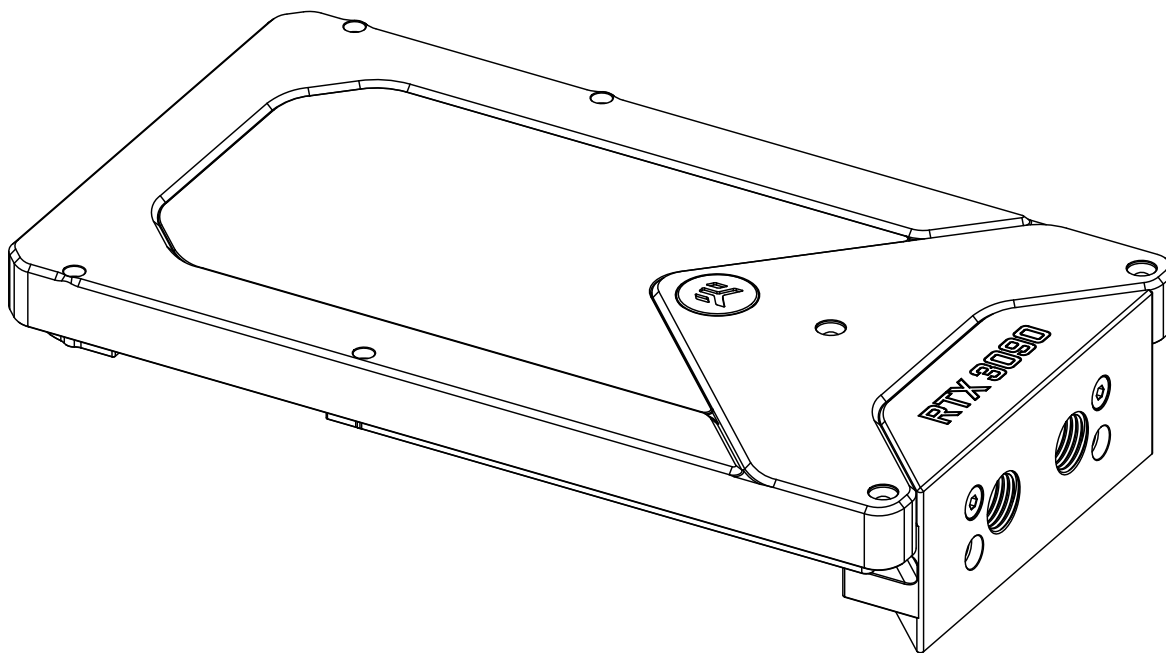


EK-Quantum Vector FE RTX 3090 D-RGB Active Backplate



This product is intended for installation by expert users only. Please consult with a qualified technician. Improper installation may result in damage to your equipment. EK assumes no liability whatsoever, expressed or implied, for the use of this product or its installation. The following instructions are subject to change without notice. Please, read the manual carefully before beginning with the installation process. For updates, you can visit our official website www.ekwb.com.

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

Carefully read the manual before beginning the installation process.

Remove your graphics card from the computer for the safest mounting process to prevent any possible damage to your GPU or its 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. Make sure to bleed air out of your water block thoroughly in order to reach optimal performance.

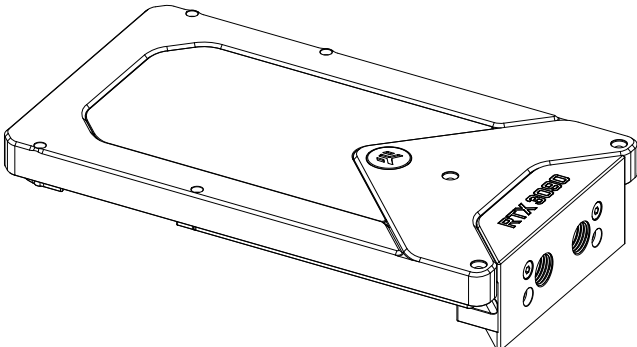
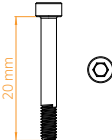
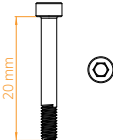
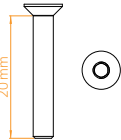
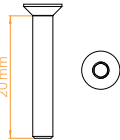
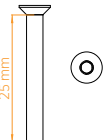
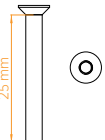

