

EK-Fluid Gaming USER MANUAL





General informations

Carefully read the manual before beginning with the installation process.

Instructions for hardware parts are included in the package.

Warnings and information notices provide important information for hazard-free operations.



Safety precautions

Fill the cooling system before turning the PC on!

Do not use pure distilled water!

Always pull out the main plug before care or maintenance work!

During normal operation, all covers, filters and side panels shall be correctly inserted and closed.

Connect the PC only to a standardized earthed socket outlet. Use only provided power supply cable or cable set with the same ratings and comparable certifications.

Only a qualified person can replace the motherboard battery.

The PC is completely turned off when the power cable is disconnected from the electrical network!

Do not interfere with the interior of the PC while operating.

Some parts of the computer heat up during operation. Before any maintenance, make sure that the computer cools down (for at least 30 minutes).

Using corrosion-inhibiting coolants is always recommended for liquid cooling systems and mandatory for nickel-plated water blocks!

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 system!

The EK Plugs 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.

TABLE OF CONTENTS

MODELS	4
PACKAGE CONTENT	4
UNPACKING THE BOX	4
LIST OF HARDWARE PARTS	5
HARDWARE LIST (EK-FLUID GAMING ZEN LOTUS)	5
HARDWARE LIST (EK-FLUID GAMING SIDE TASK)	5
BASIC PC CHASSIS INFORMATION (PORT LAYOUT)	6
HARDWARE LIST (EK-FLUID GAMING DIGITAL REEF)	6
EK-FLUID GAMING SIDE TASK (CORSAIR 7000D AIRFLOW PC CASE)	6
EK-FLUID GAMING ZEN LOTUS (FRACTAL DESIGN TORRENT PC CASE)	7
EK-FLUID GAMING DIGITAL REEF (FRACTAL DESIGN TORRENT PC CASE)	7
POWER SUPPLY MODES (Seasonic GX 1200W Gold 80+ PSU)	8
HYBRID MODE	8
NORMAL MODE	8
FIRST-TIME SETUP INSTRUCTIONS	9
FILLING THE SYSTEM	9
EK-FLUID GAMING SIDE TASK	10
EK-FLUID GAMING ZEN LOTUS	11
EK-FLUID GAMING DIGITAL REEF	12
DRAINING PROCEDURE	12
EK-FLUID GAMING SIDE TASK	13
EK-FLUID GAMING ZEN LOTUS	14
EK-FLUID GAMING DIGITAL REEF	15
MAINTENANCE TIPS	16
CLEANING PARTS	16
TROUBLESHOOTING	17
DECLARATION OF CONFORMITY	18
SUPPORT AND SERVICE	21
SOCIAL MEDIA	21

MODELS

- EK-Fluid Gaming Side Task
- EK-Fluid Gaming Zen Lotus
- EK-Fluid Gaming Digital Reef

Model	EK-FG Zen Lotus [14900K RTX 4090] Liquid-Cooled Gaming PC
Power supply	100 / 240V ~ 50 Hz/60 Hz; 15 - 7,5 A
Net weight	25 - 26 Kg
Manufacturer	EKWB d.o.o., Pod lipami 18, SI - 1217 Komenda , Slovenia, Europe
Operational temperature	35°C
Maximum operational altitude	5000 m
Pollution degree	Office environment PD2

Model	EK-FG Side Task [14900K RTX 4090] Liquid-Cooled Gaming PC
Power supply	100 / 240V ~ 50 Hz/60 Hz; 15 - 7,5 A
Net weight	33 - 34 Kg
Manufacturer	EKWB d.o.o., Pod lipami 18, SI - 1217 Komenda , Slovenia, Europe
Operational temperature	35°C
Maximum operational altitude	5000 m
Pollution degree	Office environment PD2

Model	EK-FG Digital Reef [14900K RTX 4090] Liquid-Cooled Gaming PC
Power supply	100 / 240V ~ 50 Hz/60 Hz; 15 - 7,5 A
Net weight	24 - 25 Kg
Manufacturer	EKWB d.o.o., Pod lipami 18, SI - 1217 Komenda , Slovenia, Europe
Operational temperature	35°C
Maximum operational altitude	5000 m
Pollution degree	Office environment PD2

