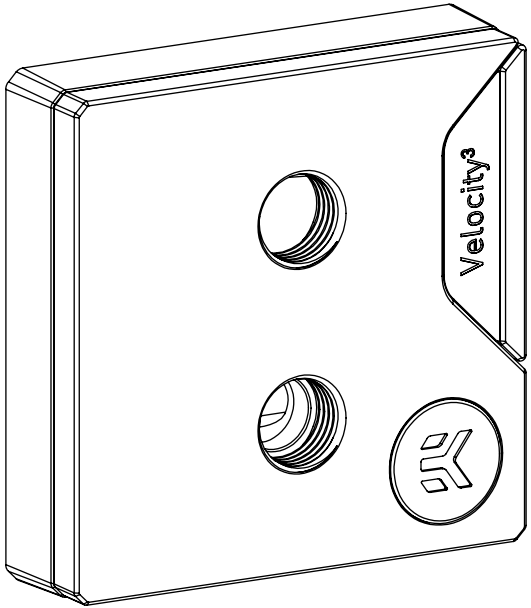
EK-Quantum
Velocity3 1700/1851/AM5



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 for updates. Before installation of this product, please read important notice, disclosure, and warranty conditions that are printed on the back of the box.

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 theuse of EK-Cryo Fuel coolants.

Make sure to thoroughly bleed air out of your water block, or you will not reach optimal performance.

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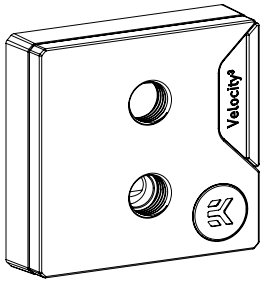
GENERAL INFORMATION ON WATER BLOCK COMPATIBILITY

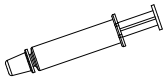
EK-Quantum Velocity3 1700/1851/AM5 CPU socket compatibility:

- Intel LGA-1700/1851
- AMD® socket AM5

DISCLAIMER: This CPU block is pre-configured for the Intel LGA-1700/1851 socket. For AMD AM5, please refer to the configuration instructions.

BOX CONTENTS

<table>
<tr>
<td rowspan="3"> 

EK-Quantum Velocity3
1700/1851/AM5</td>
<td> 
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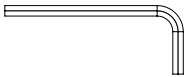
<td> 
Allen Key 2,5 (1 pc)
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Polyamid Washer M2.5
0.5mm(4 pc) (8616)</td>
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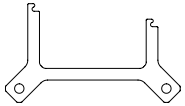
<td> 
LGA-1700/1851
Bracket (2 pc) (107751)</td>
<td> 
AM5 Bracket (2 pc)
(107753)</td>
<td> 
Spring (4 pc) (104686)</td>
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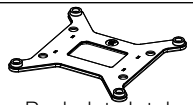
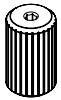
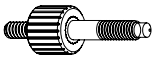
<td> 
Backplate Intel
LGA1700/1851 (1 pc)
(104304+104305)</td>
<td> 
Thumb Nut M4 (4 pc)
(107764)</td>
<td> 
Thumb Screw (4 pc)
(107765)</td>
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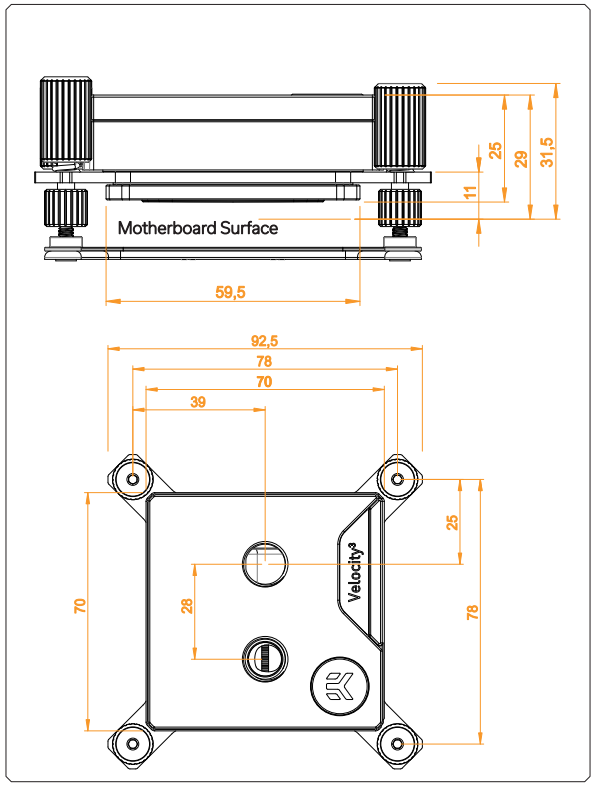
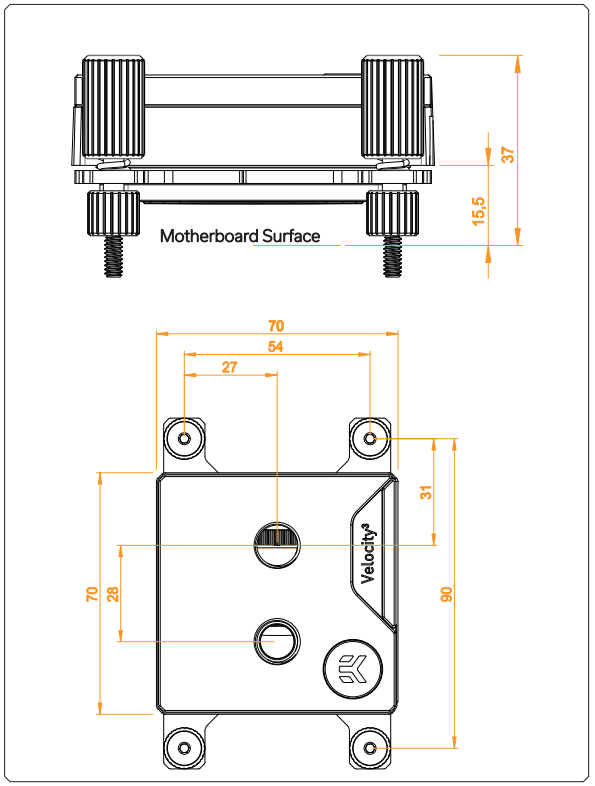
WATER BLOCK DIMENSIONS

