

# *User's Manual*

(English version)

## **VGA WATER BLOCK** for Nvidia® Geforce® 8800 GTS/GTX

**ZM-GWB8800 GTS / GTX**

Please visit our website and watch the ZM-GWB8800 GTS / GTX Installation video for easy installation.

※ Please read this manual thoroughly before installation.

<http://www.zalman.co.kr> <http://www.zalmanusa.com>

ZALMAN

## Precautions

- 1) Test the product for leakage away from the system before installing it on the system. Once no leakage is confirmed, proceed with the installation and use.
- 2) Used approved coolant for computer water-cooling to prevent corrosion.
- 3) Use coolant tubes listed under the compatibility list.
- 4) Do not install the product if it interferes with any VGA components.
- 5) Design of this product does not allow product disassembly. Do not disassemble the product.

## Disclaimer

Zalman Tech Co., Ltd. is not responsible for any damages due to external causes, including but not limited to, improper use, problems with electrical power, accident, neglect, alteration, repair, improper installation, or improper testing.

## 1. Features

- 1) Zalman's innovative dimple-type processing technology allows lightness in weight and excellent cooling performance.
- 2) Pure aluminum-base material water block provides excellent heat transfer, and anodized base prevents corrosion.
- 3) High performance thermal pads with excellent elasticity provide great adhesion to all heat-generating components.
- 4) The optimized design allows easy installation and direct cooling of RAM, FET, and I/O chipset.

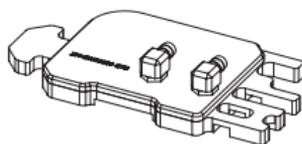
## 2. Specifications

- 1) Weight : 420g
- 2) Materials
  - ① Water Block Cover / Base : Pure Aluminum
  - ② Fitting : Brass
- 3) Dimensions : 93(W) x 183(L) x 31(H)mm
- 4) Compatible Tubes (Outer x Inner) : 13 x 9mm, 12 x 8mm, 11 x 8mm, 10 x 8mm

