

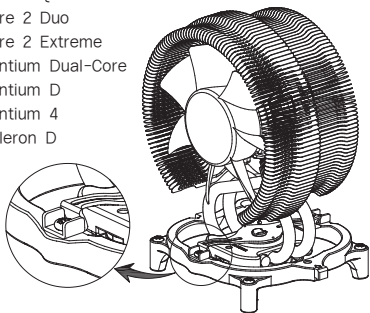
User's Manual

(English version)

CNPS9300 AT

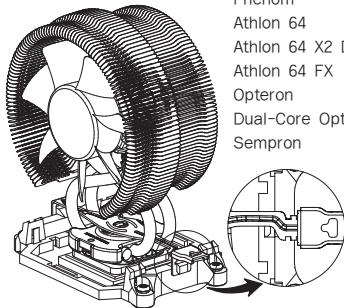
Intel Socket 775 CPU

Core 2 Quad
Core 2 Duo
Core 2 Extreme
Pentium Dual-Core
Pentium D
Pentium 4
Celeron D



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

Phenom
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.com>

1. Features

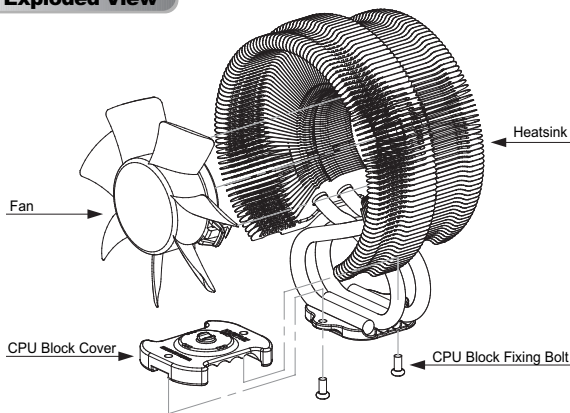
- 1) Does not generate noise or vibration in Silent Mode.
- 2) Supports all single, dual and quad core CPUs of Intel's Socket 775 and all single, dual and quad core CPUs of AMD's Socket AM2+/AM2/754/939/940.
- 3) Innovative, patented, and curved heatpipe design for a heat transfer capacity of up to four heatpipes with the use of just two.
- 4) Pure copper heatsink with component layout optimized for maximum cooling efficiency.
- 5) Ultra slim fins (0.2mm) for minimized weight and reduced airflow resistance.
- 6) Automatic Fan Speed Control feature included in the Ultra Quiet 92mm PWM (Pulse Width Modulation) enabled fan. (Please refer to "Cautions While Booting" on page 6.)

2. Specifications

Spec.	Model	CNPS9300 AT
Materials		Pure Copper and Aluminum
Dimensions		61.35(L) X 108(W) X 132.5(H)mm
Heat Dissipation Area		2,583 cm ²
Weight		407g
Fan	Bearing Type	Superflo
	Rotation Speed	1,500rpm \pm 15 % ~ 2,400rpm \pm 10 %
	Noise Level ⁽¹⁾	20dBA ~ 30dBA \pm 10%
	Control Method	PWM Control, Auto Restart
	Life Expectancy	50,000 hours

(Note 1) Measured at 1m from noise source.

3. Exploded View



4. Precautions

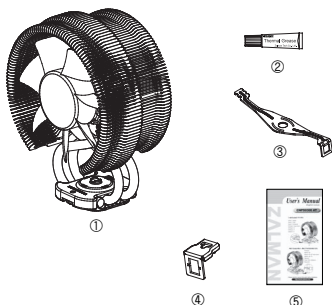
- 1) Excessive force exerted on the fan may damage the fan, resulting in damage to the system.
- 2) Avoid inserting any objects into the fan while it is in operation.
- 3) Use and keep the product away from the reach of children and pets.
- 4) Check the components list and condition of the product before installation. If any problem is found, contact your place of purchase to obtain a replacement.
- 5) Do not ingest or make oral contact with the Thermal Grease. If ingested, get medical attention.

