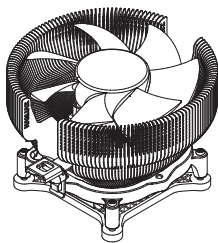


# User's Manual

(English version)

## CNPS7500 LED

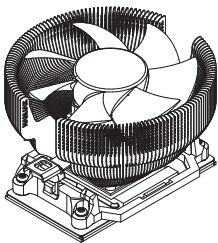
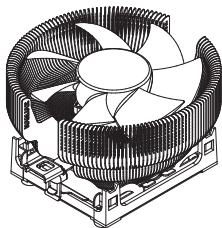


### Intel Socket 775 CPU

Core 2 Duo  
Pentium D  
Pentium 4  
Celeron D

### Intel Socket 478 CPU

Pentium 4  
Celeron D  
Celeron



### AMD Socket AM2/ 754/939/940 CPU

Athlon 64  
Athlon 64 X2 Dual-Core  
Athlon 64 FX  
Opteron  
Dual-Core Opteron  
Sempron

\* Please read this manual thoroughly before installation.

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

## 1. Features

- 1) Does not generate noise or vibration in Silent Mode.
- 2) Pure copper and/or pure aluminum base materials ensure excellent heat dissipation.
- 3) Compatible with all single and dual core CPUs for Intel Socket 775/478 and AMD Sockets AM2/754/939/940.
- 4) The high intensity blue LED installed silent 110mm fan inside the heatsink maximizes cooling performance.
- 5) The adjustable fan speed controller (Fan Mate 2) enables control of noise and fan performance.

## 2. Specifications

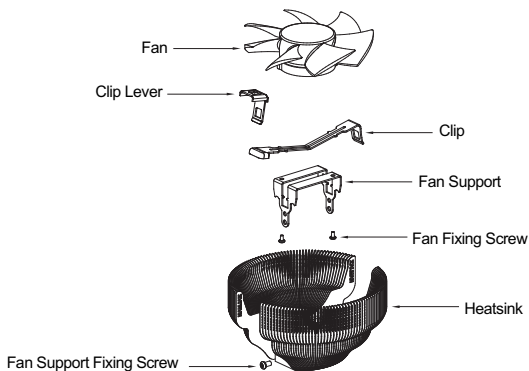
Spec.	Model	CNPS7500-AICu LED	CNPS7500-Cu LED
Heatsink Material		Pure Copper, Pure Aluminum	Pure Copper
Dimensions		121(L) X 121(W) X 67(H) mm	
Heat Dissipation Area		3,500 cm <sup>2</sup>	
Weight		500g <sup>(1)</sup>	848g <sup>(1)</sup>
Fan	Bearing Type	2 Ball-Bearing	
	Rotation Speed <sup>(2)</sup>	1,150rpm $\pm$ 10% ~ 2,300rpm $\pm$ 10%	
	Noise Level <sup>(3)</sup>	17dBA $\pm$ 10% ~ 32dBA $\pm$ 10%	
Fan Mate 2	Output Voltage	5V ~ 11V $\pm$ 2%	
	Allowable Power	6W or lower	

**Note<sup>(1)</sup>** The maximum weight for a cooler is specified as 450g for Intel Socket 775/478 and AMD Sockets AM2/754/939/940. Special care should be taken when moving a computer equipped with a cooler that exceeds the specified weight limit. Zalman is not responsible for any damage that occurs when moving a computer.

**Note<sup>(2)</sup>** The fan operates at 2,550rpm (34.5dBA) if directly connected to the motherboard's power connector without the use of Fan Mate 2.

**Note<sup>(3)</sup>** Measured 1m distance away from source.

## 3. Exploded View



## 4. Patents

- ❖ Korean Patent Reg. No. 389257
- ❖ Korean Design Reg. No. 327440-3
- ❖ Patent applications pending in over 20 nations around the world including USA, EU, and Japan.