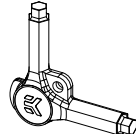
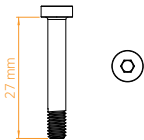
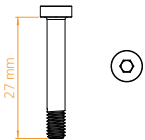

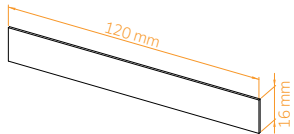
EK only guarantees compatibility with included EK-brand thermal pads. The installation process, cooling performance, and block contacts are tested exclusively with EK-brand thermal pads. Listed thermal pad thicknesses apply only to those included in the package.

EK does not guarantee compatibility with aftermarket alternatives for thermal interface material.

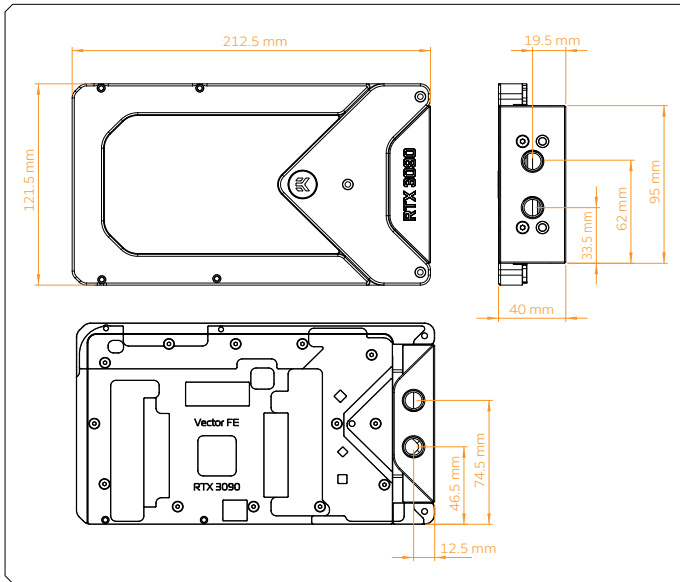
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BOX CONTENTS

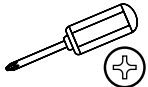
| | | | |
|---|---|--|---|
|  <p>EK-Quantum Vector FE RTX 3090 D-RGB Active Backplate</p> |  <p>M2.5x20 Screw - Black Chrome (4 pcs), EAN: 104218</p> |  <p>M2.5x20 Screw - Nickel (4 pcs), EAN: 104219</p> | |
|  <p>M3x20 DIN7991 Screw - Black (2 pcs), EAN: 8204</p> |  <p>M3x20 DIN7991 Screw - Nickel (2 pcs), EAN: 104196</p> |  <p>M3x25 DIN7991 Screw - Black (1 pc), EAN: 9061</p> |  <p>M3x25 DIN7991 Screw - Nickel (1 pc), EAN: 104197</p> |
|  <p>Allen Key 2 mm (1 pc), EAN: 8901</p> |  <p>EK-Loop Multi Allen Key (1 pc), EAN: 3830046996213</p> |  <p>Terminal Screw M4x27 - Black Chrome (2 pcs), EAN: 103398</p> |  <p>Terminal Screw M4x27 - Nickel (2 pcs), EAN: 103397</p> |
| | |  <p>Allen Key 2.5 mm (1 pc), EAN: 8902</p> |  <p>Thermal Pad F 1.0 mm (4 pcs), EAN: 3830046996732</p> |

