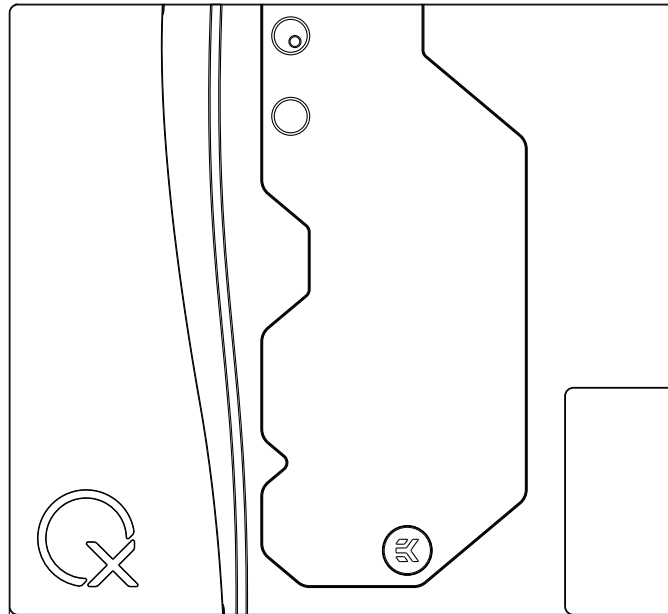


# EK-QuantumX CoolingStation Monoblock for PS5



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.



We disclaim our liability for any damages to the Sony PS5 as well as incidental, consequential, or indirect damages incurred due to improper or inappropriate installation.

Dismantling the PS5 voids its Sony warranty.



## **Safety precautions**

**Carefully read the manual before beginning with 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-CryoFuel coolants! To reach optimal performance, make sure to thoroughly bleed the air out of your water block!**

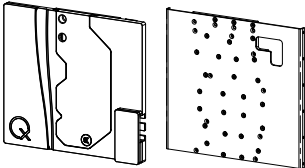
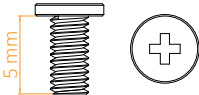
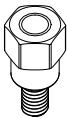

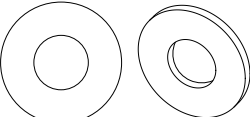
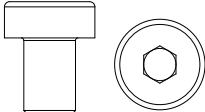
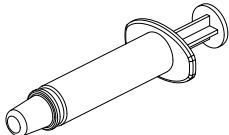
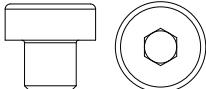
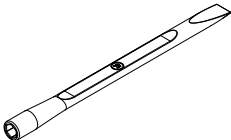
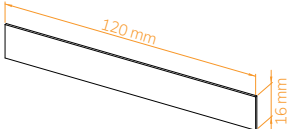
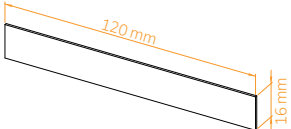
**The product warranty period is 24 months.**

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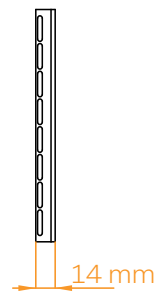
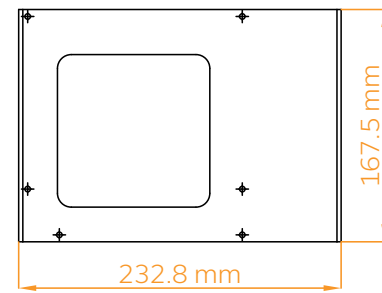
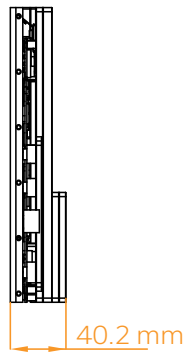
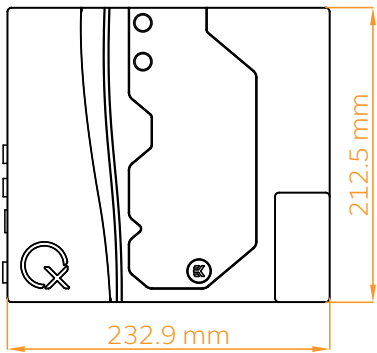
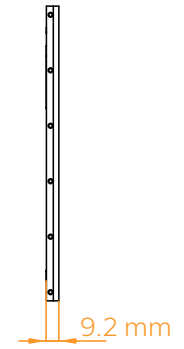
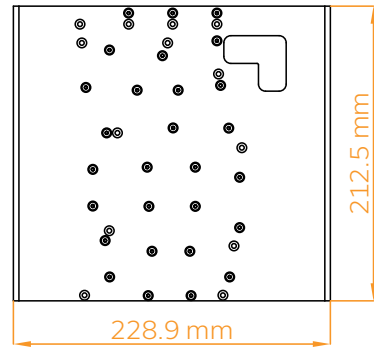
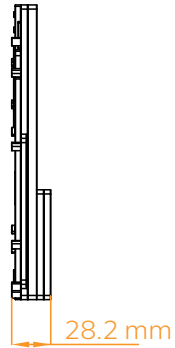
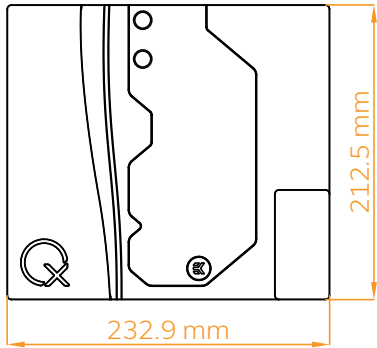
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# BOX CONTENTS

Mounting Mechanism: EAN: 106985

 <p>EK-QuantumX CoolingStation Monoblock for PS5</p>	 <p>M2.5 x 5 AX1 Screw (6 pcs)</p>	 <p>Standoff M2.5-M3 x 6.6mm (9 pcs)</p>	 <p>Standoff M4-M2.5 x 7.4mm (1pc)</p>
 <p>PVC Washer M3 (9 pcs)</p>	 <p>M3 x 6 DIN 7984 Screw (4 pcs)</p>	 <p>Thermal Grease (1 pc)</p>	 <p>M3 x 4 DIN 7984 Screw (4 pcs)</p>
 <p>EK-Plug Out Spludger Tool (1 pc)</p>	 <p>Thermal Pad F 1.0 mm (6 pcs)</p>	 <p>Thermal Pad F 2.0 mm (1 pc)</p>	

