




# EK-Quantum Velocity2 DDC 4.2 PWM D-RGB-1700 Pump plus Water Block Combo Instructions

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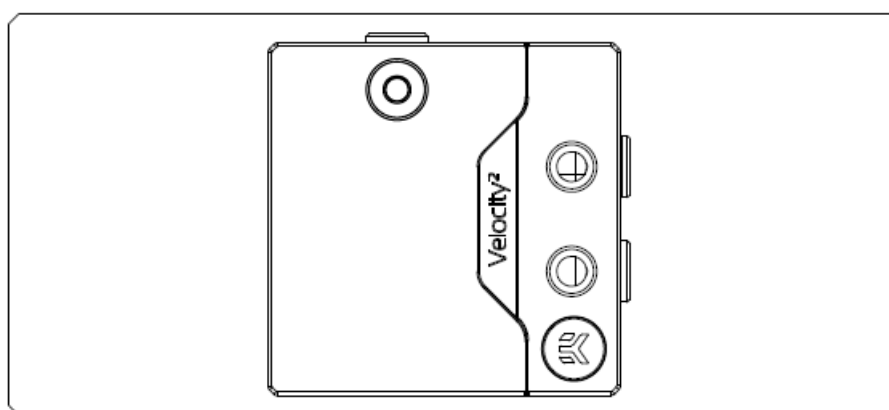


**EK-Quantum Velocity2 DDC 4.2 PWM D-RGB-1700 Pump plus Water Block Combo**



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: Please carefully read the manual before beginning 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-Cryo Fuel coolants. Make sure to thoroughly bleed air out of your water block, or you will not reach optimal performance.

## GENERAL INFORMATION ON WATER BLOCK COMPATIBILITY

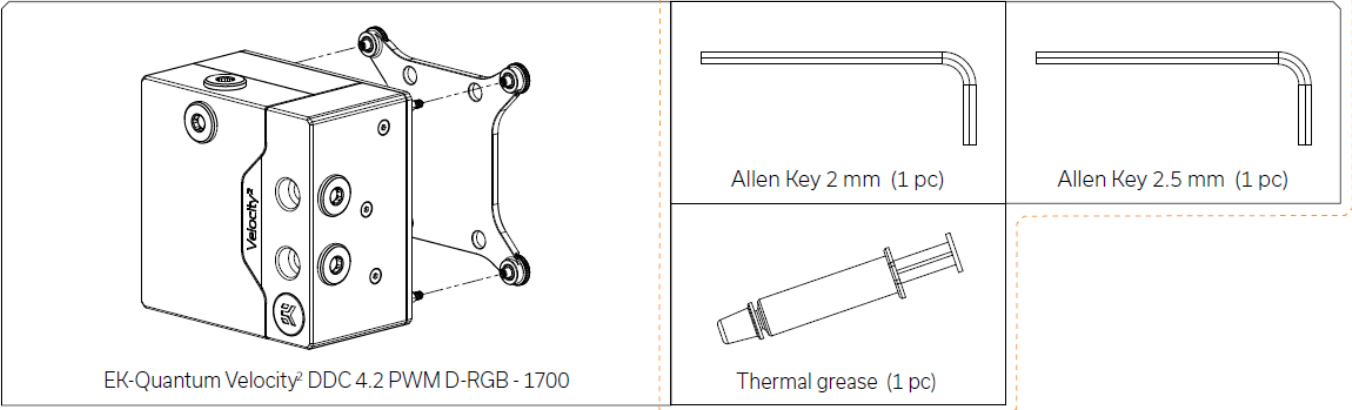


This CPU liquid cooling unit is pre-assembled for use with modern Intel desktop socket-type motherboards. By default (out of the box) this water block supports the following CPU sockets:

