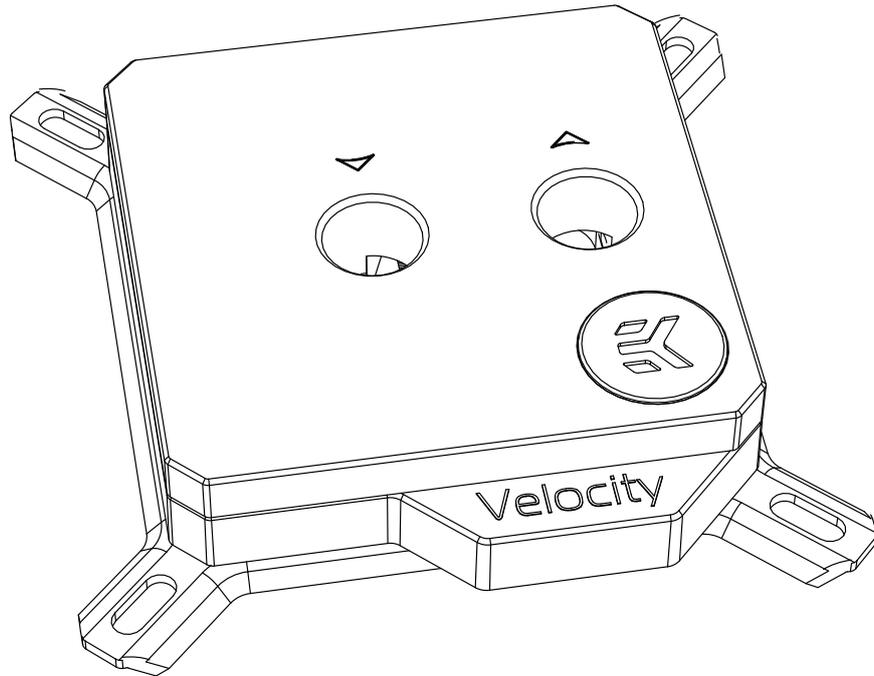




Velocity – Intel

CPU WATER BLOCK



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.

Please remove your graphics card from the computer to assure the safest mounting process and prevent any possible damage to your GPU and/or graphics card circuit board (PCB).

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.

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

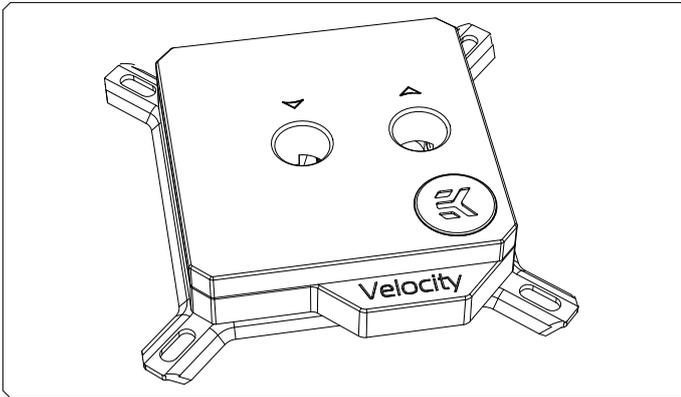
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QUICK INSTALLATION GUIDE

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GENERAL INFORMATION ON WATER BLOCK COMPATIBILITY

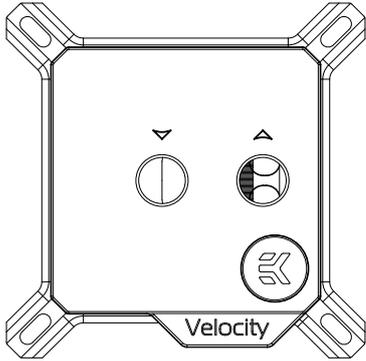


This CPU liquid cooling unit is pre-assembled for use with modern Intel desktop socket type motherboards. By default (out of the box) this water block supports the following CPU sockets:

- **Intel LGA-1150/1151/1155/1156**
- **Intel LGA-1200**
- **Intel LGA-2011(-3)**
- **Intel LGA-2066**