# MONOBLOCK AND BACKPLATE DIMENSIONS

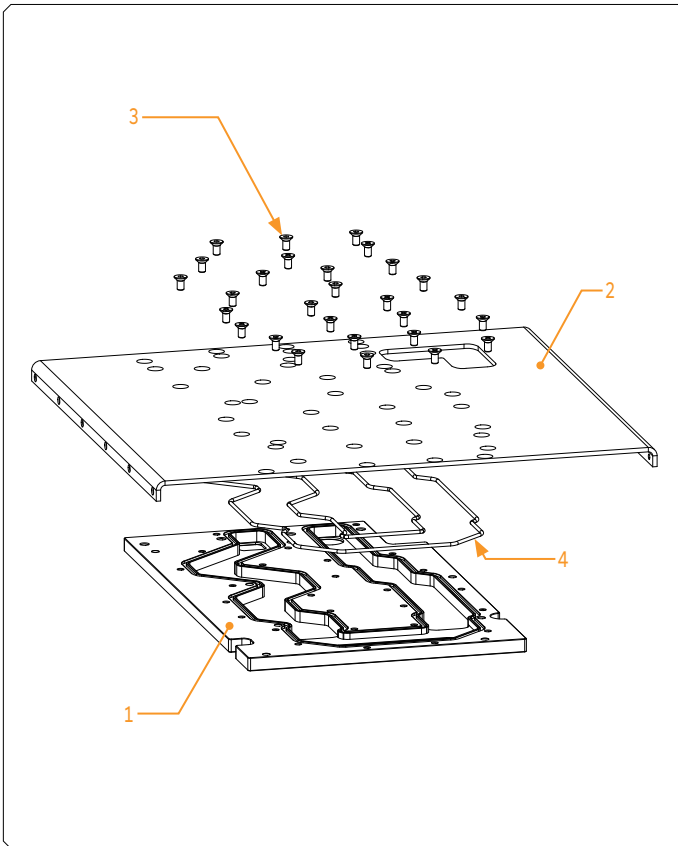


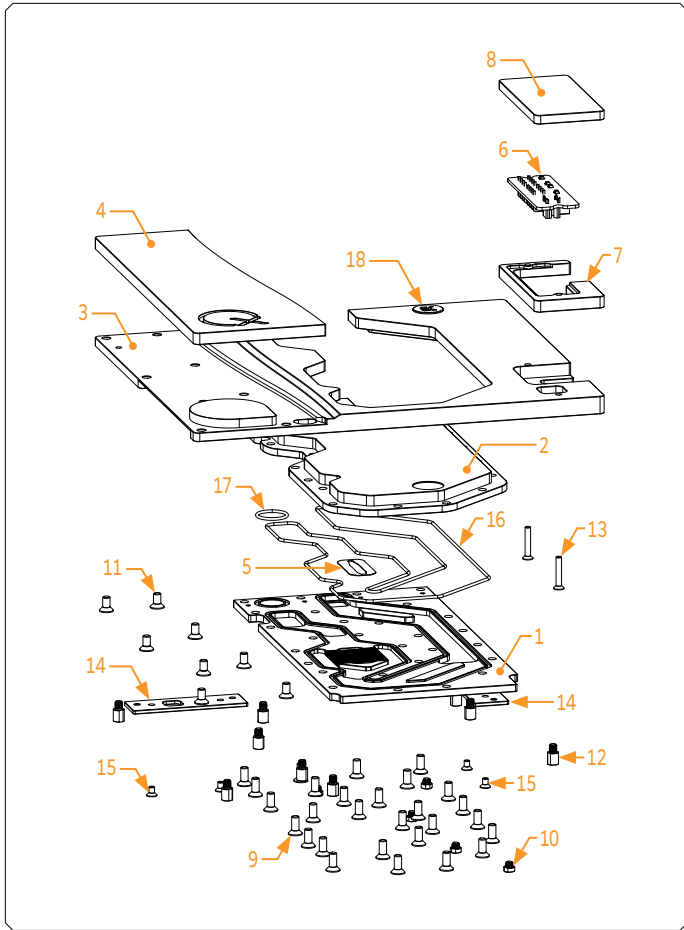
## TECHNICAL SPECIFICATIONS AND WATER BLOCK PARTS

- Dimensions: (L x H x W): 232.85 x 212.5 x 40.15 mm
- D-RGB LED count: 24
- D-RGB cable length: 500 mm
- D-RGB connector standard 3-pin (+5V, Data, Blocked, Ground)

### BACKPLATE

Position	EAN	Description	Quantity
1	106864	Coldplate (Ni)	1
2	106870	Metal plate - backplate	1
3	8472	Screw M3 x 6 DIN7991	28
4	106987	OR - QuantumX PS5 2-2	1





## MONOBLOCK

Position	EAN	Description	Quantity
1	106862	Coldplate (Ni)	1
2	106874	Top plate - plexi	1
3	106867	Front Cover (Black E.)	1
4	106869	Side Cover (PC White)	1
5	103305	Jet plate	1
6	106938	PCB -Power adapter	1
7	106945	PA housing bottom (Black E.)	1
8	106943	PA housing top (Black E.)	1
9	8205	Screw M4 x 10 DIN7991	28
10	8533	Standoff M4/M2.5 x 2.5 mm	5
11	9044	Screw M4 x 8 DIN7991	8
12	8541	Standoff M4/M2.5 x 6.60 mm	9
13	8204	Screw M3 x 20 DIN7991	2
14	106873	Wifi antenna holder (Acetal)	2
15	8211	Screw M3 x 5 DIN7991	4
16	106986	OR - QuantumX PS5 1-2	1
17	5001	OR - 15 x 1.5 mm	1
18	100663	EK - Badge	1

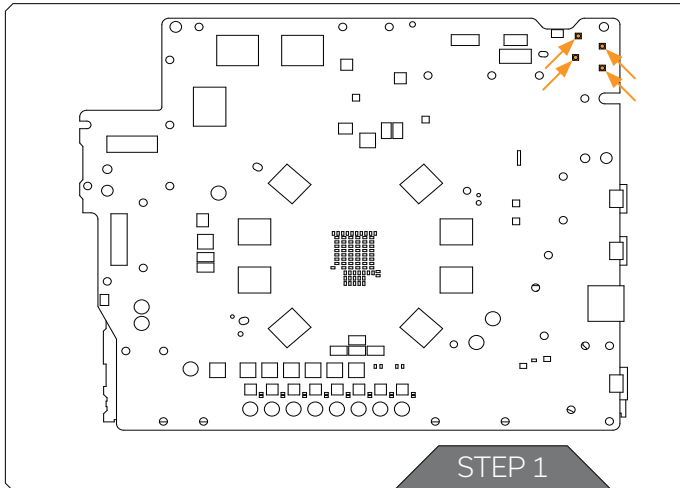
## PS5 TEARDOWN

### REMOVING THE STOCK COOLER

Important! Before starting, make sure to have a clean, flat surface to work on. To protect electronic components from electrostatic damage, place the product on an antistatic surface.