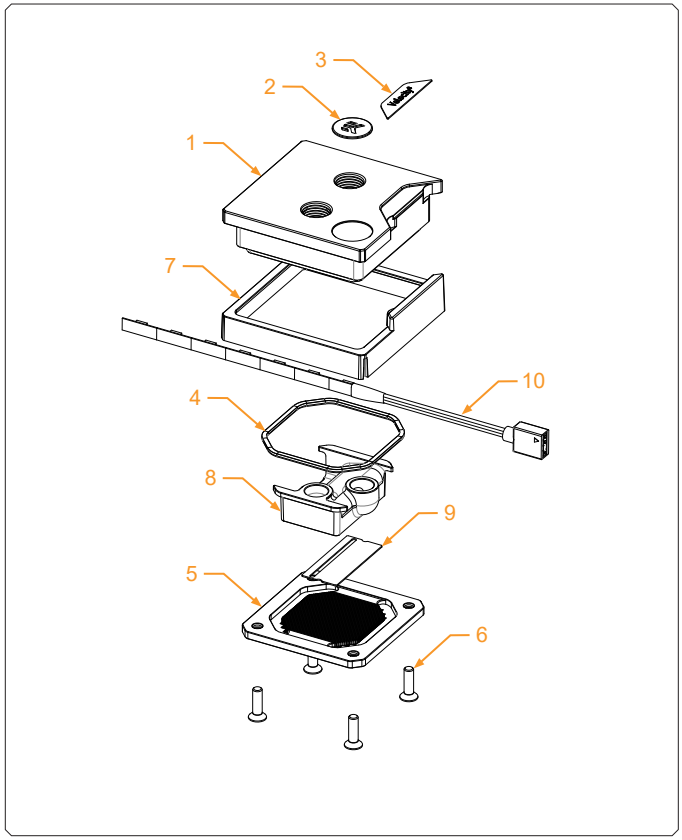
Intel LGA 1700/1851 Configuration



AMD AM5 Configuration



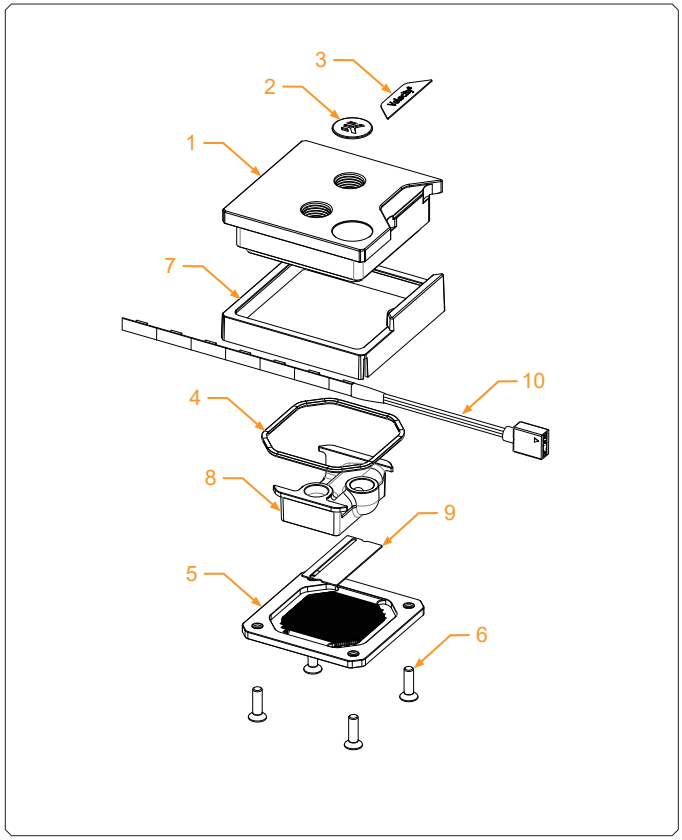
TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS



