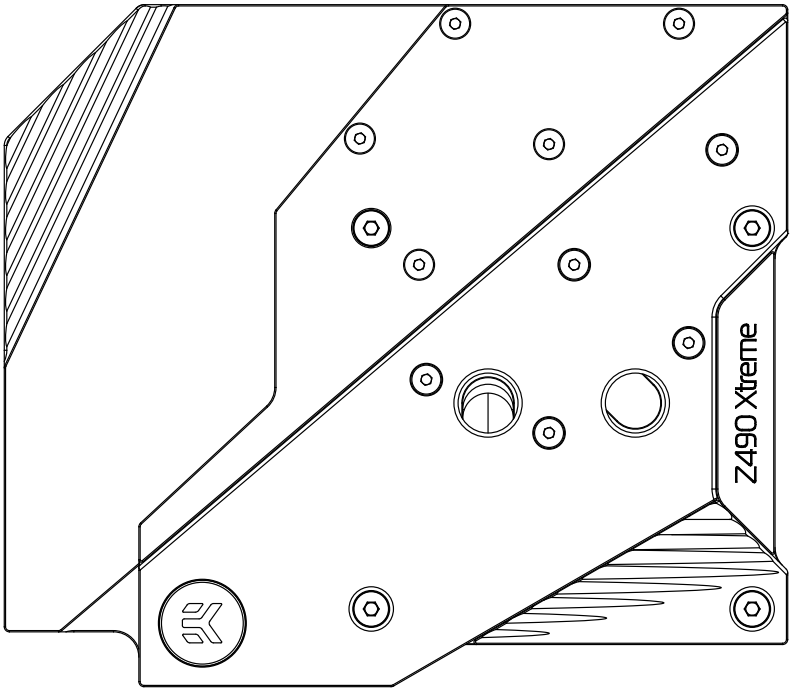
EK-Quantum
Momentum Aorus Z490 Xtreme D-RGB

MONOBLOCK



This product is intended for installation by expert users only. Please consult with a qualified technician since improper installation may result in damage to equipment. EK assumes no liability whatsoever, expressed or implied, for the use of this product, nor its installation. The following instructions are subject to change without notice. Please visit our website at www.ekwb.com for updates. Before installing this product, please read the important notice, disclosure, and warranty stipulation printed on the back of the box.

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 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.

Some 3D models in this installation manual were created for illustrative purposes only. They are just approximations of the actual motherboard elements.