ACTIVE BACKPLATE DIMENSIONS



REQUIRED TOOLS

Phillips Head Screwdriver



Scissors

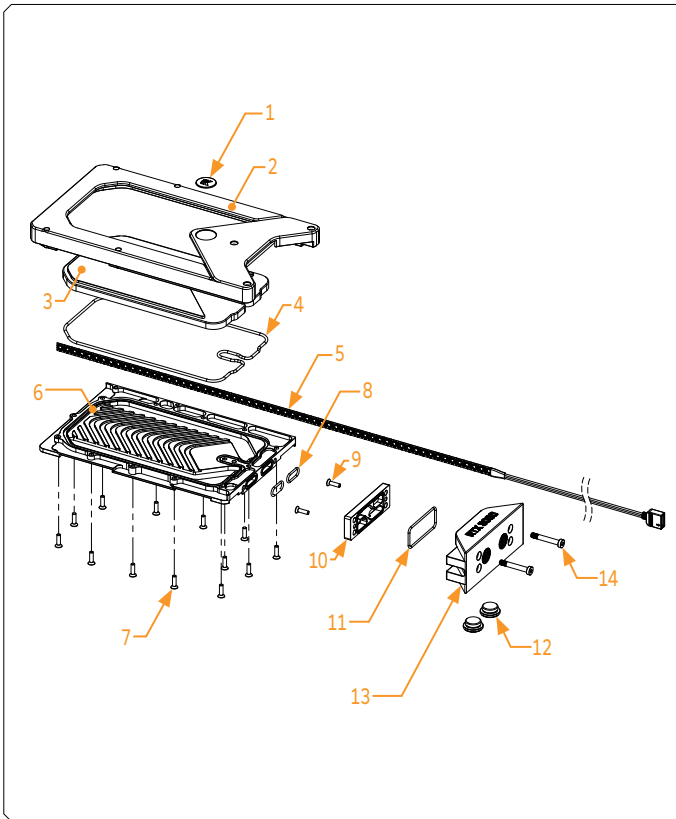


TECHNICAL SPECIFICATIONS AND PRODUCT PARTS

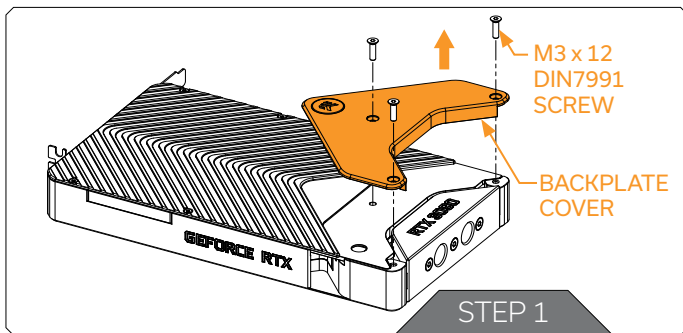
Technical Specification:

- Dimensions (L x H x W): 212.5 x 121.5 x 40 mm
- D-RGB (Addressable RGB) Cable Length: 500 mm
- D-RGB LED Count: 24
- D-RGB Connector: Standard 3-Pin (+5V, Data, Blocked, Ground)

| Position | EAN | Description | Quantity |
|----------|--------|--------------------------------|----------|
| 1 | 100663 | EK Badge | 1 |
| 2 | 104128 | Top plate cover (Black elox) | 1 |
| | 104129 | Top plate cover (Natural elox) | |
| 3 | 104124 | Top plexi | 1 |
| 4 | 104126 | Main O-ring | 1 |
| 5 | 100815 | LED Strip | 1 |
| 6 | 104131 | Coldplate (Nickel) | 1 |
| 7 | 9041N | M3 x 11 DIN7991 (Ni) | 13 |
| | 9041 | M3 x 11 DIN7991 | |
| 8 | 5092 | OR 12 x 1.5 | 2 |
| 9 | 9041N | M3 x 11 DIN7991 (Ni) | 2 |
| | 9041 | M3 x 11 DIN7991 | |
| 10 | 104133 | Terminal insert (Nickel) | 1 |
| 11 | 5158 | OR 35 x 1.5 | 1 |
| 12 | 102639 | EK-Plug G1/4 | 2 |
| 13 | 104123 | AB Terminal | 1 |
| | 103398 | Terminal screw (Black Chrome) | |
| 14 | 103397 | Terminal screw (Nickel) | 2 |