BOX CONTENTS

Universal Mounting Mechanism – You may not need every screw from this package. EAN: 3831109813065



EK-Velocity universal CPU water block with the Intel bracket (1 pc)



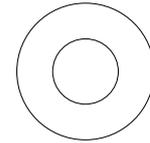
Spring (4 pcs)



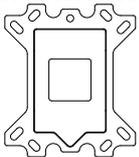
Standoff - LGA 115x / AMD (4 pcs)



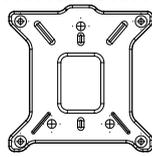
Standoff - 20xx (4 pcs)



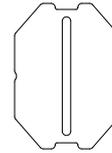
Washer (5 pcs)



Backplate Rubber Gasket (1 pc)



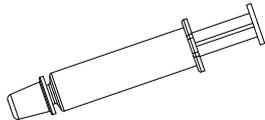
Metal Backplate LGA-115x / LGA-1200 (1 pc)



Additional Jet Plate - 0.8 mm (1 pc)

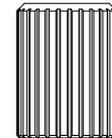


Allen Key 2.5 mm (1 pc)



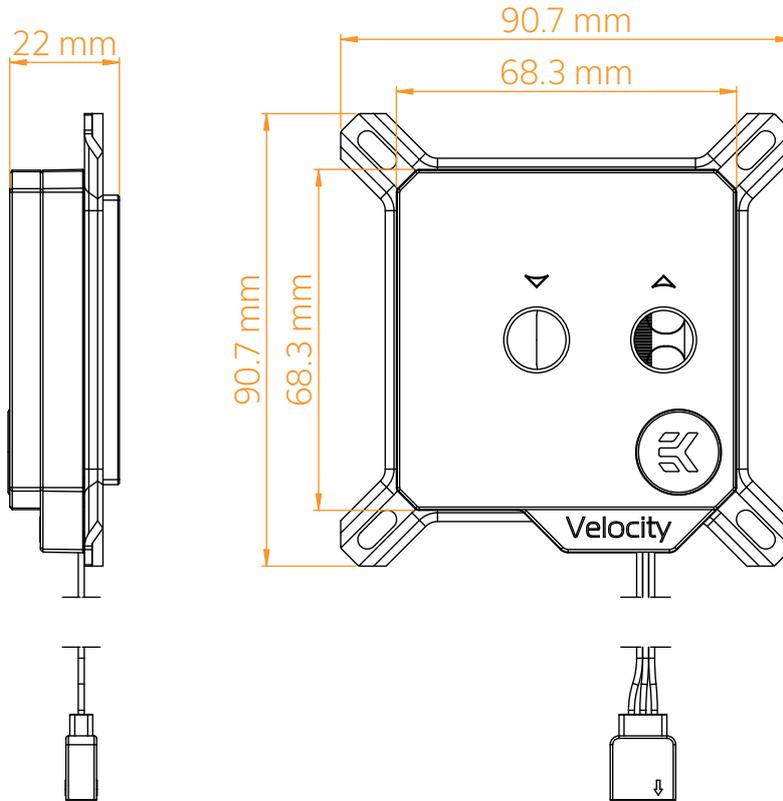
Thermal grease (1 pc)

EAN: 3831109828618



Thumb Nut (4 pcs)

