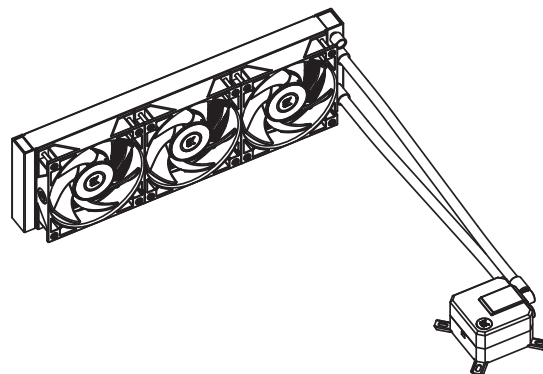
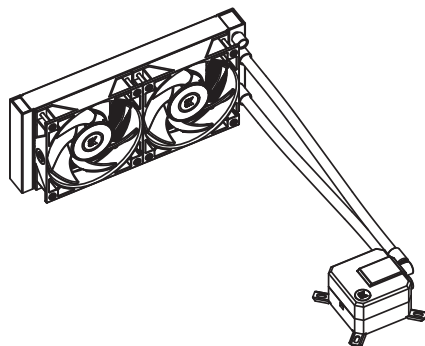
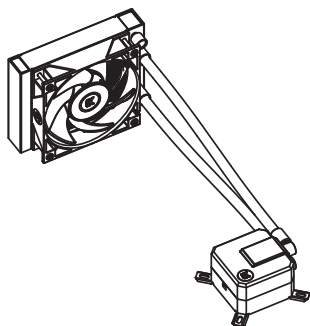


EK-AIO

120 D-RGB / 240 D-RGB / 360 D-RGB



To ensure safe and easy installation, please carefully read this manual before starting with the installation process!

Compatible with:
Intel Socket 115X / 20xx CPUs
AMD Socket AM4 CPU

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This product is intended for installation by expert users only. Please, consult with a qualified technician. 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 or their installation. The following instructions are subject to change without notice. Please visit our web site at www.ekwb.com for updates.

1. SAFETY PRECAUTIONS

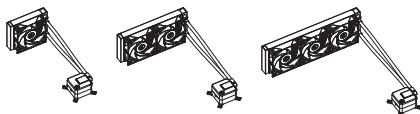
1. Keep and store the product away from the reach of children.
2. Check the component list and condition of the product before installation. If you encounter a problem, contact the shop where you have purchased the product to get a replacement or a refund.
3. EKWB d.o.o. is not responsible for any damages due to external causes, including but not limited to: improper use, problems with electrical power, accident, neglect, alteration, repair, improper installation, and improper testing.
4. CPU and motherboard are subject to damage if the product is incorrectly installed.
5. The excessive force exerted on the fan may cause damage to the fan and/or system.
6. This product is a CPU liquid cooling solution kit, comprising of individual original EKWB parts. Combining this liquid cooling unit with parts, other than EK Water Block products, may lead to warranty loss.
7. Product design and specifications may be revised to improve quality and performance.

2. SPECIFICATIONS

	Model	EK-AIO 120 D-RGB	EK-AIO 240 D-RGB	EK-AIO 360 D-RGB
Radiator	Dimensions	155x120x30 mm	275x120x30 mm	395x120x30 mm
	Fin material	Al, Cu	Al, Cu	Al, Cu
Fan	Dimensions	120x120x25 mm	120x120x25 mm (2x)	120x120x25 mm (3x)
	Speed	600-2200 RPM $\pm 10\%$ (PWM: 25-100%)	600-2200 RPM $\pm 10\%$ (PWM: 25-100%)	600-2200 RPM $\pm 10\%$ (PWM: 25-100%)
	Air Flow	77 CFM	77 CFM	77 CFM
	Life Expectancy	50,000 hours	50,000 hours	50,000 hours
	Noise Level	33.5 dB	33.5 dB	33.5 dB
	Bearing Type	Fluid Dynamic bearing (FDB)	Fluid Dynamic bearing (FDB)	Fluid Dynamic bearing (FDB)
	Connector	4-Pin	4-Pin	4-Pin
	Rated Voltage	12V	12V	12V
Pump	Dimensions (mm)	88x70x53 mm	88x70x53 mm	88x70x53 mm
	RPM	450-2600 RPM $\pm 10\%$ (PWM: 20-100%)	450-2600 RPM $\pm 10\%$ (PWM: 20-100%)	450-2600 RPM $\pm 10\%$ (PWM: 20-100%)
	Life Expectancy	50,000 hours	50,000 hours	50,000 hours
	Noise Level	23 dB	23 dB	23 dB
	Input Current	0.65 $\pm 10\%$ A	0.65 $\pm 10\%$ A	0.65 $\pm 10\%$ A

