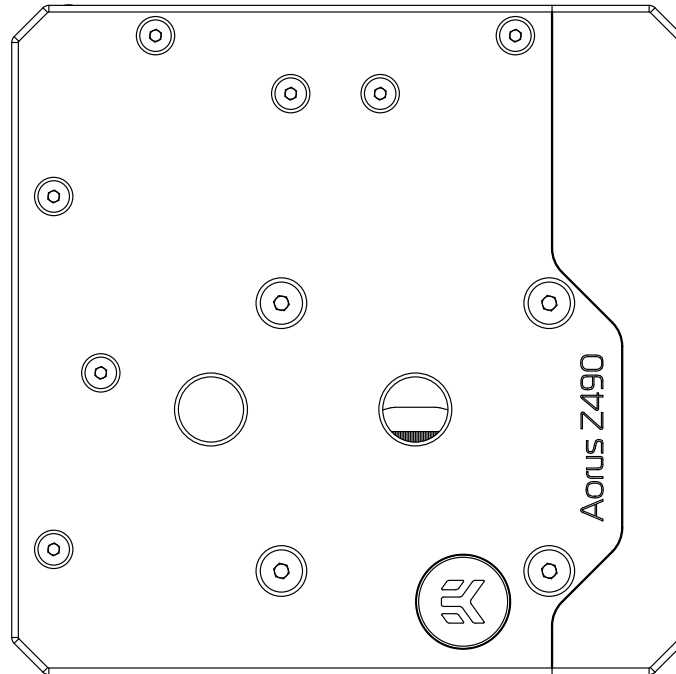


# EK-Quantum Momentum Aorus Z490 Master D-RGB

MONOBLOCK



This product is intended for installation by expert users only. Please consult with a qualified technician for installation. Improper installation may result in damage to the equipment. EK 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](http://www.ekwb.com) for updates. Prior to the installation of this product, please read important notice, disclosure, and warranty conditions printed on the back of the box.

Before you start using this product, please follow these basic guidelines:

**Carefully read the manual before beginning with the installation process!**

**Remove your motherboard from the chassis for the safest mounting process and to prevent damaging your CPU and/or motherboard's circuit board (PCB).**

**EK Fittings require only a small amount of force to screw them firmly in place since the liquid seal is ensured with the rubber O-ring gaskets.**

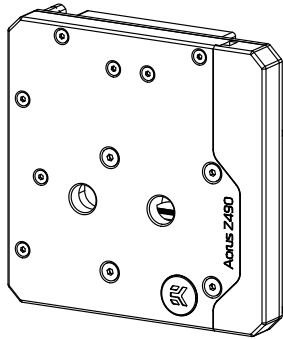
**The use of quality market-proven corrosion-inhibiting coolants is always strongly recommended for any liquid cooling system.**

**Do not use pure distilled water as a cooling liquid! For best results, EK recommends the use of EK-CryoFuel Coolants.**

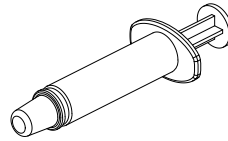
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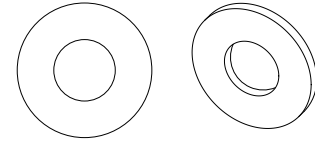
# BOX CONTENTS



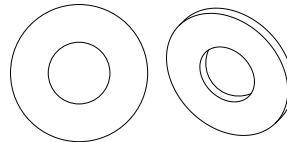
EK-Quantum Momentum Aorus Z490  
Master D-RGB



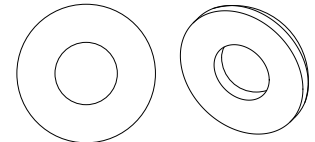
Thermal Grease (1 pc)



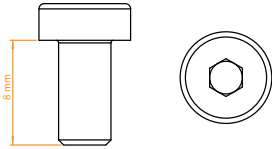
M4 PVC Washers (5 pcs)



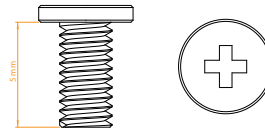
M2.5 PVC Washers (5 pcs)



M2.5 Adhesive PVC Washers (5pcs)