**Intel LGA-1700**

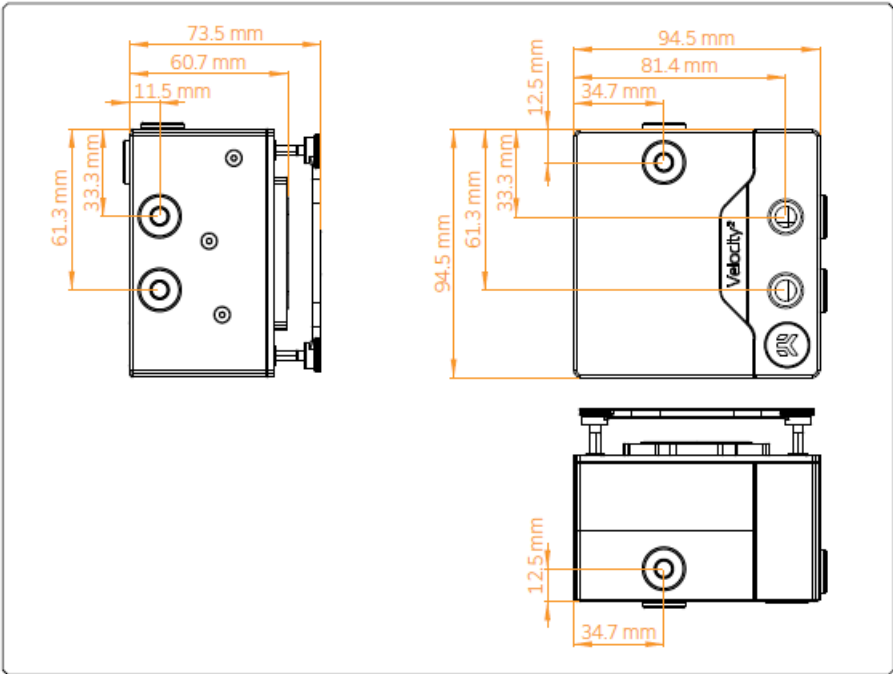
## BOX CONTENTS

**Mounting Mechanism** – You may not need all the screws, mounting mechanism is universal!

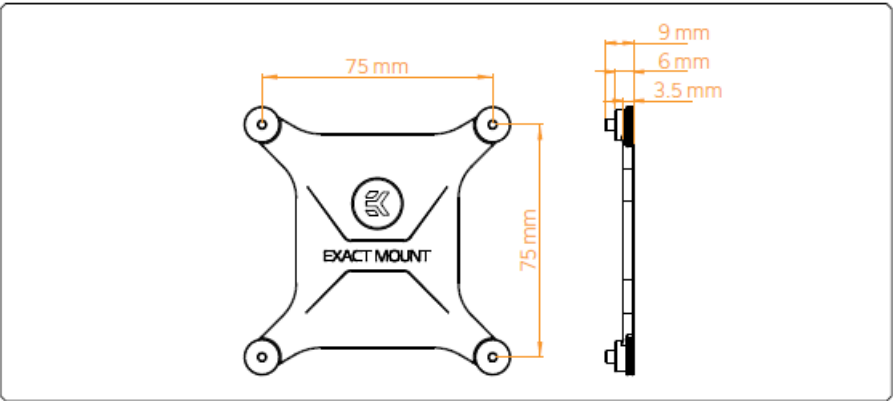


**WATER BLOCK DIMENSIONS**

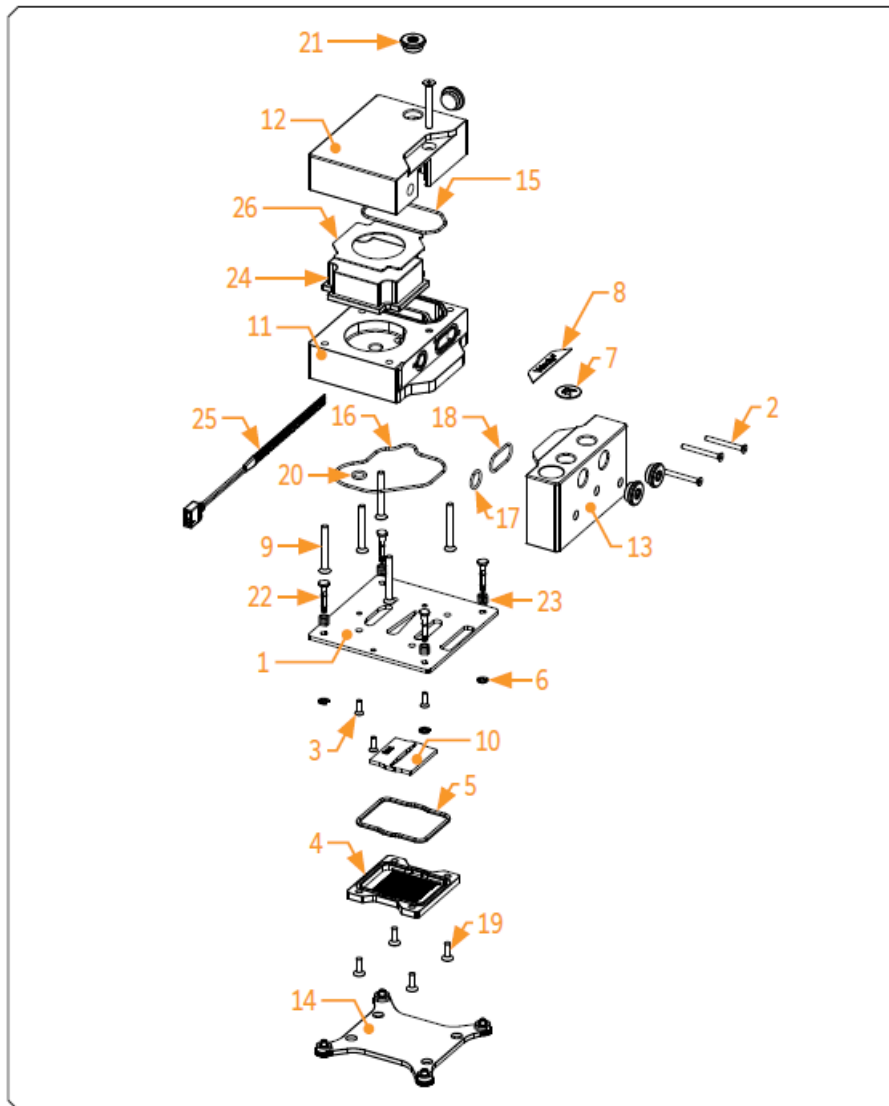
**CPU WB:**



**Backplate:**



**TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS**



## Technical Specification

- Dimensions (LxHxW): 94.5 x 94.5 x 70.6
- D-RGB cable length: 500 mm
- D-RGB LED count: 14
- D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground)

Position	EAN	Description	Quantity
1	105494	Metal Plate	1
2	105564	M3 x 30 DIN7991 Screw	3
3	8252	M3 x 10 7991DIN Screw	3
4	104028	Coldplate (Nickel)	1
5	104773	OR for Coldplate	1
6	104532	Seeger ring	4
