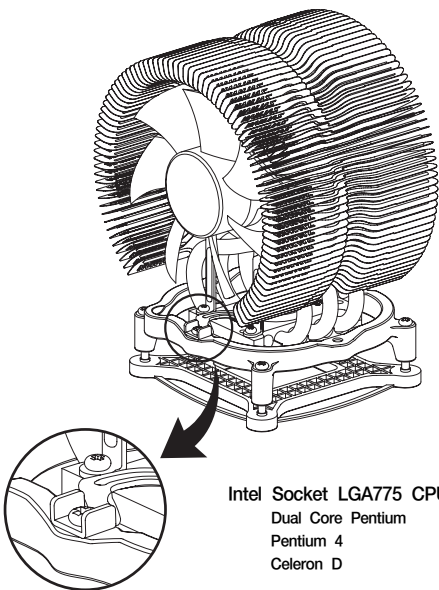# *User's Manual*

(English version)

ZALMAN

CNPS9500 AT

Intel Socket LGA775 CPU
   Dual Core Pentium
   Pentium 4
   Celeron D

* Please read before installation.

1. Features

1) Compatible with Intel's Dual Core Pentium, Pentium 4, and Celeron D for Socket 775.
2) Low-noise 92mm PWM Control fan for automatic control of the fan's RPM according to CPU temperature.
3) Optimized heatsink layout composed of pure copper for maximum heatsink efficiency.
4) Innovative, patented, and curved heatpipe design for a heat transfer capacity of up to six heatpipes with just three.
5) 0.2mm ultra-slim fins for minimized weight and reduced airflow resistance.
6) Fan never fails to stop operating because it maintains minimum RPM even when Duty signal supplied by M/B is below 30%.
7) Operates in silence by preventing extreme RPM during initial booting.
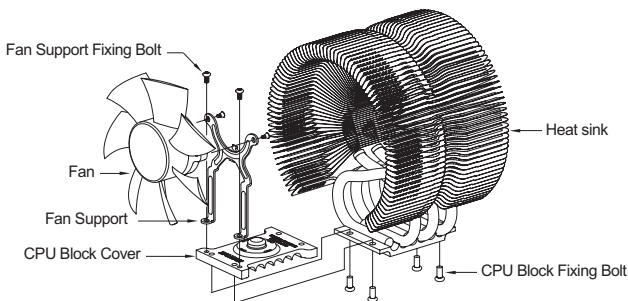
2. Specifications

Spec. Model	CNPS9500 AT
Materials	Pure Copper
Weight (g)	530[1]
Thermal Resistance (℃/W)	0.12 ~ 0.16
Dimensions (mm)	85(L) X 112(W) X 125(H)
Dissipation Area (㎠)	3,698
Bearing Type	Dual Ball Bearing
Rotation Speed	1,300RPM ± 30% ~ 2,650RPM ± 10%
Noise Level	18.0dB ± 10% ~ 27.5dB ± 10%[2]
Input Voltage	12V
Main Function	PWM Control Function and Auto Restart Function

(Note 1) Maximum weight specified for a cooler is 450g for Intel socket 775.
Special care and attention must be taken when moving a computer equipped with a cooler exceeding the specified weight limit. Zalman Tech Co., Ltd. Is not responsible for any damage that occurs when moving a computer.

(Note 2) Noise level was measured 1m away from the source.

3. Exploded View

Fan Support Fixing Bolt

Heat sink

Fan

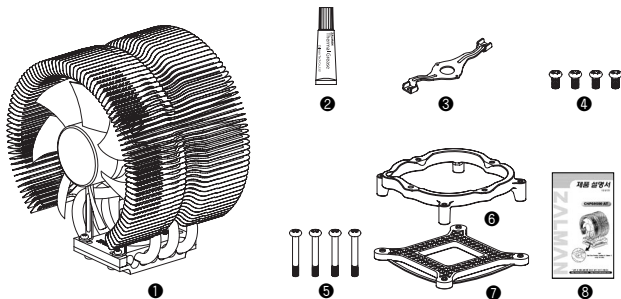Fan Support

CPU Block Cover

CPU Block Fixing Bolt

4. Patents

❖ Korean Patent Application No.05-45737

❖ Korean Design Application No.05-15303,15304, 15306, 15307, 17970, 17971

❖ Patent Applications pending over 20 nations around the world including the USA, EU, and Japan

5. Precautions

1) If excessive force is exerted on the fan, it may result in malfunction or damage to the product and/or the computer.

2) Avoid inserting any objects into the fan while operating.

3) Keep the product away from the reach of children and pets.

4) Check the components list and condition of the product before installation. If any problem is found, contact the place of purchase to obtain a replacement/refund.

5) Zalman Tech Co., Ltd. is not responsible for any damages arising from using the product outside of its intended purpose.

6) CPU and motherboard are subject to damage if the product is incorrectly installed. Familiarize yourself with the "installation" steps before installing the product.

6. Components

❶ CNPS9500 AT

❷ Thermal Grease

❸ Clip

❹ Four Bolts (for installing cooler)

❺ Four Clip Support Fixing Bolts for Socket 775

❻ One Clip Support for Socket 775

❼ One Backplate for Socket 775

❽ One User's Manual

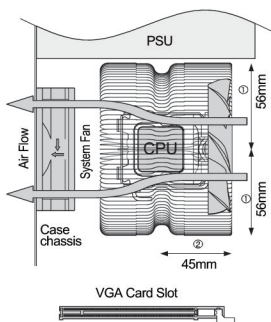## 7. Compatible CPUs

1) All Intel Dual Core Pentium CPUs (Socket 775)
   : Pentium EE, Pentium D

2) All Intel Pentium 4, Celeron D CPUs (Socket 775)
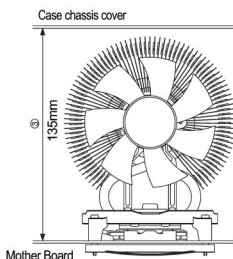   : Pentium 4 EE, Pentium 4, Celeron D

8. Installation Requirements

Cases with Air Guide must have Air Guide Duct removed before installation.
Install only on systems meeting the following conditions:

① There must be no interfering components (e.g. PSU, VGA card) within 56mm from the center of the CPU.