3. ENCLOSED IN THIS PACKAGE

EK-AIO 120 D-RGB unit /
EK-AIO 240 D-RGB unit /
EK-AIO 360 D-RGB unit
(1x)



EK-Vardar S 120ER D-RGB Fan
(1x / 2x / 3x – number of fans depends on the AIO version)



A tube of Thermal Paste (3830046998446 - EK-TIM Ectotherm (1g))
(1x)



Fan Cable Y-splitter

EK-AIO 240



EK-AIO 360



Mounting Kit (1x)

User Manual (1x)

Mounting kit

ZIP BAG 1 (FAN MOUNTING SCREWS)

Phillips Head Screw UNC 6-32 x 30mm
(5 mm thread length)
4x



Phillips Head Screw
UNC 6-32 x 6mm
4x



Phillips Head Screw UNC 6-32 x 34mm
4x



ZIP BAG 2 (INSTALLATION HARDWARE)

Thumb nut (Intel /AMD)
4x



Mounting thumb screw for INTEL
LGA 115x / AMD AM4 socket
4x



Mounting thumb screw for Intel LGA
20XX socket
4x



Spring
4x



Mounting Plate Phillips Head M4x4mm
(for the installation of mounting
brackets)
4x



ZIP BAG 3 (BACKPLATE, MOUNTING BRACKETS, AND ACCESSORIES)

Intel LGA 115x Backplate
1x



Intel mounting bracket
2x



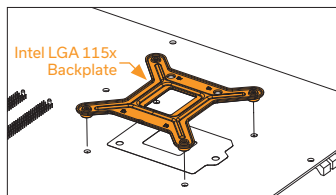
AMD mounting bracket
2x



4. INSTALLATION – INTEL LGA-115X SOCKET

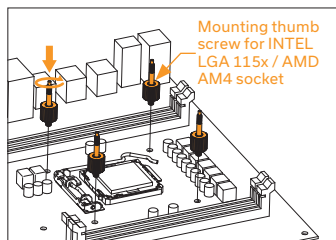
Step 1: Removing the motherboard

If your PC case doesn't have a cutout from the bottom CPU side of the motherboard, you will first need to remove the motherboard from your computer.



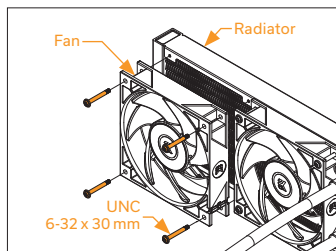
Step 2: Attaching the backplate to the motherboard

Install the Intel backplate for LGA-115x socket to the back of your motherboard. Align the holes on the motherboard with the holes on the backplate.



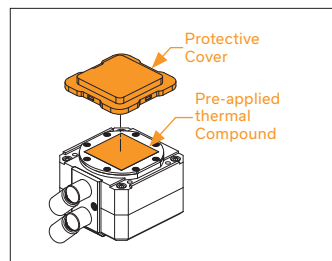
Step 3: Attaching mounting screws

Install 4x LGA-115x mounting thumb screws through your motherboard to the backplate.



Step 4: Installing the fans to the radiator

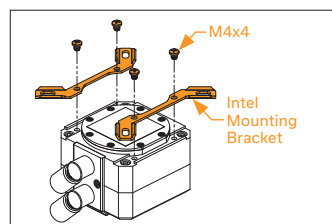
Attach the fans (1x, 2x or 3x, depending on the AIO version) to the radiator using the UNC 6-32 x 30mm screws.