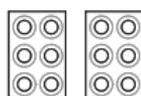
### 3. Components

#### 1) Common Components

- 1 VGA Water Block Assembly
- 2 Nine (9) Nipples
- 3 Nine (9) Nuts
- 4 Two (2) PVC Washer Plates
- 5 Ten (10) Springs
- 6 Ten (10) O-rings
- 7 Two (2) Tube Clamps
- 8 Two Thermal Grease
- 9 Thermal Pads - One (1) 14X14X1T (for I/O Chipset Contact)  
Four (4) 7X23X1T (for FET Contact)  
Three (3) 16X70X1T (for RAM Contact)
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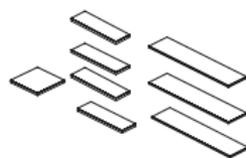
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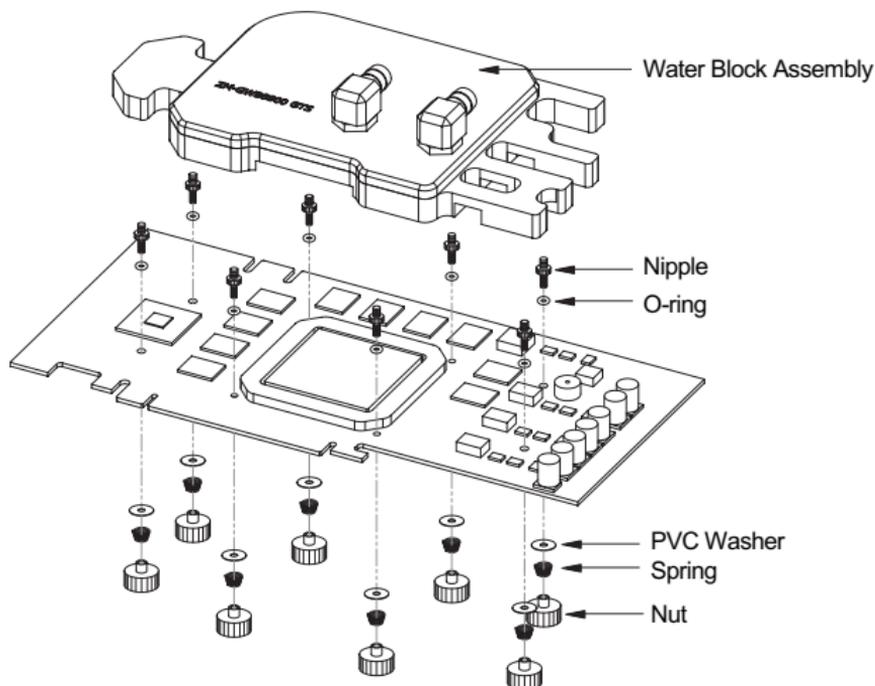
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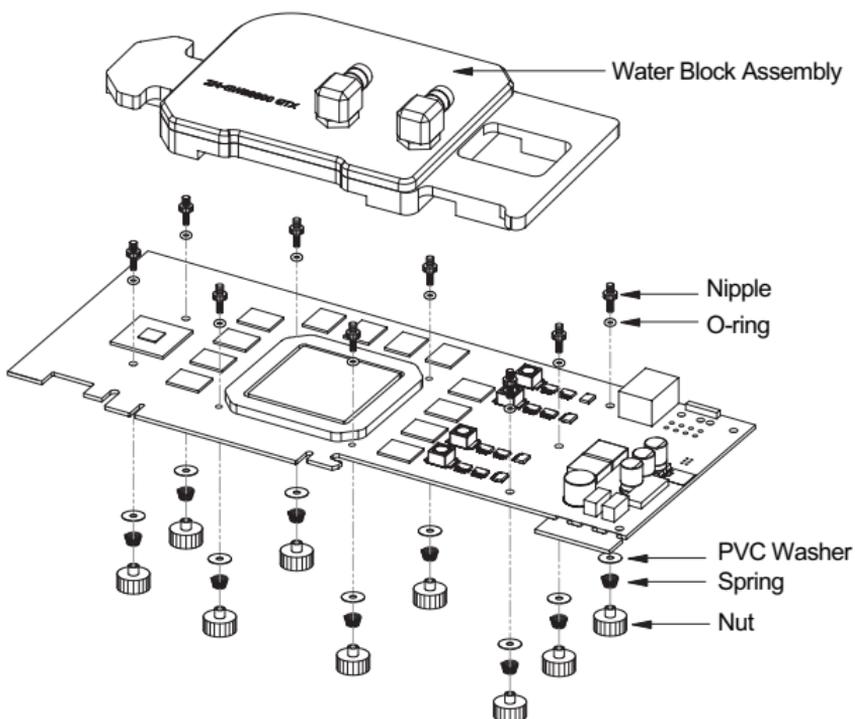
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## 4. Exploded View

### ZM-GWB8800 GTS

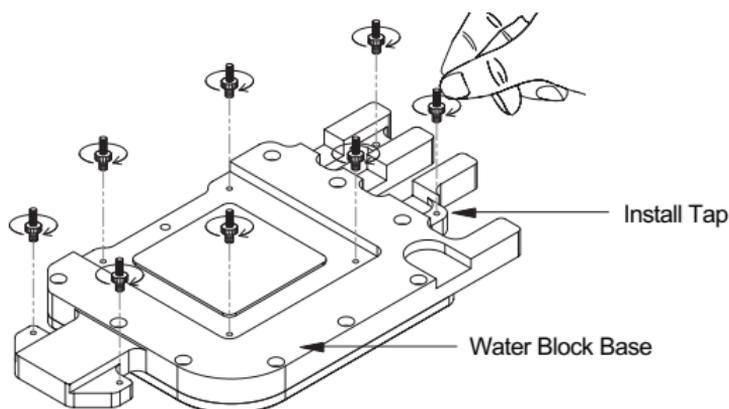


### ZM-GWB8800 GTX



## 5. Installation

※ This installation method applies to both GTS/GTX.

