
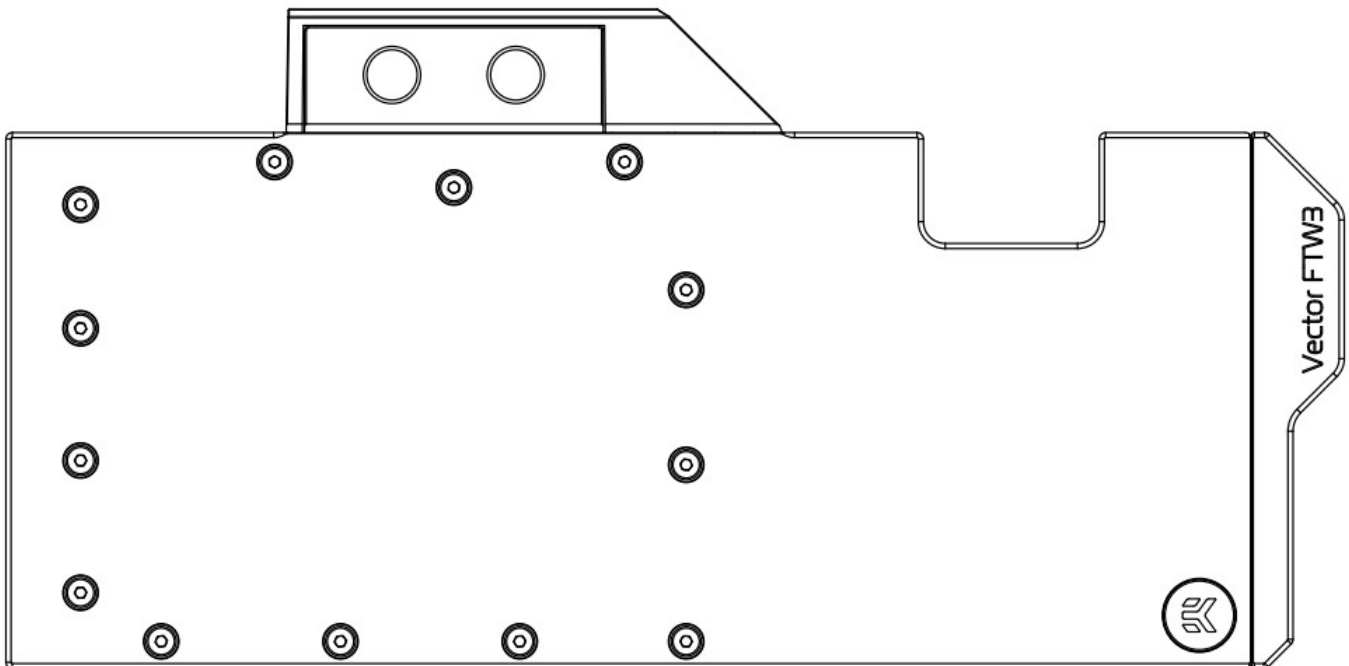


## ekwb FTW3 RTX 3070 Ti EK-Quantum Vector User Guide

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### FTW3 RTX 3070 Ti EK-Quantum Vector User Guide



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

Please carefully read the manual before beginning the installation process!

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

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!

Make sure to thoroughly bleed air out of your water block, or you will not reach optimal performance!

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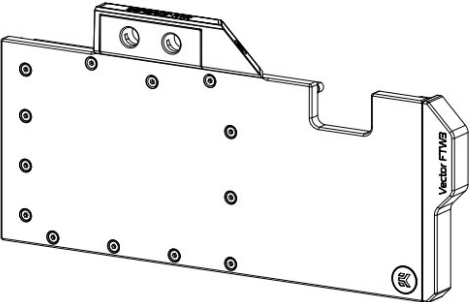