WATER BLOCK DIMENSIONS



TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS

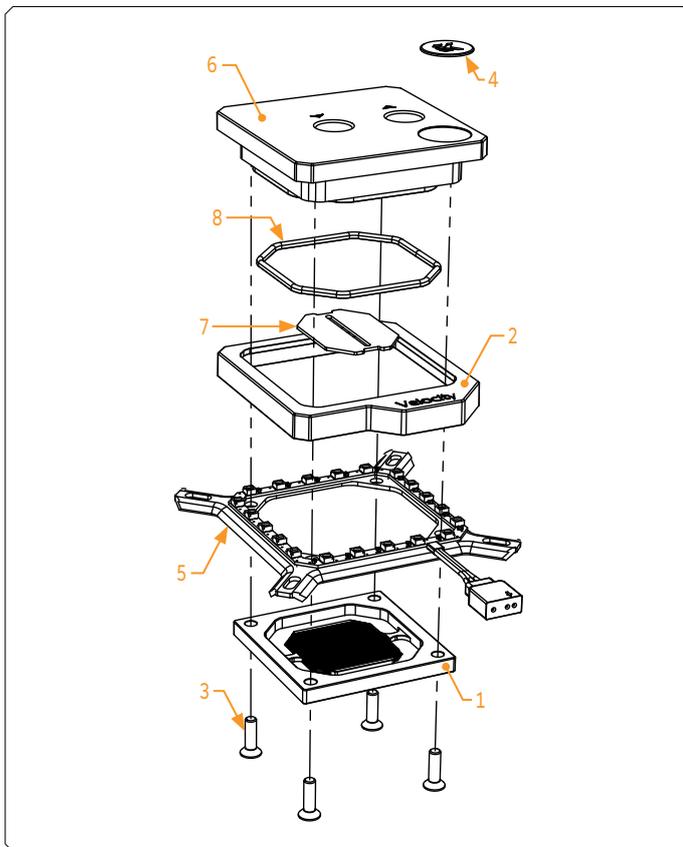
Technical Specification:

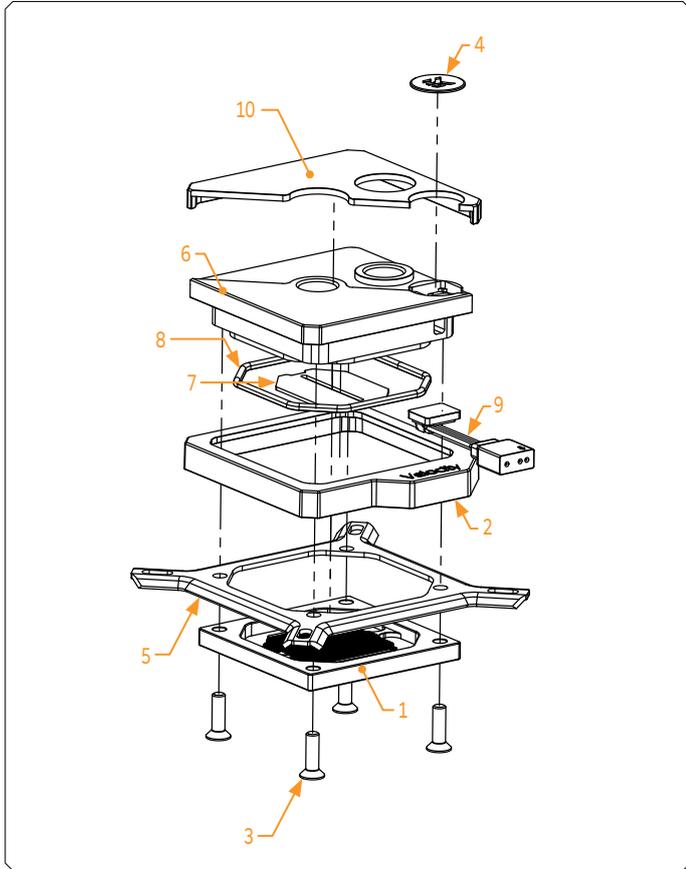
- Dimensions (L x H x W): 91 x 91 x 22 mm
- D-RGB cable length: 500 mm
- D-RGB LED count: 20
- D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground)

Position	EAN	Description	Quantity
1	100668	COLDPLATE - Copper	1
	100669	COLDPLATE - Nickel	
2	100830	VELOCITY FRAME - Black	1
	100831	VELOCITY FRAME - Nickel	
	100832	VELOCITY FRAME - White	
3	8207	SCREW M4x14 DIN7991	4
4	100663	EK-BADGE	1
5	100849	Intel Mounting Plate + LED D-RGB	1
	100526	TOP PLATE - Acetal	
	1012044	TOP PLATE - Frosted Plexi	
6	100629	JET PLATE	1
7	100728	SEALING GASKET	1



LED light is not included in all versions.