Place your PS5 on a flat surface and carefully remove the stock cooler as shown in the video: <https://www.ekwb.com/shop/ek-quantumx-coolingstation-monoblock-for-ps5> Pay attention to the following steps in order to install the EK-QuantumX CoolingStation Monoblock for PS5 onto the PS5 PCB.

## PREPARING THE PS5 PCB

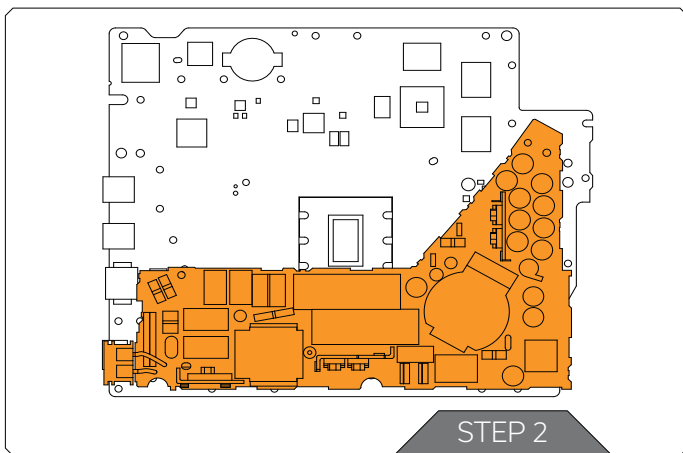


### STEP 1

### REMOVING THE POWER SUPPLY AND ANTENNAS (WI-FI AND BLUETOOTH)

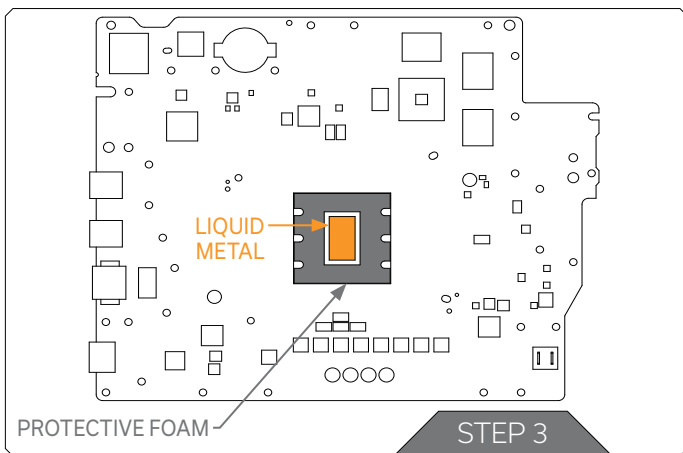
As shown in the video PS5 Teardown: An up-close and personal look at the console hardware carefully detach the connectors from the PS5 motherboard and remove the Wi-Fi and Bluetooth antenna from original casing. Both antennas are reused later on the installation of the PS5 Monoblock.





## STEP 2

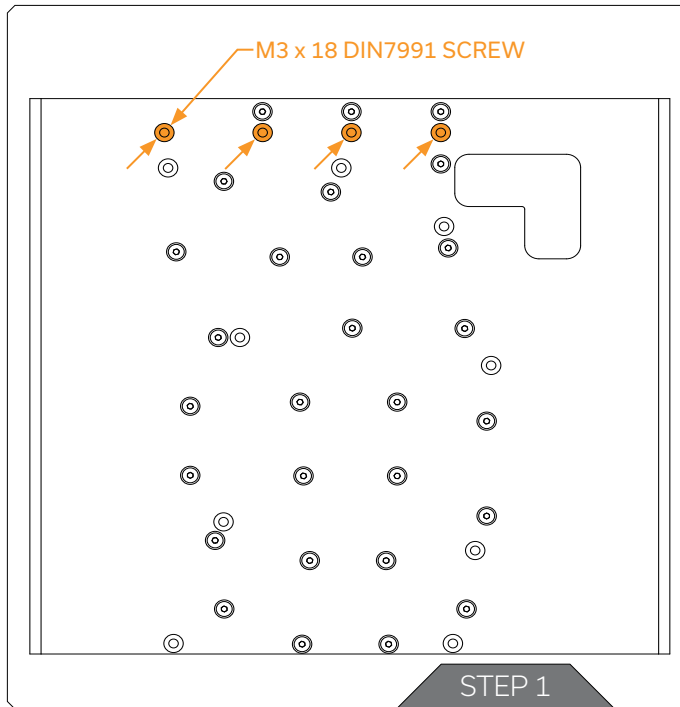
Remove the power supply which will not be needed. Power will come from two 8-pin GPU power connectors which are already on the Monoblock.



## STEP 3

Clean the Liquid metal from the CPU heat spreader. **Do not remove or damage the protective foam around the CPU!**

## PREPARING THE MONOBLOCK

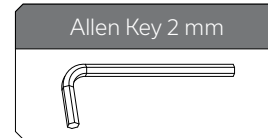


### STEP 1

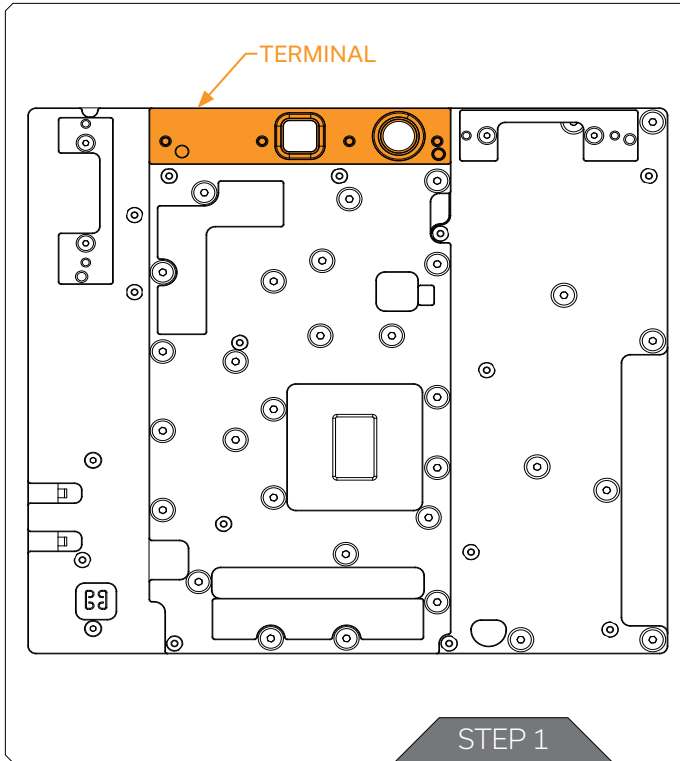
#### REMOVING THE BACKPLATE

First, unscrew (4) M3 x 18 DIN7991 Screws from the Backplate. Make sure that the Terminal with O-ring stays in place. Save the removed parts for later steps.