7	100663	EK Badge	1
8	103952	Mylar Sticker	1
9	102642	M4 x 35 DIN7991 Screw	6
10	104029	Jet Plate	1
11	105490	TOP Plate – Plexi	1
12	105493	Top plate – Brass	1
13	105491	Acetal Standout	1
14	104650	Backplate Assembly	1
15	5183	OR 45 x 1.5	1
16	5015	OR 65 x 1.5	1
17	105766	OR 11 x 1.5	1
18	5034	OR 20 x 1.5	1
19	100500	M4 x 12 DIN7991 Screw	4
20	104774	OR for TOP	1
21	102639	Quantum Plug Nickel	4
22	104913	Velocity2 Mounting Screw	4
23	100747	M3 x 10 mm 8 kg Spring	4
24	3831109837580	EK-DDC 4.2 PWM (12V SATA)	1
25	103006	LED Strip	1
26	3830046996671	Thermal PAD DDC	1

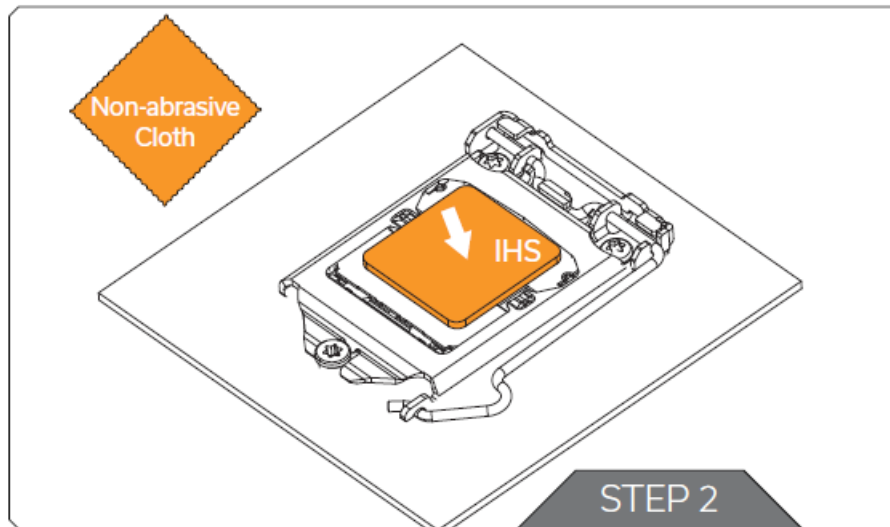
## PREPARING THE MOTHERBOARD

### STEP 1

If already installed, please remove the motherboard from your computer and place it on an even surface.

