

Thermalright AS120 EVO DARK

Thermalright Assassin Spirit 120 EVO Dark CPU Cooler Instruction Manual

Model: AS120 EVO DARK

Brand: Thermalright

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Thermalright Assassin Spirit 120 EVO Dark CPU Cooler. Please read this manual thoroughly before installation to ensure correct setup and optimal performance. This air cooler is designed to provide efficient cooling for your CPU, supporting both AMD and Intel mainstream platforms.

2. SAFETY INFORMATION

- Always disconnect power from your computer before installing or removing any components.
- Handle components with care to avoid damage from static electricity. Consider using an anti-static wrist strap.
- Keep small parts and packaging materials away from children.
- Ensure proper ventilation within your computer case for optimal cooling performance.
- Do not attempt to modify the cooler or its components. Unauthorized modifications may void your warranty and pose safety risks.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- Thermalright Assassin Spirit 120 EVO Dark CPU Cooler (Heatsink and Fan)
- Mounting Brackets for Intel (LGA1700/115X/1200)
- Mounting Brackets for AMD (AM4/AM5)
- Backplate (for Intel platforms)
- Plastic Standoffs and Screws
- Thermal Compound

4. SPECIFICATIONS

Feature	Specification
Model	AS120 EVO DARK
Dimensions (L x W x H)	120 x 73 x 156 mm (4.72 x 2.87 x 6.14 inches)
Cooler Material	Aluminum fins, Copper heatpipes
Heatpipes	4 x 6mm heatpipes (AGHP Gen 4 Technology)
Fan Model	TL-E12B V2 PWM Fan
Fan Speed	1850 RPM (±10%)
Noise Level	< 27 dBA
Air Flow Capacity	70.4 CFM
Power Connector	4-Pin PWM
Compatible Sockets	Intel: LGA1150/1151/1155/1156/1200/1700/17XX AMD: AM4/AM5

The cooler features a single-tower design with a dark top plate and four pure copper heat pipes for optimized airflow and static-pressure output.

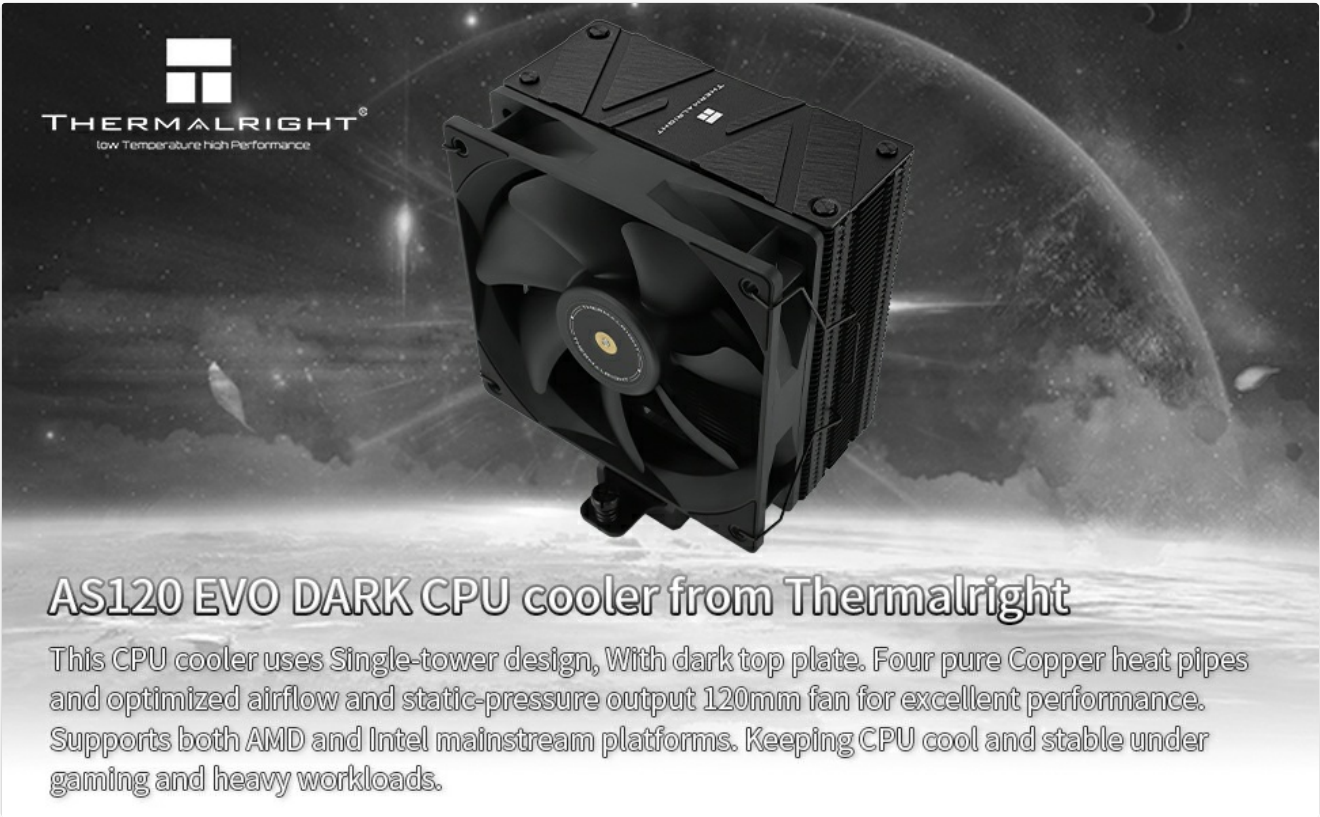


Image: Thermalright Assassin Spirit 120 EVO Dark CPU Cooler overview.