## Precautions

- 1) Use and keep the product away from the reach of children.
- 2) Check the components list and condition of the product before installation. If any problem is found, contact your place of purchase to obtain a replacement.
- 3) Excessive force exerted on the fan may damage the fan, resulting in damage to the system.

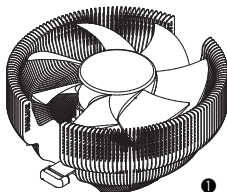
### Disclaimer

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.

## 5. Components

### 1) Common Components

- ❶ Cooler (CNPS7500 LED)
- ❷ Thermal Grease
- ❸ Fan Speed Controller (Fan Mate 2)
- ❹ Double-sided Tape (for Fan Mate 2 attachment)
- ❺ Cable for Fan Mate 2
- ❻ User's Manual (in English and Korean)



❷



❸



❹



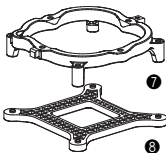
❺



❻

### 2) Components for Intel Socket 775

- ❷ One (1) Clip Support for Socket 775
- ❸ One (1) Backplate for Socket 775
- ❹ Four (4) Clip Support Fixing Bolts
- ❺ One (1) Clip Lever



❷



❸



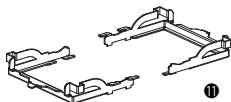
❹



❺

### 3) Components for Intel Socket 478

- ❶ One pair of Clip Supports for Socket 478
- \* Component ❶



❶

### 4) Component for AMD Socket AM2/754/939/940

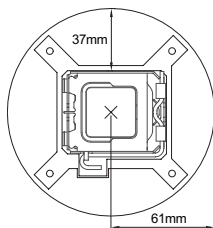
- \* Component ❶

## 6. Compatible CPUs

### 1) All CPUs conforming to Intel Socket 775 platform

#### Caution)

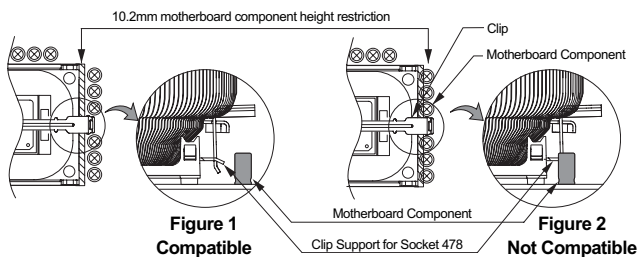
- ① No motherboard components with a height greater than 39mm, as well as the PSU, disk drives, VGA card, and RAM should be present within a 61mm radius from the center of the CPU.



### 2) All CPUs conforming to Intel Socket 478 platform

#### Caution)

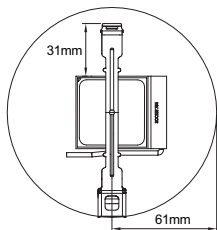
- ① As shown in Figure 2, a motherboard that is not compliant with the "10.2mm motherboard component height restriction" standard, introduced by Intel, may create interference between components and the clip of CNPS7500 LED. Please do not install the CNPS7500 LED if this interference is observed.
- ② No motherboard components with a height greater than 39mm, as well as the PSU, disk drives, VGA card, and RAM should be present within a 61mm radius from the center of the CPU.



### 3) All CPUs conforming to AMD Sockets AM2/754/939/940 platform

#### Caution)

- ① No motherboard components with a height greater than 39mm, as well as the PSU, disk drives, VGA card, and RAM should be present within a 61mm radius from the center of the CPU.