PACKAGE CONTENT

- Premium Gaming PC (1 pc)
- PSU Cables
- SSD Expansion card
- Filling bottle (1 pc)
- EK Cryofuel Premix Coolant (2 pcs)
- Drain tube (2 pcs)
- EK - Loop Multi Allen Key (1 pc)
- Hardware instructions
- USB Key (1 pc)

UNPACKING THE BOX

Carefully open the outer and inner boxes. Remove the computer from the box and carefully lift it on the flat surface. Be aware that box content is heavy and is meant to be manipulated by two (2) persons. All the additional stickers, foam, and packaging materials must be removed before running up the computer. The computer is heavy and some of the components are fragile.

Visually inspect the components before further steps. If you notice any errors, please contact the customer support:
<http://support.ekwb.com/>

In the box contents, we also include the user manuals of every installed Hardware.



The packing materials can be recycled. Please dispose of packaging in accordance with the environmental regulations.

LIST OF HARDWARE PARTS



HARDWARE LIST (EK-FLUID GAMING ZEN LOTUS)

CPU	Intel Core i9 14900K
GPU	NVIDIA GeForce RTX 4090
Motherboard	ASUS ROG MAXIMUS Z790 HERO
RAM	64GB (2x32GB) DDR5 6000MHz RGB RAM
SSD Primary	1TB M.2 NVME 4.0 SSD
SSD Secondary	2TB M.2 NVME 4.0 SSD
PSU	Seasonic GX 1200W Gold 80+ PSU
Cooling	EK Quantum Custom Loop Liquid Cooling
Case	Fractal Design Torrent
OS	Windows 11 Home



HARDWARE LIST (EK-FLUID GAMING SIDE TASK)

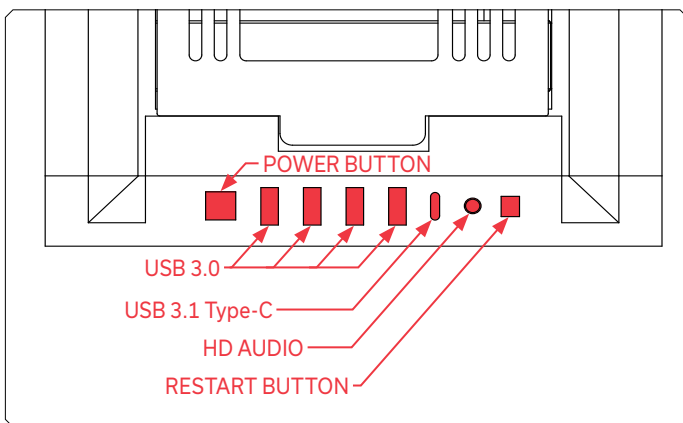
CPU	AMD Ryzen 9 7950X3D
GPU	NVIDIA GeForce RTX 4090
Motherboard	ASUS ROG Crosshair X670-E
RAM	64GB (2x32GB) DDR5 6000MHz RGB RAM
SSD Primary	1TB M.2 NVME 4.0 SSD
SSD Secondary	2TB M.2 NVME 4.0 SSD
PSU	Seasonic GX 1200W Gold 80+ PSU
Cooling	EK Quantum Custom Loop Liquid Cooling
Case	Corsair 7000D
OS	Windows 11 Home



HARDWARE LIST (EK-FLUID GAMING DIGITAL REEF)

