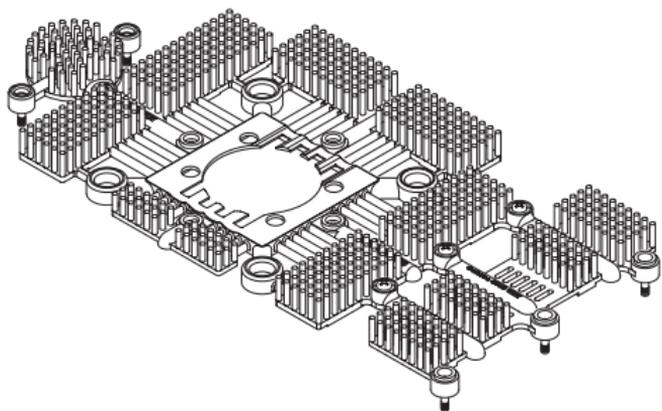


User's Manual

(English)



High Performance VGA RAM Heatsink

Model : ZM-RHS88

Please visit our website and watch the ZM-RHS88 installation video for easy installation.

- ※ Please read this manual thoroughly before installation.
- ※ The specifications of this product and its components may change without prior notice to improve performance.

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

Cautions on Use and Installation

1. This product is a RAM Heatsink for NVIDIA Geforce 8800 Series. It must be used with Zalman's VF1000 LED.
2. For stable performance while running the VGA card under full load (3D games etc.), the VF1000 LED VGA cooler must be used in Normal Mode.
3. If the VGA card and its components interfere with the installation of this product, stop the installation, refer to the list of compatible VGA cards at Zalman's website and install it with one of the compatible VGA cards.
4. The use of a fan positioned on the front side of the case and an exhaust fan positioned on the rear side of the case is recommended for enhancement of product performance.
5. Zalman does not recommend overclocking of VGA cards.

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.

Features

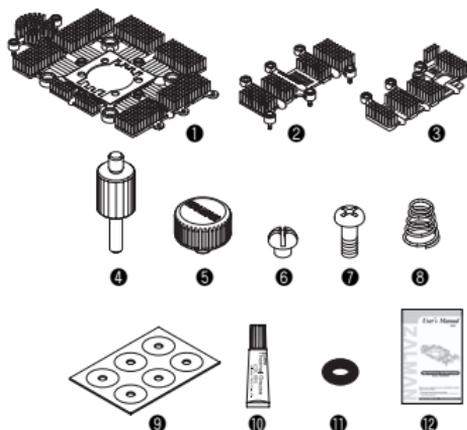
1. Die cast heatsink fin design maximizes the surface area for superior cooling performance.
2. Made with aluminum for minimized weight and effective cooling.
3. Noiseless and Durable.
4. All-in-one multi-component cooling solution for RAM, FET and I/O chipset.
5. High performance thermal tapes included for easy installation.