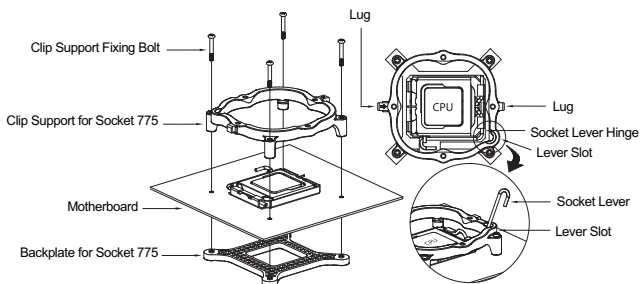


## 7. Installation (Intel Socket 775)

### 1) Clip Support Installation

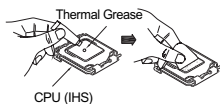
Align the Clip Support for Socket 775 and the Backplate for Socket 775 with the mounting holes on the motherboard and fasten them together using the Clip Support Fixing Bolts. The Lever Slot on the Clip Support for Socket 775 should be properly oriented on the hinged side of the Socket Lever when installing.

- ※ If a Lug of Clip Support for Socket 775 interferes with any motherboard components, install the Clip Support for Socket 775 with the Lug facing a different direction to avoid interference.



### 2) Thermal Grease Application

Clear off particles or any residue from the top of the CPU then spread a generous amount of the included Thermal Grease thoroughly on top of the CPU.

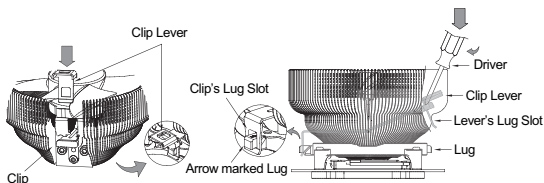


### 3) Cooler Installation

Insert the Clip Lever into the Clip. Connect the Clip's Lug Slot with the Arrow marked Lug of the Cooler Support for Socket 775. Press onto the Clip Lever when aligning the Lever's Lug Slot and the other Lug.

**Make sure the cooler installed on the center of the CPU.**

- ※ Using a flat-head screwdriver is recommended for easier installation and uninstallation.



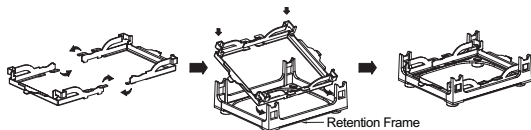
### 4) Power Connection (Fan Mate 2 Connections)

- ◆ Please refer to Fan Mate 2 Installation and Usage on page 6.

## 8. Installation (Intel Socket 478)

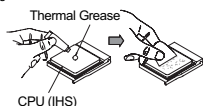
### 1) Clip Support for Socket 478 Installation

Assemble one pair of Clip Supports for Socket 478 as shown in the diagrams below, then insert the assembly into the Retention Frame on motherboard. **Make sure the assembly remains firmly in place.**



### 2) Thermal Grease Application

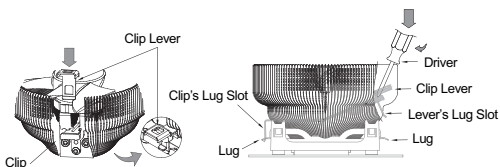
Clear off particles or any residue from the top of the CPU then spread a thin layer of the included Thermal Grease thoroughly on top of the CPU.



### 3) Cooler Installation

Insert the Clip Lever into the Clip. Connect the Clip's Lug Slot with a Lug of the Clip Support for Socket 478. Press onto the Clip Lever when aligning the Lever's Lug Slot and the other Lug.

※ Using a flat-head screwdriver is recommended for easier installation and uninstallation.



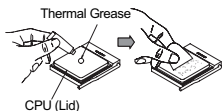
### 4) Power Connection (Fan Mate 2 Connections)

◆ Please refer to Fan Mate 2 Installation and Usage on page 6.

## 9. Installation (AMD Sockets AM2/754/939/940)

### 1) Thermal Grease Application

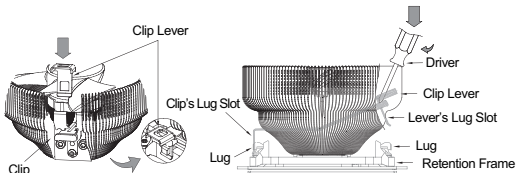
Clear off particles or any residue from the top of the CPU then spread a thin layer of the included Thermal Grease thoroughly on top of the CPU.