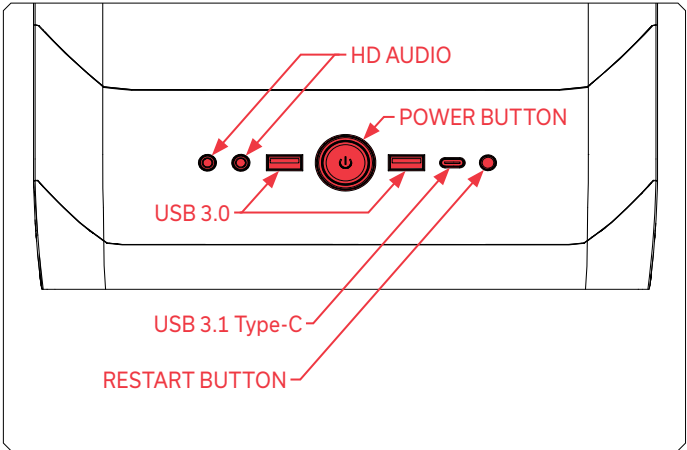
CPU	Intel Core i9 14900K
GPU	NVIDIA GeForce RTX 4090
Motherboard	ASUS ROG MAXIMUS Z790 HERO
RAM	64GB (2x32GB) DDR5 6000MHz RGB RAM
SSD Primary	1TB M.2 NVME 4.0 SSD
SSD Secondary	2TB M.2 NVME 4.0 SSD
PSU	Seasonic GX 1200W Gold 80+ PSU
Cooling	EK Quantum Custom Loop Liquid Cooling
Case	Fractal Design Torrent
OS	Windows 11 Home

BASIC PC CHASSIS INFORMATION (PORT LAYOUT)

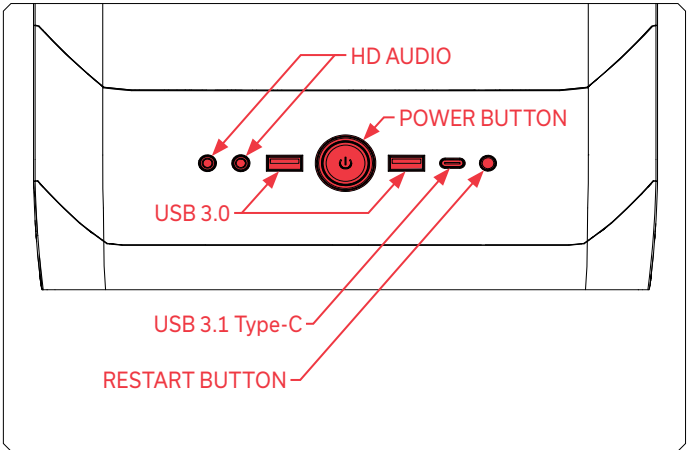


EK-FLUID GAMING SIDE TASK (CORSAIR 7000D AIRFLOW PC CASE)

EK-FLUID GAMING ZEN LOTUS (FRACTAL DESIGN TORRENT PC CASE)



EK-FLUID GAMING DIGITAL REEF (FRACTAL DESIGN TORRENT PC CASE)



POWER SUPPLY MODES (Seasonic GX 1200W Gold 80+ PSU)

The selected power supply (PSU) has two mode options. Normal and Hybrid.

To learn more about the selected Power Supply, please refer to the power supply manufacturer's instruction manual. The instruction manual is included in the package.

The differences between normal and hybrid modes:

HYBRID MODE

If the plug shown is not switched on, the power supply is in hybrid mode. In Hybrid mode, the fan will not turn.

NORMAL MODE

If the plug shown is switched on, the power supply is in normal mode. In Normal mode, the fan will turn.



Important!

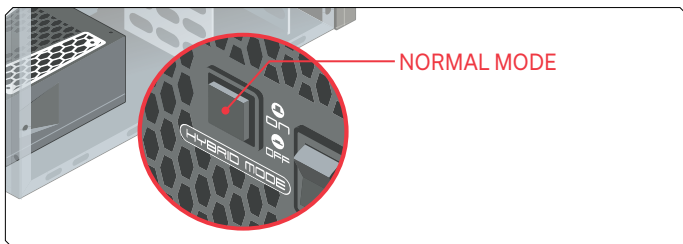
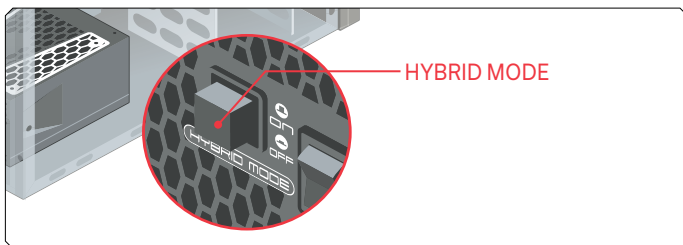
EN: Connect the PC only to a standardized earthed socket outlet.