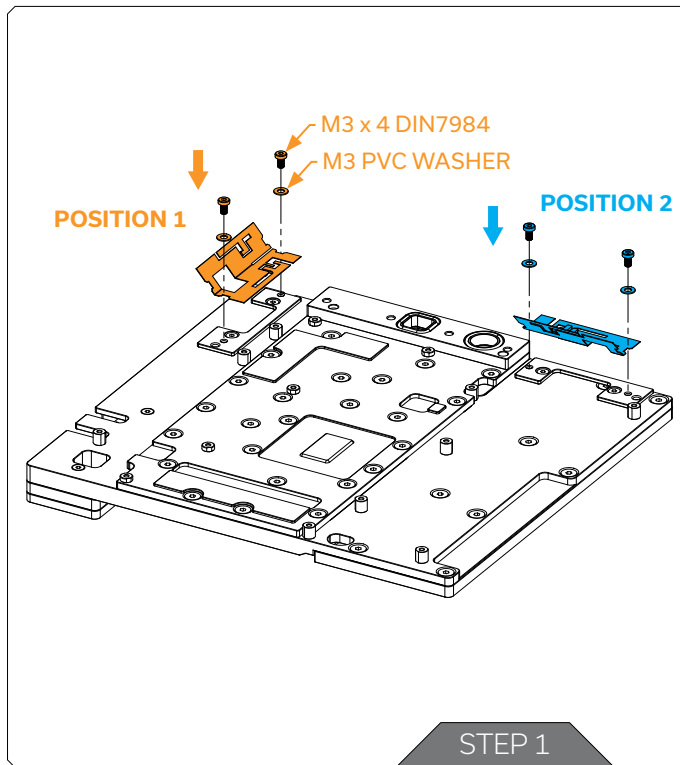
For this step, you will need:



Make sure that the Terminal with O-ring stays in place.



## INSTALLING THE MONOBLOCK

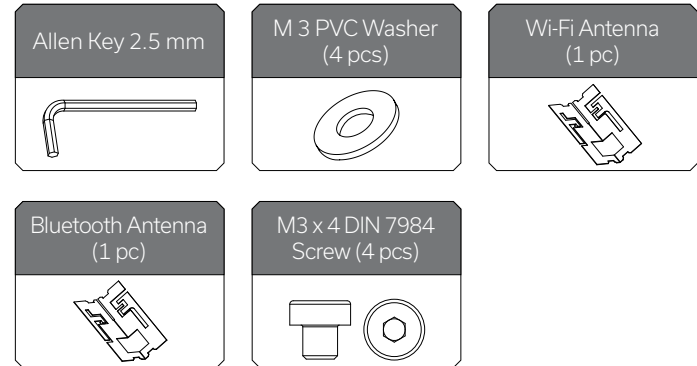


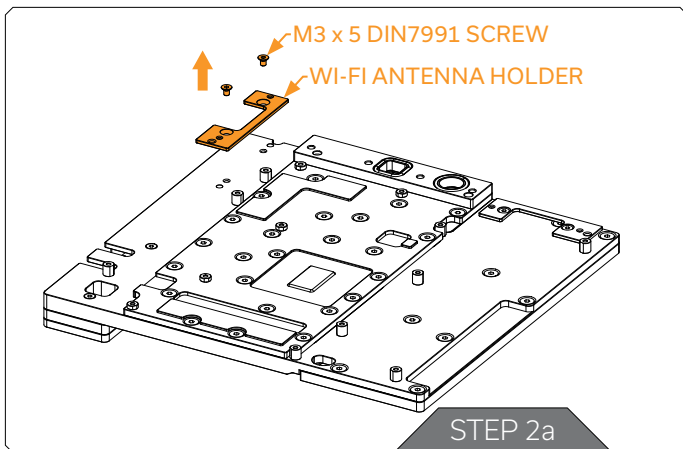
### STEP 1 PLACING WI-FI AND BLUETOOTH ANTENNAS

First place the Wi-Fi antennas to the holders. The antenna with longer cables goes to **position 1** and the antenna with short cables goes to **position 2** (marked in the picture).

Use four (4) M3 x 4 DIN7984 screws and M3 PVC washers. Tighten the screws evenly using the enclosed 2.5 mm Allen Key.

For this step, you will need:



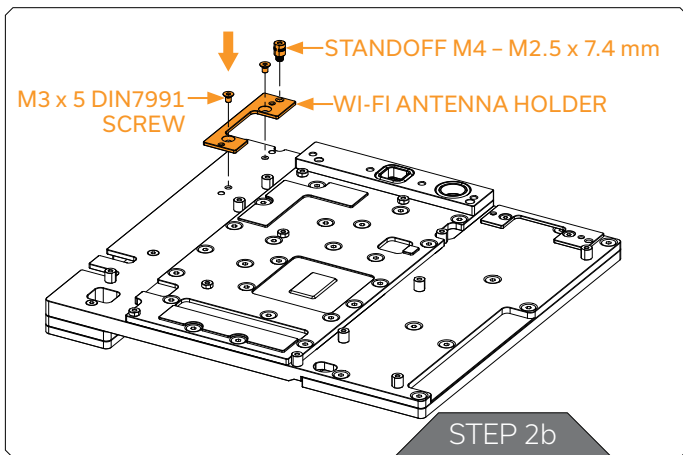


## STEP 2 OPTION ADDING SSD DISC

If you want to mount additional SSD disc, you can by rotating an antenna mount **before mounting an antennas**.

### STEP 2a

Unscrew (2) M3 x 5 DIN7991 screws and remove Wi-fi antenna holder.



### STEP 2b

Rotate Wi-fi antenna holder by 180° and screw it back with (2) M3 x 5 DIN7991 screws. Also screw Standoff M4 - M2.5 x 7.4 mm into threaded hole

### STEP 2c

**To mount the antennas, follow Step 1 - PLACING WI-FI AND BLUETOOTH ANTENNAS**

### STEP 3 CUTTING AND PLACING THERMAL PADS (MONOBLOCK SIDE)

After attaching the antennas, thermal pads must be placed in the places marked in the picture. EK made sure to provide you with more than an adequate quantity of Thermal Pads to complete this Step.