Specifications

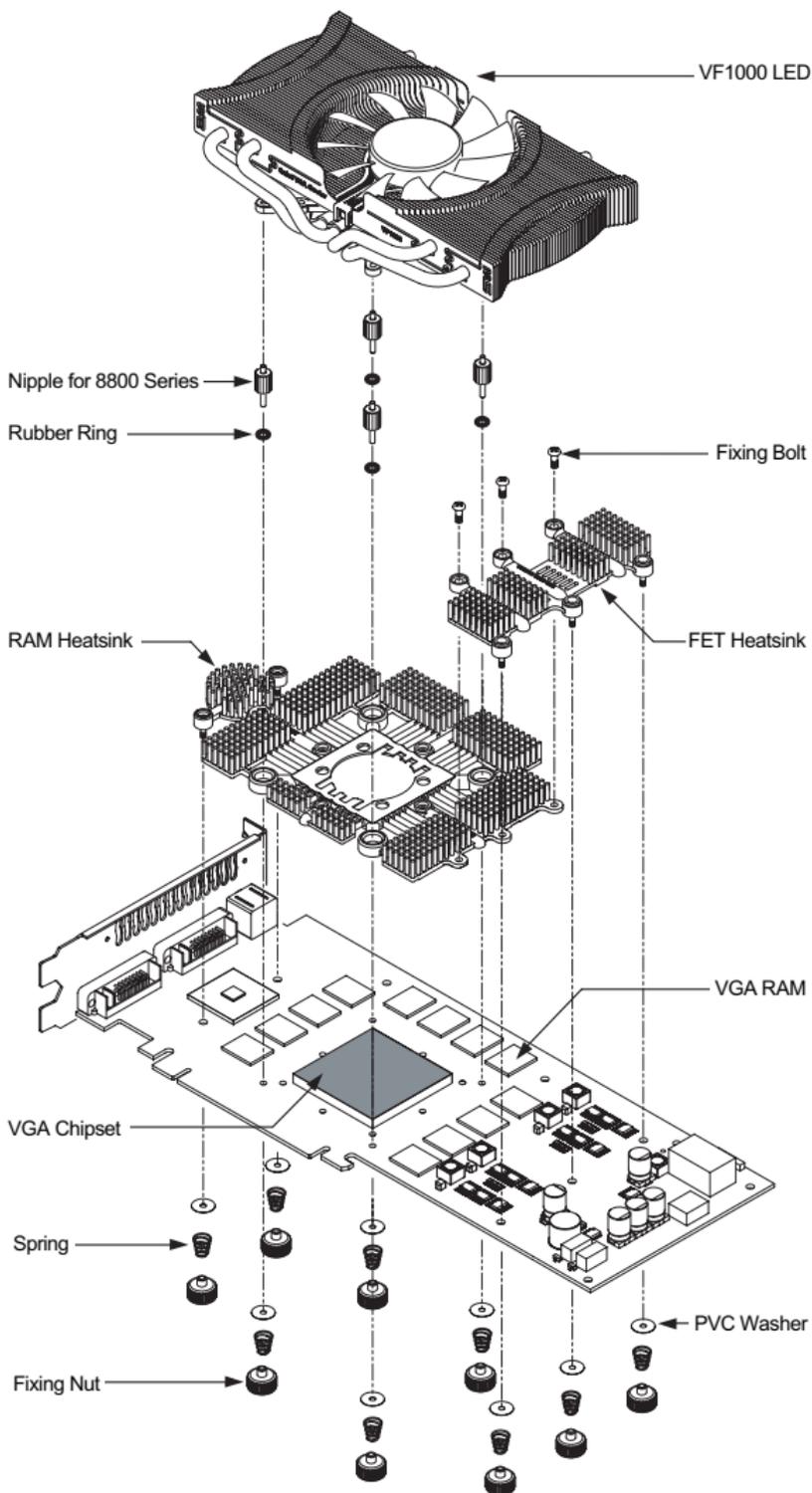
1. Dimensions (mm) : 190(L) × 98(W) × 11(H)
2. Weight (g) : 80
3. Material : Aluminum

Components

- ❶ One (1) RAM Heatsink
- ❷ One (1) FET Heatsink A-For 8800 Ultra/GTX
- ❸ One (1) FET Heatsink B-For 8800 GTS
- ❹ Four (4) Nipples for 8800 Series
- ❺ Five (5) Fixing Nuts
- ❻ Five (5) Fixing Nuts for SLI/CrossFire
- ❼ Three (3) Fixing Bolts
- ❽ Five (5) Springs
- ❾ One (1) PVC Washer Plate
- ❿ One (1) Thermal Grease
- ⓫ Four (4) Rubber Rings
- ⓬ One (1) User's Manual



Exploded View



Installation Procedure

※ The following installation sequence **MUST** be followed.

(1. VGA Card Check → 2. Assembly of FET Heatsink → 3. Removal of the VGA Chipset Guide → 4. Thermal Grease Application and Removal of the Thermal Tape Film → 5. ZM-RHS88 Installation → 6. Nipple Installation onto the Retention Guide → 7. VF1000 LED Installation for Geforce 8800 Series VGA Cards → 8. Spring Insertion onto the Fixing Nuts → 9. Assembly of Fixing Nuts onto the Nipples → 10. ZM-RHS88 Assembly → 11. VGA Card Installation)

1. VGA Card Check

Check your VGA Card and select the FET Heatsink according to the table below.