SE: Apparaten skall anslutas till jordat uttag

FI: Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan

DK: Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord

NO: Apparatet må tilkoples jordet stikkontakt



FIRST-TIME SETUP INSTRUCTIONS

FILLING THE SYSTEM

Disconnect all the external cables including the power cable. Ensure all the plug-s are sufficiently tightened and fill the reservoir/distribution plate through the top/fill port with the provided filling bottle. Momentarily power on the system until the coolant in the reservoir/distribution plate level drops enough to add more coolant. Repeat this process until the components are completely free of air.



We recommend carrying out a pressure test before filling the system. Link to pressure tester instructions: <https://www.ekwb.com/shop/EK-IM/EK-IM-3831109848388.pdf>



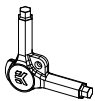
It is recommended to protect the exposed hardware with a few paper towels in case there is a leak, or you accidentally spill the coolant while pouring it.



It is recommended to protect hands with latex gloves.

For the filling process, you will need:

EK-Loop Multi
Allen Key (1 pc)



Filling Bottle

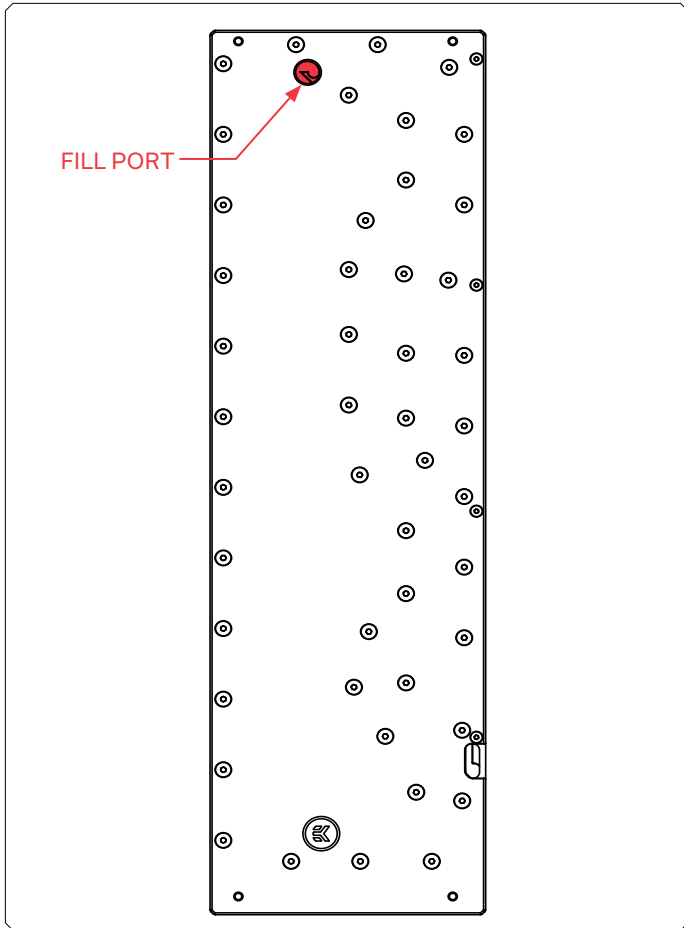


EK-Cryofuel
Coolant



Filling example





EK-FLUID GAMING SIDE TASK

Before filling the loop, you must remove the Plug cover from the Fill port (the Fill port is marked in the picture). After removing the Plug cover, unscrew the Plug using the EK- Loop Multi Allen Key.

After filling the system, reuse the removed Plug and Plug cover. When tightening the Plug, be careful not to apply too much force (**Max Torque: 0.6 Nm**).