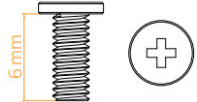
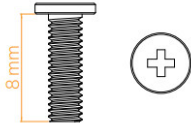
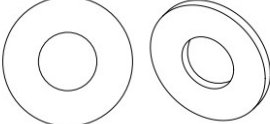
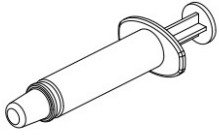
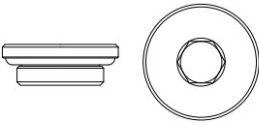
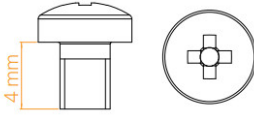
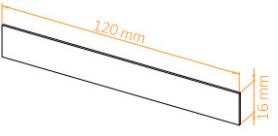
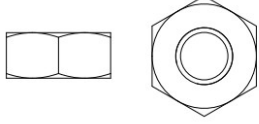
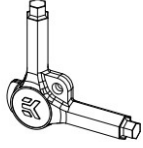

14 Documents / Resources

14.1 References

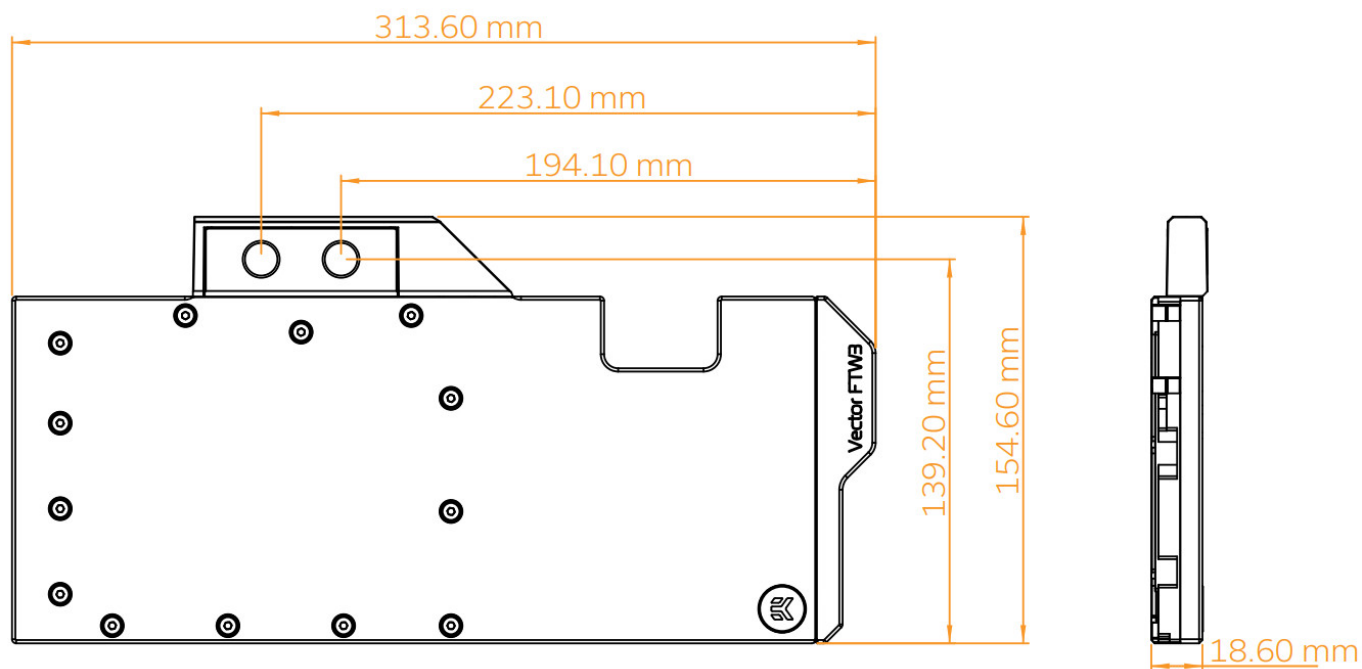
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BOX CONTENTS