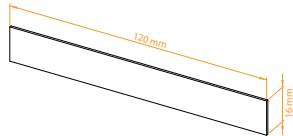
M4 x 8 7984DIN (5 pcs)



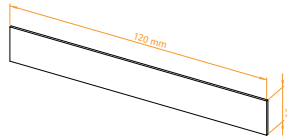
M2.5 x 5 AX1 Screws (5 pcs)



2.5. mm Allen Key (1 pc)

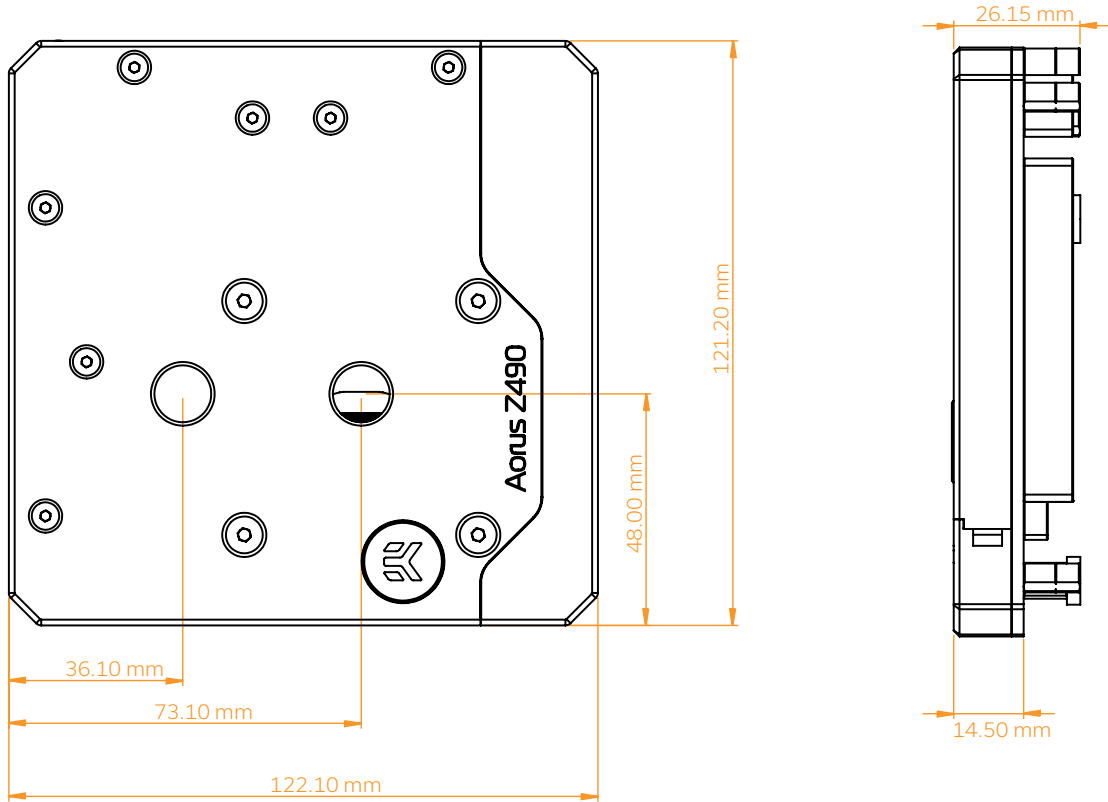


Thermal Pad F 1.0 mm (2 pcs)

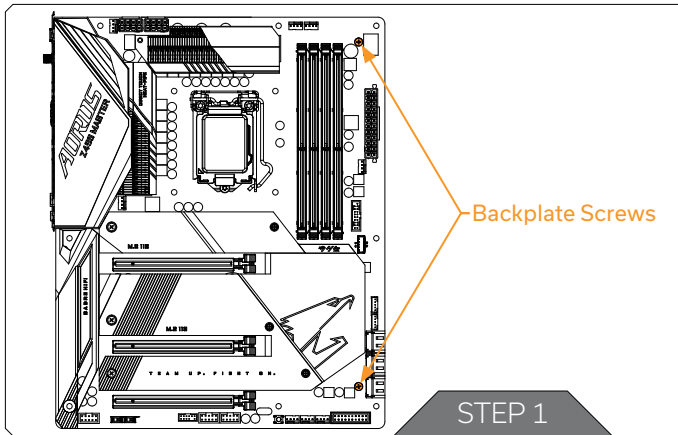


Thermal Pad F 2.0 mm (2 pcs)