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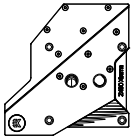
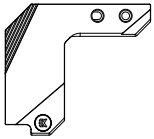
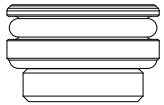
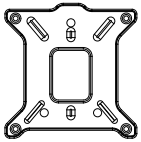
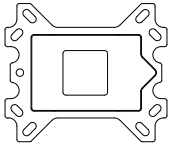
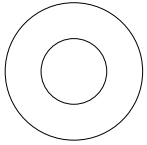
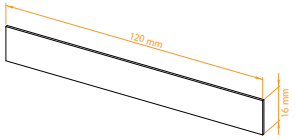
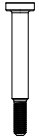
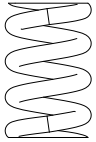
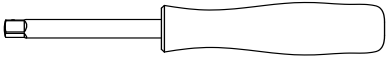
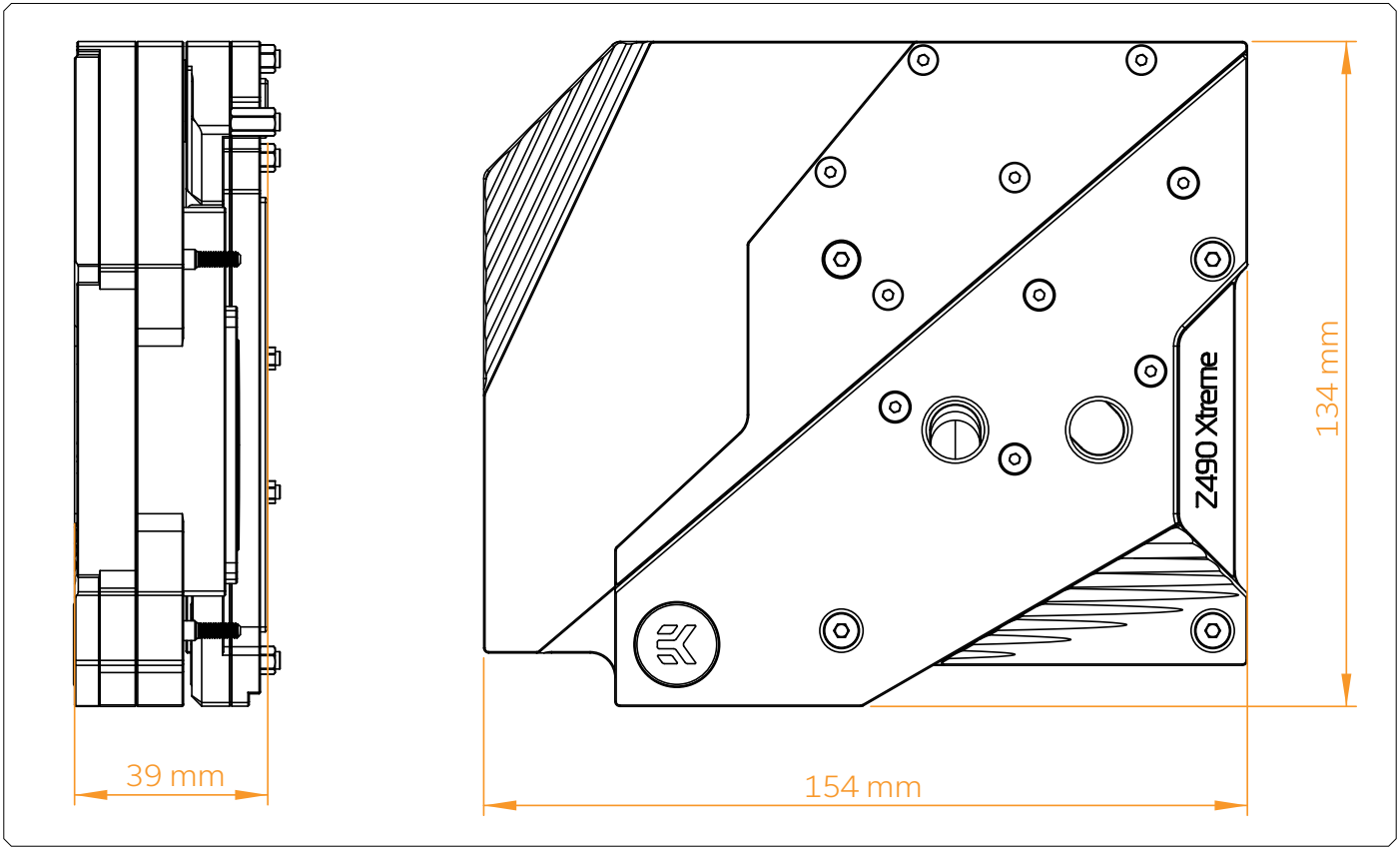
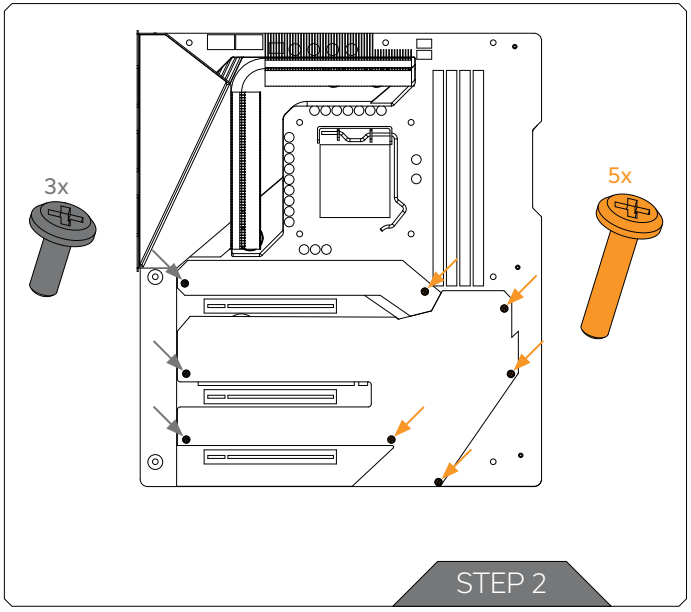
 CPU Water Block (1x)	 VRM Water Block (1x)	 Bridge Extenders (2x)
 Backplate (1x)	 Rubber Gasket (1x)	 Standoff (1x)
 Plasic Washer (4x)	 Thermal Pad F 120 x 16 x 1.0 mm (2x)	 Thermal Grease (1x)
 CPU Screw (4x)	 Spring (4x)	 Spinner Head With Hex 4 and Hex 5 Adapters (1x)