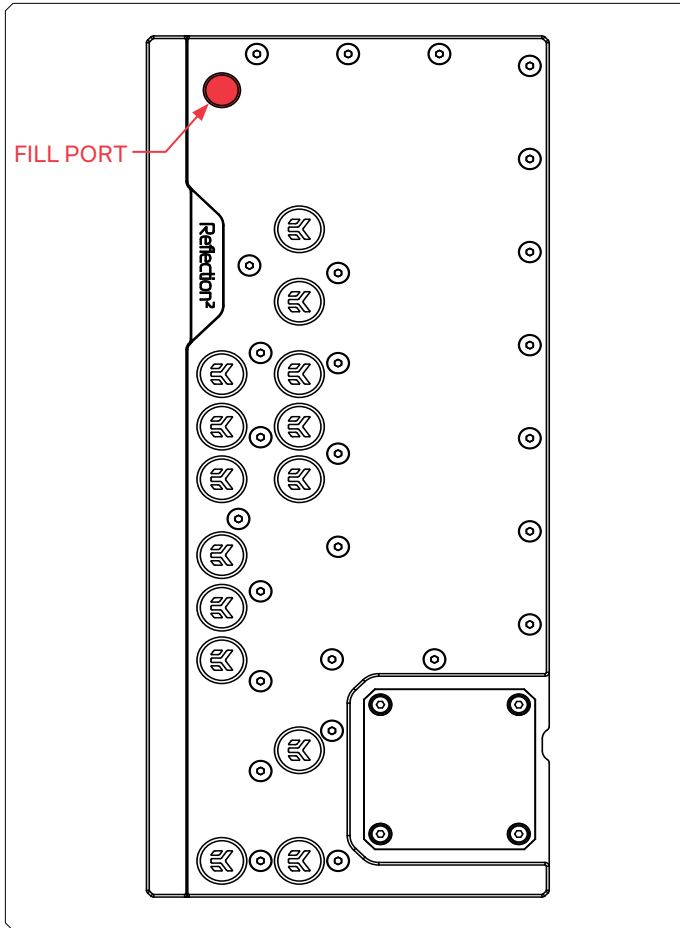
The additional information regarding Side Task configuration can also be found here: <https://www.youtube.com/watch?v=1oGTagMK5A4>

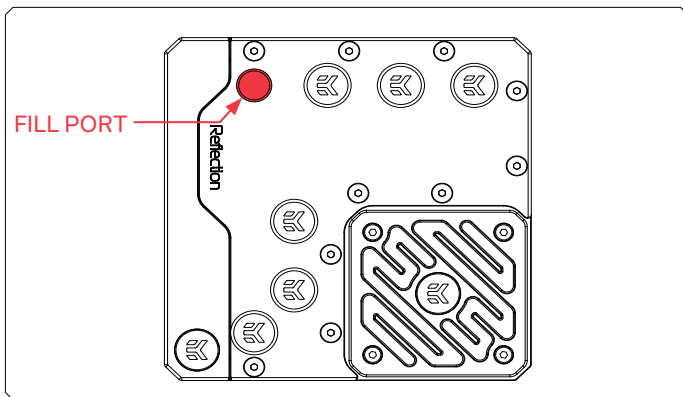
*** Please note that the components in the video may differ from the latest configuration.**

EK-FLUID GAMING ZEN LOTUS

Before filling the loop, you must remove the Plug cover from the Fill port (the Fill port is marked in the picture). After removing the Plug cover, unscrew the Plug using the EK- Loop Multi Allen Key.

After filling the system, reuse the removed Plug and Plug cover. When tightening the Plug, be careful not to apply too much force (**Max Torque: 0.6 Nm**).





EK-FLUID GAMING DIGITAL REEF

Before filling the loop, you must remove the Plug cover from the Fill port (the Fill port is marked in the picture). After removing the Plug cover, unscrew the Plug using the EK- Loop Multi Allen Key.