# MONOBLOCK DIMENSIONS



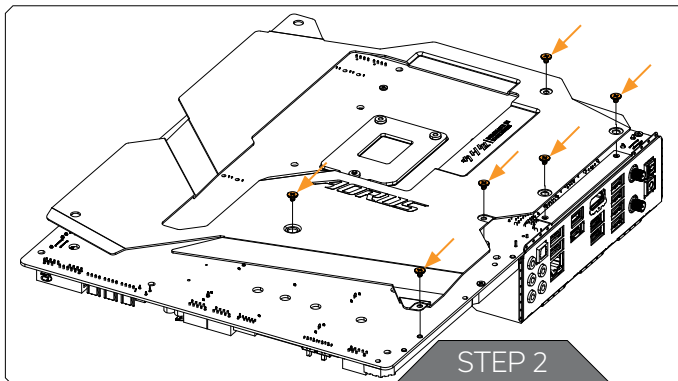
## PREPARING THE MOTHERBOARD



## REMOVING THE BACKPLATE

### STEP 1

Remove the two (2) encircled screws.



### STEP 2

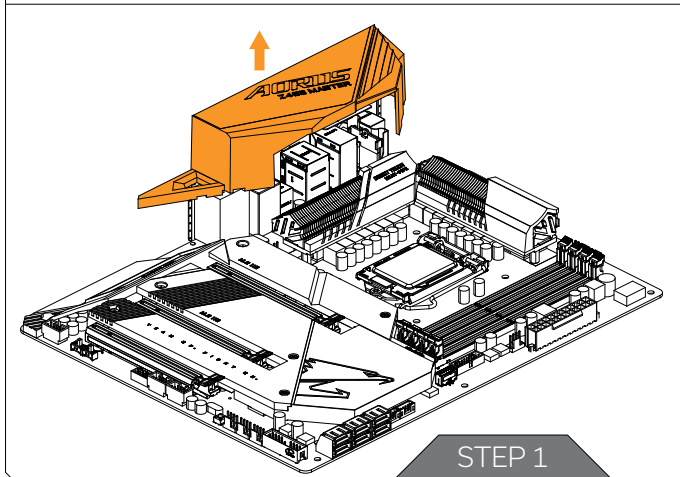
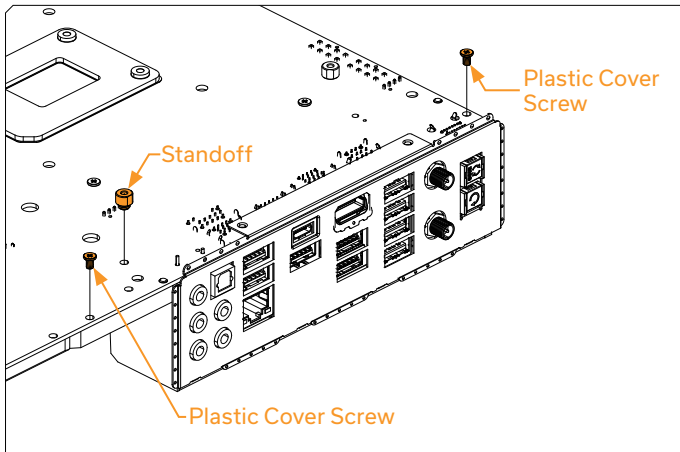
On the backside of the motherboard, six (6) additional screws need to be removed, as marked in the picture. Once these screws are removed, you can carefully detach the backplate from the motherboard. The backplate can be reused after mounting the water block.

## REMOVING THE PLASTIC I/O COVER

### STEP 1

Unscrew one (1) standoff and two (2) screws to remove the plastic I/O cover. This plastic cover can be reused once you've installed the water block.