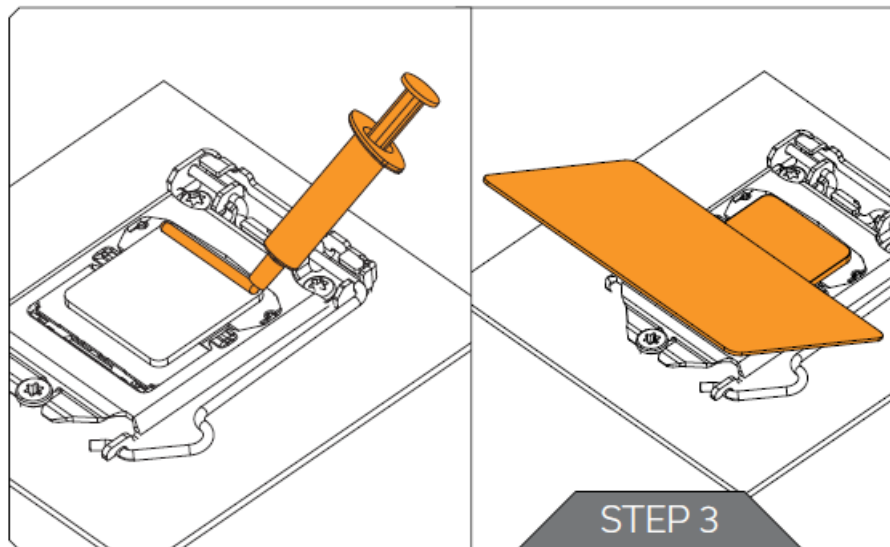
### STEP 2

**Cleaning the CPU:** Wipe the IHS clean using a non-abrasive cloth or Q-tip as shown in the illustration.



### STEP 3

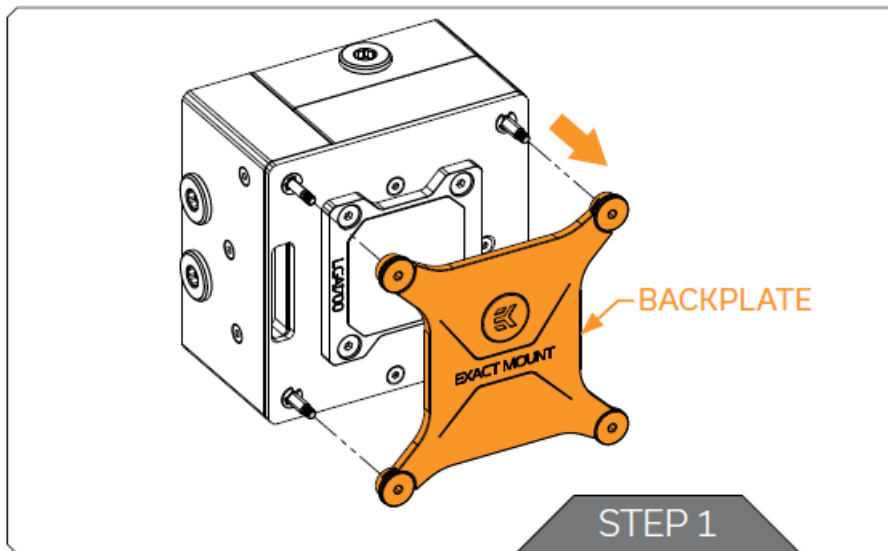
**Applying thermal compound:** Once clean, apply a line of Thermal Compound on one edge of the IHS and use a credit card or similar to spread it evenly. The layer of Thermal Compound must be thin and even in thickness over the entire surface of the IHS. Excessive or irregular application may lead to poor performance. This method works for Thermal Grizzly Hydronaut Thermal Compound as supplied with all Velocity2 CPU Water Blocks.