NICKEL PLEXI

Technical Specification:
Dimensions (L x H x W): 69,5 x 69,5 x 25 mm
D-RGB cable length: 500 mm
D-RGB LED count: 14
D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground

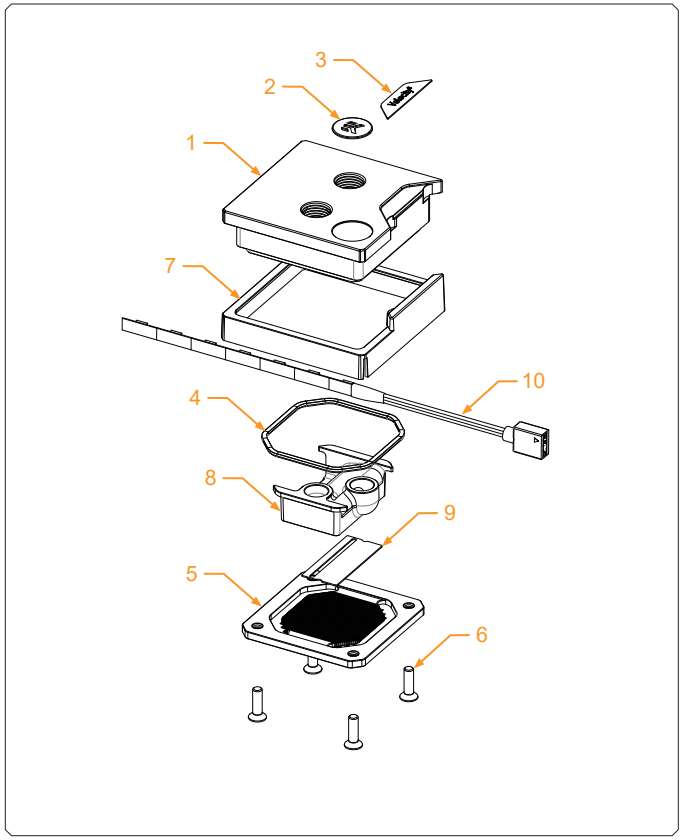
Position	EAN	Description	Qty.
1	107757	TOP Plate - Plexi	1
2	100663	EK Badge	1
3	107755	Mylar Sticker	1
4	102099	O-ring	1
5	107763	Coldplate (Nickel)	1
6	104686	Screw M4x14 7991DIN	4
7	107760	Light Guide - Black	1
8	107756	Rotatable Insert	1
9	107754	Jet Plate	1
10	101556	LED D-RGB Strip	1



NICKEL ACETAL

Technical Specification:
Dimensions (L x H x W): 69,5 x 69,5 x 25 mm
D-RGB cable length: 500 mm
D-RGB LED count: 30
D-RGB connector standard 3-pin (+5V, Data, Blocked Ground

Position	EAN	Description	Qty.
1	107758	TOP Plate - Acetal	1
2	100663	EK Badge	1
3	107755	Mylar Sticker	1
4	102099	O-ring	1
5	107763	Coldplate (Nickel)	1
6	104686	Screw M4x14 7991DIN	4
7	107761	Light Guide - White	1
8	107756	Rotatable Insert	1
9	107754	Jet Plate	1
10	101546	LED D-RGB Strip	1

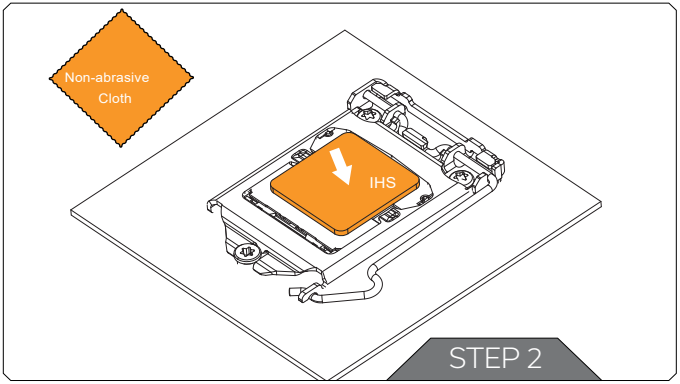


NICKEL WHITE ACETAL

Technical Specification:
Dimensions (L x H x W): 69,5 x 69,5 x 25 mm
D-RGB cable length: 500 mm
D-RGB LED count: 30
D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground

Position	EAN	Description	Qty.
1	107759	TOP Plate - White Acetal	1
2	100663	EK Badge	1
3	107755	Mylar Sticker	1
4	102099	O-ring	1
5	107763	Coldplate (Nickel)	1
6	104686	Screw M4x14 7991DIN	4
7	107761	Light Guide - White	1
8	107756	Rotatable Insert	1
9	107754	Jet Plate	1
10	101546	LED D-RGB Strip	1