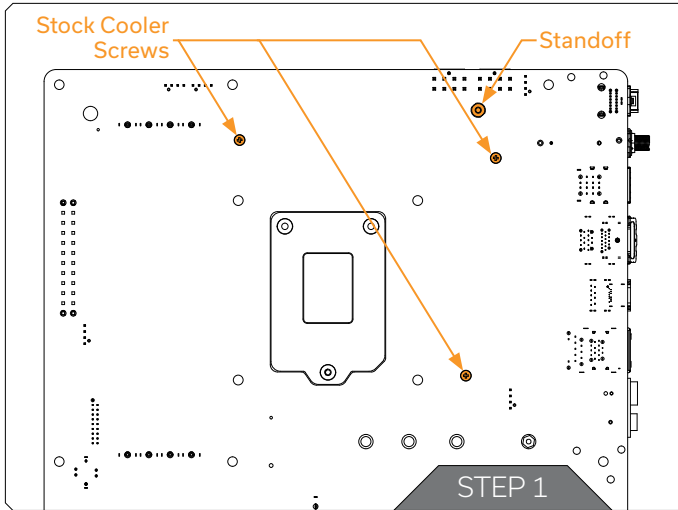
For easier installation of the water block, we recommend you disconnect the LED connector first.



## REMOVING THE STOCK COOLER

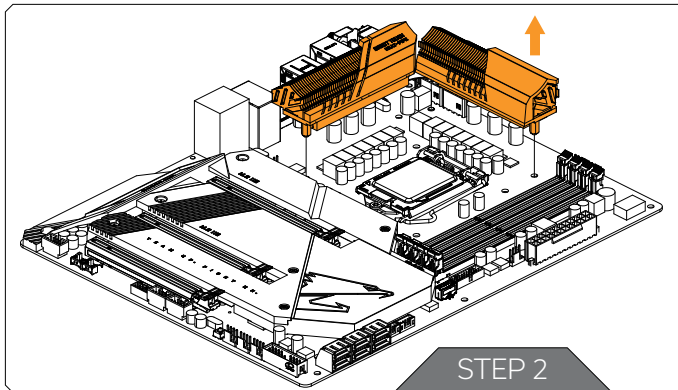
### STEP 1

Remove all encircled screws. There are three (3) screws and one (1) standoff on the back of the motherboard that need to be removed before you can take off the factory-installed MOSFET cooling solution.



### STEP 2

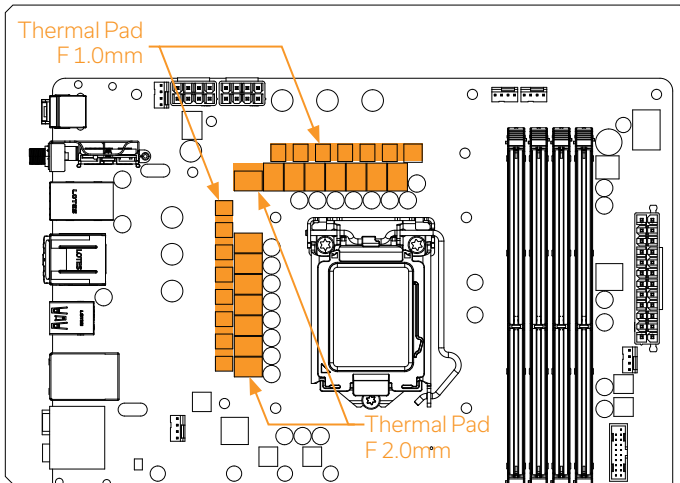
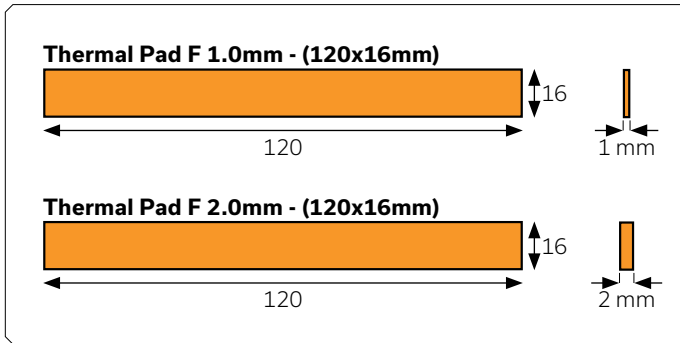
After removing the standoff and screws, carefully detach the stock cooler and pre-applied thermal pads. EK provides replacement thermal pads with the water block (see Chapter: Cutting and Placing Thermal Pads).