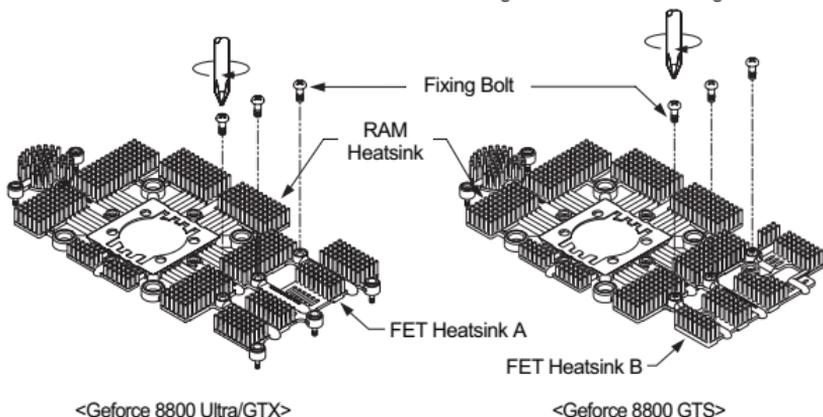
VGA Card	FET Heatsink
NVIDIA Geforce 8800 Ultra/GTX	FET Heatsink A
NVIDIA Geforce 8800 GTS	FET Heatsink B

Note 1) The images in the User's Manual are based on NVIDIA Geforce 8800 Ultra/GTX.

Note 2) The image is included in the manual to clarify installation of ZM-RHS88. VF1000 LED is to be purchased separately.

2. Assembly of FET Heatsink

Assemble the FET Heatsink onto the RAM Heatsink with the Fixing Bolts as shown in the diagram.

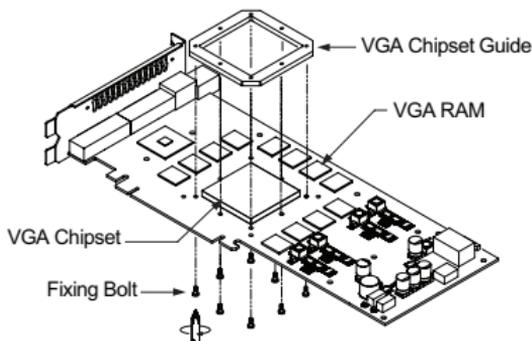


Note) The VGA card model must be checked before assembling the FET Heatsink.

3. Removal of the VGA Chipset Guide

Unscrew the Fixing Bolts of the VGA Chipset Guide on the rear side of the VGA card to remove the VGA Chipset Guide.

Note) Removing the VGA Chipset Guide by force could result in damaging the core.

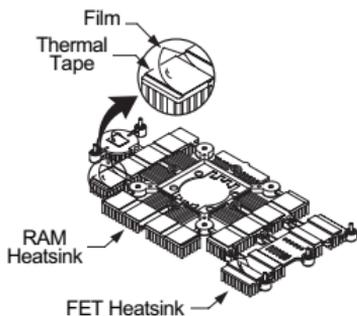
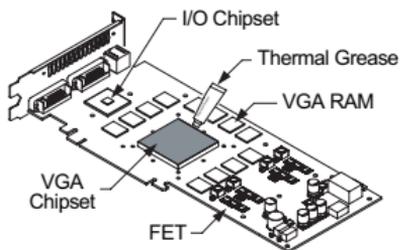


4. Thermal Grease Application and Removal of the Thermal Tape Film

- ① Clean the contact surfaces of the VGA Chipset, I/O Chipset, RAM and FET.
- ② Apply Thermal Grease on the VGA Chipset.
- ③ Remove the Film from the Thermal Tapes as shown in the diagram.

Note 1) If Thermal Grease or other residue remains on the contact surfaces, the Thermal Tapes will not stick. Clean the contact surfaces of the VGA Chipset, I/O Chipset, RAM and FET with acetone or alcohol before attaching.

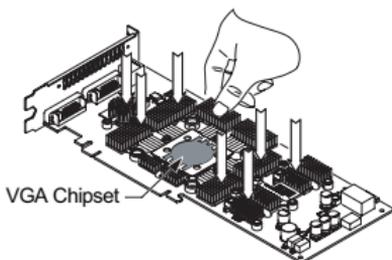
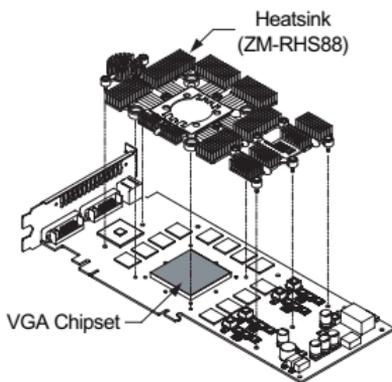
Note 2) Thermal Tapes are not reusable because they lose adhesiveness after their initial attachment. Purchase new Thermal Tapes when Heatsinks have to be reattached.