AGHP Technology Heatpipes

Unbounded by gravity affecting heat pipe performance,
Four AGHP Technology heatpipes offer great
CPU cooling in any install directions,
finished with dark coating for
better protection.



Image: Close-up of the AGHP Technology Heatpipes, designed for efficient heat transfer in any orientation.

ASSASSIN SPIRIT 120 EVO DARK

DIMENSIONS

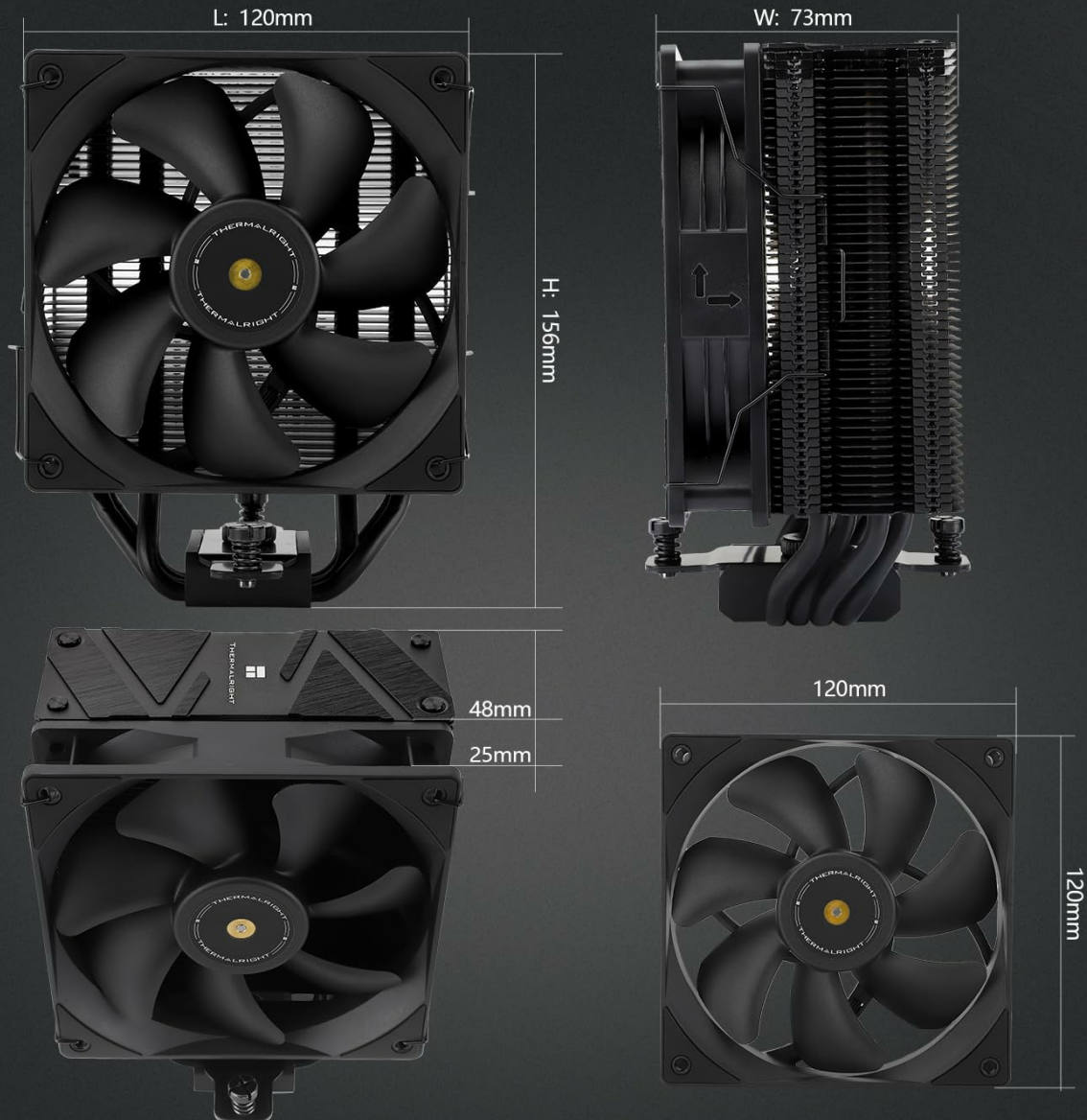


Image: Detailed dimensions of the Assassin Spirit 120 EVO Dark cooler, showing its length, width, and height.