② There must be no interfering components (e.g. ODD) within 45mm from the center of the CPU.

③ Case chassis cover must at least be 135mm away from the motherboard.
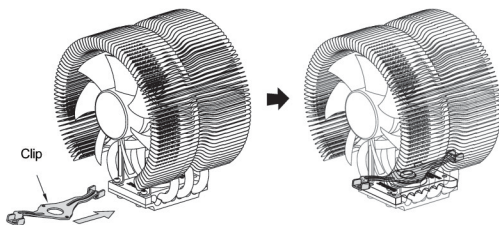

[Fig. 1]

[Fig. 2]

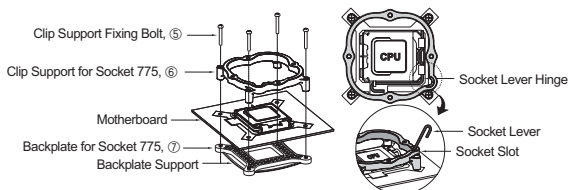## 9. Installation

① Install Clip

Clip ((③)) must be placed under the CNPS9500 AT, aligning the base cover's main projection with the clip's center hole.
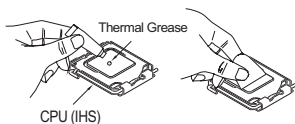
② Install Clip Support

Align the Clip Support for Socket 775 (⑥) and the Backplate for Socket 775(⑦) with the mounting holes of the motherboard and fasten them together by using the Clip Support Fixing Bolts (⑤).
The Lever Slot on the Clip Support (⑥) should be properly oriented on the hinged side of the Socket Lever when installing.

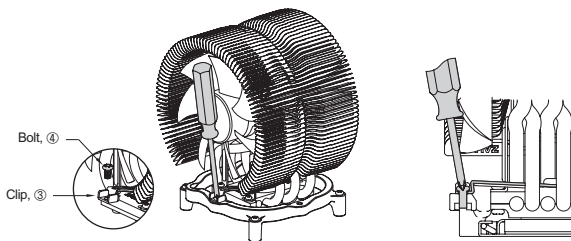✱ The Backplate Support on the Backplate for Socket 775 (⑦) can be removed if deemed unnecessary.

Clip Support Fixing Bolt, ⑤
Clip Support for Socket 775, ⑥
Motherboard
Backplate for Socket 775, ⑦
Backplate Support
Socket Lever Hinge
Socket Lever
Socket Slot
CPU

③ Apply Thermal Grease

Clean off particles and residue from the top of the CPU. Then spread the included thermal grease (②) on top of the CPU.

Thermal Grease
CPU (IHS)

④ Install Cooler

Insert two bolts (④) into the holes on the clip (③) and place CNPS9500 AT on the center of the CPU.
CNPS9500 AT must be aligned with the backside system fan in the same flow direction.
Slightly fasten the bolts (④) on the holes of the clip supports for Socket 775 (⑥), then fasten the bolts in an alternating manner until the clip (③) is completely pressed against the clip supports.
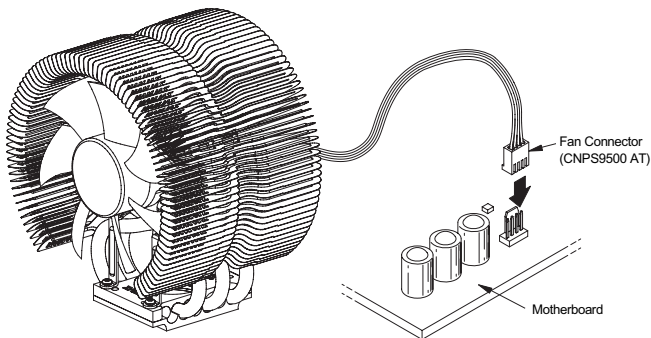

Bolt, ④
Clip, ③

※ Note

Do not exert excessive force on the fan with the driver while installing.
Exerting excessive force on the fan can cause damage to the product.

⑤ **Connect Fan Connector**

Connect the CNPS9500 AT's Fan Connector to the Motherboard as shown in the diagram.

Fan Connector
(CNPS9500 AT)

Motherboard

10. Notes on Usage

1) Cautions While Booting

The operation of the PWM fan varies depending on the M/B setting. Please activate the PWM Control mode from BIOS after installing. Refer to the motherboard manual for detailed information regarding the PWM Control mode.

2) OVERCLOCKING

Zaman Tech Co., Ltd. is not responsible for any damage caused to the system and CPU resulting from OVERCLOCKING.

11. Zalman Noise Prevention System

Stable performance and Noiseless system can both be achieved with the use of Zalman's Noiseless Power Supply, Noiseless Case Fan, Fanless Northbridge Cooler, Heatpipe HDD Cooler, Quiet Video Card Cooler, and Fan Controller.

Noiseless Power Supply

Fanless Northbridge Cooler

Heatpipe HDD Cooler

Noiseless Case Fan

Quiet VGA Cooler

Multi Fan Controller

12. TNN (Totally No Noise) Computer Enclosures

TNN 300

TNN 500 AF

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.

13. Home Theater PC Enclosures

HD 160

The HD160 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)