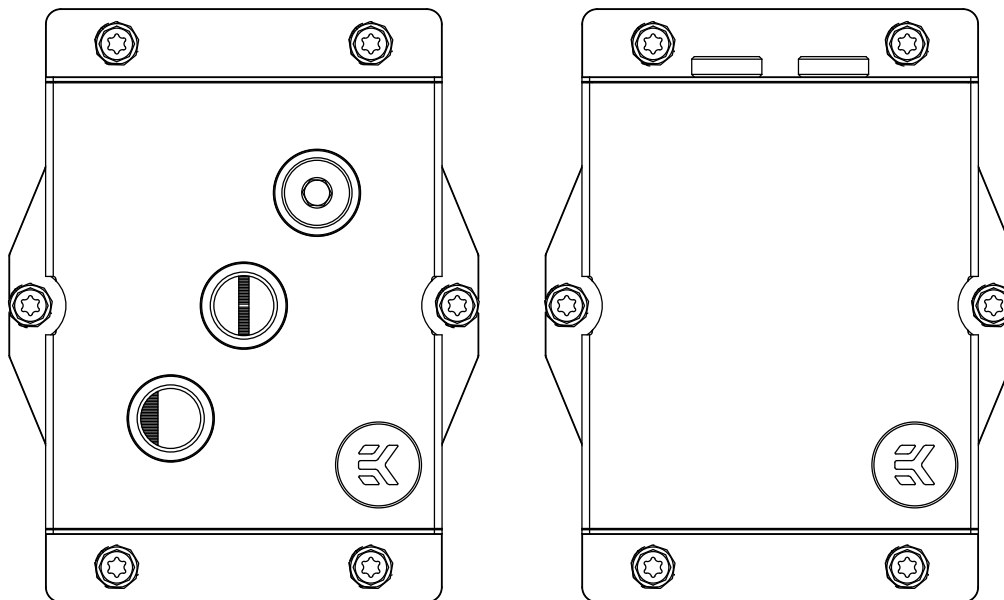# EK-Pro
CPU Water Block SP5

SP5 NI + POM-C | SP5 AL + POM-C | SP5 RACK NI + POM-C | SP5 RACK AL + POM-C

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 read the manual carefully before starting the installation process.

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

The EK-HFB and EK-ACF type fittings require only a small amount of force to screw them firmly in place since the rubber O-ring gaskets ensure the liquid seal.

The use of corrosion inhibiting coolants is always recommended for any liquid cooling system.

Do not use pure distilled water. For best results, EK recommends the use of EK-CryoFuel coolants.

**Make sure to bleed the air from your water block thoroughly, or you will not reach optimal performance.**
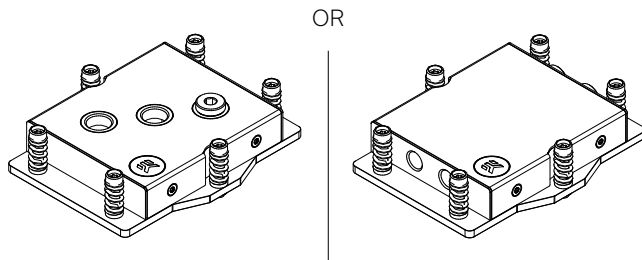
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GENERAL INFORMATION ON WATER BLOCK COMPATIBILITY

This CPU liquid cooling unit is pre-assembled for use with modern AMD server socket-type motherboards. By default (out of the box), this water block supports the following CPU sockets:
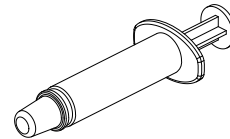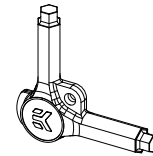
 - AMD® Socket SP5