## INSTALLING THE WATER BLOCK

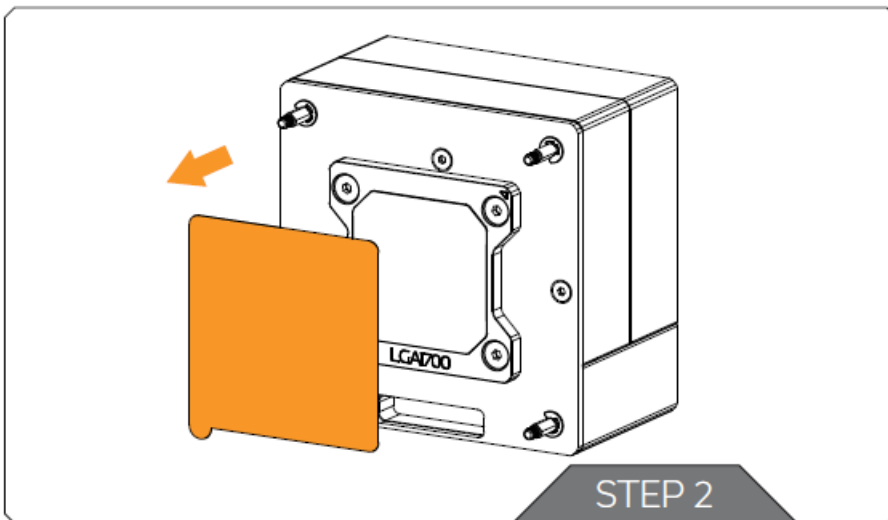
### STEP 1

Unscrew the pre-installed Backplate on the CPU using an Allen Key 2.5 mm and save it for the later steps.



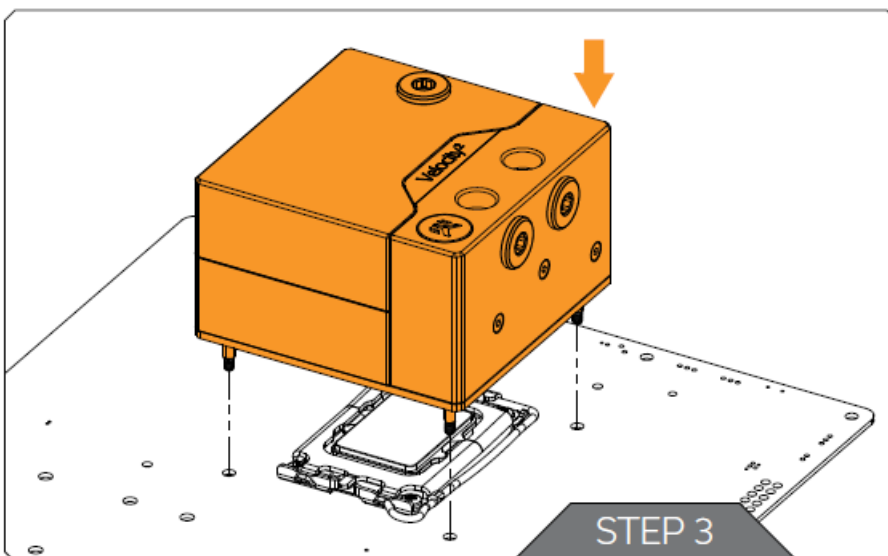
## STEP 2

Before placing the water block, it is mandatory to remove the protective foil from the backside.



## STEP 3

Position the CPU Water Block onto the Motherboard. Make sure to align the holes (as shown in the picture).