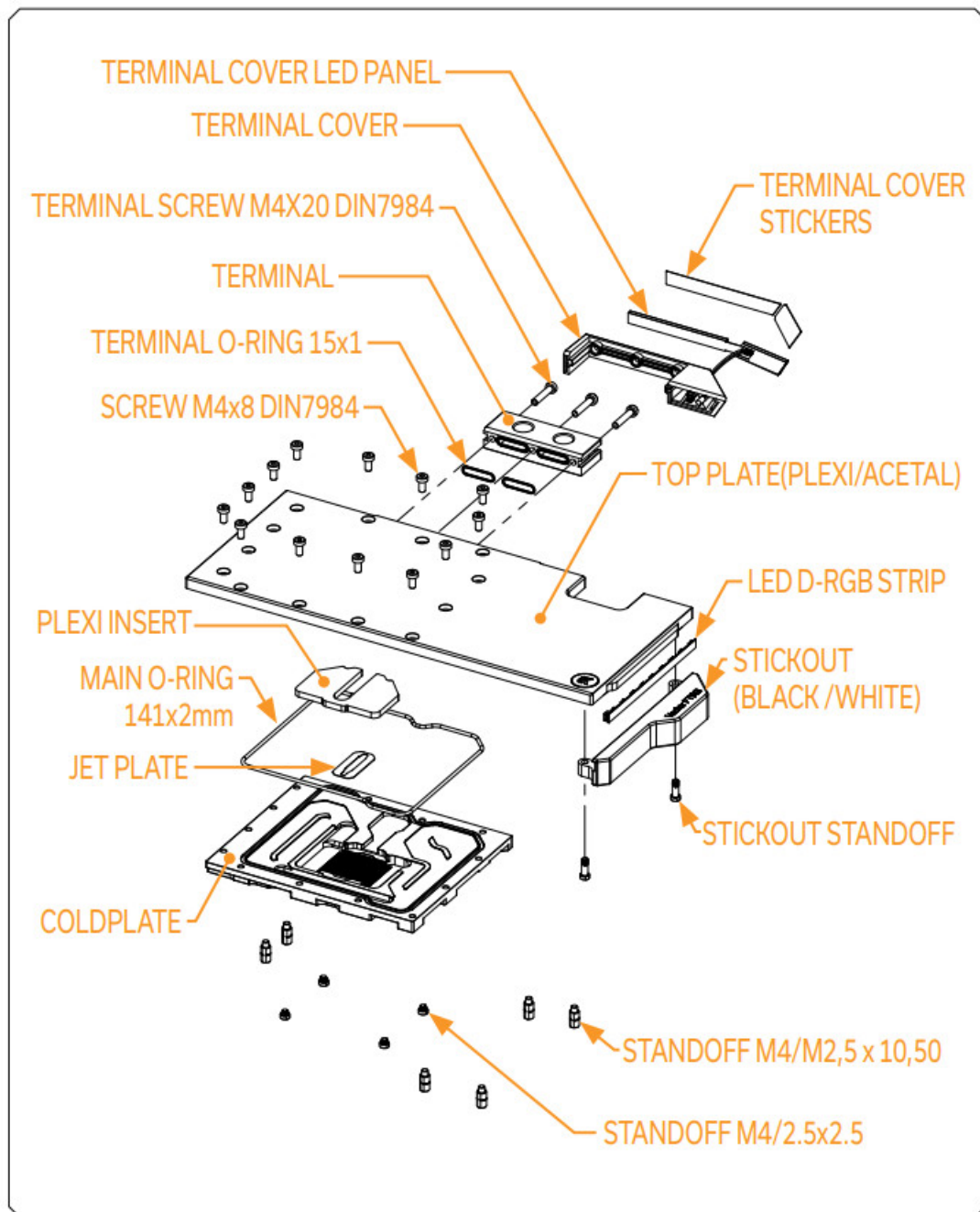
Universal Mounting Mechanism – You may not need every screw from this package.

 <p>EK-Quantum Vector FTW3 RTX 3070 Ti</p>		 <p>M2.5x4 AX1 Screw (16 pcs)</p>		 <p>M2.5x6 AX1 Screw (13 pcs)</p>	
		 <p>M2.5x8 AX1 Screw (2 pcs)</p>		 <p>PVC Washer M2.5 (16 pcs)</p>	
 <p>Thermal Grease (1 pc)</p>		 <p>EK-Plug G1/4 (2 pcs)</p>		 <p>M3x4 DIN7985 Screw (2 pcs)</p>	
 <p>Thermal Pad F 1.0 mm (3 pcs)</p>		 <p>M2.5 Nut (6 pcs)</p>		 <p>EK-Loop Multi Allen Key (1 pc)</p>	
		 <p>Allen Key 2.5 mm (1 pc)</p>			