BOX CONTENTS

OR
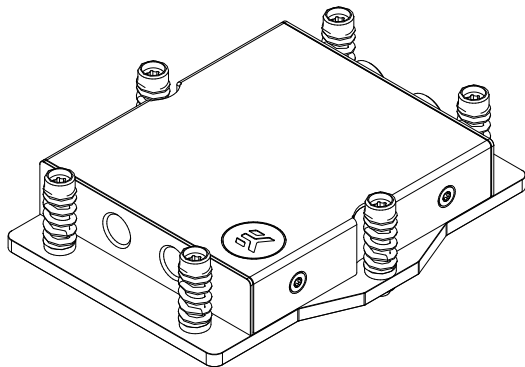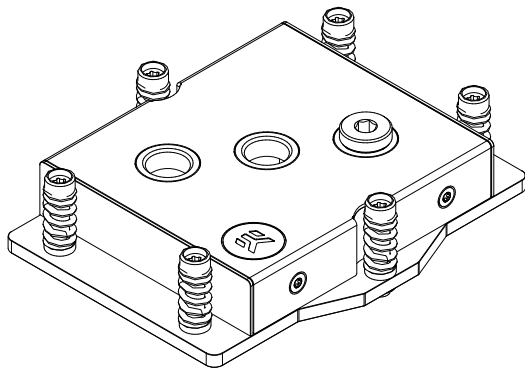
EK-Pro CPU Water Block SP5

Mounting Mechanism EAN: 106401

EK-TIM Ectotherm (1g)

EK-Loop Multi Allen Key (6 mm, 8 mm, 9 mm) (1 pc)

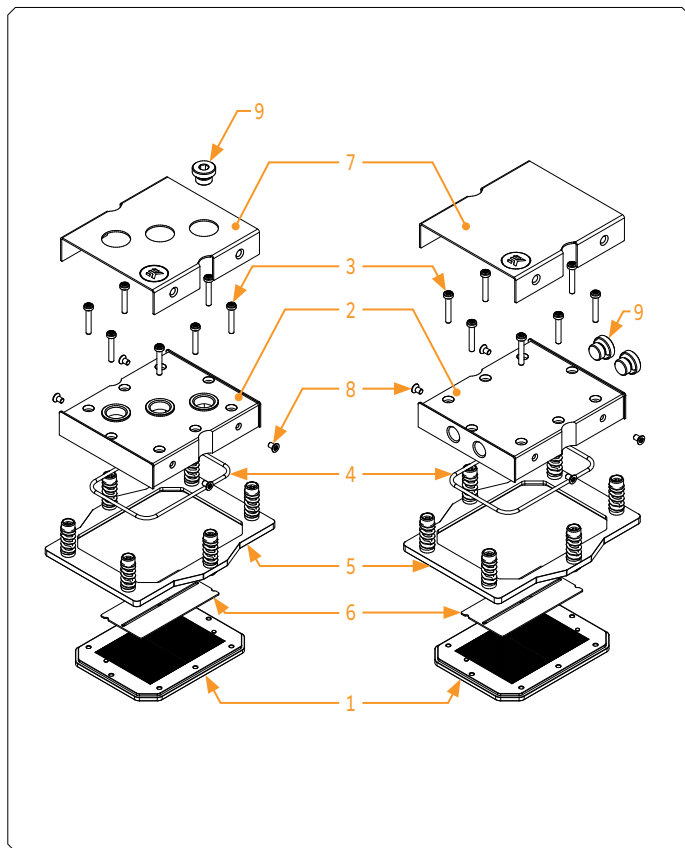Allen Key 5 mm (1 pc)

Torx T20 (1 pc)

TECHNICAL SPECIFICATIONS AND PRODUCT PARTS

The following items are enclosed with each EK-Pro SP5 water block, depending on the version: **EK-Pro SP5 CPU water block**

3831109904077 Ni + POM-C:

Position	EAN	Description	Quantity
1	105819	CPU COLDPLATE Nickel	1
2	105813	TOP ACETAL	1
3	103759	M3 x 18 ISO 14583 Screw	8
4	104307	SEALING GASKET 72 x 2 EPDM70	1
5	3831109904121	EK - MOUNTING PLATE	1
6	105815	JET PLATE	1
7	105816	TOP COVER	1
8	103089	M3 x 5 ISO 14581 Screw	4
9	102639	MS Quantum Plug Nickel	1