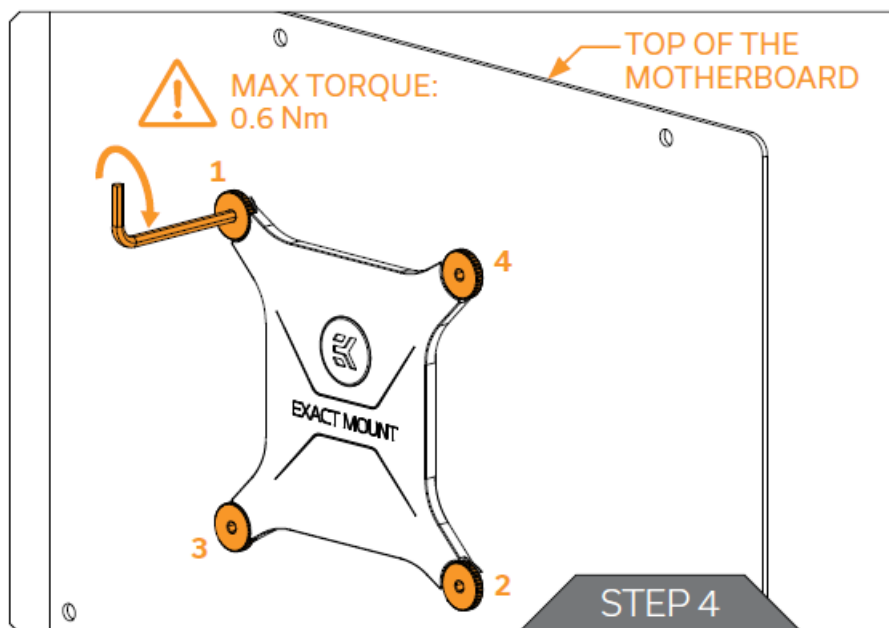


Make sure to double check the layer of the Thermal Grease before placing the water block onto the motherboard.

## STEP 4

After placing the water block, the stored backplate must be attached on the backside of the motherboard using Allen Key 2.5 mm (shown in the picture). 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 2.5 mm must be used in a standing position! Otherwise, the mounting screws may crack during tightening! EK recommends using the EK-Loop Torque Screwdriver – 0.6Nm : <https://www.ekwb.com/shop/ek-loop-torque-screwdriver-0-6nm>

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



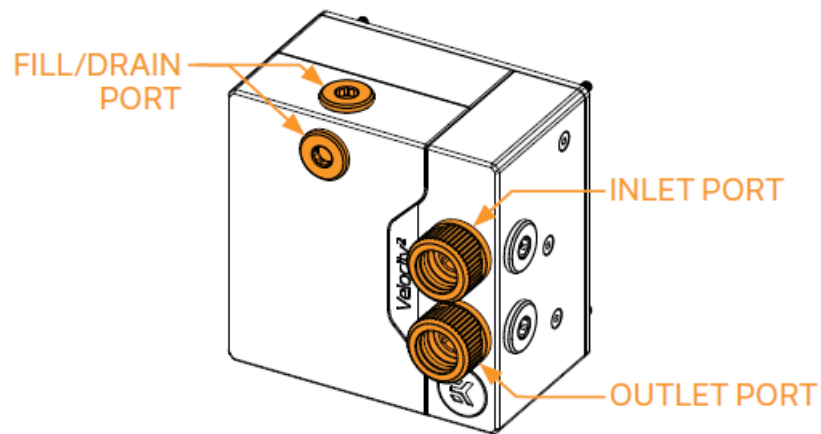
## FITTINGS AND TUBING

The EK-Quantum Velocity2 DDC 4.2 PWM D-RGB – 1700 water block has two options of fitting placement. The TOP and the SIDE option as it's shown on the drawings.

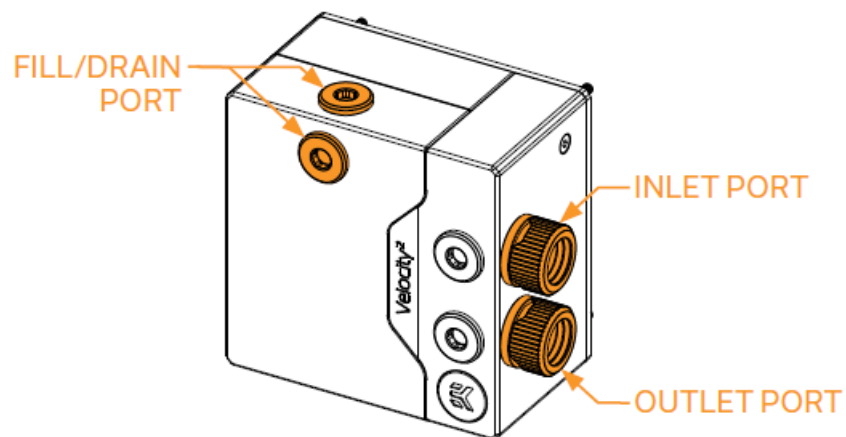
It's mandatory to use the top port as the INLET. Mixing the port may result in poor thermal performance of the water block. Tighten the fittings in a clockwise direction until the gasket underneath is compressed. The installation of the EK-Quantum Velocity2 DDC 4.2 PWM D-RGB – 1700 water block is now complete.