WATER BLOCK DIMENSIONS



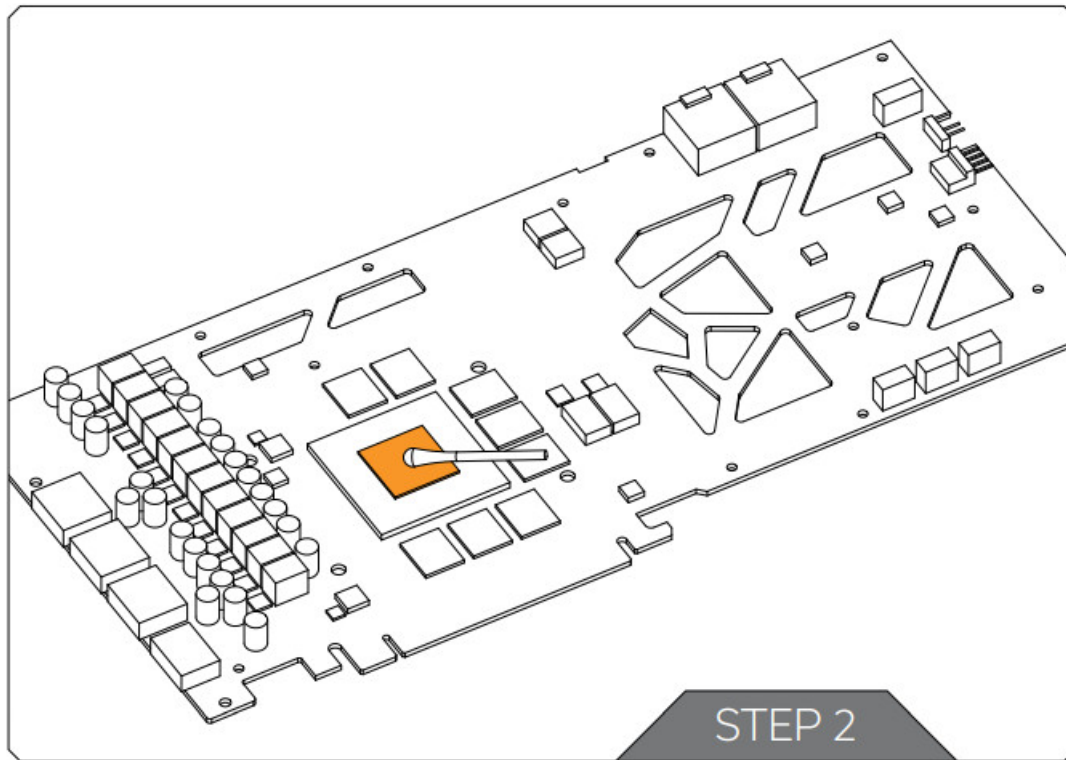
## WATER BLOCK SPECIFICATIONS AND MAIN PARTS



#### Technical Specification:

- Dimensions (LxHxW): 314 x 155 x 21 mm
- D-RGB (Addressable RGB) Cable – Length: 500 mm
- D-RGB LED Count: Plexi – 8/Acetal – 8
- D-RGB Connector: Standard 3-Pin (+5V, Data, Blocked, Ground)

#### PREPARING THE GRAPHICS CARD



#### **STEP 1**

##### **REMOVING THE STOCK COOLER**

Place your graphics card on the flat surface and carefully remove the stock cooler. Do not forget to unplug all the LED and fan connectors.

Pay attention to the following steps when installing the EK-Quantum Vector FTW3 RTX 3070 Ti water block onto your graphics card.

#### **STEP 2**

##### **CLEANING THE PCB**

Wipe off the remains of the original thermal compound using a nonabrasive cloth or Q-tip, as shown in the sample image, until the components and circuit board are completely clean. EK recommends the use of denatured alcohol for removing TIM leftovers. After that, remove all remaining stock thermal pads from the PCB.

##### **CUTTING AND PLACING THERMAL PADS**

### Thermal Pad F – 1.0 mm (120 x 16 mm)



STEP 1

44

#### STEP 1

Your GPU water block comes with thermal pads that have to be cut into smaller pieces to cover all the VRM components, such as COILs, MOSFETs, and drivers.