3831109904084 Ni rack + POM-C:

Position	EAN	Description	Quantity
1	105819	CPU COLDPLATE Nickel	1
2	105814	TOP ACETAL Rack	1
3	103759	M3 x 18 ISO 14583 Screw	8
4	104307	SEALING GASKET 72 x 2 EPDM70	1
5	3831109904121	EK - MOUNTING PLATE	1
6	105815	JET PLATE	1
7	105817	TOP COVER Rack	1
8	103089	M3 x 5 ISO 14581 Screw	4
9	3830046996435	EK-PLUG G1/8	2

3831109904091 Al + POM-C:

Position	EAN	Description	Quantity
1	105820	CPU COLDPLATE ALU	1
2	105813	TOP ACETAL	1
3	103759	M3 x 5 ISO 14581 Screw	8
4	104307	SEALING GASKET 72 x 2 EPDM70	1
5	3831109904121	EK - MOUNTING PLATE	1
6	105815	JET PLATE ALU	1
7	105816	TOP COVER	1
8	103089	M3 x 5 ISO 14581 Screw	4
9	3831109890639	EK - ALU Plug G1/4 - Elox Black	1

3831109904107 Al rack + POM-C:

Position	EAN	Description	Quantity
1	105820	CPU COLDPLATE ALU	1
2	105814	TOP ACETAL Rack	1
3	103759	M3 x 5 ISO 14581 Screw	8
4	104307	SEALING GASKET 72 x 2 EPDM70	1
5	3831109904121	EK - MOUNTING PLATE	1
6	105815	JET PLATE ALU	1
7	105817	TOP COVER Rack	1
8	103089	M3 x 5 ISO 14581 Screw	4
9	3831109810040	EK - ALU PLUG G1/8	2

INSTALLING THE WATER BLOCK

Non-abrasive Cloth

IHS

STEP 1

MAX TORQUE: 1.5 Nm

TORX T20

STEP 2
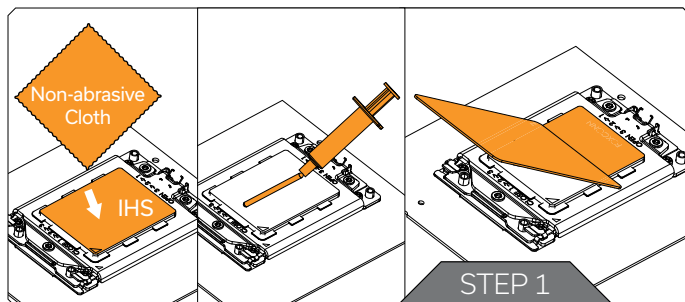
STEP 1
CLEANING THE CPU

Wipe the CPU's contact surface (by using non–abrasive cloth or Q-tip). 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.

The layer of the thermal compound must be thin and even in thickness through the whole surface of the IHS. A too-thick application could lead to poor performance.

STEP 2
INSTALLING THE WATER BLOCK ASSEMBLY
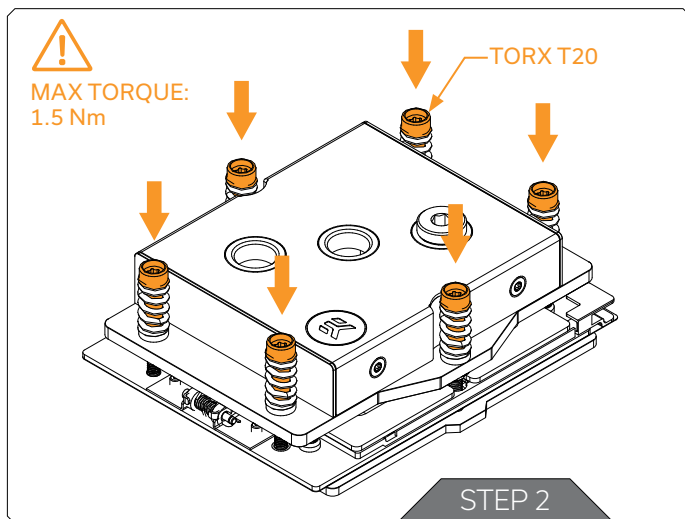
⚠️ Before proceeding with the installation, it is mandatory to remove the protective foil from the backside of the water block. The CPU should be attached to the processor carrier before you start this step. The carrier typically comes with the server system or motherboard.