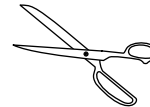


**CAUTION:** You must remove the protective foil from both sides of the thermal pad before installation.

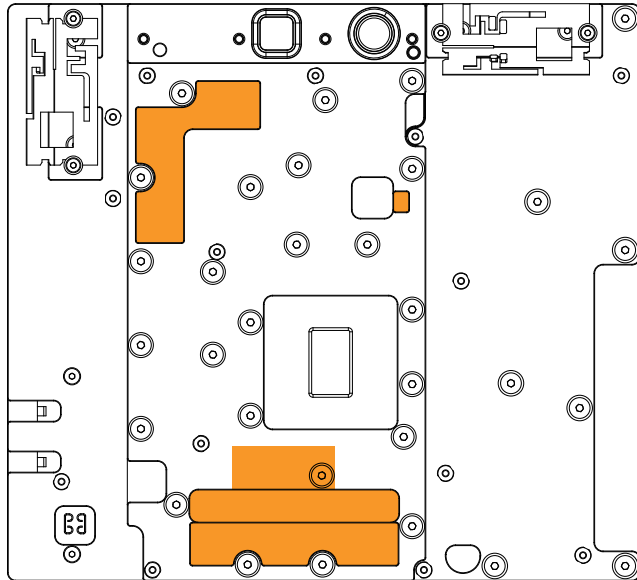
Required thermal pads:  
Thermal PAD F 1mm - (120 x 16 mm) EAN: 3830046996732

For this step, you will need:

Scissors

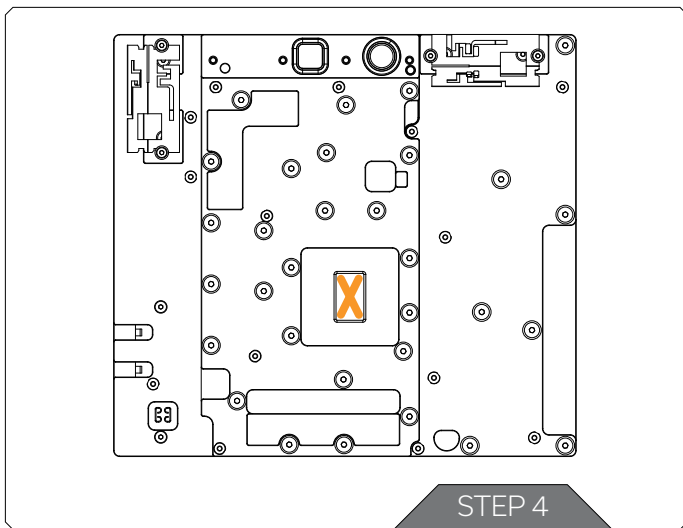


Thermal Pad F - 1.0 mm (120 x 16 mm)



F1 Thermal Pad - 120 x 16 x 1.0 mm

STEP 3



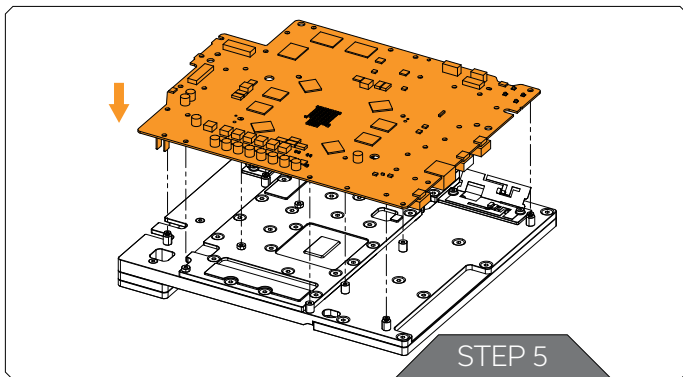
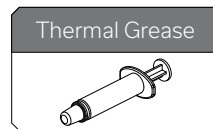
#### STEP 4 APPLYING THERMAL COMPOUND

Apply the enclosed thermal grease (thermal compound) on the GPU heat spreader - IHS - as shown in the image. The layer of the thermal compound must be thin and even 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:

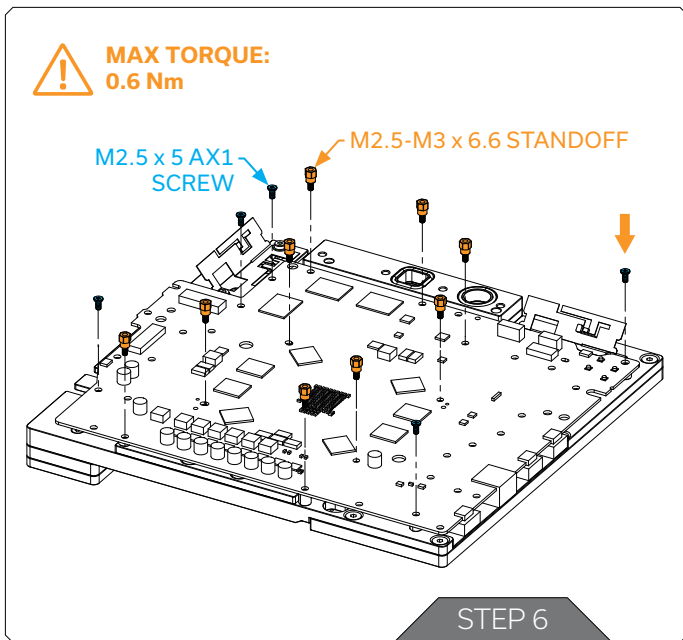


#### STEP 5 PLACING THE PS5 PCB

Carefully position the PS5 PCB onto the Monoblock. Pay attention not to use too much force when pressing the PCB down to the Monoblock since chip dies are prone to cracking.



**Make sure to align the holes on the PS5 PCB with the block standoffs and power connector!  
Double-check the layer of the thermal compound and thermal pads before placing the PS5 PCB!**



## STEP 6 ATTACHING THE PS5 PCB

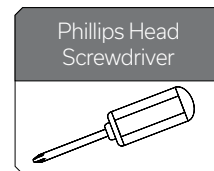
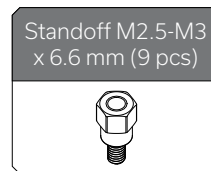
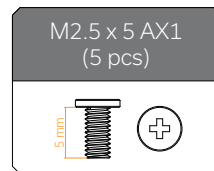
After placing the PS5 PCB, the provided mounting screws and standoffs need to be used.

Use **five (5) M2.5 x 5 AX1 screws** to tighten the PS5 PCB. Tighten the screws evenly using the Phillips-head screwdriver. After securing the screws, secure the additional nine (9) **M2.5-M3 x 6.6 standoffs** using the EK- Plug Out Spludger Tool.