Step 5: Removing the cold-plate protective cover

Remove the protective cover from the backside of the pump unit. It is there only to prevent the damage of the cold-plate and the pre-applied thermal compound that is on the cold-plate.

When removing the protective cover and proceeding with installation be careful not to touch or damage the pre-applied thermal compound!



Step 6: Mounting brackets installation

Use four M4x4 screws to install two Intel brackets onto the pump unit.

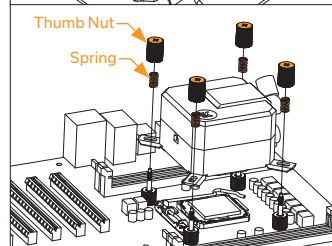
Be careful not to touch or damage the pre-applied thermal compound!



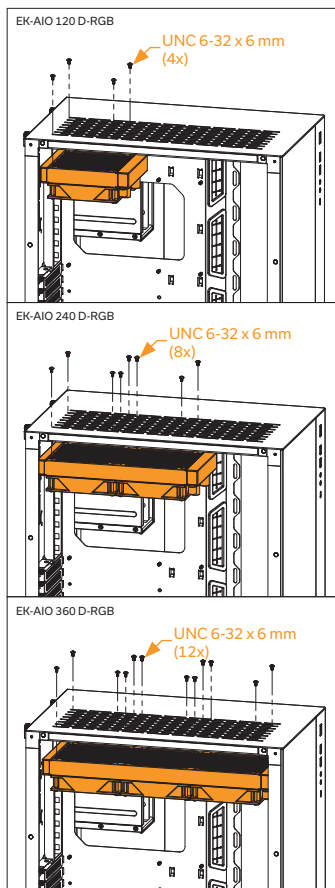
Step 7: Pump unit installation

Wipe the CPU's contact surface (using a non-abrasive cloth or a Q-tip as shown in the sample image).

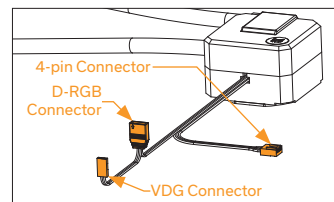
Align the pump unit over the mounting screws and CPU as shown in the picture.



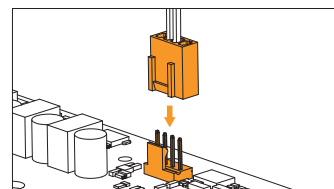
Place the enclosed compression springs and thumb nuts over the mounting screws (4x). Start fastening two thumb nuts at a time, preferably in cross pattern, and do not tighten them fully until all of them are partially screwed in.



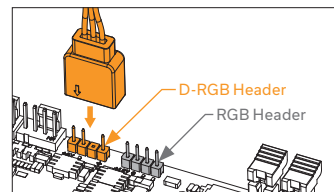
Step 8: Installing the assembly of fans and the radiator into a PC case
Attach the assembly of the radiator and the fan(-s) to the PC case with the UNC 6-32 x 6mm screws.



Step 9: Pump – connecting cables



Step A:
Plug the 4-pin PWM connector of the pump to the motherboard.



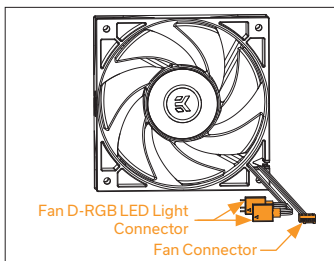
Step B:
Plug the 3-pin connector of the pump's D-RGB LED light to the D-RGB HEADER on the motherboard. The LED will work if the pin layout on the header is as follows: +5V, Digital, Empty, Ground. With some motherboards, you can alternatively use a VDG connector instead of a D-RGB to connect the LED.