PREPARING THE MOTHERBOARD - INTEL LGA 1700/1851

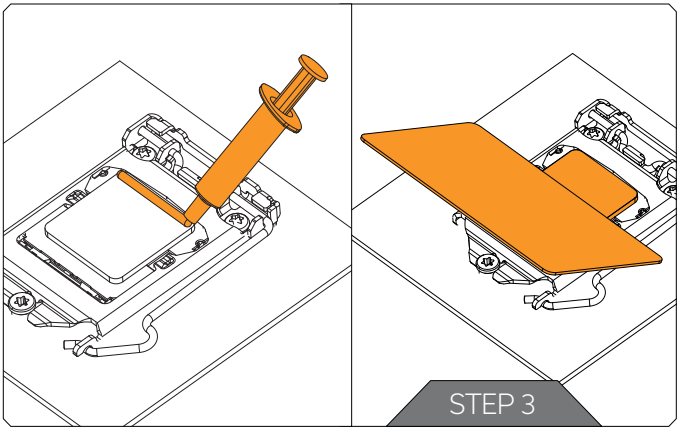


STEP 1

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.

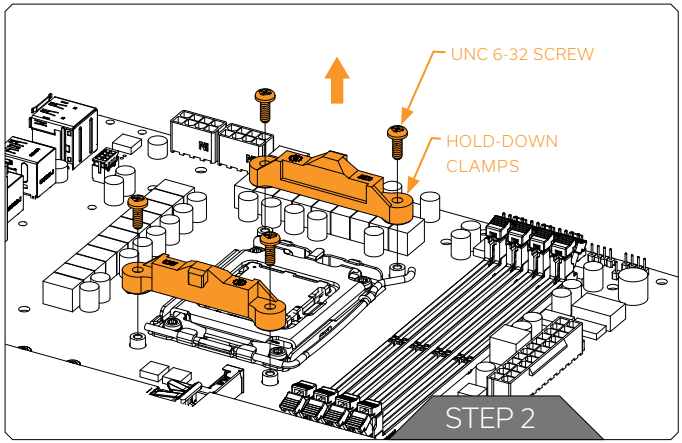


STEP 3

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.

PREPARING THE MOTHERBOARD - AMD AM5

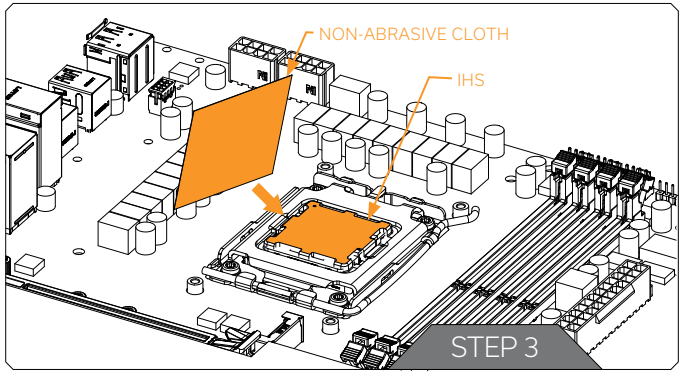


STEP 1

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

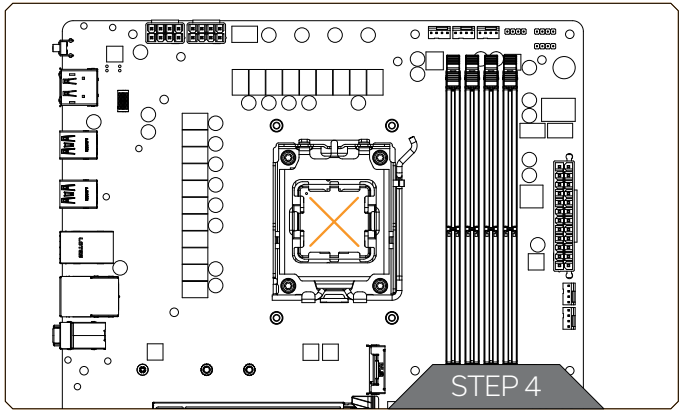
STEP 2

Using a Philips-head screwdriver remove the four UNC 6-32 screws securing the original plastic hold-down clamps around the socket as shown in the illustration. Remove the hold-down clamps and store them away.



STEP 3

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

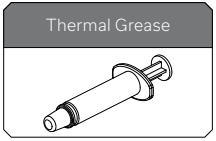


STEP 4

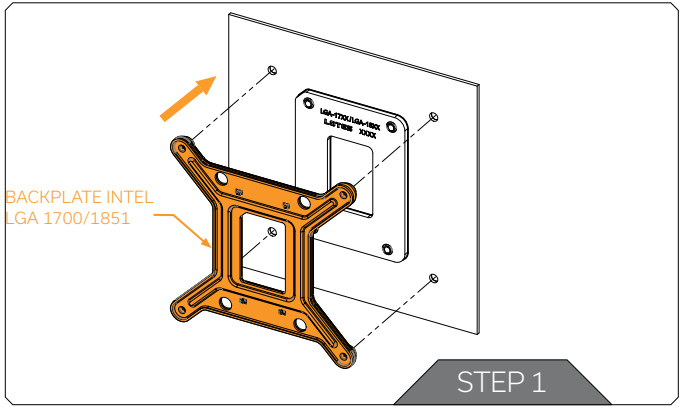
Applying thermal compound: Apply the enclosed thermal grease (thermal compound) on the CPU heat spreader – IHS – as shown in the image. The layer of the thermal compound must be thin and even in thickness over the entire surface of the IHS.