**EK also recommends using the EK-Loop Torque Screwdriver - 0.6Nm for tightening the screws:**

<https://www.ekwb.com/shop/ek-loop-torque-screwdriver-0-6nm>

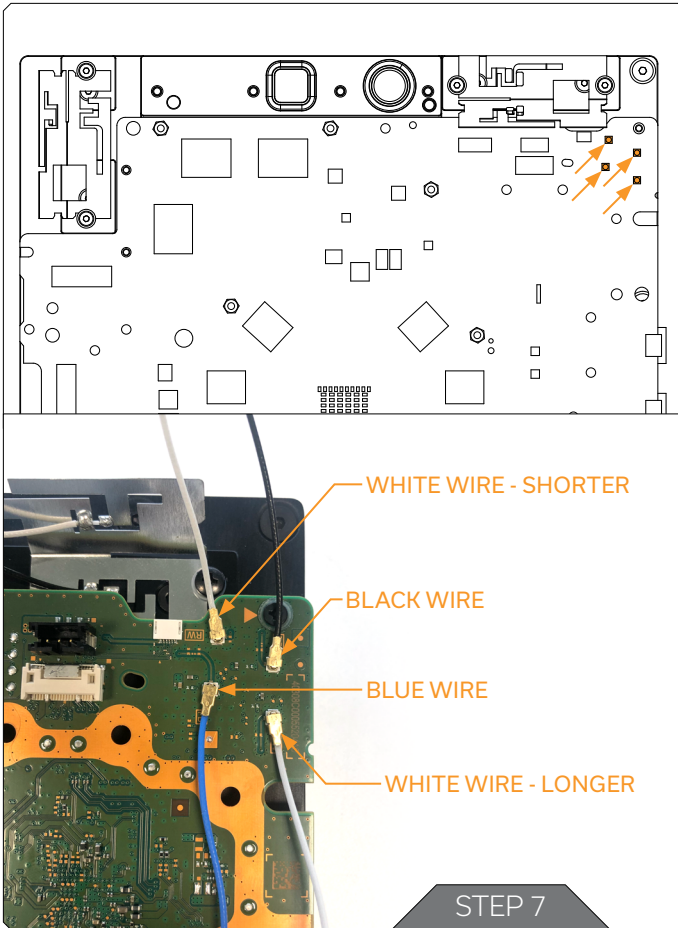
For this step, you will need:



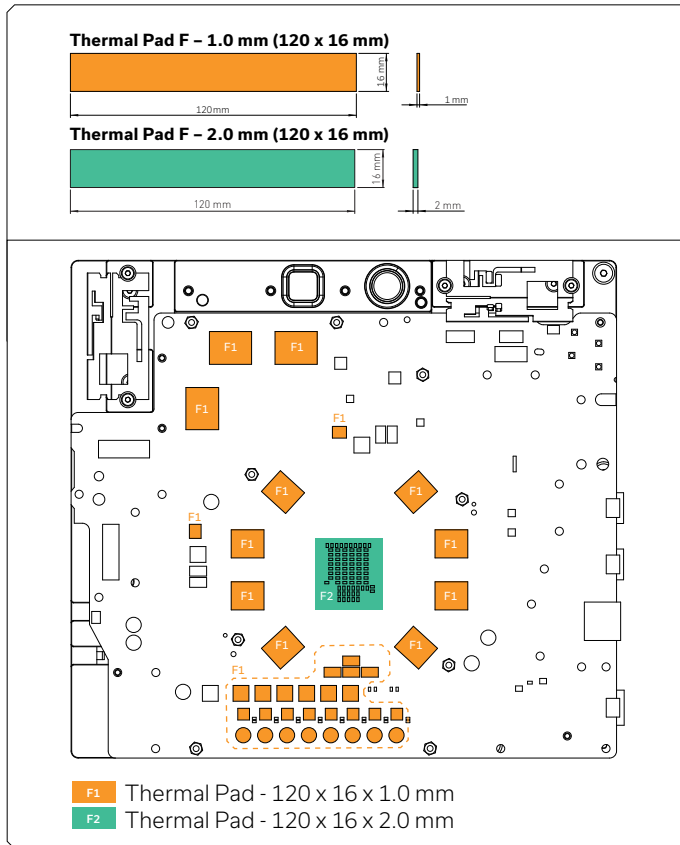


## STEP 7 CONNECTING THE ANTENNAS

Connect the Bluetooth and Wi-Fi antennas with the PS5 PCB. Make sure to select the correct connector for each antenna.



# INSTALLING THE BACKPLATE



## STEP 1 CUTTING AND PLACING THERMAL PADS

After attaching the PS5 PCB, a few additional thermal pads must be placed in the places marked in the picture. EK made sure to provide you with more than an adequate quantity of Thermal Pads to complete this Step.



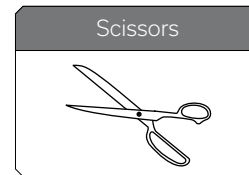
**CAUTION:** You must remove the protective foil from both sides of the thermal pad before installation.

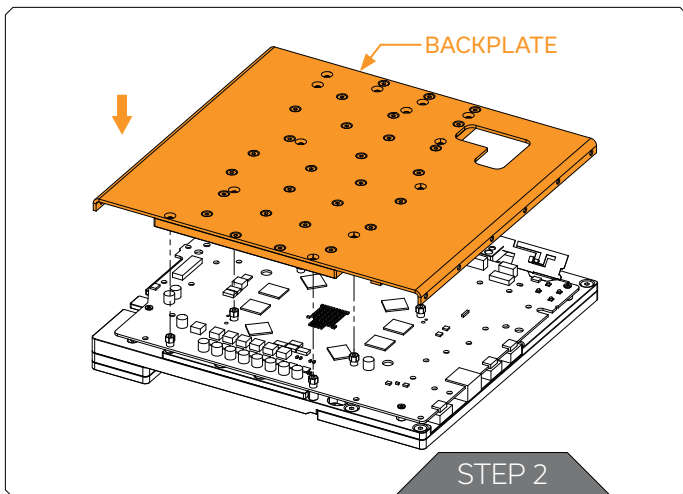
Replacement thermal pads:

Thermal Pad F 1.0 mm – (120 x 16 x 1 mm) EAN: 3830046996732

Thermal Pad F 2.0 mm – (120 x 16 x 2 mm) EAN: 3830046996756

For this step, you will need:





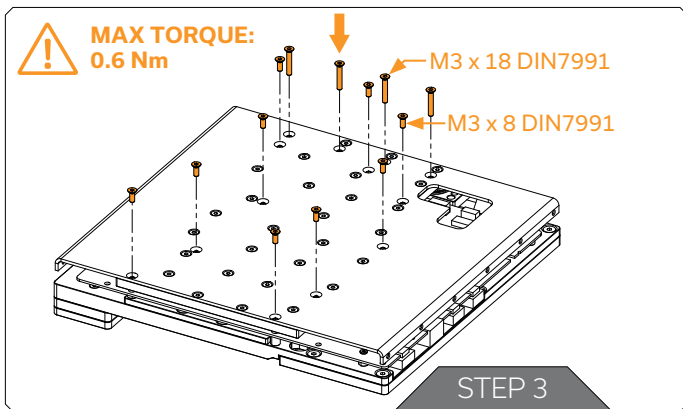
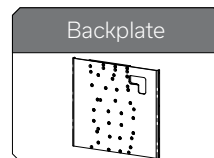
## STEP 2 PLACING THE BACKPLATE

Carefully place the Backplate onto the PS5 PCB. In this step, make sure that terminal with O-rings stays in the slots before attaching the screws.



