NZXT RL-KR28E-W1

NZXT Kraken Elite 280 RGB Liquid Cooler User Manual

Model: RL-KR28E-W1

Product Overview

The NZXT Kraken Elite 280 RGB (Model: RL-KR28E-W1) is a high-performance 280mm AIO CPU liquid cooler designed to provide efficient cooling and extensive personalization options. It features a customizable 2.36-inch LCD display for showing images, performance metrics, and more, all managed through the NZXT CAM software.



Figure 1: NZXT Kraken Elite 280 RGB Liquid Cooler components.

Key Features

- **Personalization That Pops:** Display animated GIFs, static images, real-time PC performance metrics, currently playing music, and integrate web content using NZXT CAM software.

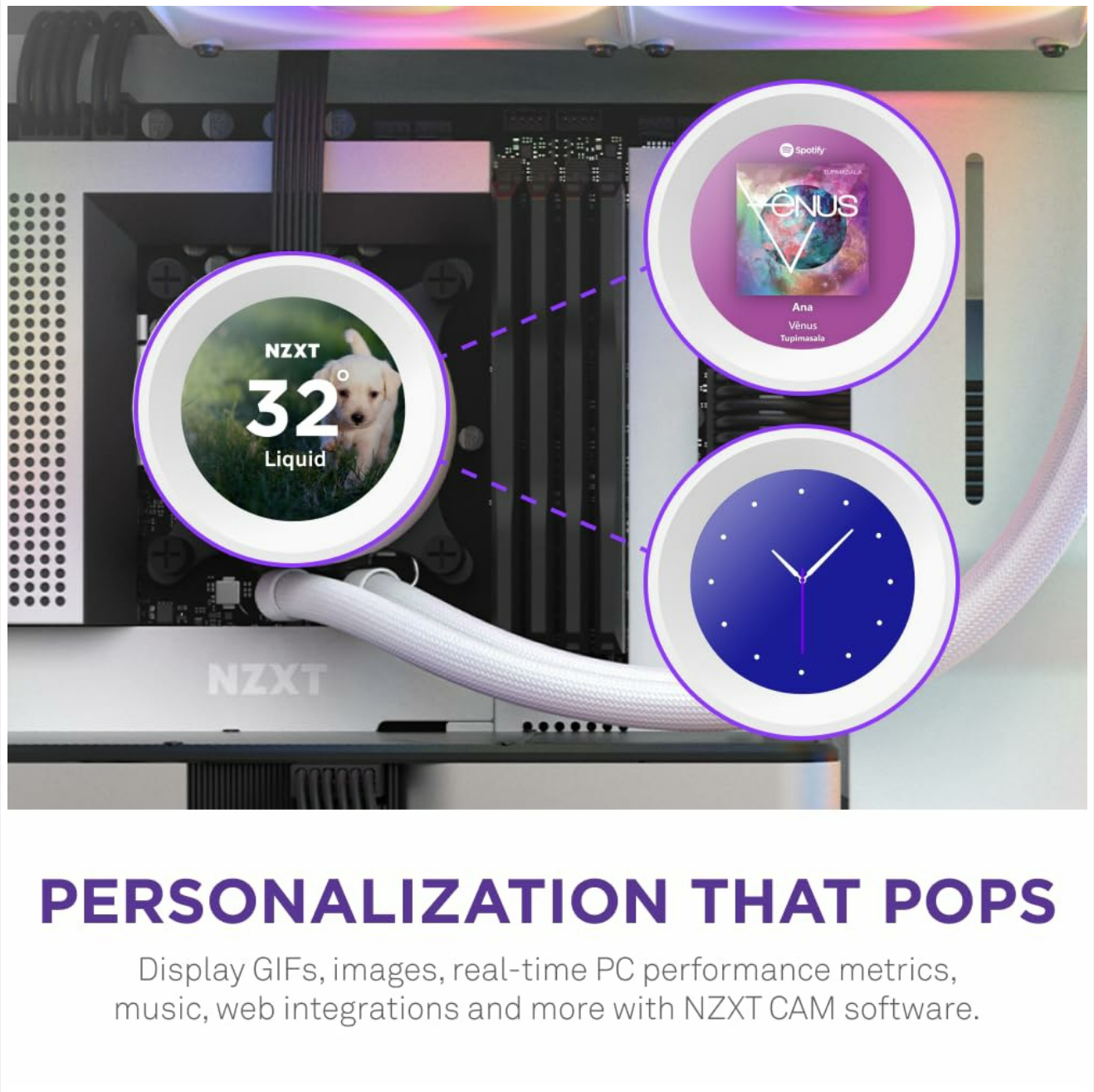


Figure 2: Customizable LCD display on the Kraken Elite pump.

- **Wide-Angle LCD Display:** Features a 2.36-inch diameter LCD display with a wide viewing angle, crisp 640x640 resolution, high 60 Hz refresh rate, and a vivid 690 cd/m² backlight for clear content display.



Figure 3: Detailed view of the Kraken Elite's LCD display specifications.

- **High-Performance Pump:** Equipped with a powerful Asetek pump operating at up to 2,800 RPM, ensuring efficient and quiet coolant circulation for optimal thermal performance.



Figure 4: Internal view of the high-performance Asetek pump.

- **Colorful Cooling:** Includes RGB Core Fans with fluid dynamic bearings, providing an optimal balance of static pressure and airflow for powerful cooling, complemented by vivid RGB lighting effects.
- **Simple Setup:** Features a single breakout cable from the pump to the motherboard, simplifying the installation process.

Package Contents

The NZXT Kraken Elite 280 RGB package includes the following:

- Liquid Cooler (includes pump, radiator, and fans)
- Mounting hardware for both Intel and AMD CPU sockets

Setup and Installation