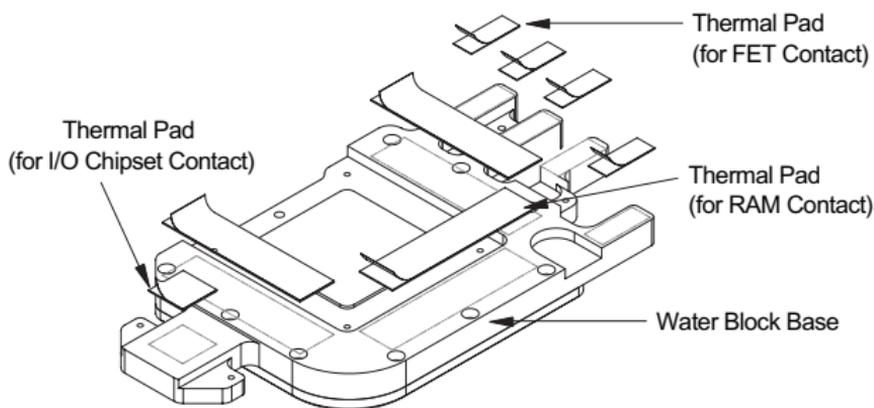


### 1) Nipple Installation

Install the Nipple onto the Install Tap on the base side of the Water Block.

**Note 1)** Use a tool such as Long Nose Pliers to firmly tighten the Nipples.

### 2) Thermal Pad Attachment



① Clean the contact surface of the VGA Chipset completely.

② As shown in the diagram, attach the Thermal Pads on the bottom side of the Water Block base (marked with dotted lines) that will come in contact with the RAM, FET, and I/O Chipset.

**Note 1)** If the Thermal Pads are crookedly attached or attached on the wrong place, then carefully remove them and attach properly.

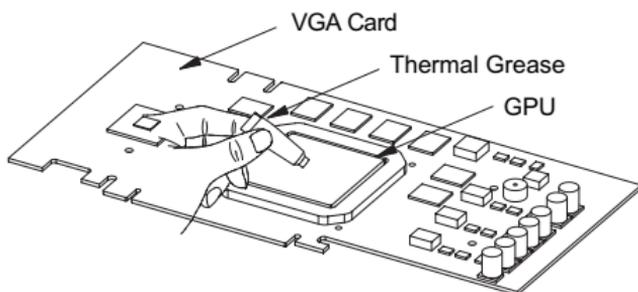
**Note 2)** Pay attention so that the Thermal Pads do not get bent or damaged when attaching them.

**Note 3)** Exerting too much pressure when adhering the Thermal Pads could cause compression, which could lead to a gap between the Thermal Pads and the Water Block during VGA card installation. Must carefully attach them.

**Note 4)** Using tweezers or a knife can facilitate the detachment of the protective film from the Thermal Pads.

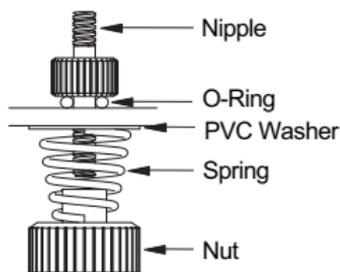
### 3) Thermal Grease Application

Evenly apply the Thermal Grease on the GPU surface that comes in contact with the VGA Water Block.



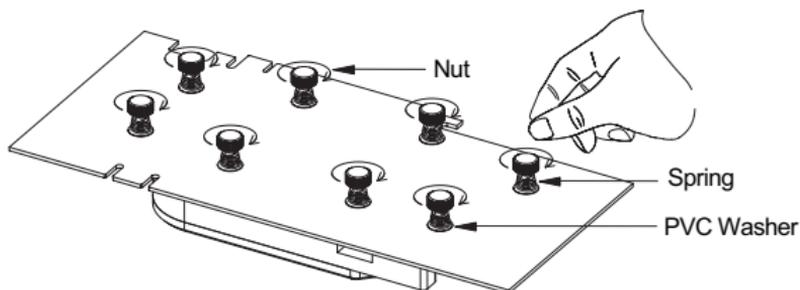
### 4) VGA Water Block Installation

- ① Insert the O-ring into the Nipple.
- ② Insert the Nipples installed on the VGA Water Block into the Mounting Holes after aligning them.
- ③ Install the PVC Washers, Springs, and Nuts on the back side of the VGA card in the mentioned order.