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

For this step, you will need:



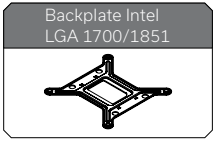
INSTALLING THE WATER BLOCK - INTEL LGA 1700/1851

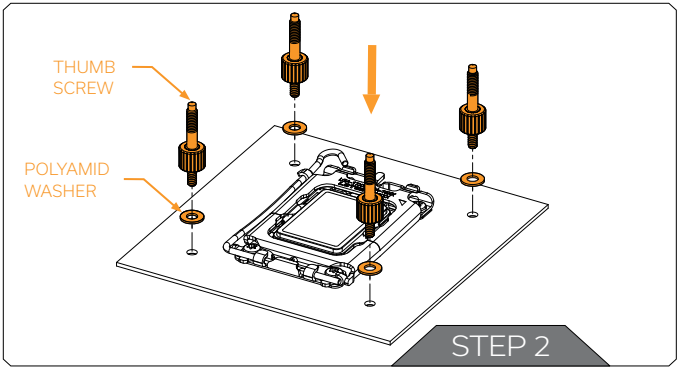


STEP 1

Attaching the backplate to a motherboard: Install the Intel backplate for LGA 1700/1851 socket to the back of your motherboard. Align the holes on the motherboard with the holes on the backplate.

For this step, you will need:

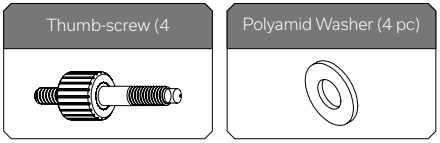


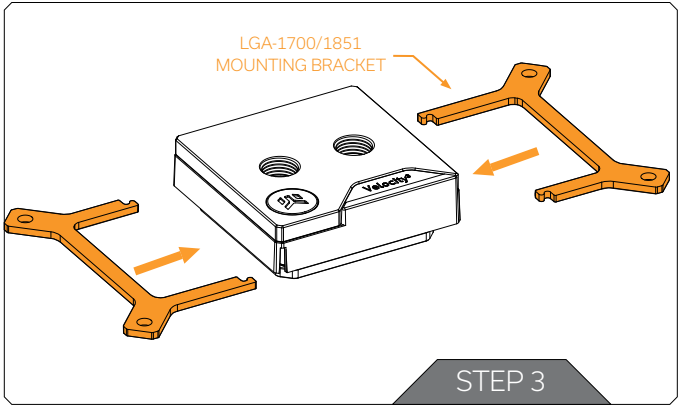


STEP 2

Attaching mounting screws: Install four (4) mounting thumb screws together with four (4) polyamid washers through your motherboard to the backplate.

For this step, you will need:

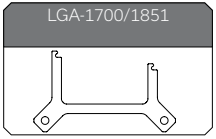


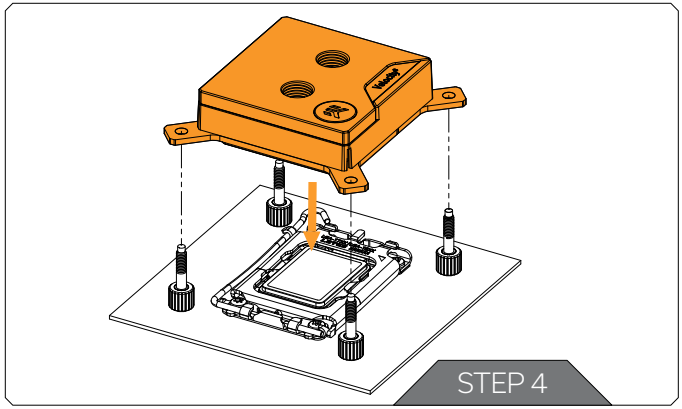


STEP 3

Attach the LGA-1700/1851 mounting brackets by sliding them into a water block side channel.

For this step, you will need:



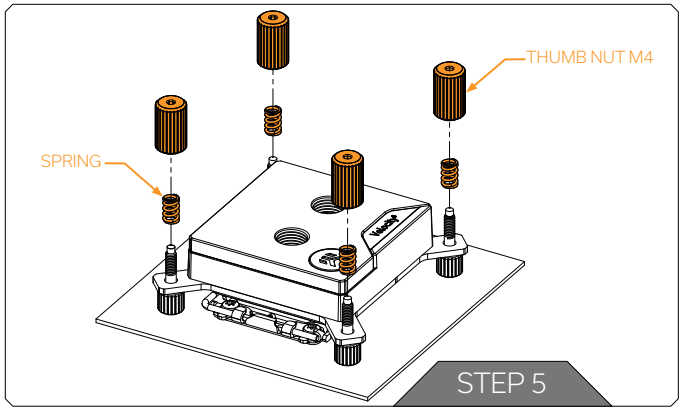


STEP 4

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.