After filling the system, reuse the removed Plug and Plug cover. When tightening the Plug, be careful not to apply too much force (**Max Torque: 0.6 Nm**).

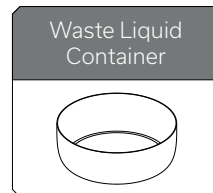
Video Link: [Filling the EK Fluid Gaming - DIGITAL REEF How to | Filling the EK Fluid Gaming - DIGITAL REEF - YouTube](#)

DRAINING PROCEDURE

Disconnect all the external cables including the power cable before draining the system. Ensure all the plugs are sufficiently tightened. Each configuration has a drain valve through which the liquid from the computer is discharged. When draining the system, make sure you have a container where you will drain the liquid.

Useful information regarding the draining procedure can also be found here: <https://www.youtube.com/watch?v=bIIAUgnqLBk>

For draining the system, you will need:



It is recommended to protect hands with latex gloves.



Information on the disposal and storage of waste liquid is available on the liquid webpage under the bookmark Safety Data Sheet!

EK-FLUID GAMING SIDE TASK

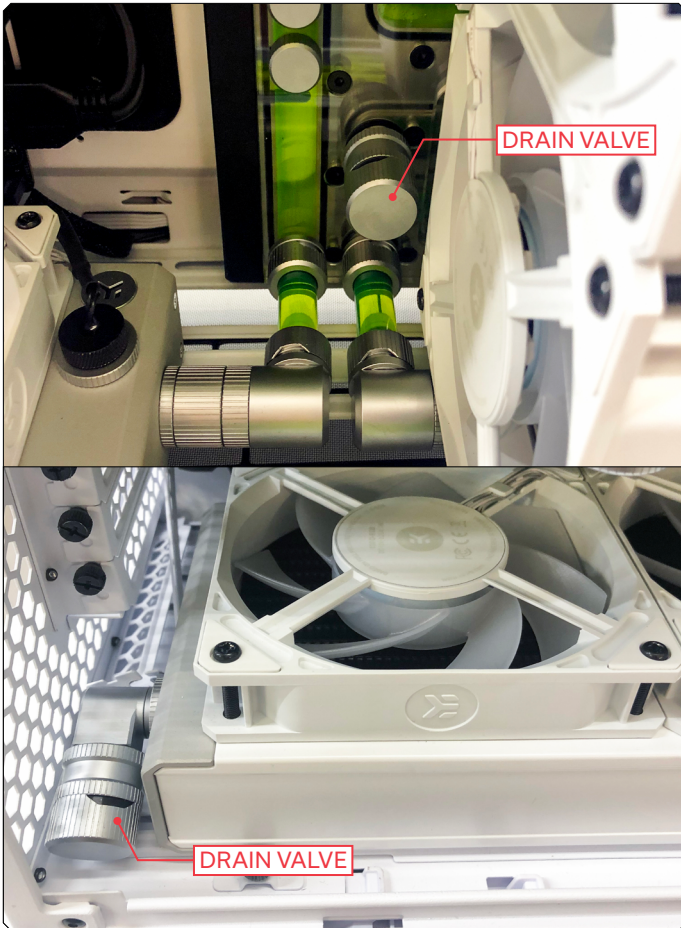
When draining liquid from the system, first obtain a collection container into which you will pour the liquid. Protect exposed parts to prevent the liquid from spilling onto electronic components. The additional information regarding Side Task configuration can also be found here:

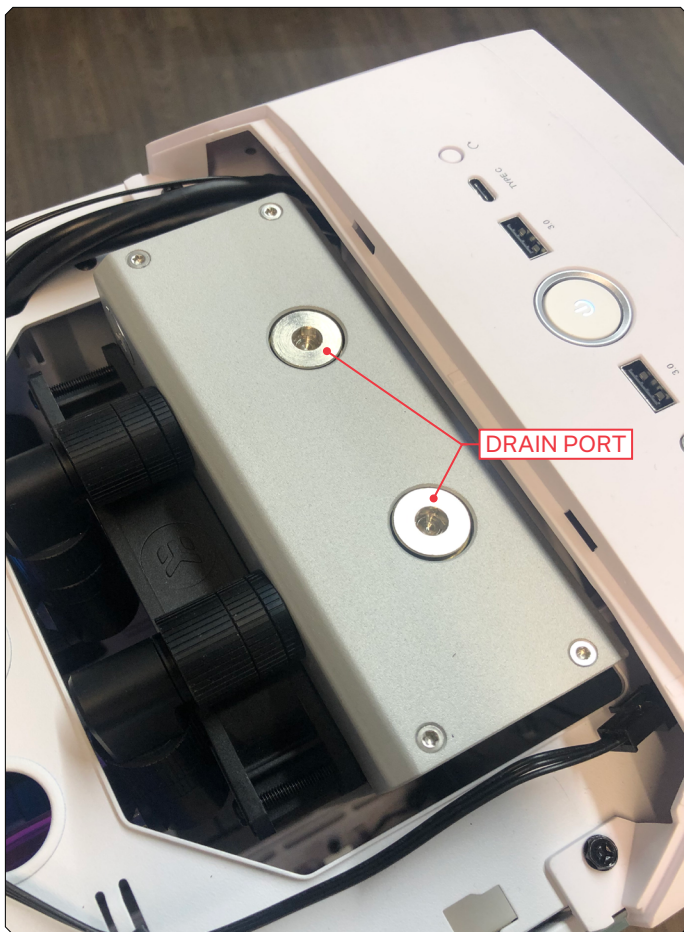
<https://www.youtube.com/watch?v=1oGTagMK5A4>



EK-FLUID GAMING ZEN LOTUS

When draining liquid from the system, first obtain a collection container into which you will pour the liquid. Protect exposed parts to prevent the liquid from spilling onto electronic components.





EK-FLUID GAMING DIGITAL REEF

When draining liquid from the system, first obtain a collection container into which you will pour the liquid. Protect exposed parts to prevent the liquid from spilling onto electronic components.

Video Link: [Draining the EK Fluid Gaming - DIGITAL REEF How to | Draining the EK Fluid Gaming - DIGITAL REEF \(youtube.com\)](https://www.youtube.com/watch?v=...)

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. After a few years, 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 PARTS



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.

CLEANING NICKEL-PLATED PARTS

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 the 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.

CLEANING ACRYLIC (PLEXI) PARTS

Please, do not use anything but warm, soapy water and a soft cloth to clean the acrylic (plexi) water block tops and reservoir tubes. Using aggressive chemicals will void the warranty.



Acrylic will fail prematurely if subjected to even the smallest amounts of alcohol, acetone, or other aggressive chemicals.



Algae or dirt deposits may be rubbed out using a soft cloth in combination with warm, soapy water. Rinse with distilled water after cleaning.

TROUBLESHOOTING

Exceedingly high CPU temperatures are usually the symptom of a malfunctioning liquid cooling loop, assuming the contact between the CPU heat spreader and the water block itself is adequate, and that the water is appropriately cooled within the radiator.

High CPU temperatures can occur in the following scenarios.

Malfunctioning or broken-down water pump: The symptoms usually include a rapid spike in temperature when stressing your CPU to the maximum. Make sure the pump is plugged into the power connector, and that liquid is indeed flowing through the system. You should feel the pump vibrating beneath your hand. Observe the flow indicator or flow meter readings if present.

Malfunctioning or broken-down cooling fans: The symptoms usually include a rapid spike in temperature when stressing your CPU to the maximum. Make sure the cooling fans are plugged into the power connector hub and that the blades are indeed rotating.

Kink in the liquid cooling tube: The symptoms are very similar to those described above. Thin-walled tubing may collapse easily under low-radius turns or when obstructed by other computer chassis elements, such as side panel doors. Check the tubing for any signs of kinks that could restrict the flow. Usually, this will not be the case when using the original tubing.