MONOBLOCK DIMENSIONS



INSTALLATION GUIDE

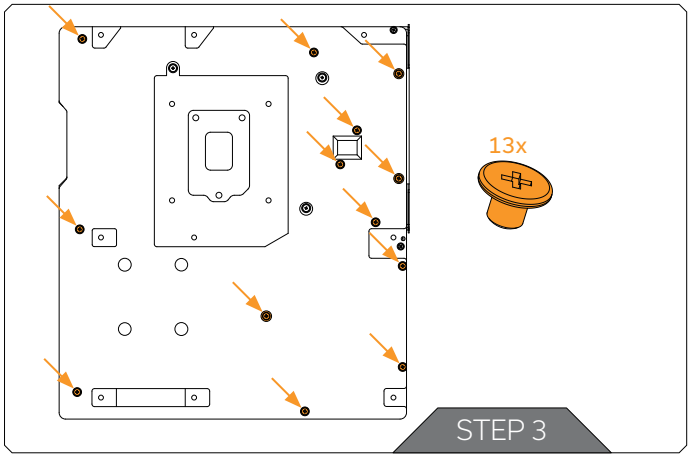


STEP 1

Install your **CPU** first to prevent damaging the socket during monoblock installation.

STEP 2

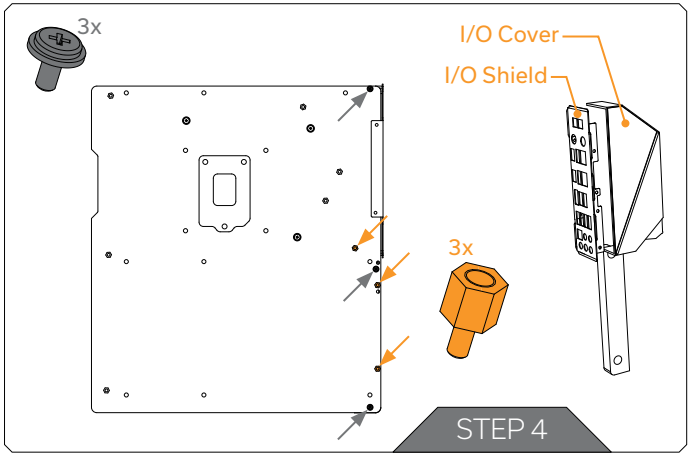
Once you remove eight screws as illustrated in the image (three M2x5 on the left and five M2x9 on the right), you can proceed to remove two **front covers** from the motherboard. Keep all these screws someplace safe since you will need them later.



STEP 3

Remove all thirteen screws that are holding the **motherboard backplate** and remove the backplate itself. Watch for the thermal pads – they might fall off in the process.

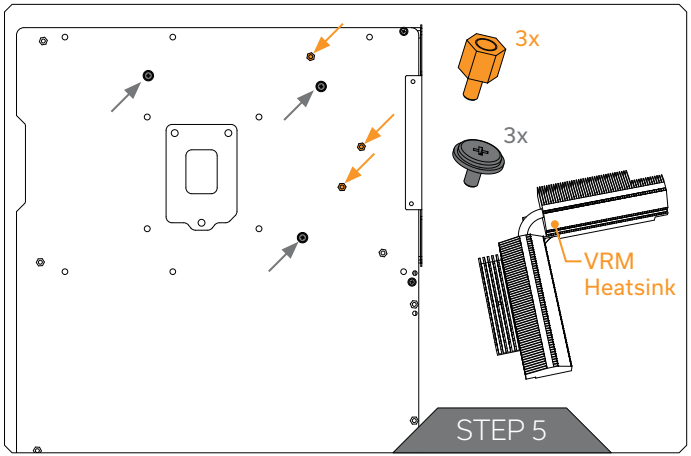
Keep all these screws someplace safe since you will need them later.