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

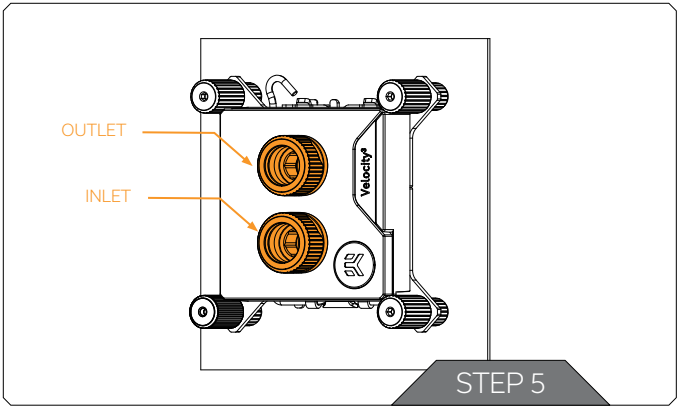


STEP 5

Place the enclosed compression springs and thumb nuts over the mounting screws (4x). Start fastening thumb nuts by hand and then procede to tighten them, in a cross pattern, using allen key 2.5.

For this step, you will need:

Thumb Nut (4 pc)	Spring (4 pc)	Allen Key 2.5
		



STEP 5

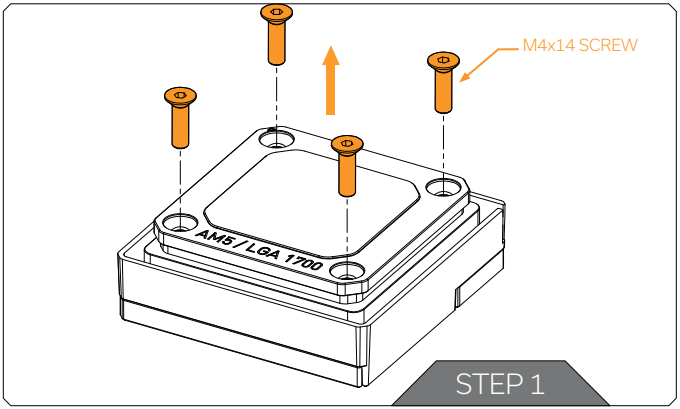
With EK-Velocity³ series water blocks, it is mandatory to use the bottom port as the INLET.

Mixing the ports may result in poor thermal performance of the water block.

Screw in two (2) G1/4 threaded male fittings. Attach the liquid cooling tubes and connect the water block to the cooling loop.

EK recommends using EK fittings with all EK water blocks.

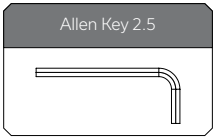
AMD AM5 WATER BLOCK CONFIGURATION

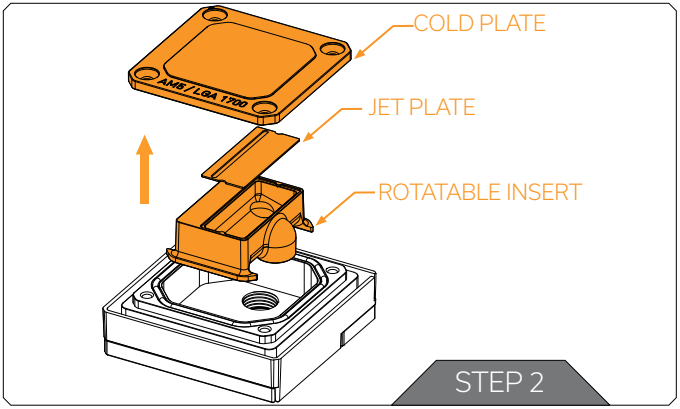


STEP 1

Remove the cold-plate by unscrewing four (4) M4x14 screws.

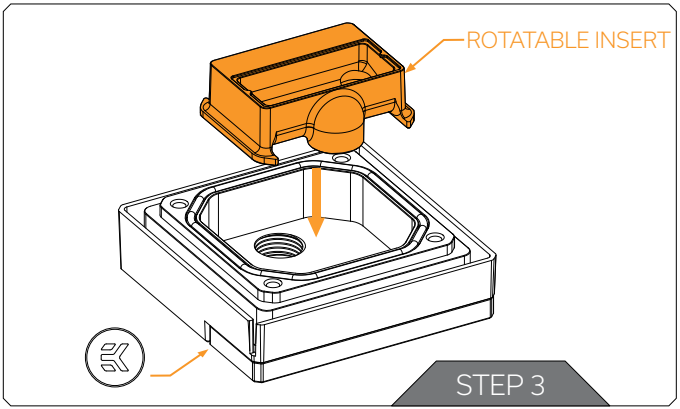
For this step, you will need:





STEP 2

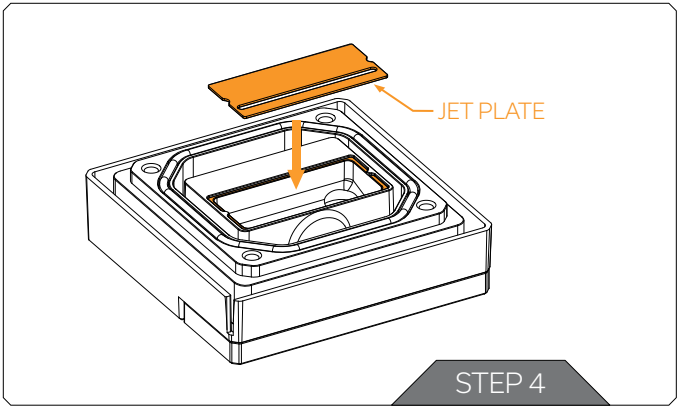
Remove the cold-plate, jet-plate and rotatable insert



STEP 3

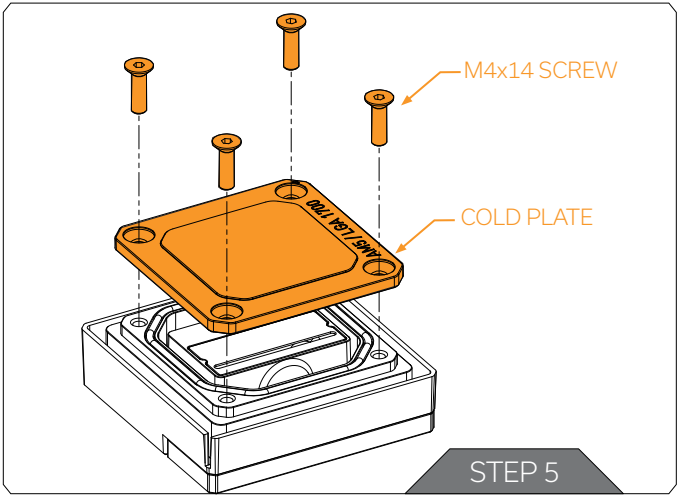
Position the water block so that the EK badge is on the left bottom side of the water block, like shown in the picture.

Place the rotatable insert inside the water block. Pay attention to orientation.



STEP 4

Position the jet plate into the rotatable insert. Pay attention to orientation.



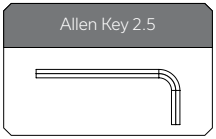
STEP 5

Install the cold plate using four (4) M4x14 screws. The markings must be on the right side as shown in the picture.

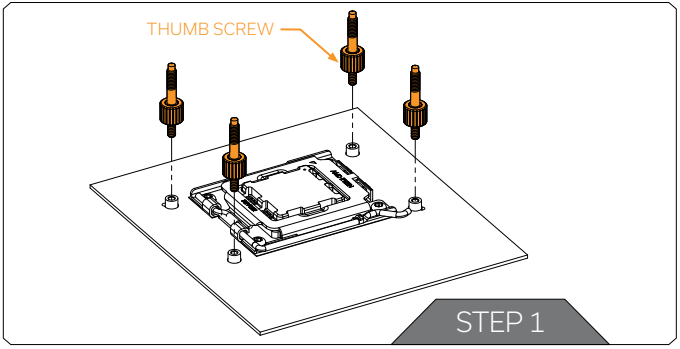
Before installing, make sure that the O-ring seal is correctly in place.

Do not use excessive force. Max Torque: 0.6Nm.

For this step, you will need:



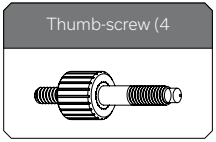
INSTALLING THE WATER BLOCK - AMD AM5

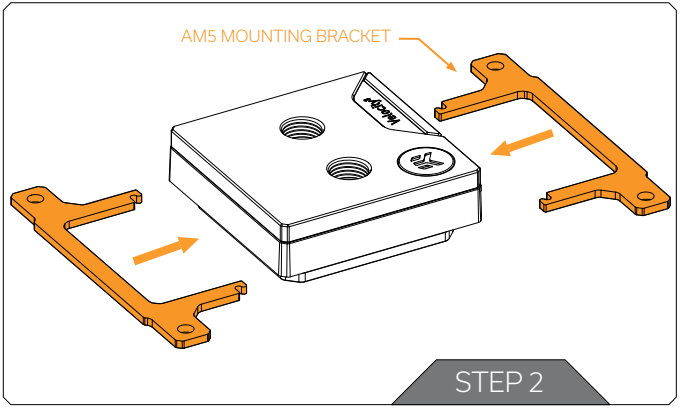


STEP 1

Attaching mounting screws: Install four (4) mounting thumb screws through your motherboard to the backplate.