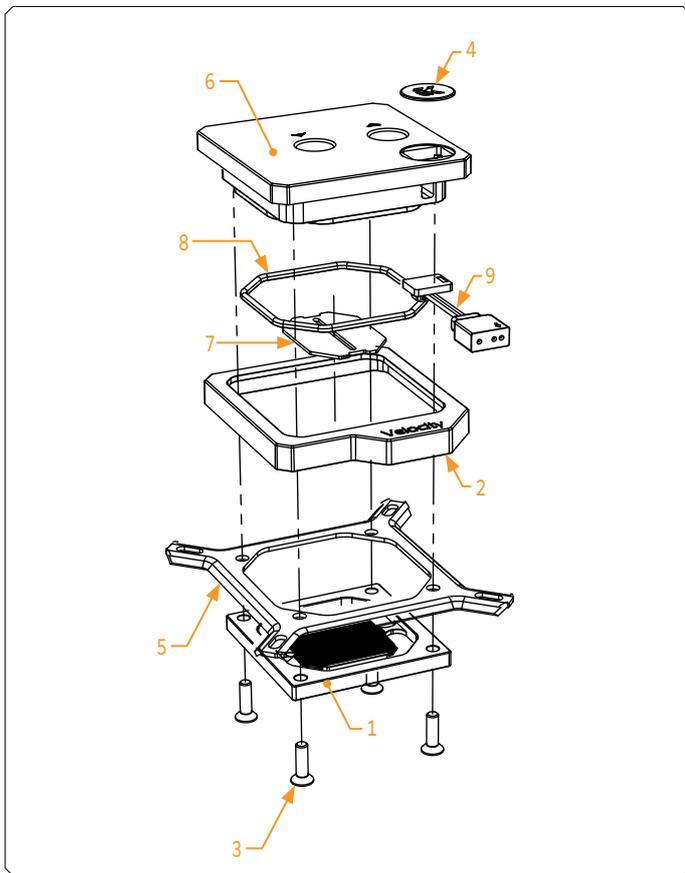




Technical Specification:

- Dimensions (L x H x W): 91 x 91 x 22 mm
- D-RGB cable length: 500 mm
- D-RGB LED count: 1
- D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground)

Position	EAN	Description	Quantity
1	100668	COLDPLATE - Copper	1
	100669	COLDPLATE - Nickel	
2	100830	VELOCITY FRAME - Black	1
	100831	VELOCITY FRAME - Nickel	
	100832	VELOCITY FRAME - White	
3	8207	SCREW M4 x 14 DIN7991	4
4	100663	EK-BADGE	1
5	100575	INTEL MOUNTING PLATE	1
6	101691	TOP PLATE - Strike Black Nickel	1
	101692	TOP PLATE - Strike Matte Black	
	100528	TOP PLATE - Full Nickel	
7	100629	JET PLATE	1
8	100728	SEALING GASKET	1
9	102213	LED D-RGB PANEL	1
10	101693	STRIKE COVER - Black Elox	1
	101694	STRIKE COVER - Natural Elox	
	102500	HONOR COVER - Stars & Stripes	



Technical Specification:

- Dimensions (L x H x W): 91 x 91 x 22 mm
- D-RGB cable length: 500 mm
- D-RGB LED count: 1
- D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground)

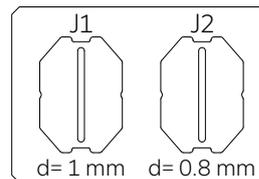
Position	EAN	Description	Quantity
1	100668	COLDPLATE - Copper	1
	100669	COLDPLATE - Nickel	
2	100830	VELOCITY FRAME - Black	1
	100831	VELOCITY FRAME - Nickel	
	100832	VELOCITY FRAME - White	
3	8207	SCREW M4 x 14 DIN7991	4
4	100663	EK-BADGE	1
5	100575	INTEL MOUNTING PLATE	1
6	100528	TOP PLATE - Full Nickel	1
7	100629	JET PLATE	1
8	100728	SEALING GASKET	1
9	102213	LED D-RGB PANEL	1

REPLACING THE JET PLATE PROCEDURE

STEP 1

Please reference the table below to determine the optimal insert and jet plate needed for your type of socket.