Make sure to align the holes on the PS5 PCB with the backplate standoffs! Double-check the thermal pads before placing the backplate!

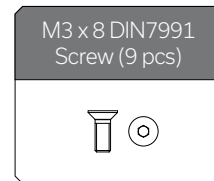
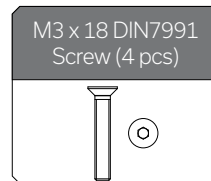
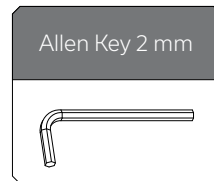
For this step, you will need:



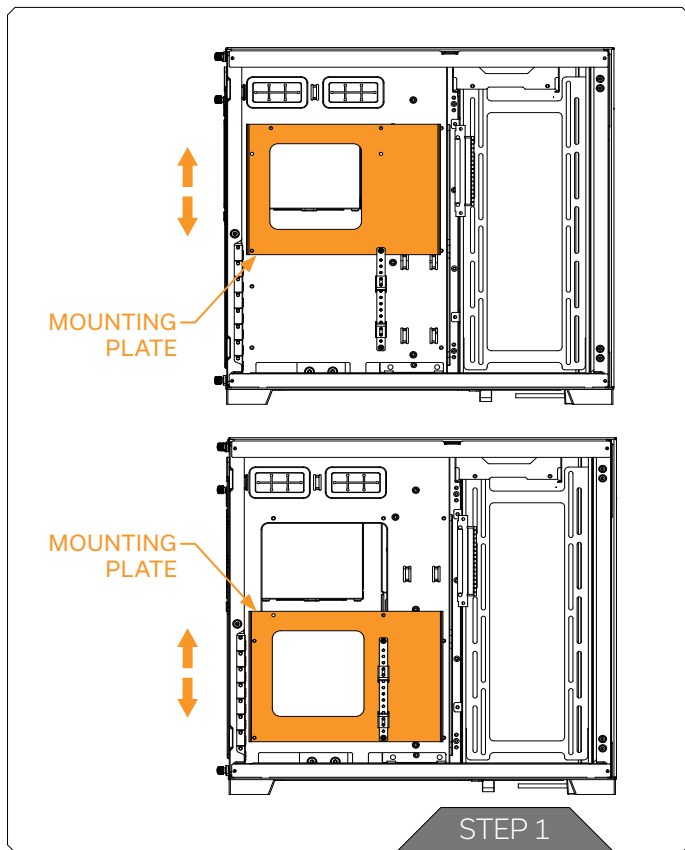
## STEP 3 ATTACHING THE BACKPLATE

Use nine (9) M3 x 8 DIN 7991 and four (4) M3 x 18 DIN 7991 to tighten the backplate on the Monoblock. Tighten the screws evenly using the Allen Key 2 mm.

For this step, you will need:



## INSTALLING PS5 INTO PC CASE



### STEP 1

EK-QuantumX CoolingStation Monoblock for PS5 can be mounted into multiple positions in the PC case.

The mounting plate has multiple holes to install into the PC case. It can be mounted on top ATX holes or on bottom ATX holes.

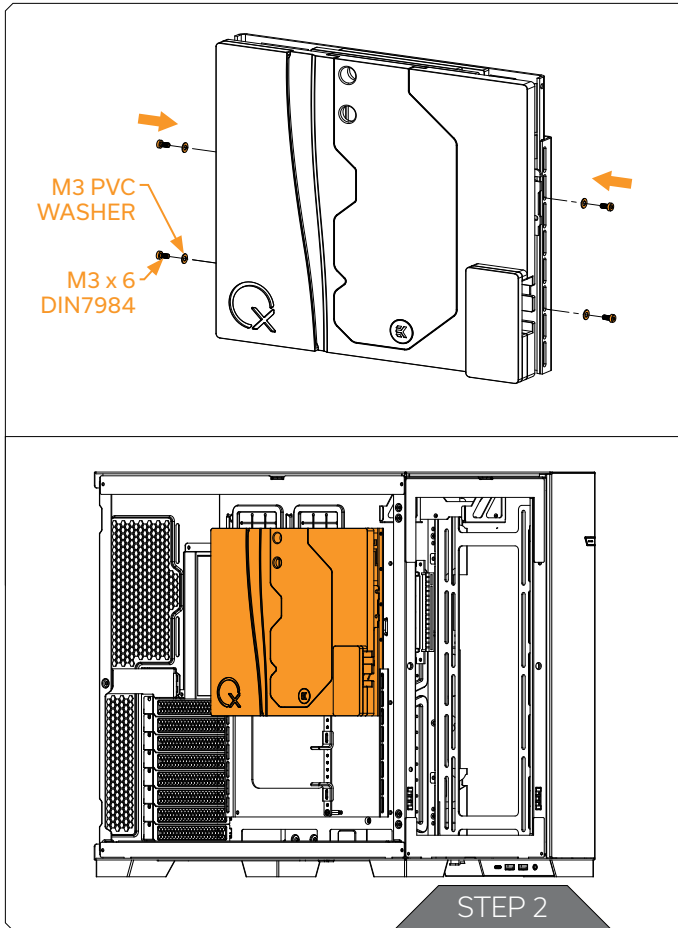
\*In this installation manual, the Lian Li O11 Dynamic XL PC Case is used in the images.



