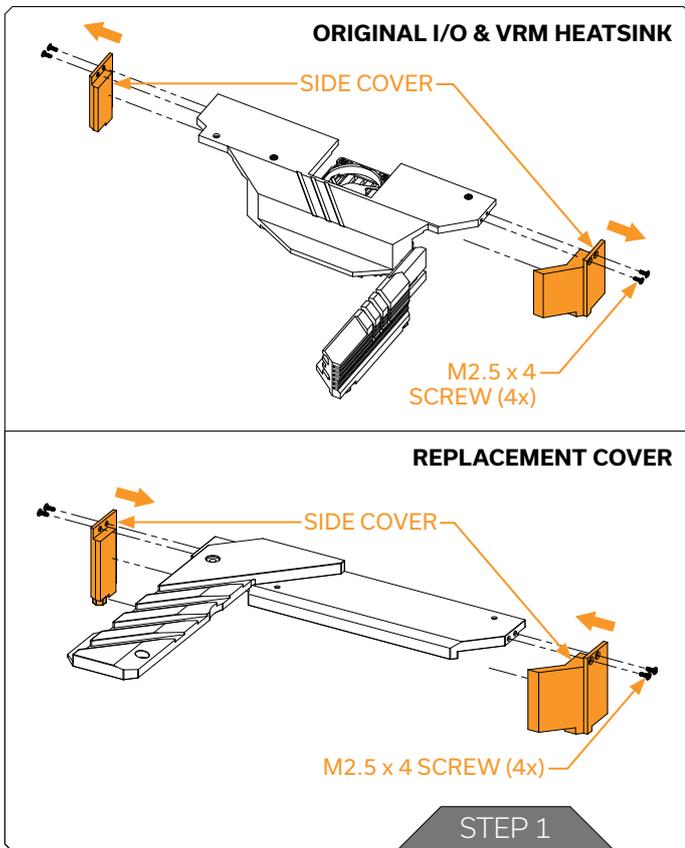
### Do not use excessive force!

For this step you will need:

Phillips Head Screwdriver



## ATTACHING THE REPLACEMENT COVER

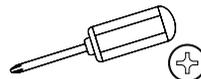


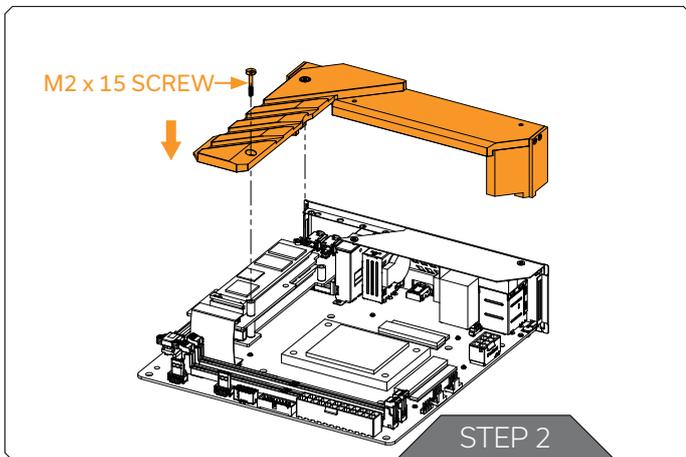
### STEP 1

From the Original I/O & VRM Heatsink, remove the side covers and attach them to the EK replacement cover.

For this step you will need:

Phillips Head Screwdriver



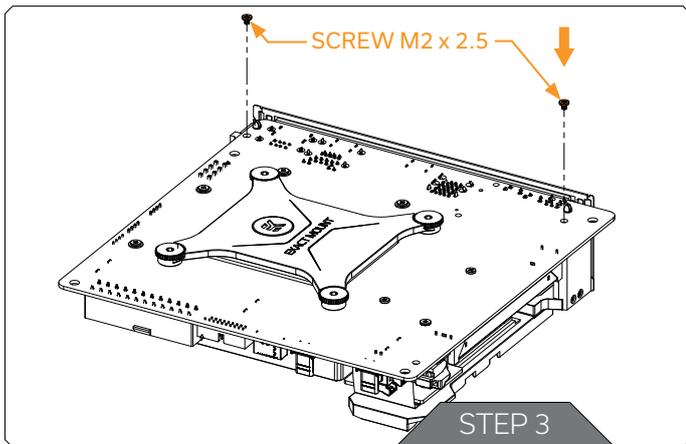
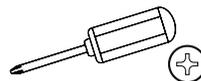


## STEP 2

After attaching the side covers, mount the Replacement Cover onto the motherboard using the one (1) saved M2 x 15 M.2 Slot screw (From Chapter: PREPARING THE MOTHERBOARD; STEP 3).