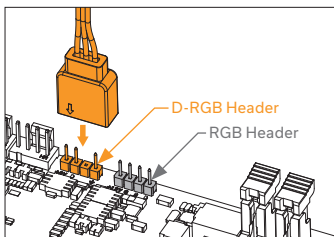
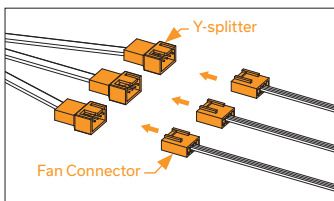
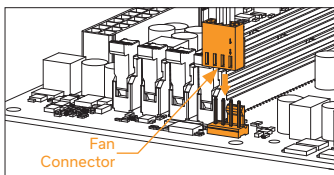
Please ensure that the arrow indicated on the connector is plugged into the +5V line as indicated on your motherboard. If you put LED Diode to the 12V RGB HEADER you can damage the LEDs.



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.



Step 10: Fans – connecting cables



Step A:

OPTION 1:

Connect the 4-pin PWM connector from the fan cable directly to the CPU fan-header on the motherboard. Always use the CPU fan-header if possible.

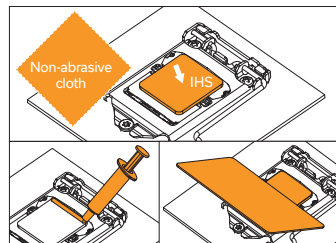
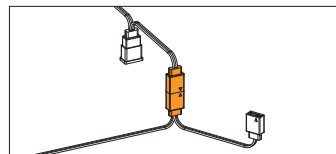
OPTION 2:

In the case of EK-AIO 240 D-RGB and EK-AIO 360 D-RGB versions (with 2 or 3 fans), you may connect the connectors from each of the fans with the connectors on the Y-splitter cable and then connect the Y-splitter connector to the fan-header on the motherboard. Always use the CPU fan-header if possible.

Step B:

OPTION 1:

Plug the 3-pin connector for D-RGB LED light of the fan(s) to the D-RGB HEADER on the motherboard.



OPTION 2:

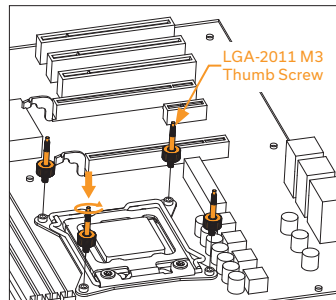
In the case of EK-AIO 240 D-RGB and EK-AIO 360 D-RGB versions, you may first connect 2 or 3 fans together in a "daisy-chain" connection and then connect them all together to a D-RGB header on the motherboard.

OPTIONAL step! Applying the thermal compound

This step is relevant only in the case of a second installation of AIO or if you have damaged the pre-applied paste on the backside of the pump unit! For the first installation, you don't need to apply the additional thermal compound to the CPU's contact surface!

Wipe the CPU's contact surface (using a non-abrasive cloth or a Q-tip as shown in the sample image). 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 something similar.

5. INSTALLATION – INTEL LGA-20XX SOCKET



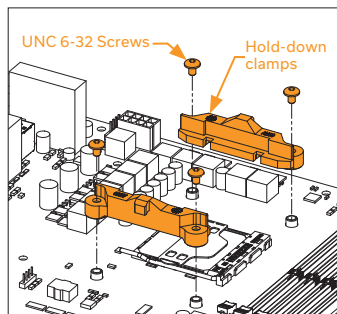
Step 1: Attaching mounting screws (LGA-20xx)

LGA-20xx (2066 / 2011 V3 / 2011) socket motherboards do not require backplate installation. Install 4x LGA-20XX mounting thumb screws into M4 threaded stubs on the integrated latch mechanism (ILM) of the LGA-20XX socket.



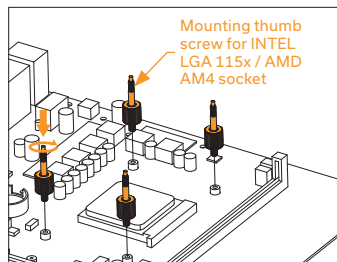
Continue installation by following the instructions from Step 4 on page 6

6. INSTALLATION – AMD AM4 SOCKET



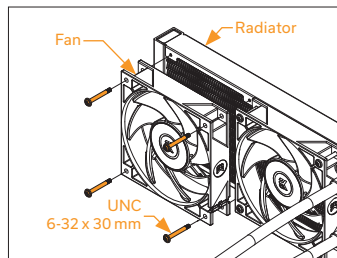
Step 1: Removing the original plastic hold-down clamps (AMD)

Using Philips-head screwdriver, remove the 4 UNC 6-32 screws securing the original plastic hold-down clamps around the socket as shown in the image. Keep the original AMD® backplate and remove the hold-down clamps to store them away. See the image for further part identification.