STEP 4

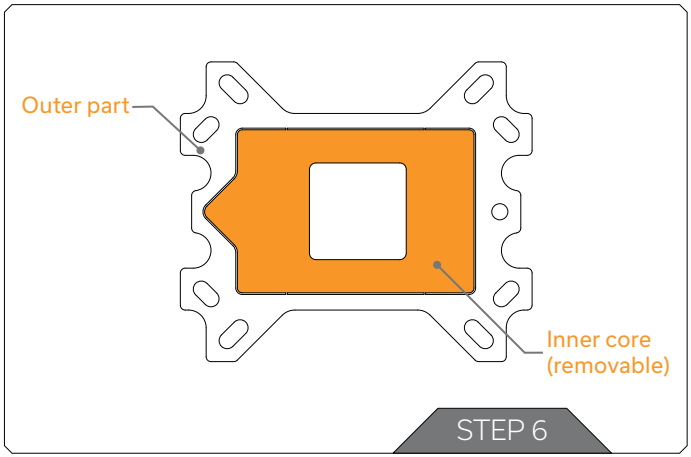
Remove the 3 standoffs illustrated below with the enclosed spinner handle and hex 4 and 5 adapters, and three screws under the backplate for the vertical **I/O cover** and **I/O shield** to come off. Then, disconnect the I/O cover's RGB cable from the motherboard.

Save all of the standoffs and screws for later.



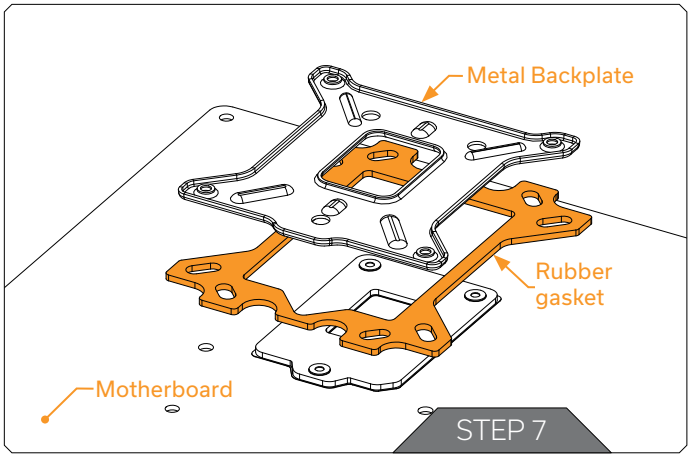
STEP 5

To remove the **VRM heatsink** from the motherboard, you must first remove the three standoffs and three screws.
Save them all for later.



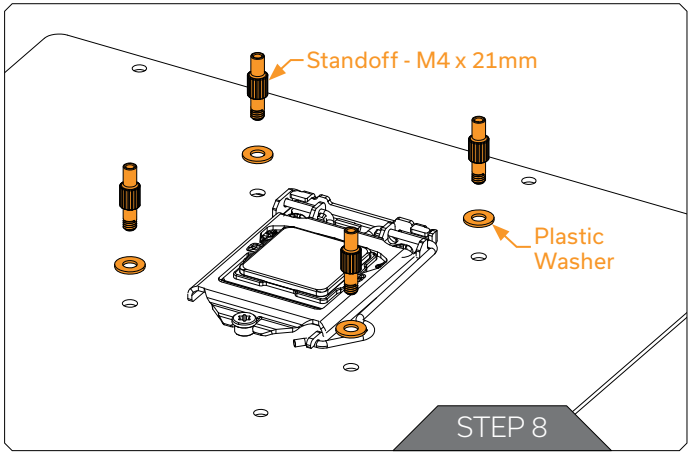
STEP 6

The **rubber gasket** is an essential part of the mounting mechanism and must be used. The inner core of the gasket must be removed!