5. ZM-RHS88 Installation

- ① Assemble the ZM-RHS88 on the VGA card as shown in the diagram.
- ② Apply even pressure on the heatsink contact points(I/O Chipset, RAM, FET) with your hands to ensure proper contact of the heatsink and the chipset.

Note 1) User must check whether there is any contact between ZM-RHS88 and the capacitors or other components of the VGA card.

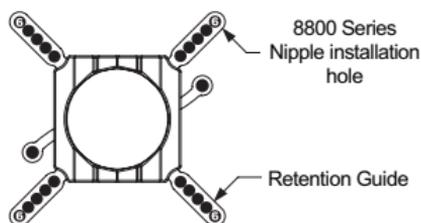
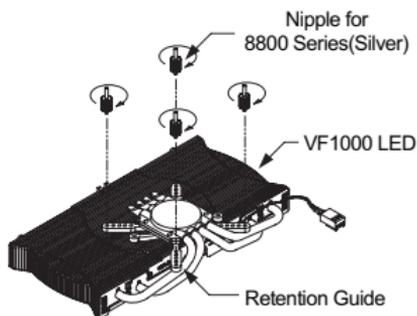


6. Nipple Installation onto the Retention Guide

① Install the enclosed Nipples for 8800 Series onto the VF1000 LED's Retention Guide.

Note 1) Install the Nipples for 8800 Series onto the No. ⑥ holes as shown on the diagram.

Note 2) The silver Nipples for 8800 Series must be used. Do not use the black nipples.



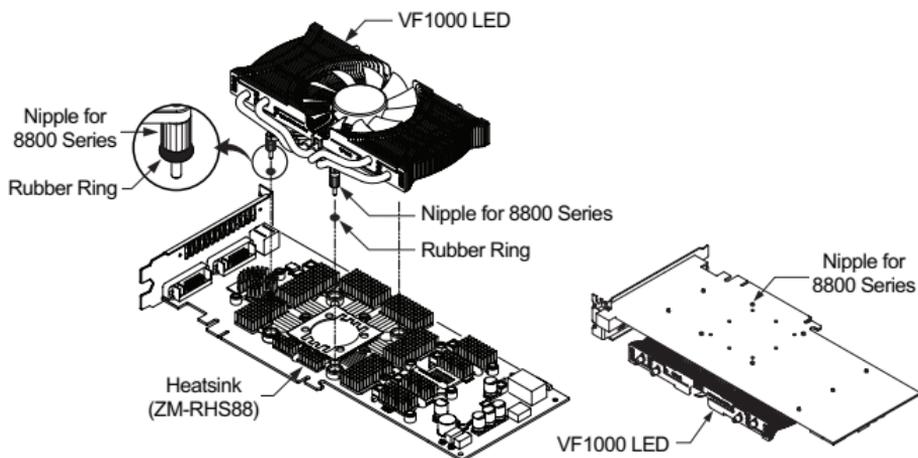
7. VF1000 LED Installation for Geforce 8800 Series VGA Cards

① Install the Rubber O-Rings onto the Nipples on the retention guide.

② Install the VF1000 LED equipped with the Nipples for 8800 Series onto the VGA card's mounting holes.

③ Simultaneously hold the VGA Cooler and the VGA card with one hand, and flip the VGA card so that its bottom side is facing upwards.

※ Make sure that the VGA Chipset and the VGA Cooler's base does not come apart while flipping the card.

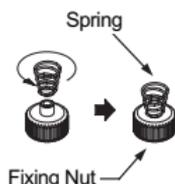


8. Spring Insertion onto the Fixing Nuts

Slowly turn the Spring in counterclockwise motion so that the Spring is completely attached to the Fixing Nut.

Note 1) Ends of the spring have different diameters. Use the end with smaller diameter to install on the fixing nut.

Note 2) Make sure that the Spring is installed perpendicularly and not leaning to one side.