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

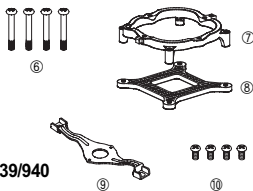
1) Common Components

- ① Cooler (CNPS9300 AT)
- ② Thermal Grease
- ③ Clip
- ④ Clip Lever
- ⑤ User's Manual (in English and Korean)



2) Components for Intel Socket 775

- ⑥ Four (4) Clip Support Fixing Bolts
- ⑦ One (1) Clip Support for Socket 775
- ⑧ One (1) Backplate for Socket 775
- ⑨ One (1) Clip (S-Type)
- ⑩ Four (4) Bolts (for installing the cooler)



3) Components for AMD Socket AM2+/AM2/754/939/940

* No additional components

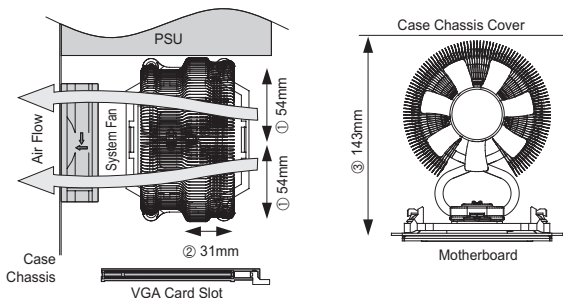
6. Compatible CPUs

- 1) All CPUs conforming to Intel Socket 775 platform
- 2) All CPUs conforming to AMD Socket AM2+/AM2/754/939/940 platform

7. Installation Requirements

Cases equipped with an Air Guide must have their Air Guide Ducts removed before installation. Install only on systems meeting the following conditions;

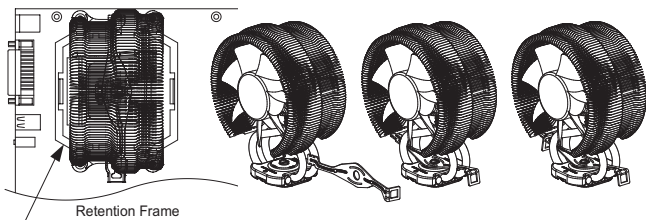
- ① There must be no interfering components (e.g. PSU, VGA card) within 54mm distance from the center of the PSU.
- ② There must be no interfering components (e.g. ODD) within 31mm distance from the center of the CPU.
- ③ Case chassis cover must be distanced at least 143mm away from the motherboard.



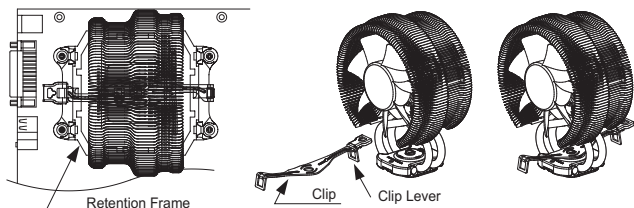
8. Installation

※ Clip Installation Depending on the Orientation of the Retention Frame

[Type-A. Vertically-oriented Retention Frame]



[Type-B. Horizontally-oriented Retention Frame]

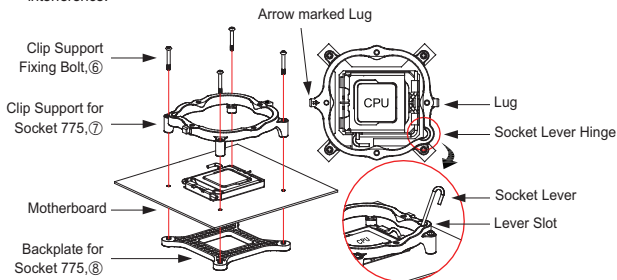


1) Intel Socket 775

① Clip Support Installation

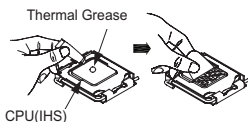
Align the Clip Support for Socket 775 (⑦) and the Backplate for Socket 775 (⑧) with the mounting holes on the motherboard and fasten them together with the Clip Support Fixing Bolt (⑥). The Lever Slot on the Clip Support for Socket 775 should be properly oriented on the hinged side of the Socket Lever when installing.

※ If the Lug of the 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 and any residue from the top of the CPU then spread an adequate amount of the included Thermal Grease (②) on the CPU surface thoroughly.



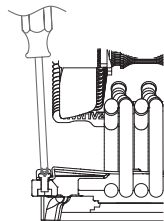
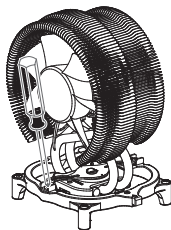
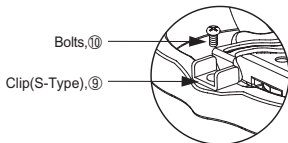
③ Cooler Installation

a. Securing clip using bolts

Adhere to the B(Clip) installation method on page 3 to install the CNPS9300 AT.