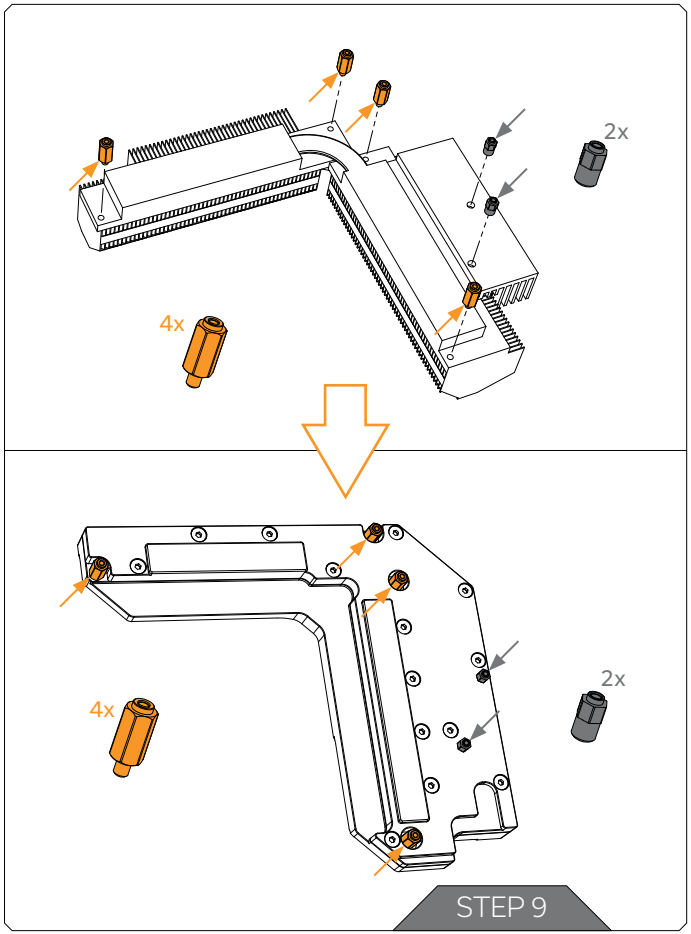
STEP 7

Turn your motherboard face-down and position the **rubber gasket** and **backplate** directly in line with the mounting holes. The ribbed side of the backplate should be facing up!



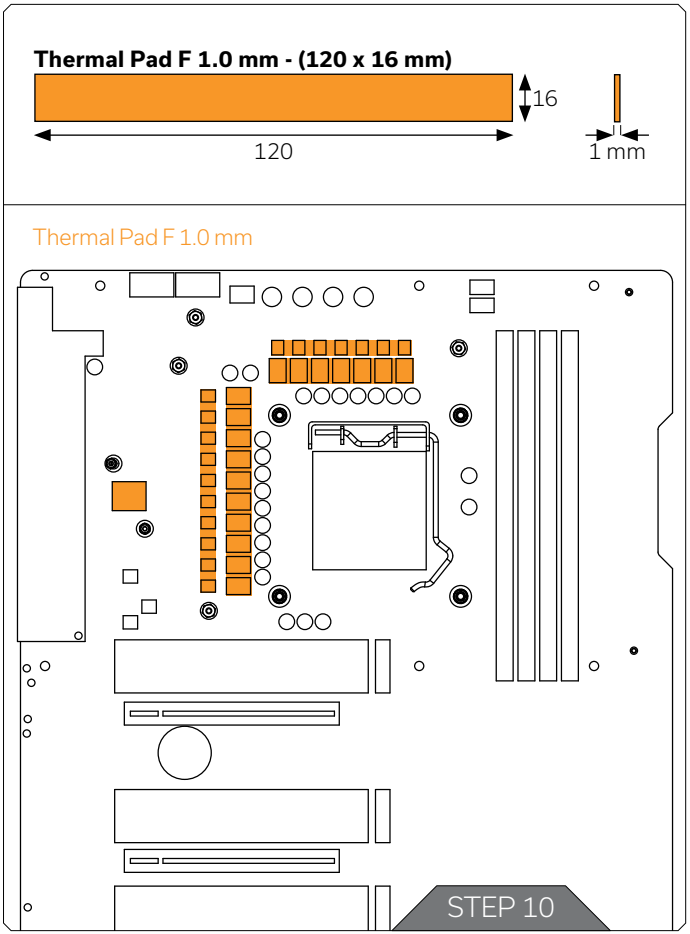
STEP 8

Loosely install all four s**tandoffs and plastic washers** before proceeding to tighten them completely. It is mandatory to install the Plastic Washers as they prevent damage to the motherboard PCB. Using pliers or similar tools is not recommended.



STEP 9

Remove the six **standoffs** (2 shorter and 4 longer ones) from the stock VRM heatsink and install them to the **VRM block**.