**Note 1)** Check to see if the Water Block's base side is in proper contact with the VGA chipset before finishing the installation.

**Note 2)** Assembling the Springs with the Nuts prior to installation will ease the installation process.



## 5) Tension Control of the VGA Water Block

- ① Tighten/loosen the Nuts on the back side of the VGA card to control the tension between the VGA Water Block and the VGA Chipset.

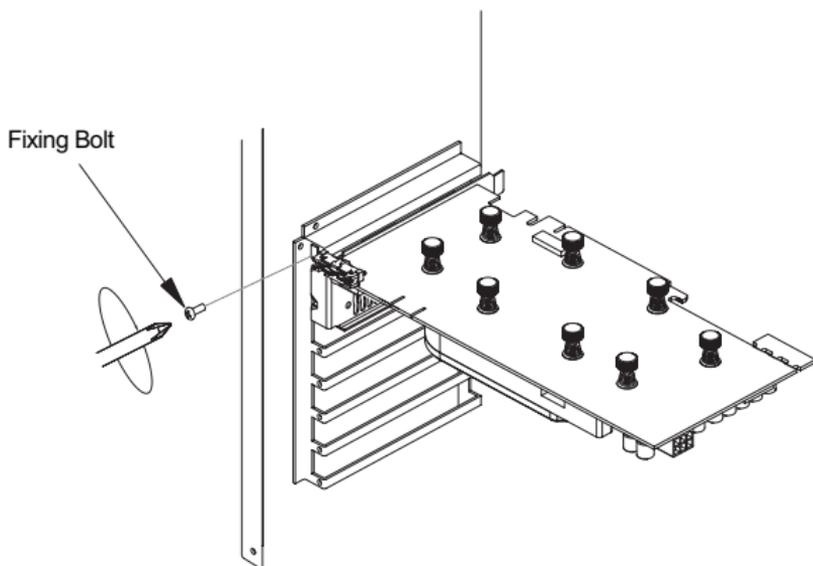
**Note 1)** If the Nuts are turned to tightly, then the VGA chipset or VGA card could get damaged.

**Note 2)** Fully tightening one Nut at a time may result in damaging the VGA Chipset. Please tighten each Nut one rotation at a time until all are completely tightened.

**Note 3)** Make sure that the VGA Water Block does not interfere with the VGA cooler, capacitors, and other components of the VGA card.

## 6) VGA Card Installation

Insert the VGA card assembled with the VGA Water Block into the motherboard's PCIe (or AGP) slot. Use the Fixing Bolt to secure the VGA card onto the computer case.