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

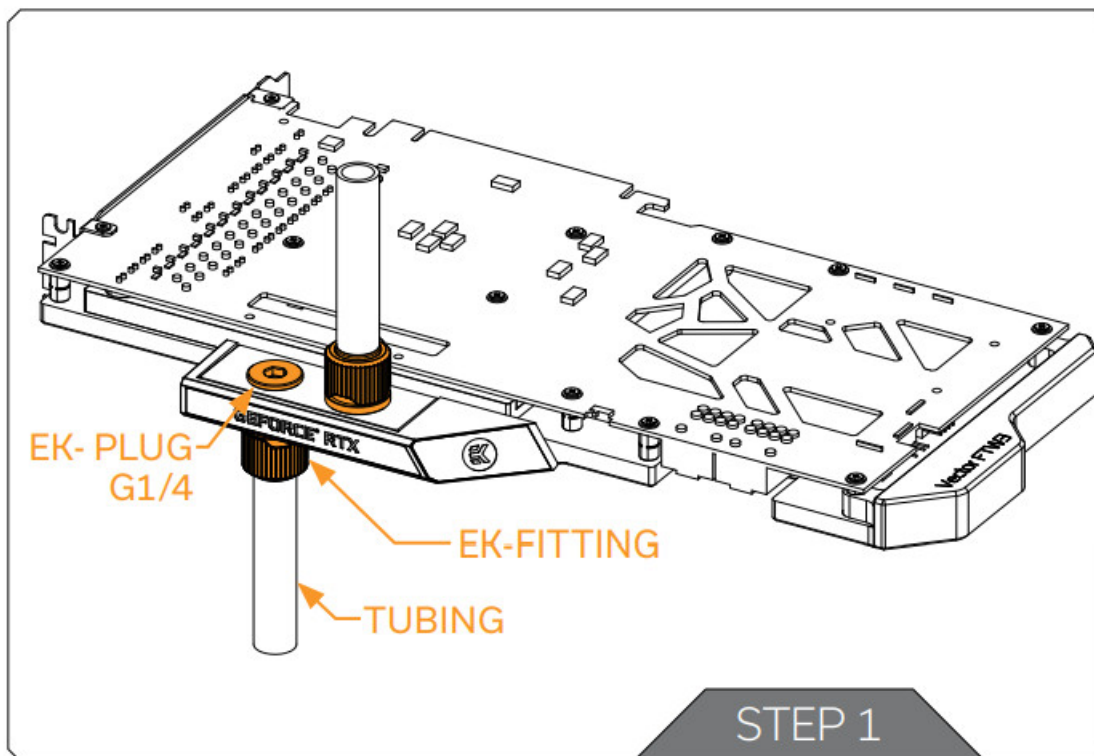
Replacement thermal pads:

3x Thermal Pad F 1.0mm – (120X16mm) EAN: 3830046996732

#### STEP 2

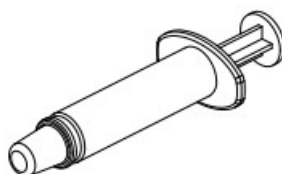
Once cut to size, thermal pads should be placed on the PCB, as illustrated below. EK made sure to provide you with more than an adequate quantity of thermal pads to complete this Step.