Socket	Optimal Jet
LGA-115x / LGA-1200	J1
LGA-2011(-3)	J2
LGA-2066	J2



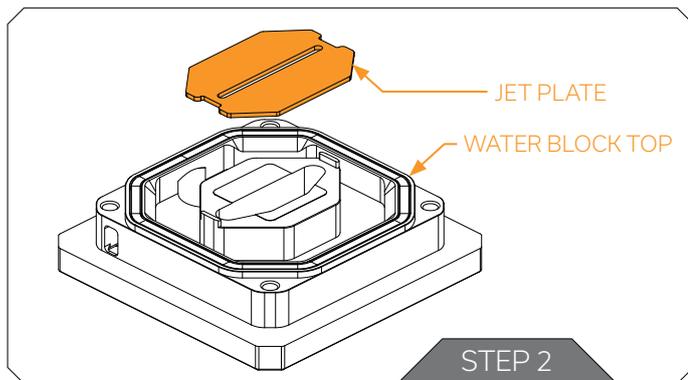
STEP 2

Unscrew the four M4 screws in counter-clock-wise direction from the bottom of the water block using the enclosed 2.5 mm Allen key to release the assembly, which consists of the water block top and jet plate. Upon replacing the jet plate, please reassemble the water block as shown in STEP 1 and STEP 2. Pay special attention to the insert orientation relative to the copper base and the water block top.

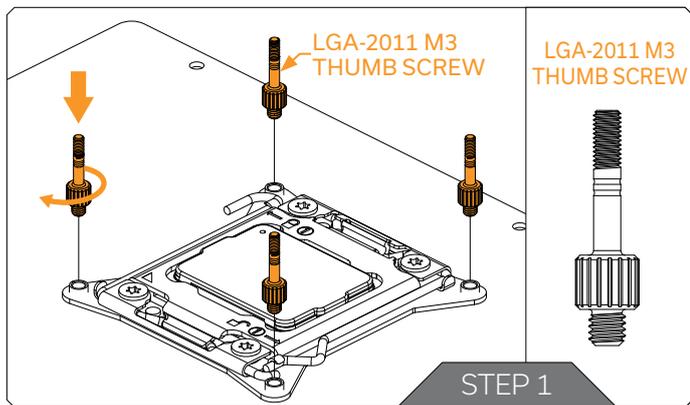


Before reassembly of the water block it is crucial that the preformed gasket (o-ring) is placed into the gap between the mounting plate and the water block top.

Screw the four screws back in firmly, but not forcefully.



INSTALLING THE WATER BLOCK



LGA-2011(-3) / 2066 SOCKET MOTHERBOARDS

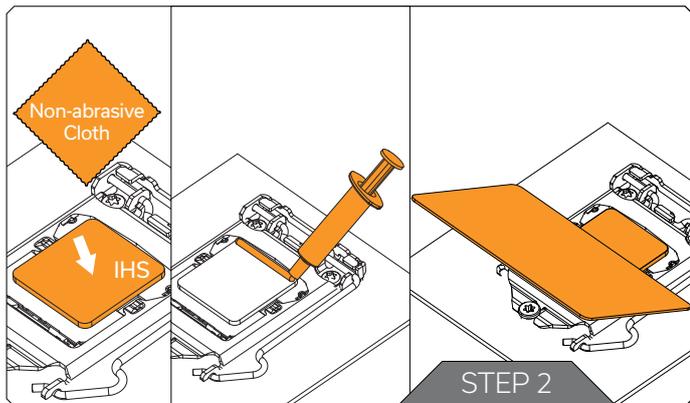
STEP 1

Prepare the foil bag with mounting mechanism, which is enclosed with the CPU water block delivery.

Install four (4) specific LGA-2011 M3 thumb screws into four M3 threaded stubs on the LGA-2011 socket integrated latch mechanism (ILM). The screws are to be installed using no tools (i.e. pliers).



It is recommended to remove the motherboard from the PC chassis before proceeding with the installation of the CPU water block. This is due to the spatial limitations of various computer cases.



