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**AMD 100-100000025BOX**

# AMD Ryzen 7 3800X Processor with Wraith Prism LED Cooler User Manual

Model: 100-100000025BOX

## INTRODUCTION

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This manual provides essential information for the installation, operation, and maintenance of your AMD Ryzen 7 3800X 8-Core, 16-Thread Unlocked Desktop Processor, bundled with the Wraith Prism LED Cooler. Please read this manual thoroughly before proceeding with installation or operation.



*Image: The retail packaging of the AMD Ryzen 7 3800X processor, featuring the AMD Ryzen logo and branding.*

## SETUP AND INSTALLATION

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Proper installation is crucial for optimal performance and longevity of your processor. Ensure your motherboard is compatible with the AM4 socket and has the latest BIOS update for Ryzen 3000 series processors.

### 1. Processor Installation

- 1. Prepare the Motherboard:** Locate the CPU socket on your motherboard. Lift the retention arm to unlock the socket.
- 2. Align the Processor:** Carefully remove the AMD Ryzen 7 3800X processor from its packaging. Identify the golden triangle or arrow on one corner of the processor. Align this with the corresponding mark on the CPU socket.
- 3. Insert the Processor:** Gently lower the processor straight down into the socket. Do not force it. If it does not seat easily, re-check the alignment.
- 4. Secure the Processor:** Once the processor is seated, push the retention arm back down to lock it in place.

### 2. Wraith Prism LED Cooler Installation

The AMD Ryzen 7 3800X comes bundled with the Wraith Prism LED Cooler, which has pre-applied thermal paste. This cooler is designed to provide effective cooling for your processor.

- 1. Prepare the Cooler:** Ensure the cooler's base is clean and the pre-applied thermal paste is intact. Avoid touching the thermal paste.
- 2. Mount the Cooler:** Place the cooler onto the installed processor, aligning the mounting clips or screws with the motherboard's retention bracket.
- 3. Secure the Cooler:** Secure the cooler using the provided clips or screws. Ensure even pressure is applied.
- 4. Connect Fan and RGB Cables:** Connect the cooler's fan cable to the CPU\_FAN header on your motherboard. For LED control, connect the RGB cable to the appropriate RGB header on your motherboard or a USB header if using software control.

## OPERATING YOUR PROCESSOR

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The AMD Ryzen 7 3800X features 8 cores and 16 processing threads, offering robust performance for various computing tasks. It supports DDR4 3200 memory for high-speed data access.

### Performance Features:

- **Base Frequency:** Operates at a base clock speed of 3.9 GHz.
- **Max Boost Frequency:** Can dynamically boost up to 4.5 GHz for demanding workloads.
- **Precision Boost 2:** Automatically raises processor frequencies for improved performance.
- **Precision Boost Overdrive:** An enhanced feature that enables higher CPU frequencies and boosts longer, offering customized performance with one click via BIOS or AMD Ryzen Master software.

### Compatibility:

This processor is compatible with motherboards featuring the AM4 socket and X470 or X570 chipsets. For optimal performance and to leverage features like PCIe 4.0, an X570 chipset motherboard is recommended.

## Official Product Overview:



*Video: An official AMD Merchant Video providing an overview of the AMD Ryzen processor features and capabilities, including Precision Boost technology.*

## MAINTENANCE

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To ensure the longevity and consistent performance of your AMD Ryzen 7 3800X processor and Wraith Prism LED Cooler, periodic maintenance is recommended.

- **Dust Removal:** Regularly clean the Wraith Prism LED Cooler fan and heatsink fins to prevent dust buildup, which can impede airflow and cooling efficiency. Use compressed air or a soft brush.
- **Thermal Paste:** The Wraith Prism LED Cooler comes with pre-applied thermal paste. If you ever need to remove and re-install the cooler, it is recommended to clean off the old thermal paste and apply a fresh layer of high-quality thermal compound.
- **Cable Management:** Ensure all cables connected to the cooler and motherboard are neatly managed to avoid obstructing airflow within your PC case.

## TROUBLESHOOTING

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If you encounter issues with your AMD Ryzen 7 3800X processor, consider the following common troubleshooting steps:

- **System Not Booting:**
  - Verify the processor is correctly seated in the AM4 socket, aligning the golden triangle/arrow.
  - Ensure the CPU power connector from the power supply is securely connected to the motherboard.
  - Check that RAM modules are properly seated in their slots.
- **Overheating Issues:**
  - Confirm the Wraith Prism LED Cooler is securely mounted and its fan is spinning.
  - Ensure the thermal paste application is adequate (if re-applied) and there are no air bubbles.
  - Check for proper airflow within your PC case; ensure intake and exhaust fans are functioning correctly.
  - Monitor CPU temperatures using software. If temperatures are consistently high under load, consider an aftermarket cooling solution.
- **Performance Lower Than Expected:**
  - Ensure your motherboard BIOS is updated to the latest version.
  - Verify that Precision Boost 2 and Precision Boost Overdrive settings are correctly configured in your

BIOS or via AMD Ryzen Master software.

- Check that your RAM is running at its advertised speed (e.g., DDR4 3200) by enabling XMP/DOCP in BIOS.

## SPECIFICATIONS

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| Feature            | Detail                   |
|--------------------|--------------------------|
| Processor Model    | AMD Ryzen 7 3800X        |
| Cores / Threads    | 8 Cores / 16 Threads     |
| Base Clock Speed   | 3.9 GHz                  |
| Max Boost Clock    | 4.5 GHz                  |
| Total L3 Cache     | 32 MB                    |
| Default TDP        | 105W                     |
| CPU Socket         | AM4                      |
| Memory Support     | DDR4 3200 (2 Channel)    |
| PCIe Version       | 4.0                      |
| Bundled Cooler     | Wraith Prism LED Cooler  |
| Item Model Number  | 100-100000025BOX         |
| Product Dimensions | 1.57 x 1.57 x 0.1 inches |
| Item Weight        | 1.4 pounds               |

## WARRANTY AND SUPPORT

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Your AMD Ryzen 7 3800X processor includes a 3-year limited warranty. Please retain your proof of purchase for warranty claims.

- **Certificate of Authenticity:** A "Certificate of Authenticity" is included in the processor packaging. Keep this document for your records.
- **Installation Instructions:** Detailed installation instructions are provided within the product packaging.
- **Online Support:** For further technical support, driver downloads, and detailed product information, please visit the official AMD website: [www.amd.com](http://www.amd.com).

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