### APPLYING THERMAL COMPOUND

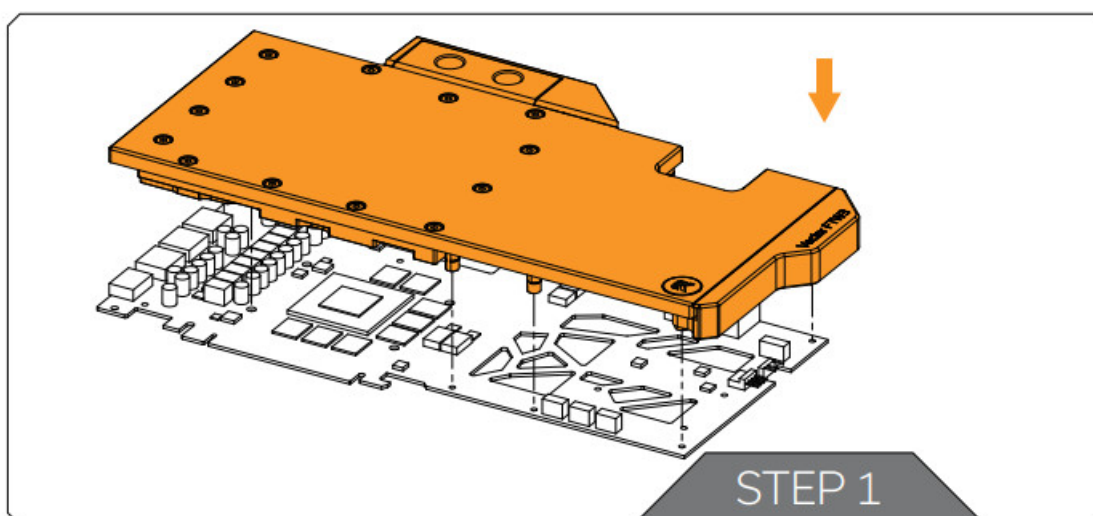


## STEP 1

Apply the enclosed EK-TIM Ectotherm 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: Thermal Grease



## INSTALLING THE WATER BLOCK



## STEP 1

### PLACING THE BLOCK ON THE GRAPHICS CARD

This procedure is the same for all full-cover water blocks.

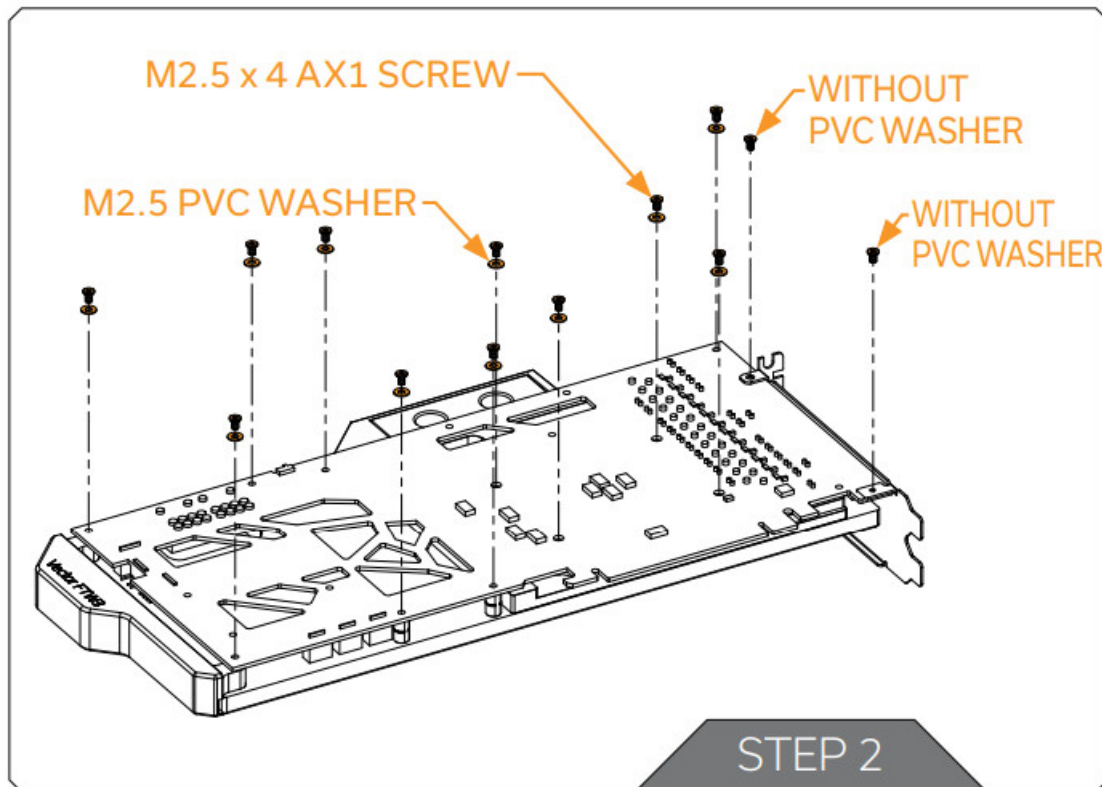
Carefully position the water block with preinstalled standoffs on the graphics card. During this process, make sure



you have aligned mounting holes of the PCB with holes of the water block (same applies to other tops).



Pay attention not to use too much force when pressing the block down to the PCB since chip dies are prone to cracking.