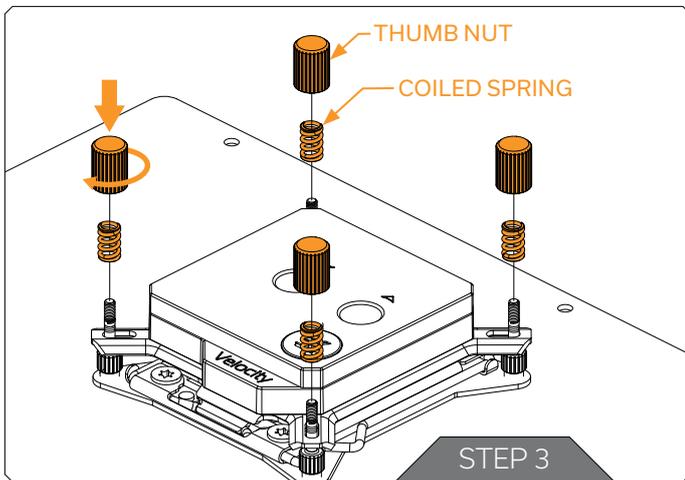
STEP 2

Cleaning the CPU: Wipe the CPU's contact surface (by using non-abrasive cloth or Q-tip, as shown on sample photo).

Applying thermal compound: On a clean IHS, apply a line of thermal compound and spread it over the whole CPU heat spreader (IHS) with a credit card or equivalent - see sample photo on left.



The layer of thermal compound must be thin and even in thickness through the whole surface of the IHS. Too thick of an application could lead to poor performance. This method applies to Thermal Grizzly Hydronaut thermal compound (3830046998477).



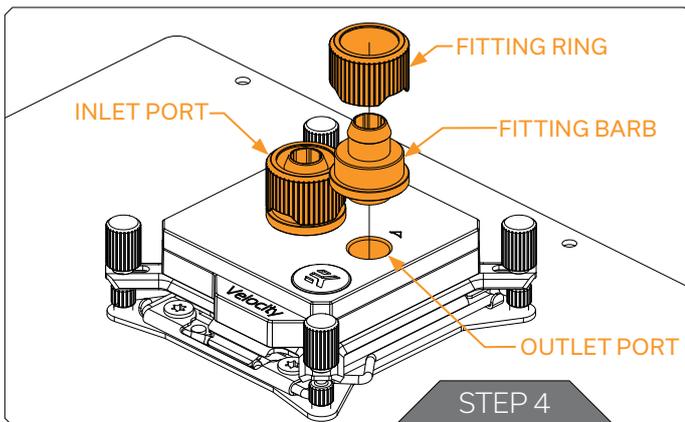
STEP 3

Align the water block over the mounting screws on the LGA-2011(-3) motherboard with pre-installed CPU.



Before proceeding with the installation, it is mandatory to remove the protective foil from the backside of the water block.

Place an enclosed compression spring and thumb nut over each M3 thumb screw. Start fastening two thumb nuts at a time, preferably in cross pattern and do not tighten them fully until all of them are partially screwed in. Then - using your fingers only - screw in all four thumb nuts until you reach the end of the thread.



STEP 4

Tighten the fitting bars in clockwise direction until the gasket underneath is compressed.

The installation of the CPU water block is now complete.

With EK-Velocity series water blocks it is mandatory to use the port that is nearest to the center of the water block as INLET port. Mixing the ports may result in less than ideal thermal performance of the water block.

LGA-115x SOCKET MOTHERBOARDS

STEP 1

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

STEP 2

Preparing backplate rubber gasket

The enclosed rubber gasket is an essential part of the backplate and mounting system and must be used every time you install this water block on your motherboards.



The rubber gasket has a partially cut inner part which needs to be removed when installed on Intel® LGA-115x motherboard. The rubber is held in four places and can be peeled away by hand.

