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› NZXT H510i PC Gaming Case User Manual

NZXT H510i (CA-H510i-BR)

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Model: CA-H510i-BR

1. INTRODUCTION

The NZXT H510i is a compact ATX mid-tower PC gaming case designed for an optimal building experience and enhanced aesthetics. It integrates smart features for lighting and fan control, alongside thoughtful design elements like a tempered glass side panel and efficient cable management. This manual provides comprehensive instructions for setting up, operating, maintaining, and troubleshooting your H510i case.



Figure 1.1: NZXT H510i PC Gaming Case with internal components and red RGB lighting.

2. KEY FEATURES

- **Front I/O USB Type-C Port:** Supports high-speed USB 3.1 Gen 2 devices for fast data transfer.
- **Vertical GPU Mount:** Showcase your graphics card with a built-in mounting bracket (PCIe riser card not included).
- **Tempered Glass Side Panel:** Easily installed with a single thumbscrew for clear view of internal components.
- **Upgraded Smart Device V2:** Features a faster microprocessor for NZXT CAM-powered control of two RGB lighting channels and three fan channels (supports voltage regulated or PWM fans).
- **Enhanced Cable Management:** Patented cable routing kit with pre-installed channels and straps simplifies wiring.



Figure 2.1: Interior view of the NZXT H510i showcasing customizable RGB lighting.

3. SETUP GUIDE

3.1. Unpacking and Preparation

Carefully remove the H510i case from its packaging. Inspect for any damage during transit. Place the case on a stable, flat surface. Remove the tempered glass side panel by loosening the single thumbscrew at the rear and gently pulling the panel open.

3.2. Component Installation

Follow these steps for installing your PC components:

1. **Motherboard Installation:** Align your ATX, Micro-ATX, or Mini-ITX motherboard with the pre-installed standoffs. Secure it with the provided screws.
2. **Power Supply Unit (PSU) Installation:** Install your PSU into the dedicated compartment at the bottom rear of the case. Secure it with screws from the rear.
3. **Storage Drive Installation:** Utilize the 2.5" SSD trays located behind the motherboard tray or the 3.5" drive cage at the bottom.
4. **Graphics Card (GPU) Installation:** Insert your GPU into the appropriate PCIe slot on your motherboard. For vertical mounting, an optional PCIe riser cable (not included) is required.
5. **Cable Management:** Route all power and data cables through the dedicated channels and tie-down points behind the motherboard tray. Use the pre-installed Velcro straps for main cables.



Figure 3.1: Internal view highlighting the cable management bar and routing channels.



Figure 3.2: Detail of the cable management bar, designed to keep cables tidy.

4. OPERATING INSTRUCTIONS

4.1. Front I/O Ports

The front panel of your H510i case includes the following ports for convenient access:

- **USB 3.1 Gen 2 Type-C Port:** For high-speed data transfer and device charging.
- **USB 3.0 Type-A Port:** Standard USB connectivity.
- **Audio Jack:** Combined headphone/microphone jack.
- **Power Button:** To power on/off your system.

4.2. RGB Lighting and Fan Control (Smart Device V2)

The integrated Smart Device V2 allows for intelligent control of your case's RGB lighting and fans via NZXT CAM software. Download and install NZXT CAM from the official NZXT website (nzxt.com/cam) to customize lighting effects, monitor temperatures, and adjust fan speeds for optimal performance and acoustics.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your NZXT H510i case:

- **Dust Filters:** The H510i features removable dust filters on the front and PSU intake. Periodically remove and clean these filters with compressed air or water (ensure they are completely dry before reinstallation).
- **Exterior Cleaning:** Use a soft, damp cloth to wipe down the exterior surfaces. Avoid abrasive cleaners that may damage the finish.
- **Tempered Glass Panel:** Clean the tempered glass with a glass cleaner and a microfiber cloth to avoid streaks.
- **Internal Dust:** Use compressed air to clear dust from internal components and fans. Ensure your system is powered off and unplugged before cleaning.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your H510i case.

Problem	Possible Cause	Solution
System does not power on.	Loose power connections, faulty PSU, front panel header not connected.	Check all power cables (24-pin, CPU, GPU, SATA). Ensure PSU is switched on. Verify front panel power header is correctly connected to the motherboard.
RGB lighting not working.	Smart Device V2 not connected, NZXT CAM software issue, faulty LED strip.	Ensure Smart Device V2 is properly connected to the PSU and motherboard USB header. Reinstall or update NZXT CAM software. Check LED strip connections.
Fans not spinning or loud.	Fan cables loose, incorrect fan settings in CAM, dust buildup.	Verify fan connections to the Smart Device V2 or motherboard. Adjust fan curves in NZXT CAM. Clean dust from fans and filters.
USB-C port not functioning.	Front panel USB-C cable not connected to motherboard.	Ensure the internal USB 3.1 Gen 2 header cable from the front panel is securely connected to the corresponding port on your motherboard.

7. TECHNICAL SPECIFICATIONS

Feature	Specification
Model Name	H510i
Item Model Number	CA-H510i-BR
Case Type	Mid Tower
Motherboard Compatibility	Mini-ITX, Micro-ATX, ATX
Material	SGCC Steel, Tempered Glass

Feature	Specification
Color	Black/Red
Dimensions (LxWxH)	16.85 x 8.27 x 18.11 inches (428 x 210 x 460 mm)
Item Weight	18 pounds (8.16 kg)
Front I/O Ports	1x USB 3.1 Gen 2 Type-C, 1x USB 3.0 Type-A, 1x Headset Audio Jack
Max GPU Clearance	321-381mm
Radiator Support	Front: 280mm, Rear: 120mm
Cooling Method	Air



Figure 7.1: Dimensions of the NZXT H510i case.

8. WARRANTY AND SUPPORT

NZXT products are backed by a manufacturer's warranty. For detailed warranty information, please refer to the warranty card included with your product or visit the official NZXT website. For technical support, troubleshooting assistance, or to inquire about replacement parts, please contact NZXT customer support through their official website's support section.

NZXT Official Website: <https://nzxt.com/>

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