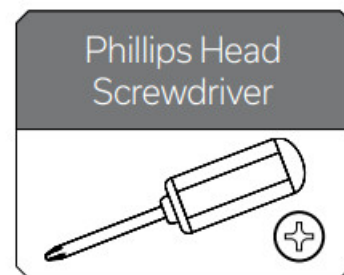
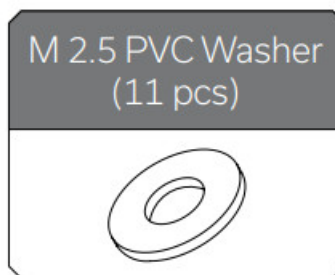
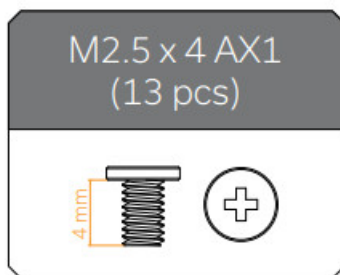


## STEP 2

### ATTACHING THE BLOCK TO THE GRAPHICS CARD

Use thirteen (13) M2.5 X 4 AX1 screws and eleven(11) M2.5 PVC washers. Tighten the screws evenly using the Phillips head screwdriver. EK recommends you start tightening the screws around the GPU core first and then continuing outward to prevent damaging the GPU.

**For this Step, you will need:**



## INSERTING THE GRAPHICS CARD INTO THE CHASSIS

Carefully lift your graphics card with the installed water block and insert it into your PC's motherboard PCI-express expansion slot.

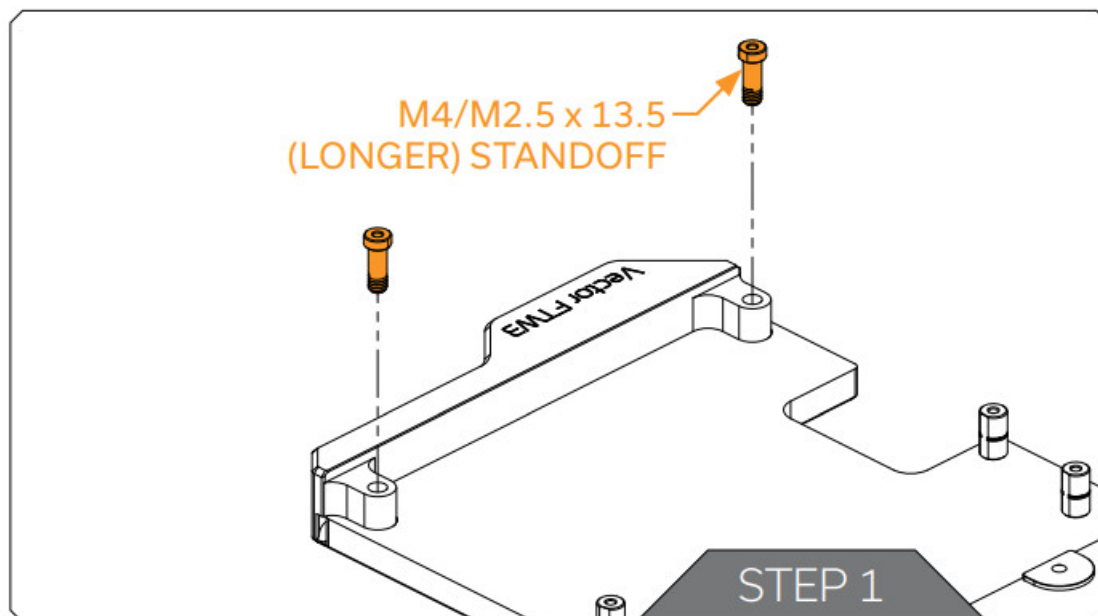
Please keep in mind that your graphics card is heavier than before it was equipped with the water block.



You need to be very careful when handling the graphics card. Avoid all unnecessary manipulation of the water block assembly that might damage your card or water block.

## FITTINGS AND TUBING





### STEP 1

Screw-in two (2) G1/4 threaded male fittings. Attach the liquid cooling tubes and connect the water block to the cooling loop.