For this step, you will need:

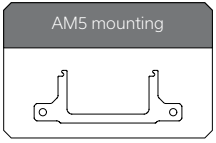


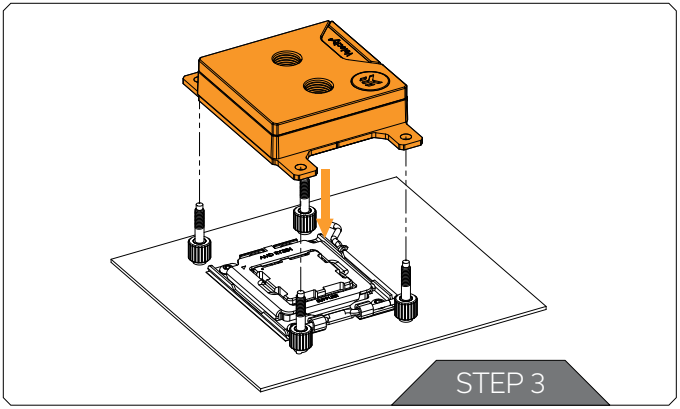


STEP 2

Attach the AM5 mounting brackets by sliding them into a water block side channel.

For this step, you will need:



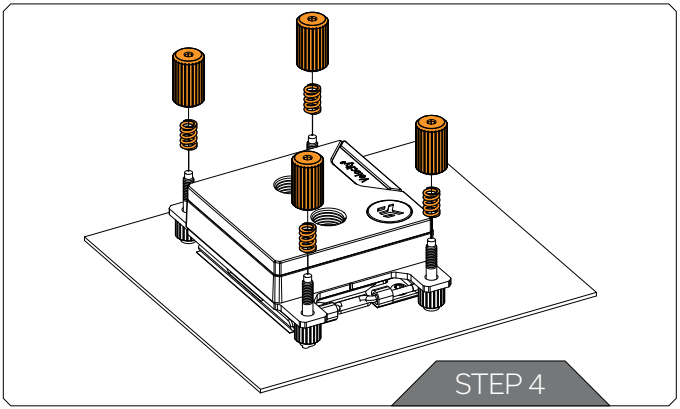


STEP 3

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.

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

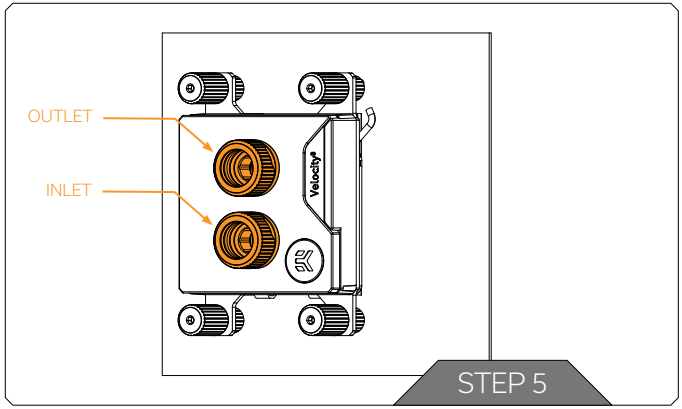


STEP 4

Place the enclosed compression springs and thumb nuts over the mounting screws (4x). Start fastening thumb nuts by hand and then procede to tighten them, in a cross pattern, using allen key 2.5.

For this step, you will need:

Thumb Nut (4 pc)	Spring (4 pc)	Allen Key 2.5
		



STEP 5

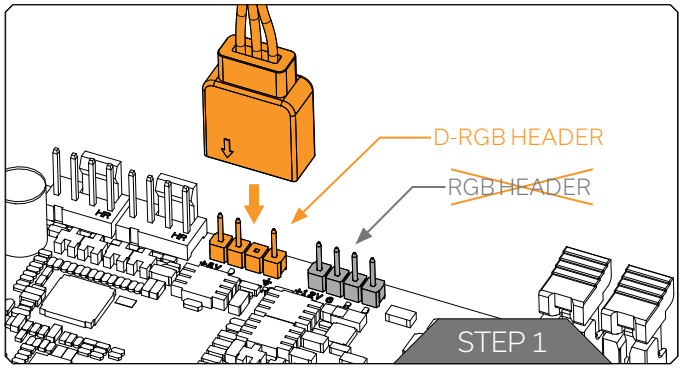
With EK-Velocity³ series water blocks, it is mandatory to use the bottom port as the INLET.

Mixing the ports may result in poor thermal performance of the water block.

Screw in two (2) G1/4 threaded male fittings. Attach the liquid cooling tubes and connect the water block to the cooling loop.

EK recommends using EK fittings with all EK water blocks.

CONNECTING THE D-RGB LED



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.

WARRANTY

Our products are warranted against defects of materials and quality for a period of 24 months, starting with the date of delivery to the end-user. During this period, products will be repaired or have parts replaced at our discretion, provided that 1) the product is returned to the agent from whom it was purchased; 2) the product has been purchased by the end-user and has not been used for commercial purposes; 3) the product has not been misused, handled carelessly, or used in a manner other than the way described in the instructions manual. This warranty does not confer rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This warranty is offered as an extra benefit and does not affect your statutory rights as a consumer. This warranty is voided if the product comes in contact with aggressive UV additives or other improper liquids. EK water blocks are sealed with a warranty-voiding circular label, proving the water block has withstood a pressure leak test. Removing the label will void the leak-free guarantee, but not the guarantee on the product itself. Any other RMA issues can be reported to EK Customer Support at www.ekwb.com/support for further analysis.

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

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