

POLARIS HEATSINK



INSTALLATION GUIDE FOR AMD® PROCESSORS, SOCKET 754, 939, 940, F, AM2, AM3

"K8": Socket 754, 939, 940, F

1. Back-plate assembly
 Insert the threaded posts in the holes corresponding to your motherboard socket: 4 posts for socket AM2/AM3, or 2 posts for socket 754, 939, 940 or F. Fasten the posts to the back-plate using the provided knurled-nuts, and then place an insulating washer over each nut. Important note: be careful not to use the thicker thumb-nuts, as they would offset the black-plate too far from the motherboard.

Remove and discard

Socket AM2/AM3

Socket 754, 939, 940, F

2. Back-plate installation to the motherboard
 Remove the stock back-plate and plastic frame, and mate the provided back-plate to the back of the motherboard; then insert the insulating washers onto each post, and fasten the back-plate with the provided thumb-nuts.

Side brackets: AM2/AM3 **ONLY** – 754, 939, 940, F: Do not install

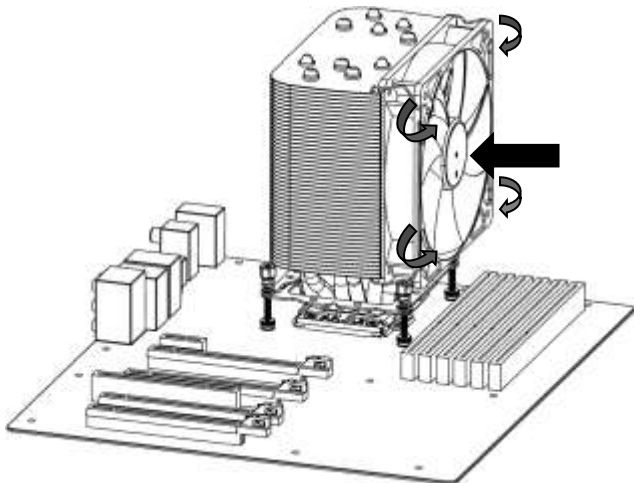
3. Heatsink assembly

All configurations: fasten the cross-bar to the heatsink with its center nipple facing down by using two of the provided spring loaded screws.

AM2/AM3 **ONLY:** fasten the two side brackets to the hold-down plate using the provided M3 screws.

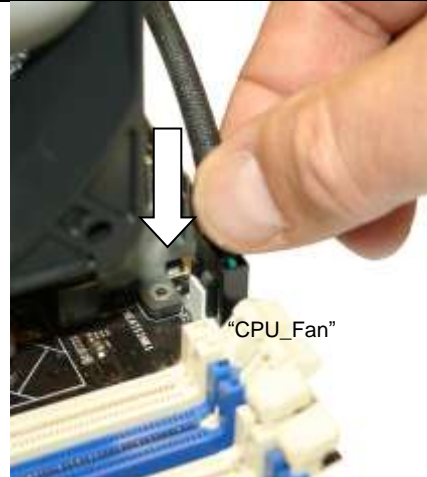
4. Heatsink installation to the motherboard

- Clean the CPU with a degreaser (preferably formulated for electronics) then apply a small amount of the supplied grease to the center of the CPU.
- If possible, orient the heatsink so that the hot air generated by the fan will blow in the direction of a chassis exhaust fan and then, mate the heatsink to the CPU.
- Progressively and alternatively (in a cross pattern) fasten the spring loaded screws until they bottom out.



5. Fan installation to the heatsink

Attach the fan to the heatsink using the provided clips, making sure that the fan blows towards the heatsink: the fan label should be facing against the heatsink fins, and will no longer be visible once the fan is installed.



6. Electrical connection

In order for the fan speed to be controlled by the motherboard PWM controller and to reach its full speed adjustment range which is 750 to 2500 RPM +/- 250 RPM, the fan's **4-pin connector must be plugged into the CPU fan 4-pin header of the motherboard**. The header is typically marked "CPU_Fan", and is always located at close proximity of the CPU socket.

If the fan's 4-pin connector is plugged into a motherboard 3-pin header, the fan will operate at full speed and lose its variable speed functionality. The fan can also be connected to a fan controller; however its speed adjustment range will be limited from 7 to 12v, i.e. 1500 RPM to 2500 RPM +/- 250 RPM. The fan cannot start below 7 volts.

Fan specifications

Rated voltage	12V	Rated Speed	750 ~ 2500 RPM +/- 250 RPM
Rated current	0.03 ~ 0.32 +/- 0.02A	Airflow	26.56 ~ 83.32 CFM
Start-up Voltage	7V	Static Pressure	1.74 ~ 4.85 mm-H ₂ O
Rated Power	0.36 ~ 3.84W	Noise Level	≤13.2 ~ 41.5dBA
Operating Voltage Range	10.2 ~ 13.8V	Bearing system	Hydraumatic
Dimensions	120x120x25mm	Function	PWM speed control
Weight	130.8 g	Connector	4-pin

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