Align the water block over the mounting screws on the SP5 motherboard. Make sure the processor is oriented correctly, aligning the PIN 1 corners on the socket.
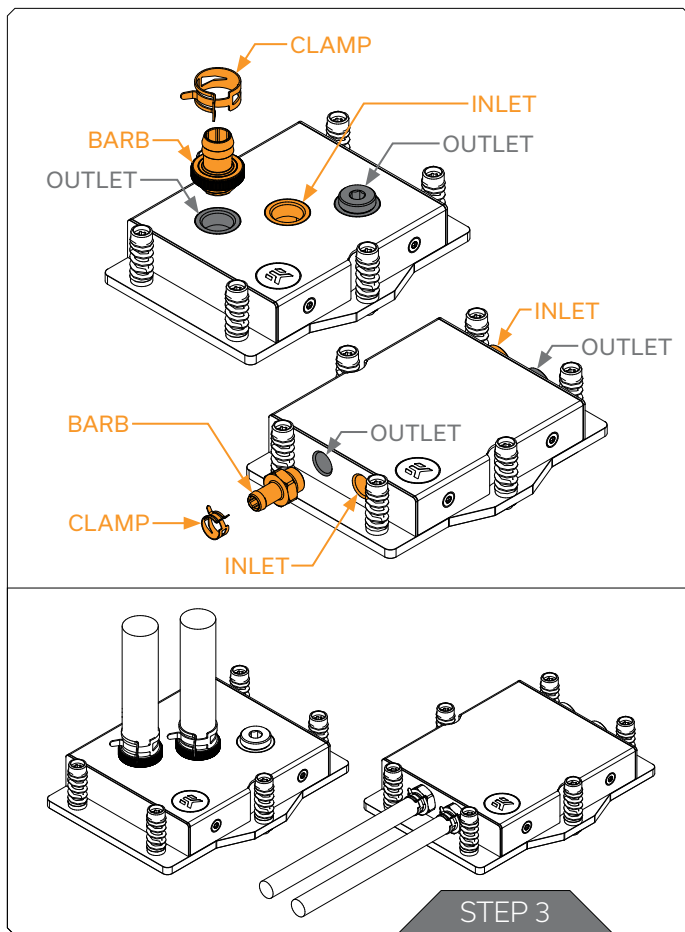
Next, use a T20 TORX screwdriver and tighten nuts with 1.2 - 1.5 Nm of torque.

⚠️ It is recommended to remove the motherboard from the PC chassis before proceeding with the installation of the processor and water block assembly because of the space constraints of different computer cases.

The installation of the CPU water block is now complete.

STEP 3
INSTALLING THE FITTINGS

Carefully identify the direction of the flow in your circuit. For the non-rack version, EK recommends the use of EK-HFB 10 mm barb fittings and EK-Tube ZMT 10/16 mm Matte Black tubing. For the rack version, EK-HFB Fitting 6 mm G1/8 and EK-Tube ZMT 6/9mm Matte Black tubing is recommended.

With EK-Pro CPU non-rack water blocks, it is mandatory to use the port in the center of the water block as the inlet port. For the rack version, the inlet port is on the right on both sides. Mixing the ports may result in lesser thermal performance of the water block.

TESTING THE LOOP

To ensure the installation of EK components was successful, we recommend you perform a 24-hour leak test.

When your loop is complete and filled with coolant, connect the pump to a PSU outside your system. Do not connect power to any of the other components. Turn on the PSU and let the pump run continuously.

Inspect all parts of the loop, and in case the coolant leaks, fix the issue and repeat the testing process. To prevent possible damage, please ensure that all hardware is dry before the system is powered on.

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 PRODUCT 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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