## CUTTING AND PLACING THERMAL PADS

Your monoblock comes with thermal pads that need to be trimmed to fit the voltage regulation area (MOSFET) on the motherboard's circuit board.



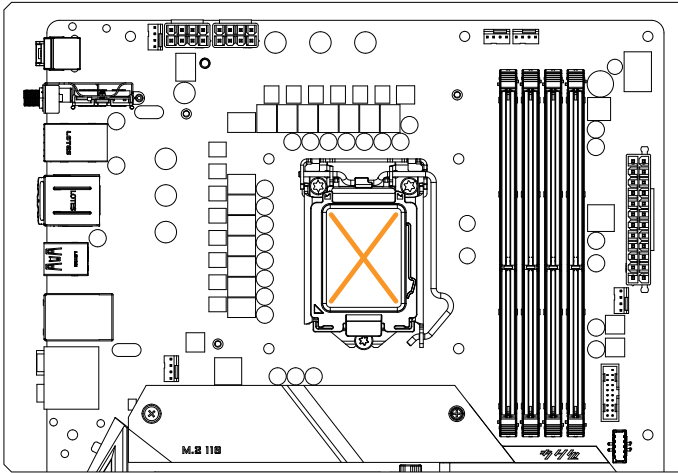
Place larger strips of thermal pads over the marked area and make sure all MOSFET and inductor chips are covered, as shown in the picture.

**CAUTION: Remove the protective foil from both sides of a thermal pad before installation.**

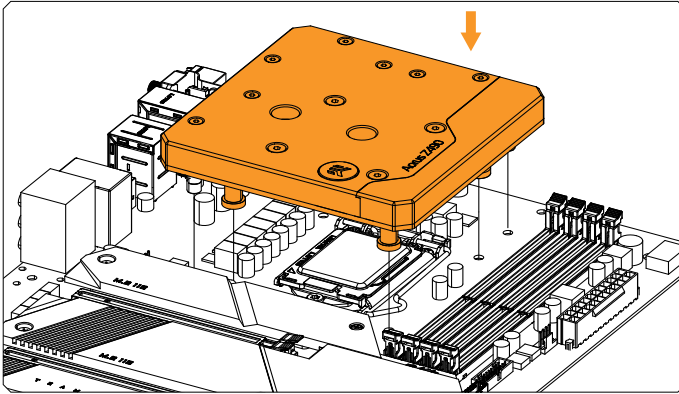
## APPLYING THERMAL COMPOUND

Apply the enclosed EK-TIM Ectotherm thermal grease (thermal compound) on the CPU heat spreader - IHS - as shown in the image. The layer of the thermal compound must be thin and even in thickness over the entire surface of the IHS.

**The excessive or uneven application of thermal grease may lead to poor performance!**

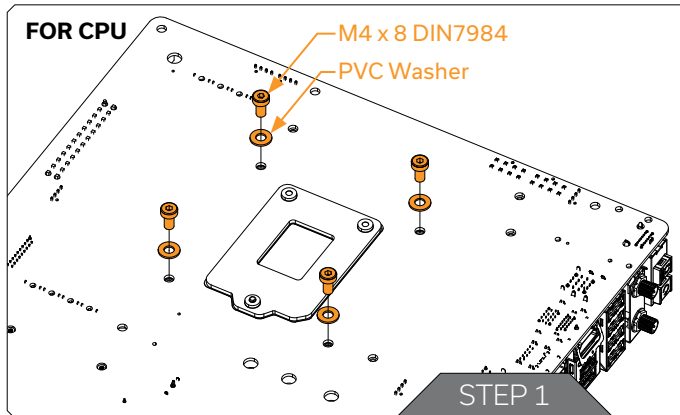


## PLACING THE BLOCK ON THE MOTHERBOARD



Carefully place your EK-Quantum Momentum Aorus Z490 Master D-RGB water block on the motherboard or vice versa, as shown in the picture. Make sure the mounting holes are aligned.

