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## Thermalright AXP90 X36

# Thermalright AXP90-X36 Low Profile CPU Air Cooler User Manual

Model: AXP90 X36

## PRODUCT OVERVIEW

The Thermalright AXP90-X36 is a low-profile CPU air cooler designed for compact systems such as HTPC and Mini-ITX builds. It features a 36mm height, a TL-9015 slim PWM fan, and AGHP (Anti-Gravity Heat Pipe) technology to ensure efficient cooling performance across various orientations.



*Figure 1: Thermalright AXP90-X36 Low Profile CPU Air Cooler.*

## Key Features

- **Compact Design:** 36mm total height, ideal for ITX motherboards and small form factor chassis.
- **Efficient Heat Dissipation:** Composed of a 92mm high-performance cooling fan, pure copper base, and 4 pure copper heat pipes.
- **AGHP Technology:** 4x6mm heat pipes apply AGHP technique, solving inverse gravity effects for consistent performance in vertical/horizontal orientations.
- **TL-9015 Slim PWM Fan:** 92mm fan with automatic temperature control and ultra-quiet operation (22.4db(A) noise level, 2700RPM  $\pm$  10% rotational speed).
- **Broad Compatibility:** Supports Intel LGA1700/1851/1150/1151/1155/1156/1200 and AMD AM4/AM5 sockets.

# AGHP TECHNOLOGY

Thermalright AGHP (Anti-Gravity Heat Pipe) Technology gives consistent performance in both vertical and horizontal install directions.



*Figure 2: AGHP (Anti-Gravity Heat Pipe) Technology ensures consistent performance in all orientations.*

With TL-9015 slim fan installed, the total height only reaches 36mm, designed for Mini-ITX motherboards and small form factor systems.



# 36MM

*Figure 3: The cooler's total height is 36mm, designed for Mini-ITX motherboards and small form factor systems.*

## SETUP AND INSTALLATION

This section provides detailed instructions for installing your Thermalright AXP90-X36 CPU Air Cooler on both Intel and AMD platforms. Please ensure your system is powered off and unplugged before beginning installation.

### Intel Platform Installation (LGA115X/1200/1700/1851)

1. Remove the protective plastic sticker from the cooler's base.
2. Apply thermal compound evenly onto the CPU surface.
3. Carefully place the heatsink onto the CPU, ensuring correct airflow direction.
4. Align the motherboard mounting holes with the heatsink screws.
5. Install the backplate on the backside of the motherboard.
6. Secure the backplate and heatsink using the four hex nuts.
7. Tighten the nuts with the provided socket nuts.
8. Connect the fan header to the CPU\_FAN socket on the motherboard.

Your browser does not support the video tag.

*Video 1: Installation guide for Intel 115x/1200 sockets. This video demonstrates the step-by-step process for mounting the Thermalright AXP90-X series cooler on compatible Intel motherboards, including thermal paste application and securing the heatsink.*

## AMD Platform Installation (AM4/AM5)

1. Remove the protective plastic sticker from the cooler's base.
2. Remove the pre-installed brackets for Intel motherboards from the heatsink.
3. Install the brackets for AM4 motherboards onto the heatsink, ensuring the logo on the brackets faces towards the heatsink.
4. Install four short screws (from removed Intel brackets) into the heatsink.
5. Remove the existing AM4 plastic brackets and backplate from your motherboard.
6. Apply thermal compound evenly onto the CPU surface.
7. Carefully place the heatsink onto the CPU, aligning motherboard mounting holes to the screws.
8. Install the AM4 backplate on the backside of the motherboard, with the 'AM4' text facing outwards.
9. Pass the screws through the holes of the motherboard and backplate.
10. Secure the backplate and heatsink with the four hex nuts.
11. Tighten the nuts with the provided socket nut.
12. Connect the fan header to the CPU\_FAN socket on the motherboard.

Your browser does not support the video tag.

*Video 2: Installation guide for AMD AM4 sockets. This video illustrates the installation process for the Thermalright AXP-X series CPU cooler on AMD AM4 motherboards, including bracket changes and securing the cooler.*

## OPERATING INSTRUCTIONS

Once installed, the Thermalright AXP90-X36 CPU Air Cooler operates automatically. The TL-9015 PWM fan adjusts its speed based on CPU temperature, ensuring optimal cooling performance while minimizing noise. No manual configuration is typically required for basic operation.

For advanced users, fan speed curves can be adjusted through your motherboard's BIOS/UEFI settings or dedicated software provided by your motherboard manufacturer. Refer to your motherboard manual for specific instructions on fan control settings.

## MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your CPU cooler.

- **Dust Cleaning:** Periodically clean dust from the heatsink fins and fan blades using compressed air or a soft brush. Ensure the system is powered off before cleaning.
- **Thermal Paste:** The thermal compound applied between the CPU and heatsink may degrade over time. It is recommended to reapply fresh thermal paste every 1-2 years, or if the cooler is removed and reinstalled.
- **Fan Inspection:** Check the fan for any signs of wear, damage, or unusual noise. If the fan is malfunctioning, it may need to be replaced.

## TROUBLESHOOTING

If you encounter issues with your Thermalright AXP90-X36 CPU Air Cooler, refer to the following common solutions:

- **High CPU Temperatures:**

- Ensure the heatsink is securely mounted and making full contact with the CPU.
- Verify that thermal paste was applied correctly and is not dried out. Reapply if necessary.
- Check for dust buildup on the heatsink fins and fan, and clean if needed.
- Confirm that the fan is spinning correctly and connected to the CPU\_FAN header.
- Ensure adequate airflow within your PC case.

- **Fan Not Spinning:**

- Check the fan cable connection to the CPU\_FAN header on the motherboard.
- Verify fan settings in your motherboard's BIOS/UEFI.
- Inspect the fan for any physical obstructions.

- **Excessive Fan Noise:**

- Clean any dust from the fan blades.
- Check for loose fan screws or vibrations.
- Adjust fan speed settings in BIOS/UEFI if running at maximum RPM unnecessarily.

## PRODUCT SPECIFICATIONS

Feature	Specification
Product Dimensions	94.5mm L x 95mm W x 36mm H (3.72"L x 1.42"W x 3.74"H)
Brand	Thermalright
Power Connector Type	4-Pin PWM
Voltage	12 Volts (DC)
Wattage	3.6 watts
Cooling Method	Air
Compatible Devices	Desktop (Intel LGA1700/1851/1150/1151/1155/1156/1200; AMD AM4/AM5)
Noise Level	22.4 Decibels (A)
Material	Aluminum (fins), Copper (base, heat pipes)
Maximum Rotational Speed	2700 RPM
Air Flow Capacity	42.58 CFM (MAX)
Item Weight	1.04 pounds
Included Components	CPU Fan, Mounting Hardware, Thermal Paste

## WARRANTY AND SUPPORT INFORMATION

Thermalright products are manufactured to high-quality standards. For warranty claims, technical support, or further assistance, please contact Thermalright customer service through their official website or the retailer where the product was purchased.

Please retain your proof of purchase for warranty validation.