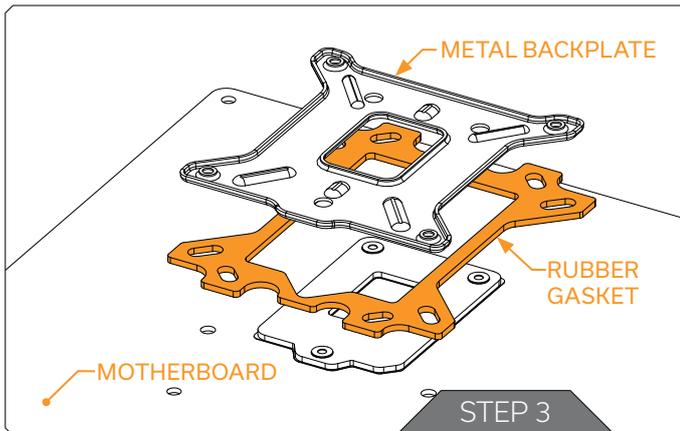
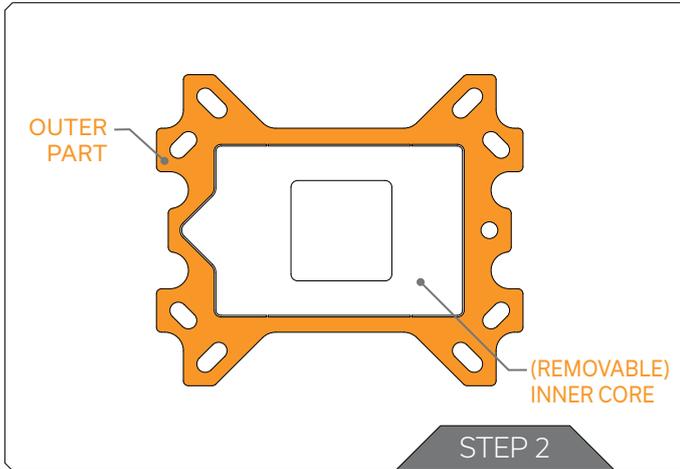
STEP 3

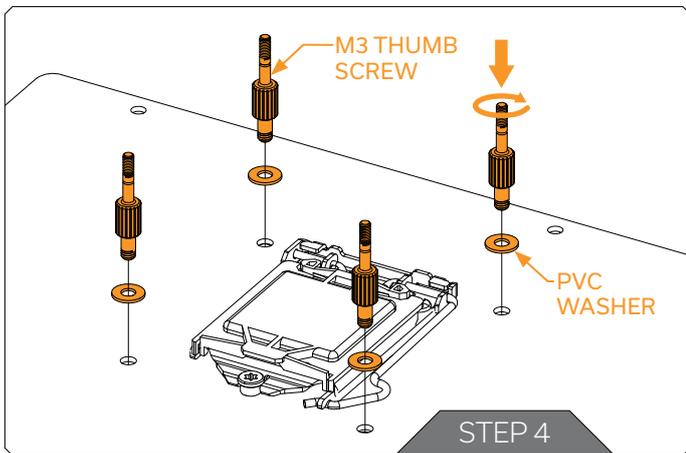
Install the backplate rubber gasket and place the metal backplate for the Intel® LGA-115x socket on the back of your motherboard with the RIBBED SIDE UP (facing away from the motherboard). Align the holes on the motherboard with the holes on the rubber gasket and backplate.



Make sure to orientate the rubber gasket to fit past the CPU socket ILM backplate. On certain ITX form factor motherboards the rubber gasket may need to be trimmed using household scissors.

Carefully rotate motherboard assembly with front side facing up with one hand while holding the backplate and rubber in place with the other hand.





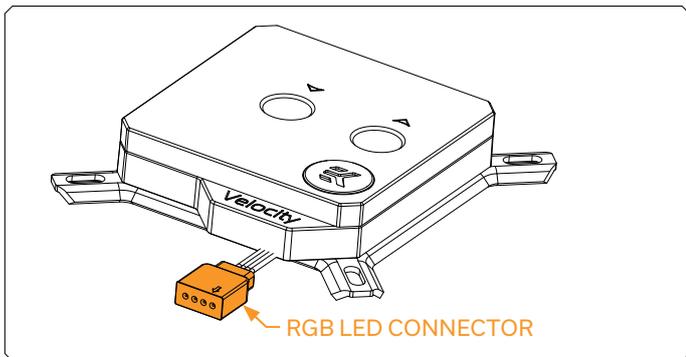
STEP 4

Install four (4) M3 thumb screws onto your motherboard. It is mandatory to put 0.7mm plastic washer underneath each of the M3 thumb screws. Tighten the screws to the metal backplate until you reach the end of the thread. Using tools (such as pliers) is not recommended.