This section provides general guidelines for installing your NZXT Kraken Elite 280 RGB liquid cooler. For detailed, step-by-step instructions, please refer to the official NZXT installation guide provided with your product or available on the NZXT website.

Pre-Installation Checklist:

- Ensure your PC case has adequate space for a 280mm radiator and fans.
- Verify compatibility with your CPU socket (Intel LGA 1851/1700, 1200/115X or AMD AM5, AM4).
- Gather necessary tools: Phillips head screwdriver, thermal paste (if not pre-applied).

Installation Steps Overview:

1. **Prepare Motherboard:** Install the appropriate backplate and standoffs for your CPU socket type.
2. **Mount Radiator and Fans:** Secure the radiator and fans to your PC case. Ensure proper airflow direction.
3. **Apply Thermal Paste:** If not pre-applied, apply a small amount of thermal paste to the center of your CPU's IHS (Integrated Heat Spreader).
4. **Install Pump/Cold Plate:** Carefully place the pump/cold plate assembly onto the CPU, aligning it with the standoffs. Secure it with the provided thumb screws.



Figure 5: Kraken Elite installed in a PC build, demonstrating CPU compatibility.

5. **Connect Cables:**
    - Connect the single breakout cable from the pump to an available USB 2.0 header on your motherboard.

- Connect the pump's 3-pin tachometer cable to the CPU_FAN header on your motherboard.
- Connect the fan cables to the fan headers on the radiator or a fan controller.
- Connect the RGB cables from the fans to the appropriate RGB controller or motherboard header.

For visual guidance, please refer to the official product video:

[redacted]

Video 1: Official NZXT Kraken & Kraken Elite overview and installation guide. This video demonstrates the features and setup process for the Kraken series liquid coolers.

Operating Instructions

To fully utilize the features of your NZXT Kraken Elite 280 RGB, install the NZXT CAM software.