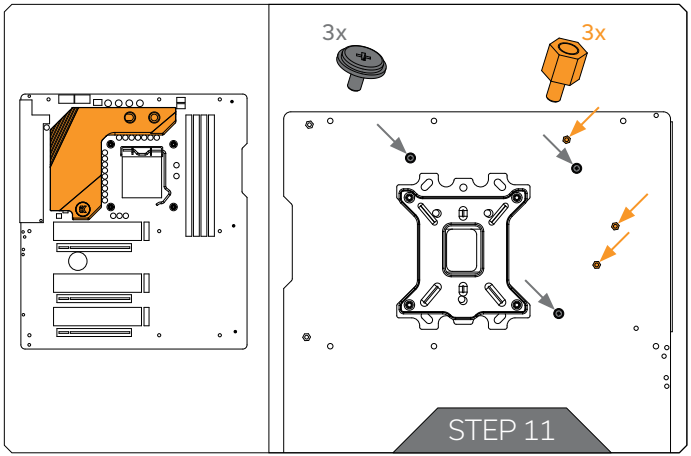


STEP 10

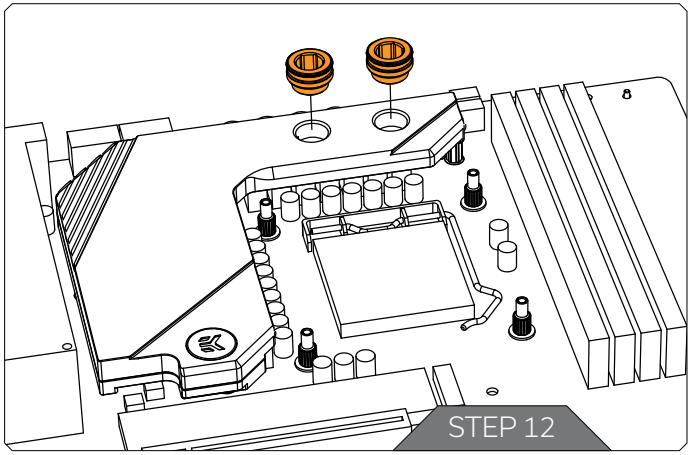
Your monoblock comes with thermal pads that need to be trimmed to fit the voltage regulation area (MOSFET) on the motherboard's circuit board.

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

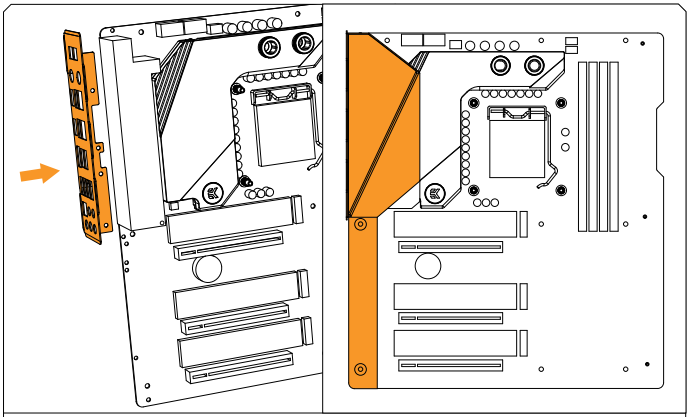
CAUTION: Remove the protective foil from both sides of the thermal pad before installation.

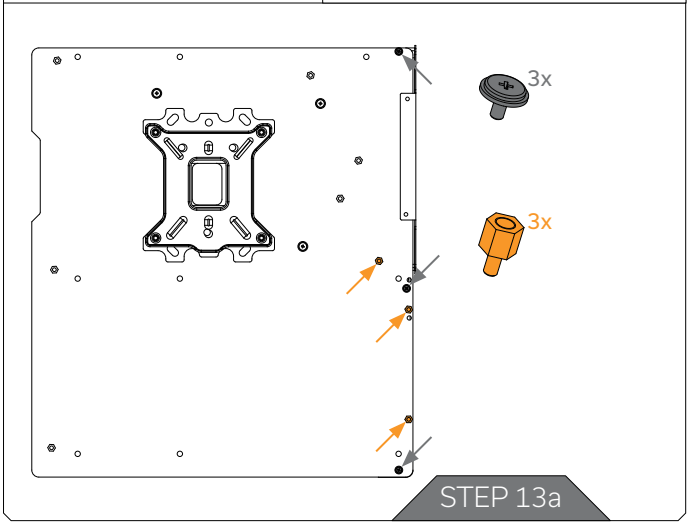


STEP 11
Place the **VRM block** on the motherboard. Turn the motherboard face-down while holding the VRM block and install the three standoffs and three screws you saved in Step 4.