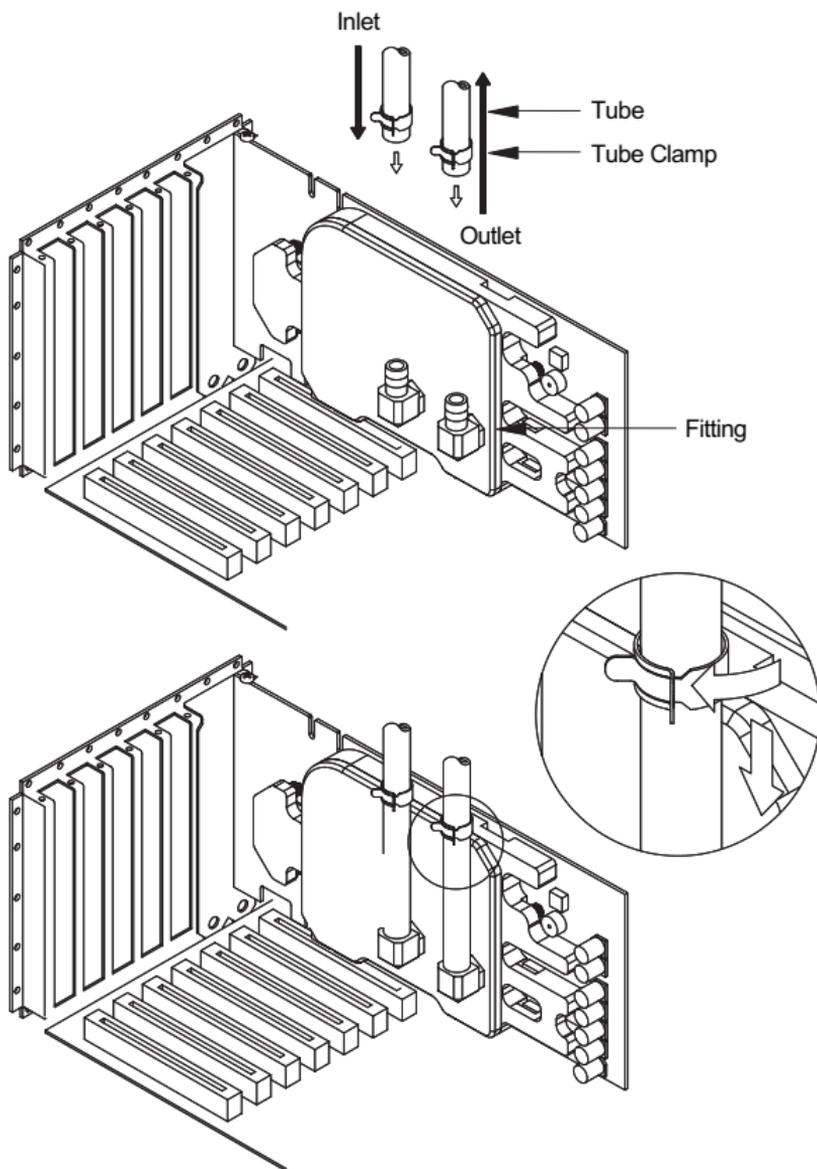
## 7) Installation of Tubes and Tube Clamps

Plug the tubes over the VGA Water Block's fittings and install the Tube Clamps.

**Note 1)** Hold the VGA card with one hand when plugging the Tube into the Fitting.

**Note 2)** Use of a tool such as Long Nose Pliers when installing the Tube Clamp will ease the installation process.

**Note 3)** Pull on the tube after installing the Tube Clamp to check the tension.



## Zalman Noise Prevention System

Stable performance and noiseless liquid cooling system can both be achieved with the use of Zalman's CPU Water Block, Hard Disk Cooler, Noiseless Case Fan, and Northbridge Water Block.



CPU Water Block



Heatpipe H.D.D Cooler



Noiseless Case Fan



Northbridge Water Block

## Heatpipe Cooled Modular Power Supply



ZM500-HP



ZM600-HP

- Reduction in the PFC circuitry's switching FET heat generation by use of 3
- Parallel switching FETs (normally 1 or 2 used)
- Heatpipe cooling system on the main rectifier (output) diodes for maximum stability
- and minimum fan speed for ultra quiet operation
- Modular design for convenient and tidy cable installation
- Blue LEDs for cool aesthetics

## Gaming PC Enclosures



GT 1000

- High end Gaming Enclosure built sturdy all aluminum panels
- Three tool free hinged magnetic panel(2 Left, 1 Right) for easy installation and access to components
- Tool free installation of disk drives, Fan Controllers, Audio interfaces etc
- Accommodates up to 6 Hard Drives
- Luxurious and cool aesthetics
- Color option: Black (Red LED Fans), Titanium (Blue LED Panel)

For more information, please visit our website.



Disposal of Old Electrical & Electronic Equipment  
(Applicable in the European Union and other European countries with separate collection systems)