### 2) Cooler Installation

Insert the Clip Lever into the Clip. Connect the Clip's Lug Slot with a Lug of the Retention Frame on motherboard. Press onto the Clip Lever when aligning the Lever's Lug Slot and the other Lug.

※ Using a flat-head screwdriver is recommended for easier installation and uninstallation.

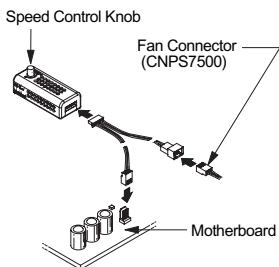


### 3) Power Connection (Fan Mate 2 Connections)

◆ Please refer to Fan Mate 2 Installation and Usage on page 6.

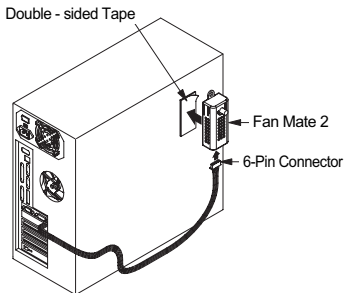
## 10. Fan Mate 2 Installation and Usage

### 1) Fan Mate 2 Installation on the Inside of a System



Connect the two 3-pin connectors of the cable to the Motherboard and to the CNPS7500's Fan Connector as shown in the diagram.

### 2) Fan Mate 2 Installation on the Outside of a System



Pull the 6-Pin Connector out of the system through the back and connect it to Fan Mate 2, which should be installed on the case using the included Double-sided Tape.

- ◆ The fan operates in Silent Mode when the Speed Control Knob of Fan Mate 2 is fully turned in the counter-clockwise direction. The fan operates in Normal Mode when the Speed Control Knob of Fan Mate 2 is fully turned in the clock-wise direction. The fan speed can be controlled according to user preference by adjusting the Speed Control Knob.

**Note)** Fan Mate 2 has been specifically designed for the fan of this product.

Zalman Tech Co., Ltd. is not responsible for any damages to the system or CPU resulting from its use with other types of fans.

## 11. Notes on Usage

### 1) Checking CPU Compatibility

Please refer to "Compatible CPUs" on page 3 to confirm that your CPU is compatible with the CNPS7500 before installing.

### 2) Caution During Booting

The computer system may automatically shut down when booting the computer after the system monitoring program outputs a warning stating that the CPU fan is rotating slowly. In such a case, fully turn the Speed Control Knob in the clockwise direction before rebooting to disable the 'CPU Fan Detected' option in BIOS, or set the CPU fan's rotational speed to 1,150rpm or lower in the system monitoring program.

**Note)** Some motherboards fail to boot if the rotational speed of the CPU fan is below a certain rpm.

However, booting can be possible even at low fan rpm if the BIOS settings are updated.

For more information on updating your BIOS, please refer to the website of the motherboard's manufacturer. There are motherboards which fail to detect the rpm while operating the cooler in Silent Mode, but this does not affect computing performance.

### 3) Overclocking

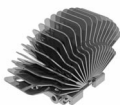
Zalman Tech Co., Ltd. is not responsible for any damages resulting from CPU Overclocking.

## 12. Zalman Computer Noise Prevention Systems

Zalman's Noiseless Power Supplies, Fanless Northbridge Coolers, Heatpipe HDD Cooler, Noiseless Case Fans, VGA Coolers, and Fan Controllers facilitate stable performance and a noiseless computing environment.



Noiseless Power Supply



Fanless Northbridge Cooler



Heatpipe HDD Cooler



Noiseless Case Fan



Ultra Quiet VGA Cooler



Fan Controller

## 13. TNN (Totally No Noise) Computer Enclosures



TNN 300



TNN 500AF

TNN Computer Enclosures are the world's first environment-friendly noiseless computer enclosures that operate without the use of a fan. TNN Computer Enclosures use the aluminum enclosure itself as a heatsink. They are ideal for environments that require silence, as well as for home theatre systems and multi-media systems.

## 14. 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.



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