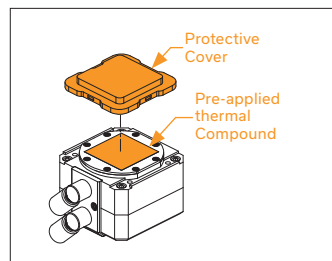
Step 2: Attaching mounting screws (AMD)

Install 4x mounting thumb screw for AMD AM4 socket onto your motherboard. The screws are to be installed without the use of tools (i.e. pliers).



Step 3: Installing the fans to the radiator (AMD)

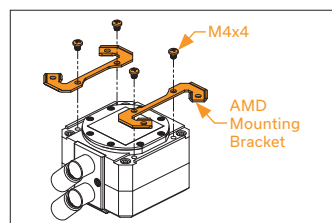
Attach the fans (1x, 2x or 3x, depending on the AIO version) to the radiator with the UNC 6-32 x 30mm screws.



Step 4: Removing the cold-plate protective cover (AMD)

Remove the protective cover from the backside of the pump unit. It is there only to prevent the damage of the cold-plate and the pre-applied thermal compound that is on the cold-plate.

When removing the protective cover and proceeding with installation be careful not to touch or damage the pre-applied thermal compound!



Step 5: Mounting brackets installation (AMD)

Use four M4x4 screws to install two AMD brackets onto the pump unit.

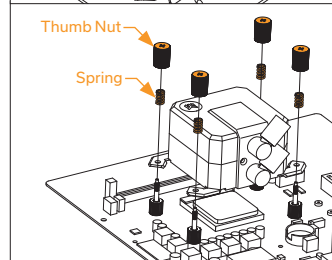
Be careful not to touch or damage the pre-applied thermal compound!



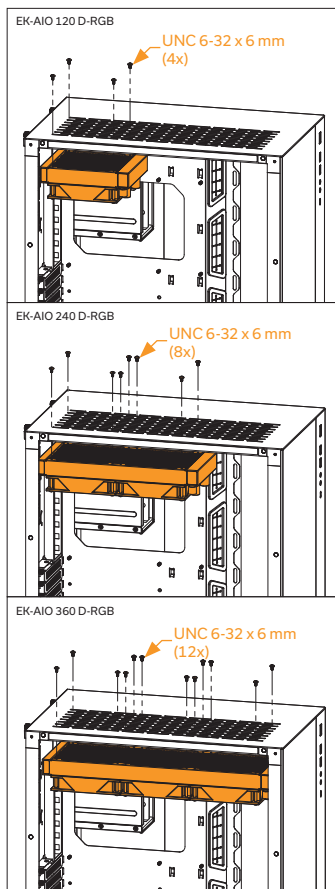
Step 6: Pump unit installation (AMD)

Wipe the CPU's contact surface (using a non-abrasive cloth or a Q-tip as shown in the sample image).

Align the pump unit over the mounting screws and CPU as shown in the picture.

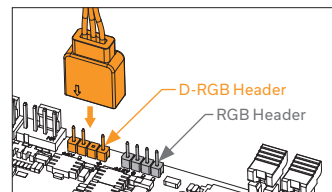
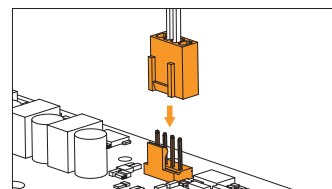
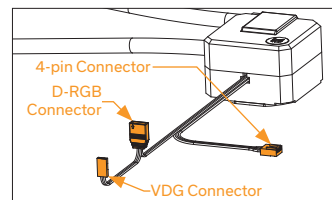


Place the enclosed compression springs and thumb nuts over the mounting screws (4x). Start fastening two thumb nuts at a time, preferably in cross pattern, and do not tighten them fully until all of them are partially screwed in.