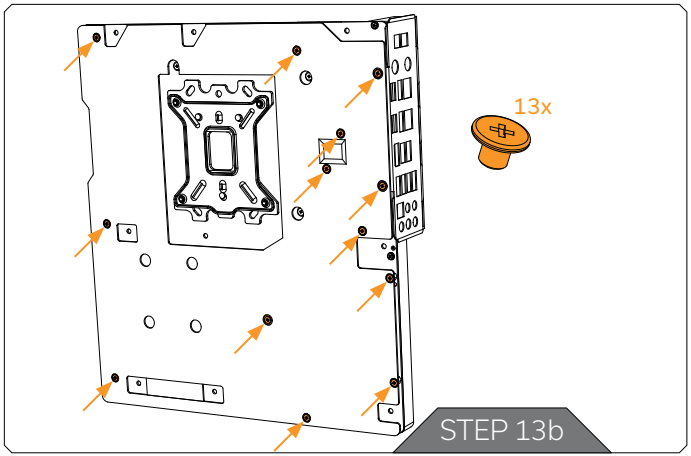
STEP 12
Place the two **bridge extenders (fittings)** on the VRM block, and double-check that O-rings are in place.



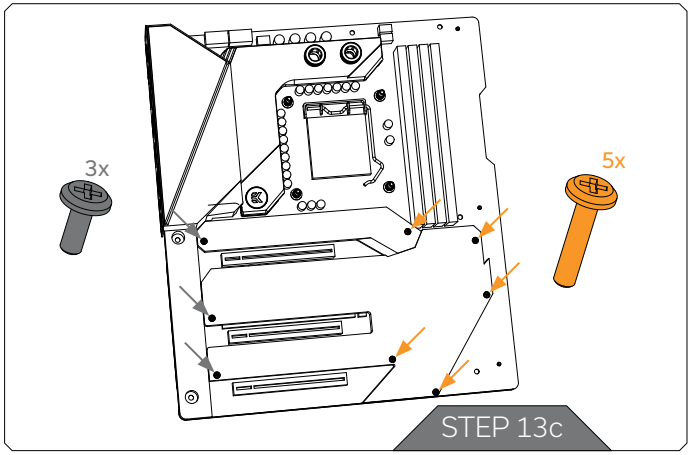


STEP 13
Reassemble all of the motherboard covers.

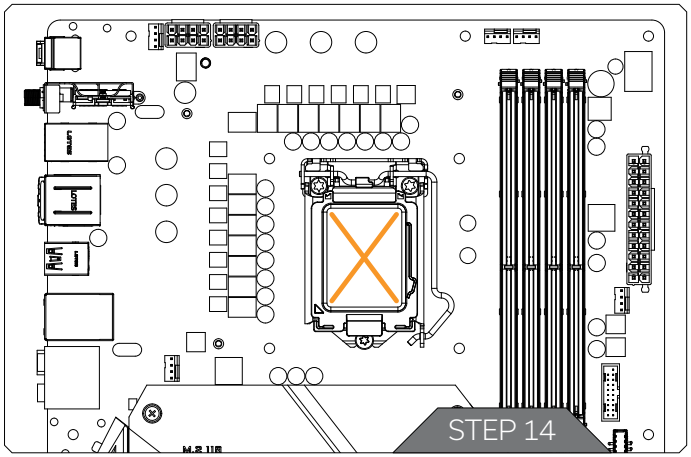
STEP 13a
I/O shield, I/O cover, and I/O cover's RGB cable with three standoffs and three screws:



STEP 13b
Motherboard backplate with thirteen screws:

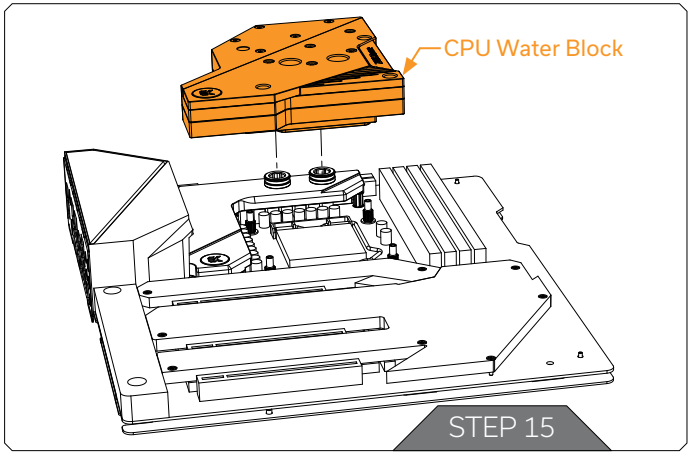


STEP 13c
Both front **horizontal covers** with eight screws:



STEP 14

Apply the enclosed EK-TIM Ectotherm **thermal grease** (thermal compound) on the CPU heat spreader – IHS – as shown in the image. The thermal compound layer 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!