NZXT CAM Software:

- **Download and Install:** Download the latest version of NZXT CAM from the official NZXT website (nzxt.com/cam).
- **Monitor Performance:** Use CAM to monitor CPU and GPU temperatures, fan speeds, pump speed, and other system metrics in real-time.
- **Customize LCD Display:**
  - Upload custom images or animated GIFs to display on the 2.36-inch LCD screen.
  - Choose from various pre-set display modes, including performance metrics, clock, or web content.
- **Control RGB Lighting:** Adjust the RGB lighting effects and colors of the F140 RGB Core Fans and the pump's LCD ring.
- **Fan and Pump Control:** Create custom fan curves and pump profiles to optimize cooling performance and noise levels based on your system's needs.

Maintenance

Regular maintenance ensures optimal performance and longevity of your liquid cooler.

- **Dust Cleaning:** Periodically clean dust from the radiator fins and fans using compressed air. Ensure the fans are not spinning during cleaning to prevent damage.
- **Cable Management:** Ensure all cables are properly routed and secured to prevent interference with fan blades or other components.
- **Software Updates:** Keep your NZXT CAM software updated to the latest version to benefit from performance improvements, bug fixes, and new features.
- **Inspect Tubing:** Occasionally inspect the rubber tubing for any signs of wear, kinks, or leaks.

Troubleshooting

This section addresses common issues you might encounter with your NZXT Kraken Elite 280 RGB.

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Pump/Fans Not Spinning / LCD Off	• Loose power or USB connection. • Incorrect motherboard header connection. • NZXT CAM software issue.	• Check all cable connections (USB 2.0, CPU_FAN, SATA power). • Ensure the pump's 3-pin cable is connected to the CPU_FAN header. • Restart NZXT CAM software or reinstall it. • Check BIOS settings for fan control.
High CPU Temperatures	• Improper cold plate contact. • Insufficient thermal paste. • Fans not spinning or set to low RPM. • Air bubbles in the loop.	• Re-seat the pump/cold plate, ensuring even pressure. • Reapply thermal paste if necessary. • Check fan connections and adjust fan curves in NZXT CAM. • Orient radiator correctly to allow air bubbles to settle in the radiator.
RGB Lighting Not Working	• Loose RGB cable connection. • Software conflict or settings.	• Verify RGB cable connections to the controller/motherboard. • Check RGB settings in NZXT CAM. Ensure no other RGB software is conflicting. • Try a different RGB header if available.

If you continue to experience issues, please contact NZXT customer support.

SPECIFICATIONS

Attribute	Detail
Model Number	RL-KR28E-W1
Product Dimensions	16.89"L x 8.23"W x 6.22"H (42.9 x 20.9 x 15.8 cm)
Weight	5.18 Pounds (2.35 kg)
Manufacturer	NZXT
Compatible Devices	Desktop PCs (Intel LGA 1851/1700, 1200/115X; AMD AM5, AM4)
Cooling Method	Liquid (AIO), Air (Fans)
Pump Speed	Up to 2800 RPM (Maximum Rotational Speed)
Noise Level	34.48 dB
Power Connector	4-Pin
Voltage	12 Volts
Wattage	2.88 watts

Attribute	Detail
Material	Plastic, Copper, Aluminum, Ultra-low Evaporation Rubber with Nylon Braided Sleeve
LCD Display	2.36" diameter, 640x640 resolution, 60 Hz refresh rate, 690 cd/m² backlight

Warranty Information

NZXT products are backed by a manufacturer's warranty. While specific warranty periods may vary by region and product, the NZXT Kraken Elite 280 RGB typically comes with a 5-year warranty, as noted in customer reviews. Please retain your proof of purchase for warranty claims.
For detailed warranty terms and conditions, please visit the official NZXT support website or contact their customer service.

Support and Contact

For further assistance, technical support, or to register your product, please use the following resources:

- **NZXT Official Website:** www.nzxt.com
- **NZXT Support:** Visit the support section on the NZXT website for FAQs, troubleshooting guides, and to submit a support ticket.
- **NZXT CAM Software:** Download and learn more about the software at nzxt.com/cam

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Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question