Step 7: Installing the assembly of fans and the radiator into a PC case (AMD)

Attach the assembly of the radiator and the fan(-s) to the PC case with the UNC 6-32 x 6mm screws.



Step 8: Pump – connecting cables (AMD)

Step A:

Plug the 4-pin PWM connector of the pump to the motherboard.

Step B:

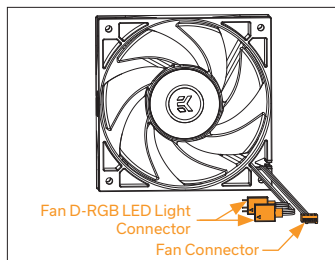
Plug the 3-pin connector of the pump D-RGB LED light to the D-RGB HEADER on the motherboard. The LED will work if the pin layout on the header is as follows: +5V, Digital, Empty, Ground. With some motherboards, you can alternatively use a VDG connector instead of a D-RGB to connect the LED.



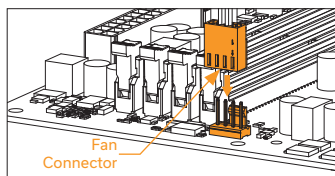
Please ensure that the arrow indicated on the connector is plugged into the +5V line as indicated on your motherboard. If you put LED Diode to the 12V RGB HEADER you can damage the LEDs.



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.

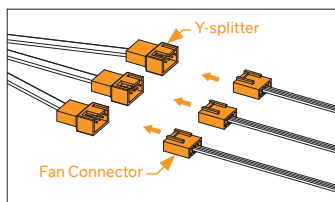


Step 9: Fans – connecting cables (AMD)



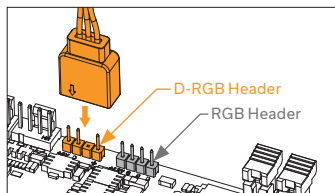
Step A:

OPTION 1:
Connect the 4-pin PWM connector of the fan cable directly to the CPU fan-header on the motherboard. Always use the CPU fan-header if possible.



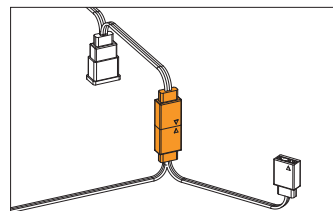
OPTION 2:

In the case of EK-AIO 240 D-RGB and EK-AIO 360 D-RGB versions (with 2 or 3 fans), you may connect the connectors from each of the fans to the connectors on the Y-splitter cable and then connect the Y-splitter connector to the fan-header on the motherboard. Always use the CPU fan-header if possible.



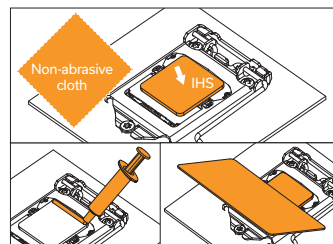
Step B:

OPTION 1:
Plug the 3-pin connector for D-RGB LED light of the fan(s) to the D-RGB HEADER on the motherboard.



OPTION 2:

In the case of EK-AIO 240 D-RGB and EK-AIO 360 D-RGB versions, you may first connect 2 or 3 fans together in a "daisy-chain" connection and then connect them all together to a D-RGB header on the motherboard.



OPTIONAL step! Applying the thermal compound

This step is relevant only in the case of a second installation of AIO or if you have damaged the pre-applied paste on the backside of the pump unit! For the first installation, you don't need to apply the additional thermal compound to the CPU's contact surface!

Wipe the CPU's contact surface (using a non-abrasive cloth or a Q-tip as shown in the sample image). 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 something similar.

7. SUPPORT AND SERVICE

For assistance please contact: <http://support.ekwb.com/>

EKWB d.o.o.
Pod lipami 18
1218 Komenda
Slovenia - EU

8. SOCIAL MEDIA