**CAUTION:** The protective sticker must be removed from the coldplate.



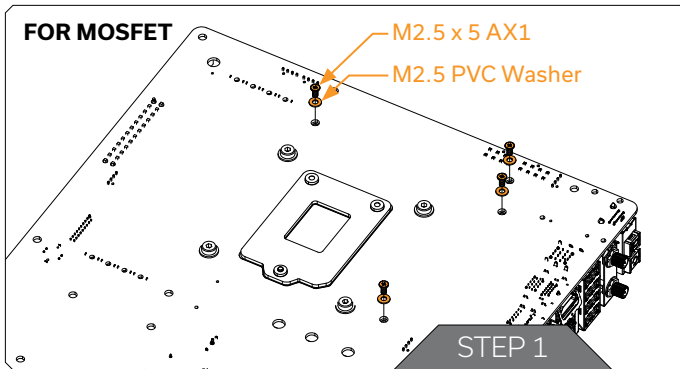
## ATTACHING THE BLOCK TO THE MOTHERBOARD

### STEP 1

Before you fasten the screws, make sure the mounting holes on the motherboard's circuit board are aligned with the water block. When tightening the screws, do not use excessive force!

### For the CPU:

Use four (4) M4 X 8 DIN7984 screws and M4 PVC washers. Tighten the screws evenly using the enclosed 2.5mm Allen Key.



### For Mosfet:

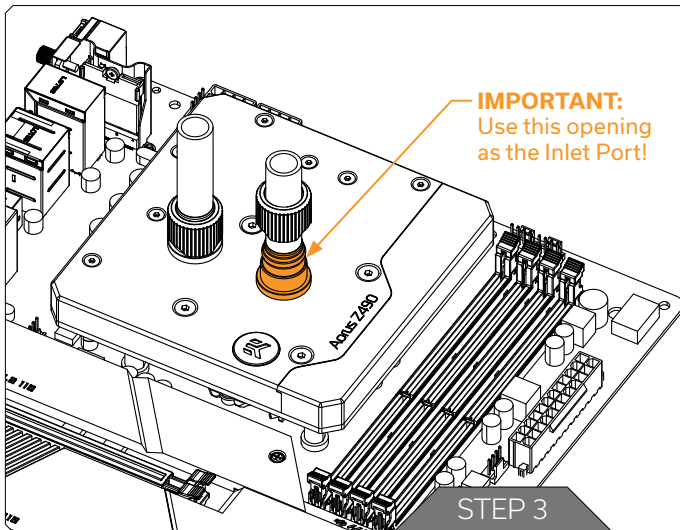
Use four (4) M2.5 x 5 AX1 screws with M2.5 PVC washers and tighten them evenly.

The water block installation is now complete.

### STEP 2

Attach the I/O cover and backplate back on the motherboard.

Do not forget to plug in the I/O cover LED connector before securing the screws.

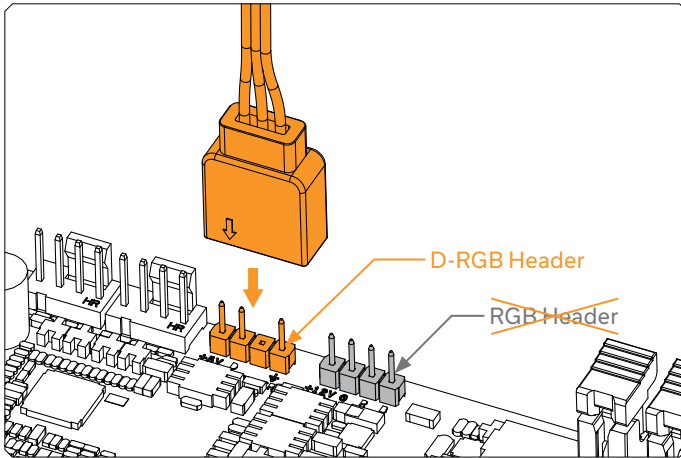


### STEP 3

For the EK-Quantum Momentum Aorus Z490 Master D-RGB monoblock to operate properly, the G1/4 port nearest to the right edge of the water block **MUST BE USED AS THE INLET PORT**.

## CONNECTING THE D-RGB LED STRIP

Plug the 3-pin connector from the monoblock's D-RGB LED light to the **D-RGB Header** on the motherboard. The LEDs will work if the pin layout on the header is as follows: **+5V, Data, Empty, Ground**.



## TESTING THE LOOP

To make sure 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 of 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. Ensure that all hardware is dry before the system is powered on, to prevent any damage.

## SUPPORT AND SERVICE


In case you need assistance, please contact:


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

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## SOCIAL MEDIA

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