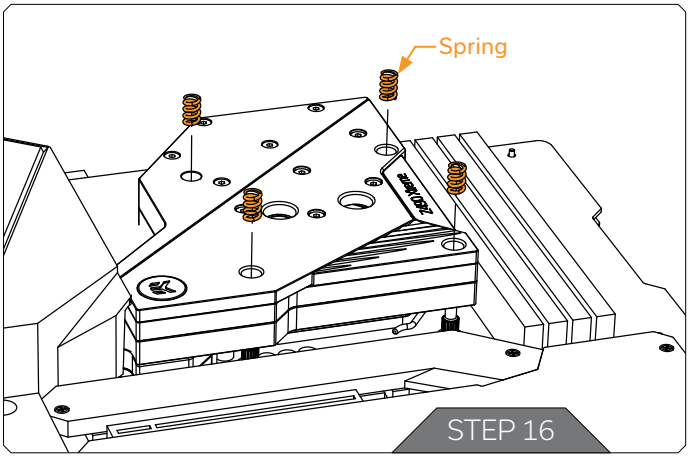


STEP 15

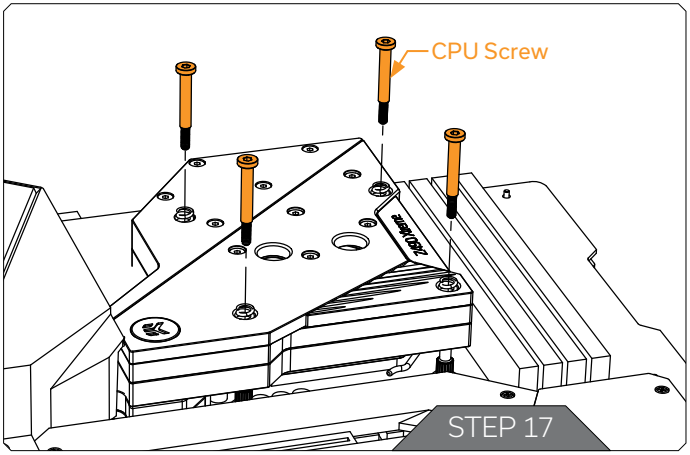
Remove the protective sticker and position the **CPU water block** onto the bridge fittings.

Align the coldplate with the CPU and carefully place the CPU block. Pay attention to position it onto the bridge fittings properly.

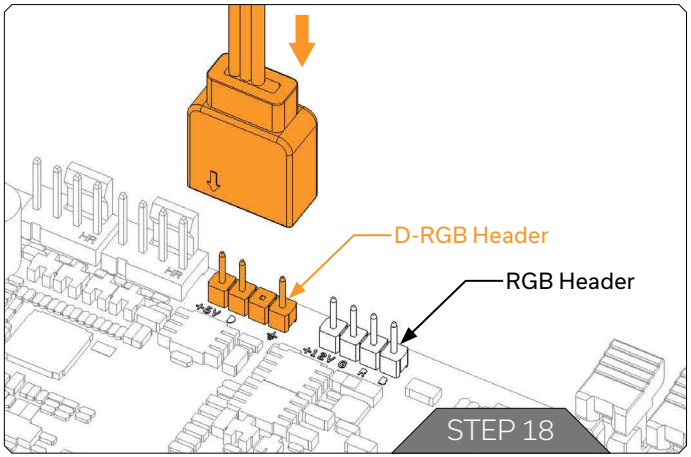
CAUTION: The protective sticker must be removed from the coldplate.



STEP 16
Insert all four **springs** inside the marked holes on the CPU water block.



STEP 17
Loosely insert all four CPU screws before proceeding to tighten them two revolutions at once in a cross pattern. When tightening the screws, do not use excessive force!



STEP 18

Plug the 4-pin D-RGB connector from your CPU water block in a D-RGB header on your motherboard or controller. The LEDs will work only if the pin layout on the header is as follows: **+5V, Data, Empty, Ground**.

Incorrect installation or installation to the wrong header can result in damage to the LED Strip or the header itself!

SUPPORT AND SERVICE

In case you need assistance, please contact:
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