

NZXT RL-KRX53-01

NZXT Kraken X53 240mm AIO RGB CPU Liquid Cooler User Manual

Model: RL-KRX53-01 | Brand: NZXT

1. INTRODUCTION

The NZXT Kraken X53 240mm is an all-in-one (AIO) liquid cooler designed to provide efficient cooling for your Central Processing Unit (CPU). Featuring a re-designed pump cap with a larger infinity mirror ring LED, it offers both enhanced thermal performance and striking visual effects. This manual provides detailed instructions for installation, operation, maintenance, and troubleshooting to ensure optimal performance and longevity of your cooler.

2. PACKAGE CONTENTS

Before beginning installation, please verify that all components are present:

- NZXT Kraken X53 240mm Liquid Cooler (Integrated Pump and Radiator with Tubing)
- 2 x Aer P 120mm Radiator Fans
- Mounting Hardware for Intel Sockets (LGA 1151, 1150, 1155, 1156, 1366, 2011, 2011-3, 2066, 1200)
- Mounting Hardware for AMD Sockets (AM4, sTRX4*, TR4* - *Threadripper bracket not included)
- USB Cable for CAM Software Integration
- Fan Splitter Cable
- Installation Guide

3. SPECIFICATIONS

Feature	Specification
Model Number	RL-KRX53-01
Radiator Dimensions	275mm x 123mm x 30mm (approx.)
Pump Dimensions	80mm Diameter, 52.9mm Height (approx.)
Fan Size	120mm (2 included)
Cooling Method	Liquid (Water)
Noise Level	21 dB (Pump)
Maximum Rotational Speed	1800 RPM (Fans)
Air Flow Capacity	73.11 Cubic Feet Per Minute (Fans)
Material	Copper (Cold Plate)
Compatible Sockets	Intel LGA 1151, 1150, 1155, 1156, 1366, 2011, 2011-3, 2066, 1200 AMD AM4, sTRX4*, TR4*

4. SETUP & INSTALLATION

Proper installation is crucial for optimal cooling performance. Follow these steps carefully:

4.1. Preparation

- Ensure your PC is powered off and unplugged.
- Open your PC case to access the motherboard and CPU area.
- Refer to your motherboard manual for specific CPU socket and mounting bracket instructions.

4.2. Mounting Radiator and Fans



The 240mm radiator of the Kraken X53, equipped with two Aer P 120mm radiator fans. This assembly is responsible for dissipating heat from the liquid coolant into the surrounding air. Proper fan orientation is crucial for efficient cooling.

1. Attach the two Aer P 120mm fans to the radiator using the provided screws. Ensure the fans are oriented correctly for desired airflow (intake or exhaust).
2. Mount the radiator and fan assembly to an available 240mm fan mount in your PC case. Common locations include the front, top, or side panels.

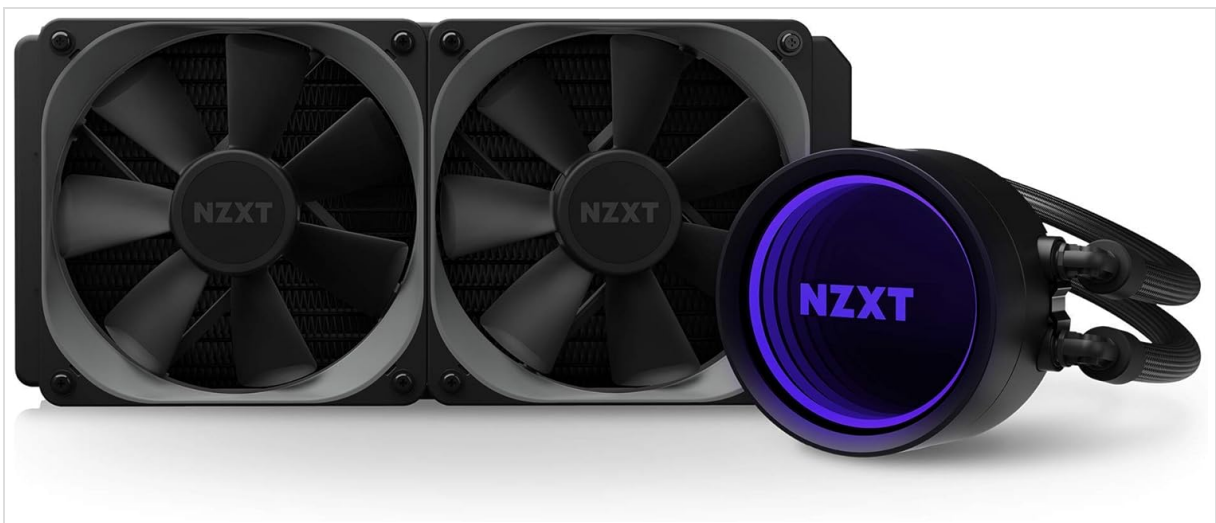
4.3. Applying Thermal Paste



This image displays the copper cold plate on the underside of the Kraken X53 pump unit. This surface makes direct contact with the CPU's integrated heat spreader (IHS) to transfer heat to the liquid coolant. Ensure this surface is clean before installation.