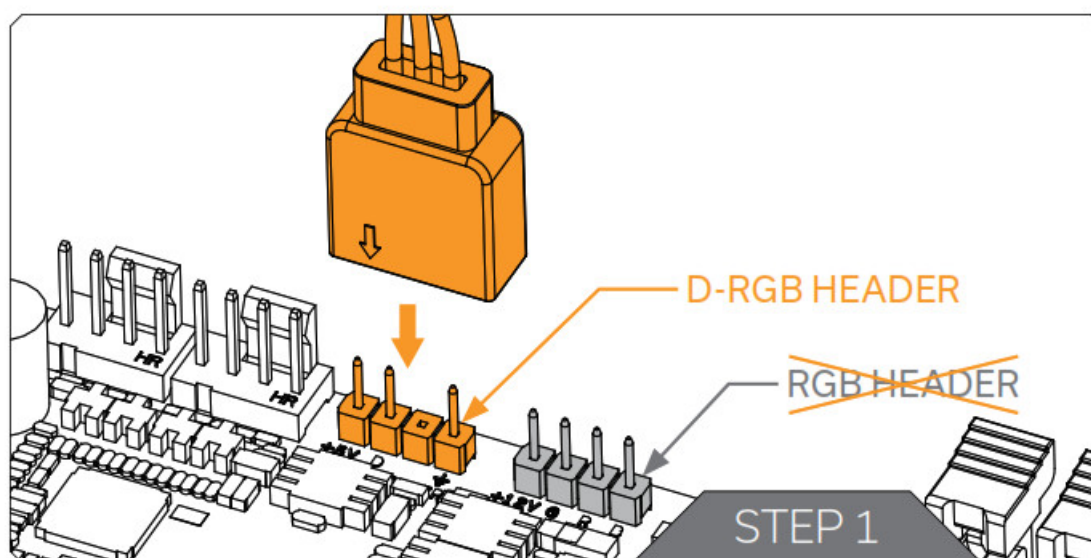


Do not forget to plug the remaining two openings with the enclosed EK-Plug G1/4 or its equivalent. EK recommends using EK fittings with all EK water blocks.



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

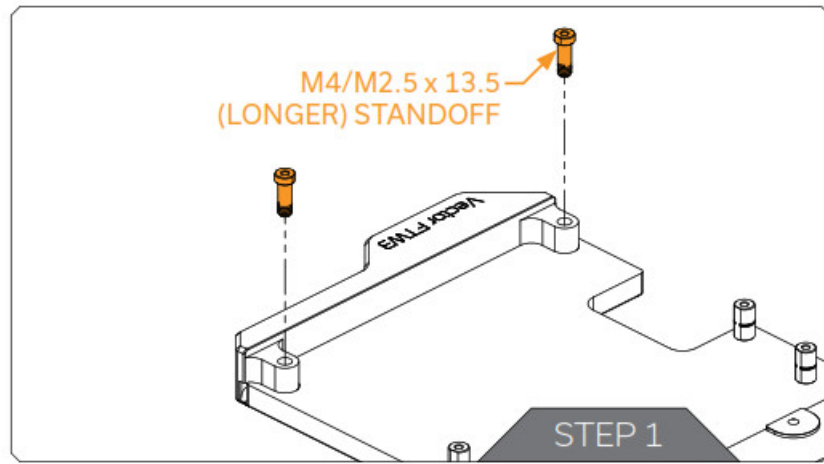
## CONNECTING THE D-RGB LED STRIP



### STEP 1

Plug the 4-pin D-RGB connector from the GPU water block to the D-RGB Header on your motherboard or controller. The LED strip will work only if the pin layout on the header is as follows: +5V, Data, Empty, Ground. Incorrect installation or installation to a wrong header can damage the LED strip or the header itself!

## REPLACING THE LED STRIP (Optional)



### STEP 1

If you want to replace the D-RGB LED strip, you must remove the two (2) standoffs shown in the picture. Remove the stick out and replace the LED strip.



Once you have replaced the LED strip, align the holes on the stick out with holes on the top plate, and tighten the standoffs evenly.

### 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, please contact: <https://www.ekwb.com/customer-support/>

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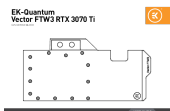


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### Documents / Resources



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FTW3-RTX 3070 Ti EK-Quantum Vector, FTW3-RTX, 3070 Ti EK-Quantum Vector, FTW3-RTX EK-Quantum Vector

## References

- [Customer Support - ekwb.com](#)

Manuals+