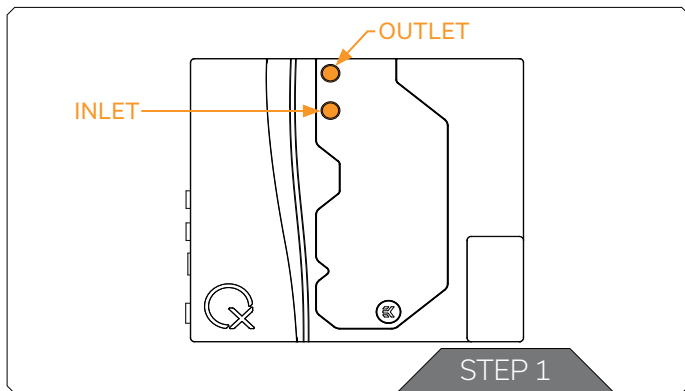
**The mounting plate must be attached to the PC Case using the factory PC Case screws (motherboard screws) before placing the EK-QuantumX CoolingStation Monoblock for PS5 on it.**

## STEP 2

After attaching the mounting plate, secure the EK-QuantumX CoolingStation Monoblock for PS5 into the PC Case using the provided four (4) M3 x 6 DIN7984 mounting screws and M3 PVC Washers.



## FITTINGS AND TUBING



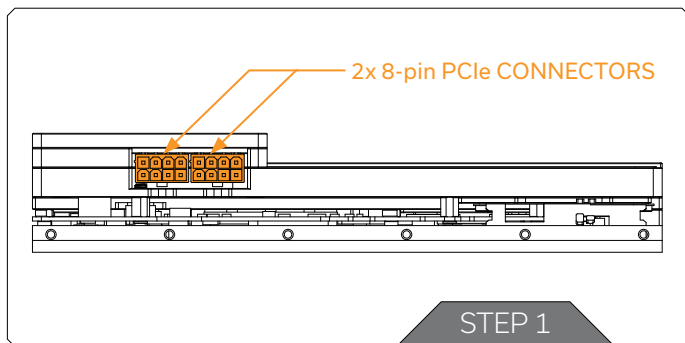
### STEP 1

Screw-in two (2) G1/4 threaded male fittings. Attach the liquidcooling tubes and connect the water block to the cooling loop. Tighten the fittings in a clockwise direction until the gasket underneath is compressed. EK recommends using EK fittings with all EK water blocks.



**CAUTION:** When using connectors other than EK fittings, pay special attention to the length of the fittings' male G1/4" thread - 5 mm is the maximum G1/4" thread length allowed!

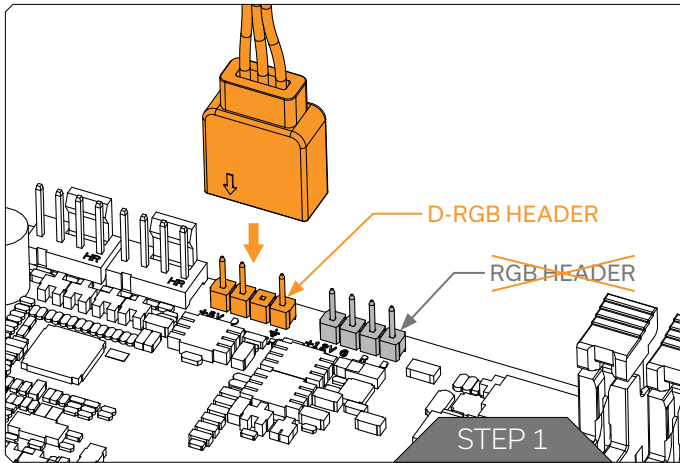
## CONNECTING THE EK-QuantumX CoolingStation Monoblock for PS5



### STEP 1

The EK-QuantumX CoolingStation Monoblock for PS5 must be connected to the power supply using two (2) **8-pin PCIe Connectors**. Make sure the connectors are correctly installed/positioned.

## CONNECTING THE D-RGB LED STRIP



### STEP 1

Plug the **3-pin connector** of the distribution plate 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**.



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.

## 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 the coolant leaks, fix the issue and repeat the testing process. Ensure that all hardware is dry before the system is powered on to prevent any damage.

## MAINTENANCE TIPS

**In order to obtain the best performance across the entire lifespan of the product, it is crucial to follow these maintenance tips.**

### 1. DUST REMOVAL

It is mandatory to clean the dust every 2-3 months. EK recommends using a vacuum cleaner or compressed air to blow the dust away. The radiator is usually the dustiest, so pay special attention to it. Do not forget to turn off the computer and unplug the power supply. It is recommended to clean the dust outside.

### 2. CHECKING THE ELECTRICAL COMPONENTS

Once a year, you should check if the pump and fans are running as they should. The pump and fans must run silently without any rattling noises and must react to PWM duty cycle changes. All imperfections may lead to overheating and, ultimately, breakdown.

### 3. CLEANING THE UNIT

Every year the unit should be thoroughly cleaned. You must let all the coolant out. The radiator must be flushed, the pump checked and cleaned. It is also recommended to change the tubing.

### 4. USING PARTS DESIGNED AND MANUFACTURED BY EK

It is recommended to use only genuine EK Water Blocks liquid cooling gear and add-ons to prevent any performance, compatibility, or warranty issues.

## CLEANING GUIDE



Liquid cooling parts can be disassembled for cleaning purposes on an occasional basis. Your warranty will not be void upon disassembly of the water block, but you will lose the EK Leak-Free Guarantee that comes with a factory-tested component. A soft toothbrush is an excellent cleaning tool!

### CLEANING NICKEL-PLATED COPPER

When cleaning nickel-plated copper, it is forbidden to use any aggressive chemicals (vinegar included) and rough materials since those could damage the plating and thus void the warranty. Also, note that due to the presence of dye additives and other chemicals, the nickel layer might become discolored/stained over time. However, the staining is usually reversible with a simple flush and rinse.

Cleaning the nickel-plated copper should consist of the following:

- rinse the nickel-plated copper under warm water;
- clean the surface using the wet nonabrasive cloth and once again rinse with clean water;
- if necessary, polish the hardened deposits (such as algae or dirt).

EK recommends the use of automotive soft nonabrasive metal polish cremes. After you finish using other cleaning methods, give the nickel plating a good polish with a nonabrasive metal or chrome polish. Apply a small amount of polish to a cloth or surface of the nickel. Wipe the entire surface of the nickel with the polish, using small circular motions, until it looks shiny and clean. Use another clean cloth to remove the remains of the polishing paste from the surface. Always rinse the surface with distilled water when you are done polishing it.



## PREVENTIVE STEPS

Using corrosion-inhibiting coolants such as EK-CryoFuel or other market-proven coolants is highly recommended for any water-cooling loop, especially those with nickel-plated parts. Since EK-CryoFuel is also a biocide, it will prevent algae growth and dirt deposition on all wet surfaces.

The use of specifically engineered coolants that contain corrosion, scale, and biological inhibitors is mandatory to prevent damage to your nickel-plated water-cooling gear! EK is offering a selection of such products in the web shop's Coolants section.

## 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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