5. INSTALLATION GUIDE

This section provides step-by-step instructions for installing the Thermalright Assassin Spirit 120 EVO Dark CPU Cooler. Please follow the instructions carefully for your specific CPU socket type.

5.1. General Preparation

1. Ensure your computer is powered off and unplugged from the wall outlet.
2. Open your computer case to access the motherboard.
3. Remove any existing CPU cooler. Clean the CPU surface thoroughly to remove old thermal paste.
4. Remove the protective sticker from the heatsink base before applying thermal compound.



Image: The Thermalright Assassin Spirit 120 EVO Dark CPU Cooler, ready for installation.

5.2. AMD AM4/AM5 Installation

1. Remove the plastic brackets from the motherboard around the CPU socket. Keep the original motherboard backplate.
2. Install the four AM4 plastic standoffs onto the motherboard's backplate screws.
3. Place the two metal brackets onto the plastic standoffs and secure them with the four AM4 screws.

5.3. Intel LGA1700 Installation

1. Adjust the mounting holes on the universal backplate to the 1700 position.
2. Install the backplate from the backside of the motherboard.
3. Install the four Intel 1700 plastic standoffs onto the backplate screws on the front side of the motherboard.
4. Place the two metal brackets onto the plastic standoffs and secure them with the four Intel screws.

5.4. Thermal Compound Application

Apply a small amount of thermal compound (included) onto the center of the CPU's Integrated Heat Spreader (IHS). A pea-sized dot or a thin line is generally sufficient. The pressure from the heatsink will spread it evenly.

5.5. Heatsink Mounting

1. Carefully place the heatsink onto the CPU, aligning the mounting nuts on the heatsink with the screws on the installed brackets.
2. Tighten both nuts evenly with a screwdriver until secure. Do not overtighten.

5.6. Fan Connections

1. Connect the fan's 4-pin PWM cable to the CPU_FAN header on your motherboard.
2. If your cooler includes ARGB lighting (check your specific model), connect the 3-pin +5V ARGB lighting cable to the appropriate ARGB header on your motherboard.

Your browser does not support the video tag.

Video: Installation guide for the Thermalright Assassin Spirit 120 EVO CPU Cooler, demonstrating steps for both AMD and Intel platforms.

Broader Compatibility

Only 156mm in Height, Assassin Spirit 120 EVO DARK fits in most ATX cases, With unobstruct RAM modules compatibility.



Image: The cooler's design ensures broader compatibility, allowing unobstructed RAM module installation.



Image: The new designed Thermalright SS2 cooler mounting system offers an easy installation process.

6. OPERATING INSTRUCTIONS

The Thermalright Assassin Spirit 120 EVO Dark CPU Cooler features a PWM (Pulse Width Modulation) fan. This means the fan speed is automatically adjusted by your motherboard based on the CPU temperature, ensuring optimal cooling performance while minimizing noise.

- Ensure the fan's 4-pin connector is securely plugged into the CPU_FAN header on your motherboard.

- You can typically configure fan curves and monitoring settings within your motherboard's BIOS/UEFI or through manufacturer-provided software. Refer to your motherboard manual for specific instructions.

120mm Balance Performance Fan

Rated at 1850RPM speed, TL-E12B V2 series fan balances airflow and static-pressure performance, Offers new level of performance on CPU cooler.



Image: The 120mm TL-E12B V2 fan, rated at 1850 RPM, balances airflow and static-pressure for effective cooling.

7. MAINTENANCE

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

- **Dust Removal:** Periodically clean the heatsink fins and fan blades to prevent dust buildup, which can impede airflow and reduce cooling efficiency. Use compressed air or a soft brush.
- **Fan Inspection:** Check the fan for any signs of damage or unusual noise. If the fan is faulty, it may need to be replaced.
- **Thermal Paste:** Reapply thermal paste if you remove the cooler for any reason, or if you notice a significant increase in CPU temperatures over time.

8. TROUBLESHOOTING

- **High CPU Temperatures:**
 - Ensure the heatsink is securely mounted and making full contact with the CPU.
 - Verify that thermal paste was applied correctly and evenly.
 - Check for dust buildup on the heatsink fins and fan blades.
 - Confirm the fan is spinning and connected to the correct motherboard header (CPU_FAN).
 - Check fan speed settings in BIOS/UEFI; ensure they are not set too low.
- **Fan Not Spinning:**
 - Ensure the fan's 4-pin PWM cable is correctly connected to the CPU_FAN header.
 - Check BIOS/UEFI settings to ensure the CPU_FAN header is enabled and configured correctly.

- Test the fan by connecting it to another fan header if available, to rule out a faulty fan.

- **Unusual Noise from Cooler:**

- Check for loose cables or objects obstructing the fan blades.
- Ensure the fan is securely attached to the heatsink.
- If the noise persists and is excessive, the fan bearing might be faulty, requiring a replacement fan.

9. WARRANTY AND SUPPORT

Thermalright products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please refer to the official Thermalright website or contact your local retailer. Please retain your proof of purchase for warranty claims.