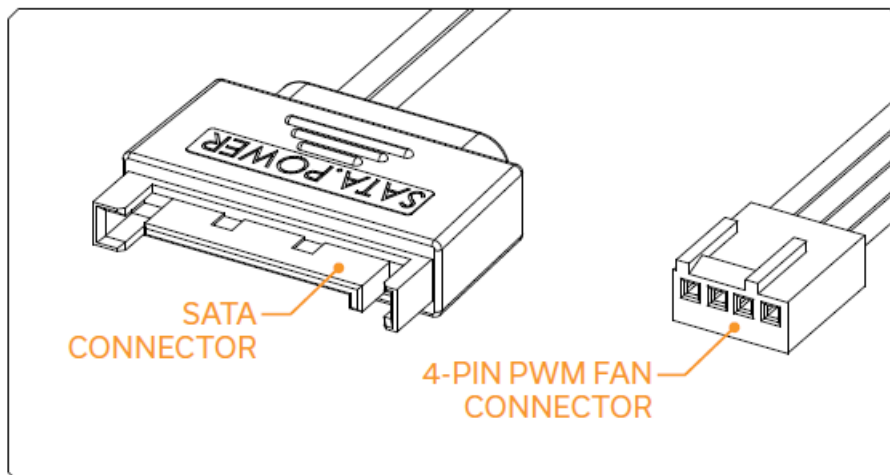
### OPTION 1 - TOP



### OPTION 2 - SIDE



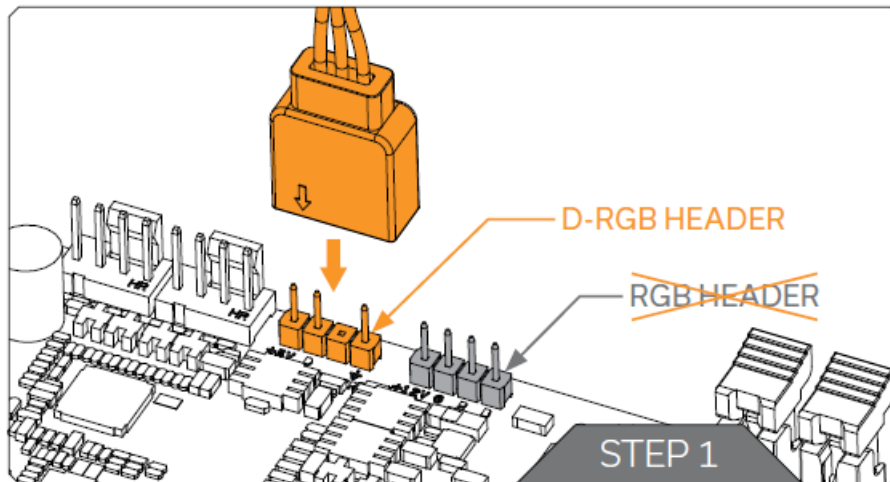
## CONNECTING THE PUMP



The EK-DDC PWM has two connectors.

1. **SATA Connector:** It must be connected directly to your PSU at times as it is used to power the pump.
2. **4-pin PWM fan:** It can be connected to your motherboard's CPU\_FAN or designated water pump header. It can also be connected to a controller. This cable is used to control and report the rotational speed of the pump. If it's not connected, the pump will run at the maximum speed (100% PWM).

## 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.

## 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 the quantity in your request. Mounting Mechanism EAN can be found under "BOX CONTENTS" Thermal pads are readily available in the EK shop

## SOCIAL MEDIA

- EKWaterBlocks
- @EKWaterBlocks
- ekwaterblocks
- EKWBofficial
- ekwaterblocks

## Documents / Resources

	<a href="#">EK-Quantum Velocity2 DDC 4.2 PWM D-RGB-1700 Pump plus Water Block Combo</a> [pdf] Instructions Velocity2 DDC 4.2 PWM D-RGB-1700, Pump plus Water Block Combo, Velocity2 DDC 4.2 PWM D-RGB-1700 Pump plus Water Block Combo, Water Block Combo, Block Combo
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