9. Assembly of Fixing Nuts onto the Nipples

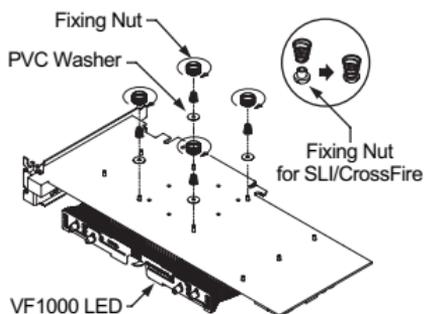
① Place a PVC Washer over each Nipple for 8800 Series.

② Slightly screw each of the four Spring-attached Fixing Nuts onto each Nipple, then tighten each Fixing Nut one rotation at a time until all are completely tightened.

③ In SLI or CrossFire setups, interference may occur between one card's cooler(VF1000 LED) and the other card's cooler fixing Nuts. In such a case, please use the enclosed Fixing Nuts for SLI/CrossFire.

Note 1) Fully tightening one Fixing Nut at a time may result in damaging the VGA Chipset. Please tighten each Fixing Nut one rotation at a time until all are completely tightened.

Note 2) Make sure that the VGA Cooler's base and the VGA Chipset are completely in contact with each other.
Note 3) Make sure that the VGA Cooler does not interfere with the VGA card's capacitors and other components.



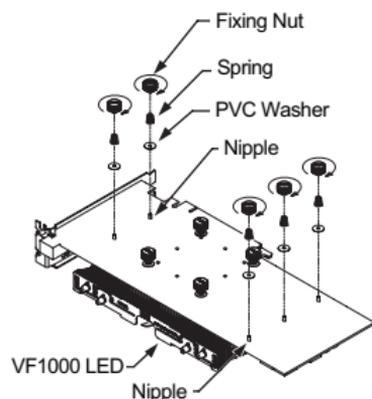
10. ZM-RHS88 Assembly

① After installing the VF1000 LED, place a PVC Washer over each Nipple.

② Slightly screw each of the Spring-attached Fixing Nuts onto each Nipple, then tighten each Fixing Nut one rotation at a time until all are completely tightened.

Note 1) Fully tightening one Fixing Nut at a time may result in damaging the Chipset. Please tighten each of the five Fixing Nuts one rotation at a time until all are completely tightened.

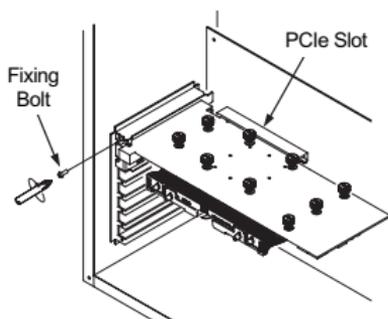
Note 2) Make sure that the VF1000 LED and ZM-RHS88 do not interfere with the VGA card's capacitors and other components.



11. VGA Card Installation

Insert the assembled VGA card into the motherboard's PCIe slot. Use the Fixing Bolt to secure the VGA card onto the computer case.

(Note) The Geforce 8800 Series VGA card has a power connector. Please plug in the power connector.



Zalman Computer Noise Prevention Systems

When building a noiseless computer, use Zalman's Ultra Quiet CPU Cooler, Noiseless Power Supply, Heatpipe HDD Cooler, Fanless Northbridge Cooler and Noiseless Case Fan for more stable performance and a noiseless environment.



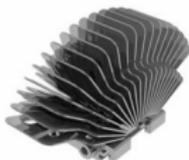
Ultra Quiet CPU Cooler



Noiseless Power Supply



Heatpipe HDD Cooler



Fanless Northbridge Cooler



Noiseless Case FAN

Computer Enclosures



GT-1000

- High End Gaming Enclosure Built with Sturdy All Aluminum Panels
- Three Tool - Free Hinged Magnetic Panels (2 Left, 1 Right) for Easy Installation and Access to Components
- Tool Free Installation of Disk Drives (HDD, ODD), Fan Controllers, Audio Interfaces etc.
- Accommodates up to 6 Hard Drives (4 in the HDD Chassis, 2 on the Bottom Panel)
- Luxurious and Cool Aesthetics
- Color Options : Black (Red LED Fans), Titanium (Blue LED Fans)

Home Theatre PC Enclosures



HD160XT

The HD160XT is designed for ultra quiet home theatre PC operation, utilizing optimized ventilation and anti-vibration reinforcements, making it ideal for environments that require silence such as living rooms, bedrooms, educational facilities, and offices.

For more information, please visit our website.



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