- The Kraken X53 comes with pre-applied thermal paste on the copper cold plate. If you prefer to use your own thermal paste, gently clean off the pre-applied paste from the cold plate and the CPU's Integrated Heat Spreader (IHS) using isopropyl alcohol and a lint-free cloth.
- Apply a small, pea-sized amount of thermal paste to the center of your CPU's IHS.

4.4. Mounting Pump/Cold Plate



An overhead view of the NZXT Kraken X53 240mm liquid cooler, showcasing the integrated pump and cold plate unit connected by flexible tubing to the 240mm radiator with two pre-installed Aer P 120mm fans. The pump head features a customizable infinity mirror RGB lighting effect.

1. Carefully align the pump/cold plate unit with the CPU socket and the installed mounting bracket.

2. Gently lower the pump onto the CPU, ensuring even contact.
3. Secure the pump to the mounting bracket using the appropriate screws. Tighten screws in a diagonal pattern until snug, but do not overtighten.
4. The pump cap can be rotated to ensure the NZXT logo is upright, regardless of the pump's installed orientation.

4.5. Cable Connections



A detailed view of the Kraken X53's pump head, featuring the signature rotating infinity mirror design with vibrant RGB illumination. The cap can be re-oriented after installation to ensure the NZXT logo is always upright.

- Connect the pump's 3-pin cable to the CPU_FAN or AIO_PUMP header on your motherboard.
- Connect the Aer P 120mm fans to the fan splitter cable, then connect the splitter to an available fan header on your motherboard (e.g., CPU_OPT or a SYS_FAN header).
- Connect the pump's USB cable to an available internal USB 2.0 header on your motherboard. This enables control and monitoring via NZXT CAM software.
- Connect the SATA power connector from the pump to a SATA power cable from your power supply.

5. OPERATING INSTRUCTIONS

Once installed, the NZXT Kraken X53 is controlled and monitored through the NZXT CAM software. Download and install the latest version of CAM from the official NZXT website.

- **Monitoring:** CAM provides real-time data on CPU temperature, pump speed, and fan speed.
- **Performance Control:** Adjust pump and fan curves to optimize cooling performance and noise levels. Many users find that setting a constant pump speed (e.g., just under 50%) can reduce noise without significantly impacting temperatures.
- **RGB Customization:** Personalize the infinity mirror RGB lighting effects on the pump head using CAM's intuitive interface.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and efficiency of your liquid cooler:

- **Dust Cleaning:** Periodically clean dust from the radiator fins and fan blades using compressed air or a soft brush. Ensure fans are not spinning during cleaning.
- **Cable Management:** Ensure all cables are neatly routed and not obstructing airflow or fan blades.
- **Thermal Paste:** While not frequently required, consider reapplying thermal paste every few years or if you notice a significant increase in CPU temperatures.

7. TROUBLESHOOTING

If you encounter issues with your Kraken X53, try the following common troubleshooting steps:

- **High CPU Temperatures:**
 - Check if the pump is running (listen for a faint hum or check CAM software).
 - Verify that the pump and fan cables are securely connected to the correct motherboard headers and power supply.
 - Ensure the cold plate is making proper contact with the CPU. Re-seat the pump if necessary.
 - Confirm fan orientation for optimal airflow.
- **Pump Noise:**
 - Adjust pump speed settings in NZXT CAM.
 - Ensure the radiator is mounted higher than the pump to prevent air bubbles from accumulating in the pump.
- **RGB Lighting Not Working:**
 - Check the USB 2.0 connection from the pump to the motherboard.
 - Ensure NZXT CAM software is installed and running.
 - Verify RGB settings within CAM.

8. WARRANTY & SUPPORT

The NZXT Kraken X53 is backed by a 6-year warranty, ensuring long-term reliability and peace of mind. For further assistance, technical support, or warranty claims, please visit the official NZXT support website or contact their customer service. Always refer to the latest documentation available on the NZXT website for the most up-to-date information.