For this step you will need:

Phillips Head Screwdriver

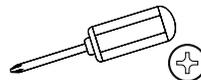


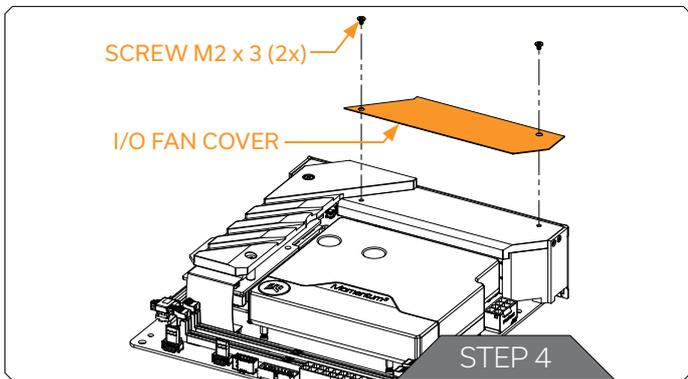
## STEP 3

Rotate the motherboard and reuse two (2) M2 x 2.5 saved Screws (From Chapter: PREPARING THE MOTHERBOARD; STEP 1).

For this step you will need:

Phillips Head Screwdriver

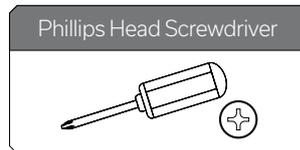




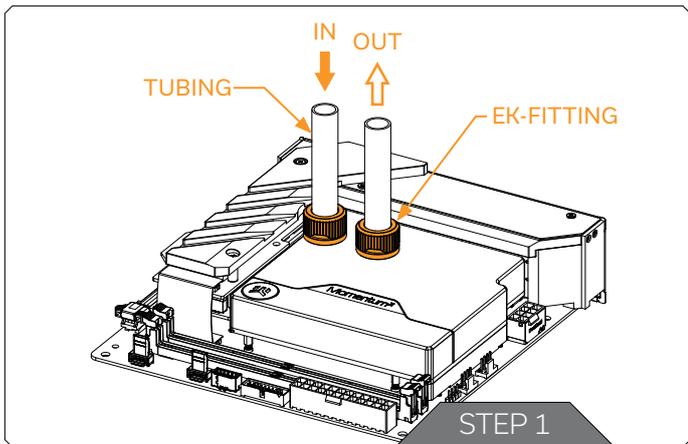
#### STEP 4

The saved I/O Fan Cover can be also reused and attached using M2 x 3 Screws (From Chapter: PREPARING THE MOTHERBOARD; STEP 2).

For this step you will need:



## FITTINGS AND TUBING

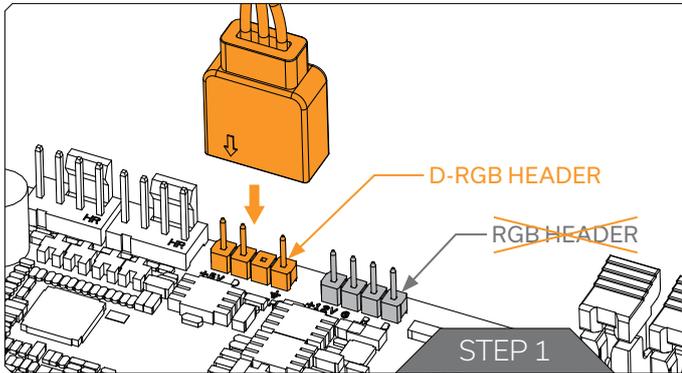


#### STEP 1

With the EK-Quantum Momentum<sup>2</sup> ROG Strix Z690-i D-RGB water block, 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** 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**.



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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