Insert two Bolts (⑩) into the holes of the Clip (S-Type, ⑨) and place the CNPS9300 AT on the center of the CPU.

Slightly fasten the Bolts (⑩) into the holes of the Clip Support for Socket 775 (⑦), then fasten the Bolts (⑩) in an alternating manner until the Clip (S-Type, ⑨) is completely pressed against the Clip Support for Socket 775.

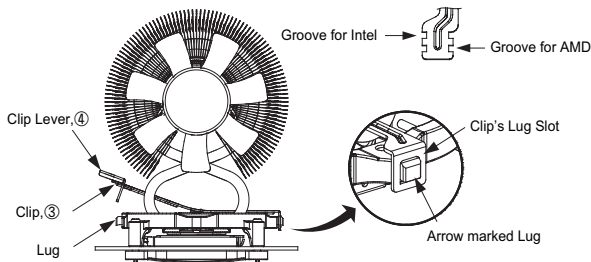


※ Note)

When installing the CNPS9300 AT on a motherboard with a horizontally-oriented Retention Guide, take extra care to not exert excessive force on the fan. Excessive force may damage the fan.

b. When using Clip(③)

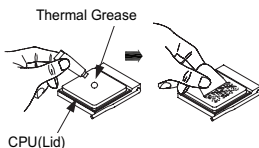
Refer to "Clip Installation Depending on the Orientation of the Retention Frame" on page 3 to correctly install the Clip(③) according to the orientation of the Retention Frame. Insert the Clip Lever(④) into the Groove for Intel of Clip(③). Align and connect the Clip's Lug Slot with the Arrow Marked Lug of the Clip Support for Socket 775. Press onto the Clip Lever when Aligning the Lever's Lug Slot with the Lug. Make sure that the cooler is installed on the center of the CPU.



2) AMD Socket AM2+/AM2/754/939/940

① Thermal Grease Application

Clear off particles and any residue from the top of the CPU then spread an adequate amount of the included Thermal Grease(②) on the CPU surface thoroughly.

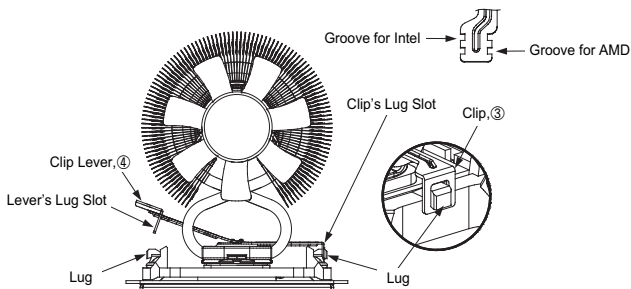


② Clip Installation

Refer to "Clip Installation Depending on the Orientation of the Retention Frame" on page 3 to correctly install the Clip(③) according to the orientation of the Retention Frame.

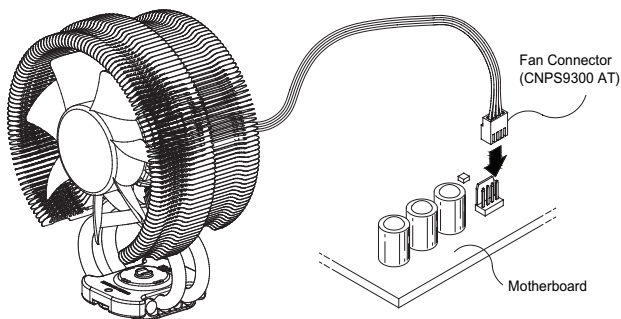
③ Cooler Installation

Insert the Clip Lever(④) into the Groove for AMD of Clip(③). Align and connect the Clip's Lug Slot with the Lug of the motherboard's Retention Frame. Press onto the Clip Lever when aligning the Lever's Lug Slot with the Lug.



9. Power Connection

Connect the CNPS9300 AT 4-Pin Fan Connector to the Motherboard as shown in the diagram.



10. Notes on Usage

1) Checking CPU Compatibility

Please refer to "Compatible CPUs" on page 2 to confirm that your CPU is compatible with the CNPS9300 AT before using it.

2) 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.

3) OVERCLOCKING

Zalman Tech Co., Ltd. is not responsible for any damages to the system and CPU resulting from overclocking.

4) Caution During Transport

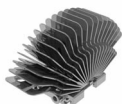
When transporting computers with cooler installed, extra caution is necessary. Zalman Tech Co., Ltd. is not responsible for any damage that occurs when moving a system.

11. 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

12. 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)