Continue installation by following the instructions on page 9 from STEP 2.

CONNECTING THE RGB LED STRIP (Optional)



CONNECTING THE RGB LED STRIP

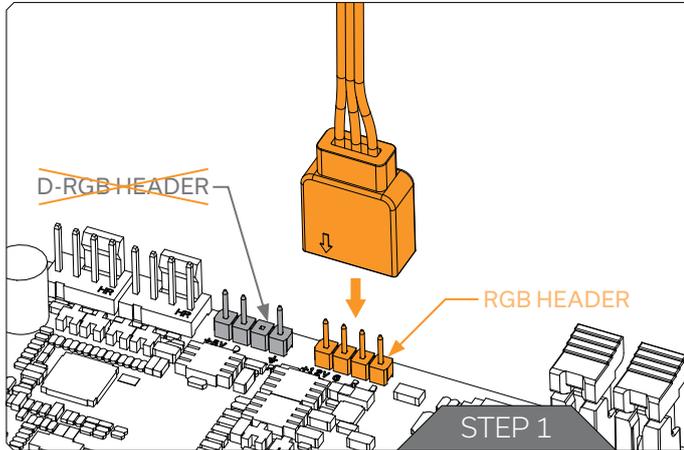
STEP 1

Plug the 4-pin connector from the water block and fan's RGB LED light to the RGB HEADER on the motherboard. The LED will work if the pin layout on the header is as follows: **+12V G R B**.



Please ensure that the arrow indicated on the connector is plugged into the +12V line as indicated on your motherboard.

Failure to do so will damage your motherboard or LED strip.



CONNECTING THE D-RGB LED STRIP

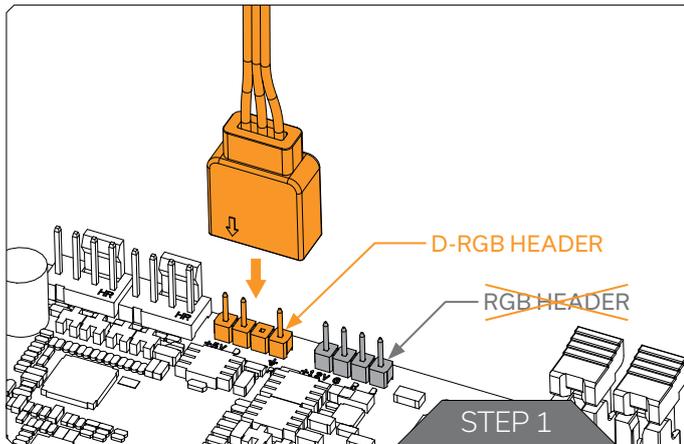
STEP 1

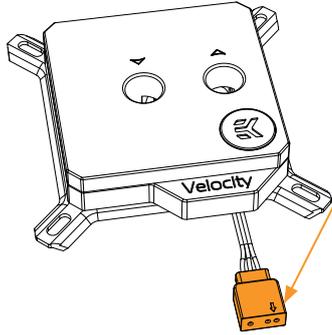
Plug the 4-pin connector from the water block's D-RGB LED light to the DRGB HEADER on the motherboard. The LED will work if the pin layout on the header is as follows: **+5V, Digital, empty, Ground**.



Please ensure that the arrow indicated on the connector is plugged into the +5V line as indicated on your motherboard. If you put LED Diode to the 12V RGB HEADER you can damage the LEDs.

Failure to do so will damage your motherboard or LED strip.





D-RGB LED Connector

Connector is same on D-RGB and RGB version but D-RGB version has 3 cables from connector to light. RGB version have 4 cables. If you connect D-RGB led to ordinary RGB header you will damage your motherboard or LED strip.



Connector is the same on D-RGB and RGB versions, but D-RGB version has 3 cables from connector to PCB; RGB version has 4 cables. If you connect D-RGB LED to ordinary RGB header you can 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 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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