PREPARING THE 3090 FE WATER BLOCK

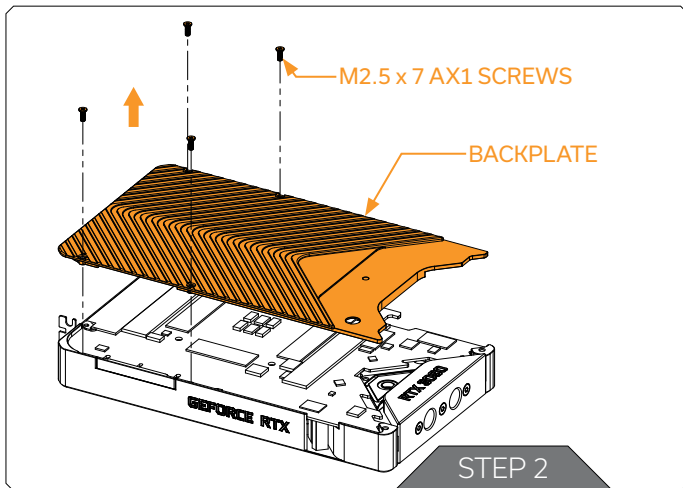


STEP 1

Unscrew the three (3) M3x12 DIN7991 screws and remove the backplate cover, as shown in the image..

For this Step, you will need:

Allen Key 2 mm



STEP 2

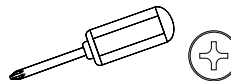
After removing the backplate cover, four (4) backplate screws needs to be removed. Detach the backplate as shown in the image.

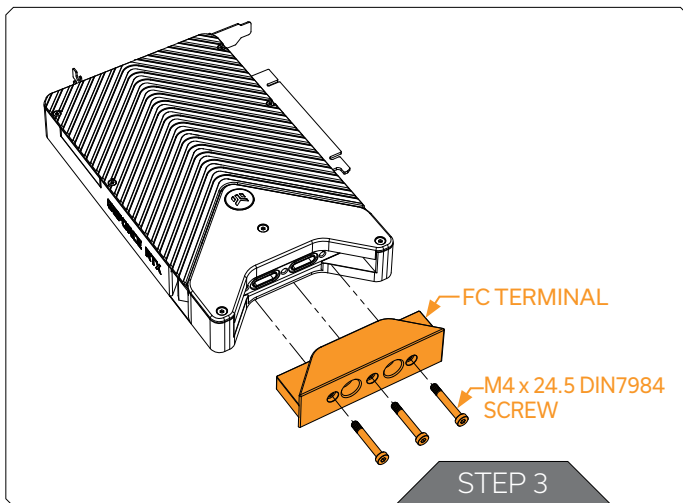


Preinstalled thermal pads on the PCB also must be detached. After removing the thermal pads, pre-applied thermal grease also needs to be removed using a nonabrasive cloth or Q-tip. EK recommends the use of denatured alcohol for removing TIM leftovers.

For this Step, you will need:

Phillips Head Screwdriver





STEP 3

EK-Quantum Vector FE 3090 Active Backplate comes with its own terminal, meaning the original terminal on the EK-Quantum Vector FE 3090 water block must be removed.



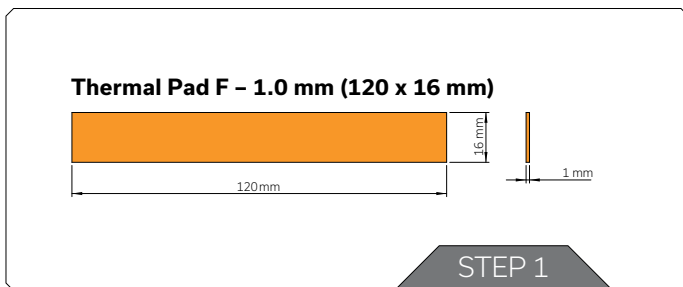
In case the EK-Quantum Vector FE 3090 water block is already filled with coolant, empty the contents of the water block before continuing with this step. Be careful that the coolant that remained in the water block does not contact the GPU!

For this Step, you will need:

Allen Key 2.5 mm



CUTTING AND PLACING THERMAL PADS

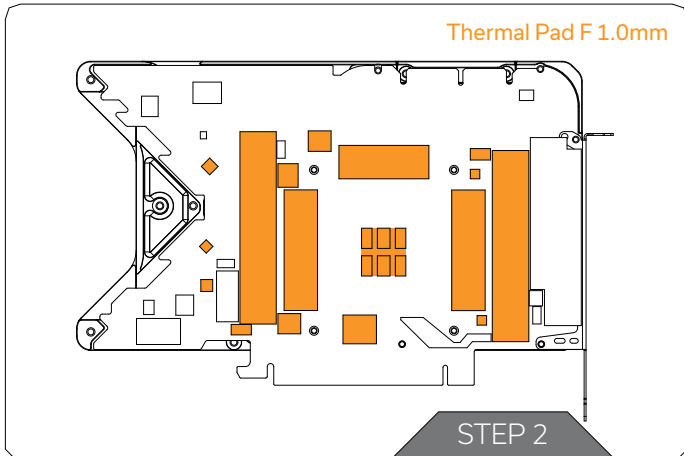


STEP 1

Your Active Backplate comes with thermal pads that must be cut into smaller pieces to cover all the VRM components. EK has included more than enough thermal pads to complete the following Step(s).

Replacement thermal pads:

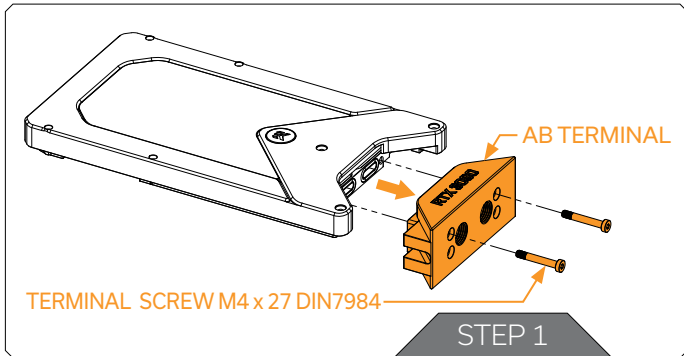
Thermal Pad F 1.0 mm - (120 x 16 mm) EAN: 3830046996732



STEP 2

Once cut to size thermal pads should be applied to the PCB as shown in the image.

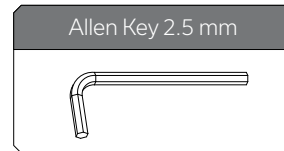
ATTACHING THE BACKPLATE

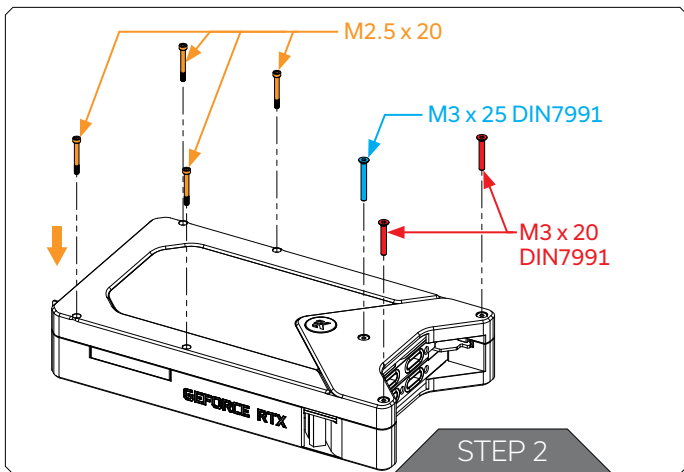


STEP 1

For easier installation of the Active Backplate, the preinstalled terminal and metal plate must be removed. Unscrew the two (2) Terminal screws (as shown in the image) and remove the terminal. Save the mention material for later use.

For this Step, you will need:

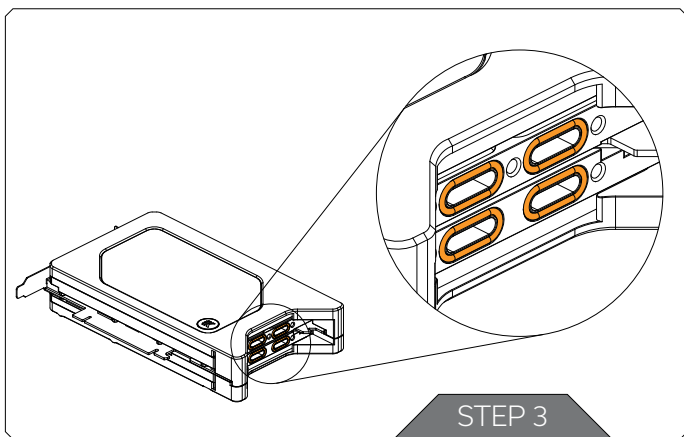
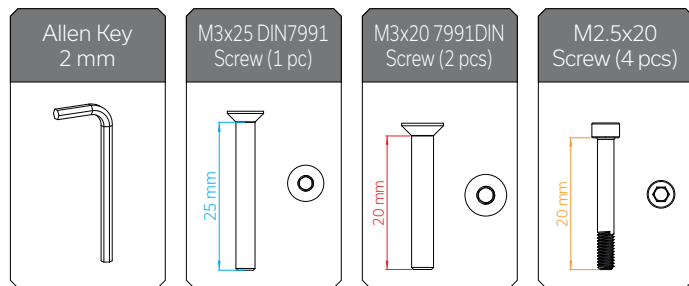