Clogged microchannels in the water block: Microchannels get clogged easily with various dirt particles and impurities, especially with plasticizer powder, leached from the tubing (when using inauthentic tubing). The symptoms usually include a rapid spike in temperature when stressing your CPU to the maximum, and flow rates that are very low. Visually inspect the water block internals for any buildup or contamination and clean the system if necessary. In case you have the water block with a translucent acrylic top, this inspection can be done without disassembling the system.

Thermal Interface Material not/improperly applied: The lack of - or even too much TIM (Thermal Interface Material/ thermal paste/thermal grease) - may result in the overheating of your CPU. In that case, it is necessary to detach the CPU/GPU water block and reapply the paste.

Cooling liquid (coolant) is freezing: Running the system in a subzero environment may lead to liquid freezing. The symptoms include an initial rapid spike in the temperatures when stressing your CPU, followed by a substantial temperature drop after the liquid partially thaws. Always make sure the system is operating in an environment where ambient (room) temperature doesn't drop below 5°C.

Another culprit for exceedingly high CPU temperatures could be a partially or completely defective CPU. Some CPUs run at higher temperatures than others, and overheating can occur in the following scenario.

DECLARATION OF CONFORMITY



DECLARATION OF CONFORMITY according to ISO/IEC 17050-1 and EN 17050-1

EKWB, d.o.o.
Pod lipami 18, SI-1218 Komenda, Slovenija

Declare, under it sole responsibility that the product

Product Name and Model:
EK-FG Side Task Liquid-Cooled Gaming PC

Regulatory Model Number:
Side Task

S/N:
EK-FGEU-XX-XXXX-XXXX

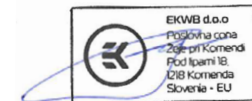
(XX-XXXX-XXXX - the unique S/N)

Conforms to the following
Product Specifications and Regulations:

Regulations	Product Specifications
Directive for Low Voltage equipment LVD 2014/35/EU	EN IEC 62368-1:2014
Directive for Electromagnetic compatibility EMC 2014/30/EU	EN 55032:2015/+A11:2020 EN 55035:2017/+A11:2020 EN 61000-3-2:2014 EN 6100-3-3:2013 EN 61000-4-2:2009 EN 61000-4-3:2006 + A1:2008 + A2:2010 EN 61000-4-5:2014 EN 61000-4-6:2014 EN 61000-4-8:2010 EN 61000-4-11:2004
Directive on the restriction of hazardous substances in electricity equipment RoHS 2011/65/EU and EU 2015/863	
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)	

Date: Komenda, 08. 11. 2023

Approved by: Roman Pust
Head of Quality





DECLARATION OF CONFORMITY
according to ISO/IEC 17050-1 and EN 17050-1

EKWB, d.o.o.
Pod lipami 18, SI-1218 Komenda, Slovenija

Declare, under its sole responsibility that the product

Product Name and Model:
EK-FG Zen Lotus Liquid-Cooled Gaming PC

Regulatory Model Number:
Zen Lotus

S/N:
EK-FGEU-XX-XXXX-XXXX

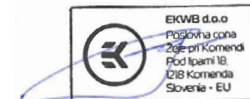
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Date: Komenda, 08. 11. 2023

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Head of Quality





DECLARATION OF CONFORMITY
according to ISO/IEC 17050-1 and EN 17050-1

EKWB, d.o.o.
Pod lipami 18, SI-1218 Komenda, Slovenija

Declare, under its sole responsibility that the product

Product Name and Model:
EK-FG Digital Reef Liquid-Cooled Gaming PC

Regulatory Model Number:
Digital Reef

S/N:
EK-FGEU-XX-XXXX-XXXX

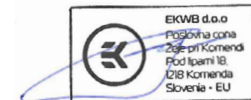
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Date: Komenda, 08. 11. 2023

Approved by: Roman Pust
Head of Quality



SUPPORT AND SERVICE

For assistance please contact:


<http://support.ekwb.com/>

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



All components shall be disposed according to the Waste
Electric and Electronic Equipment (WEEE) Regulations


SOCIAL MEDIA

 EKWaterBlocks

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