STEP 2

Place the active backplate on the PCB and make sure all holes are aligned. Position the screws in each of the seven (7) mounting holes (as shown in the image) and tighten them evenly with Allen Key 2 mm.

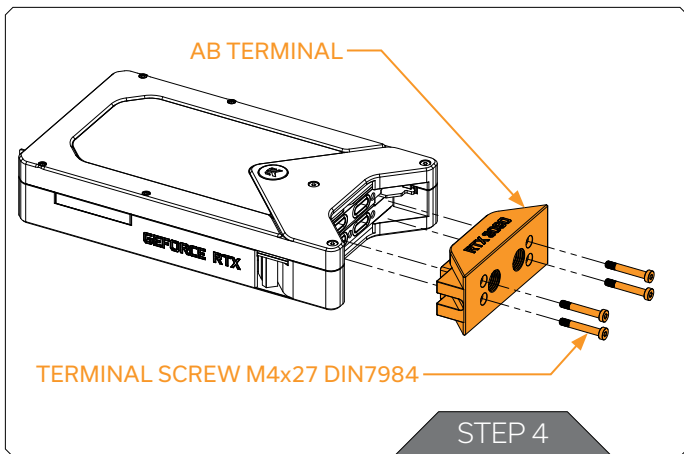
For this Step, you will need:



STEP 3



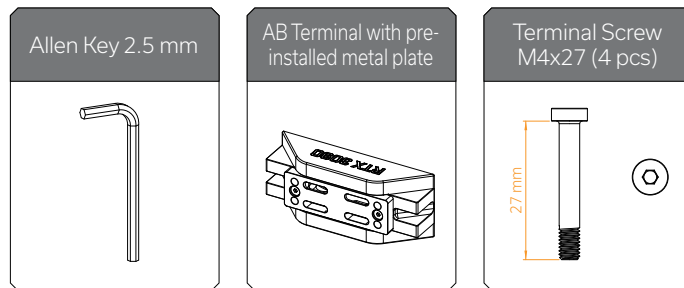
Before attaching the terminal, make sure that four (4) O-rings are IN terminal slots, as shown in the image.



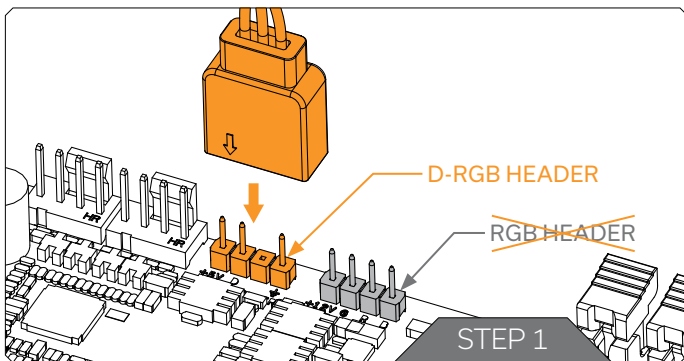
STEP 4

Set the Active backplate terminal in place with the preinstalled metal plate and secure it with four (4) M4x27 DIN7984 Screws. Tighten them evenly with the provided 2.5 mm Allen Key.

For this Step, you will need:

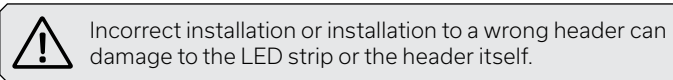


CONNECTING THE D-RGB LED STRIP



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**.



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.

Thermal pads are readily available in the EK shop.

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