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› Acer Nitro 5 Gaming Laptop AN517-51-76V6 User Manual

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Acer Nitro 5 Gaming Laptop AN517-51-76V6 User Manual

Model: AN517-51-76V6

1. INTRODUCTION

This manual provides essential information for setting up, operating, maintaining, and troubleshooting your Acer Nitro 5 Gaming Laptop AN517-51-76V6. Please read this manual thoroughly to ensure proper use and to maximize the performance and lifespan of your device.

Package Contents

Verify that all items are present in the package:

- Acer Nitro 5 Gaming Laptop
- AC Adapter
- Power Cord



Figure 1.1: Acer Nitro 5 Gaming Laptop

2. SETUP

2.1 Initial Power-On

1. Connect the AC adapter to the laptop's power input port.
2. Plug the power cord into a grounded electrical outlet.
3. Open the laptop lid and press the power button to turn on the device.
4. Follow the on-screen instructions to complete the initial Windows 10 Home setup.

2.2 Connecting Peripherals

The Acer Nitro 5 offers extensive connectivity options for various peripherals.

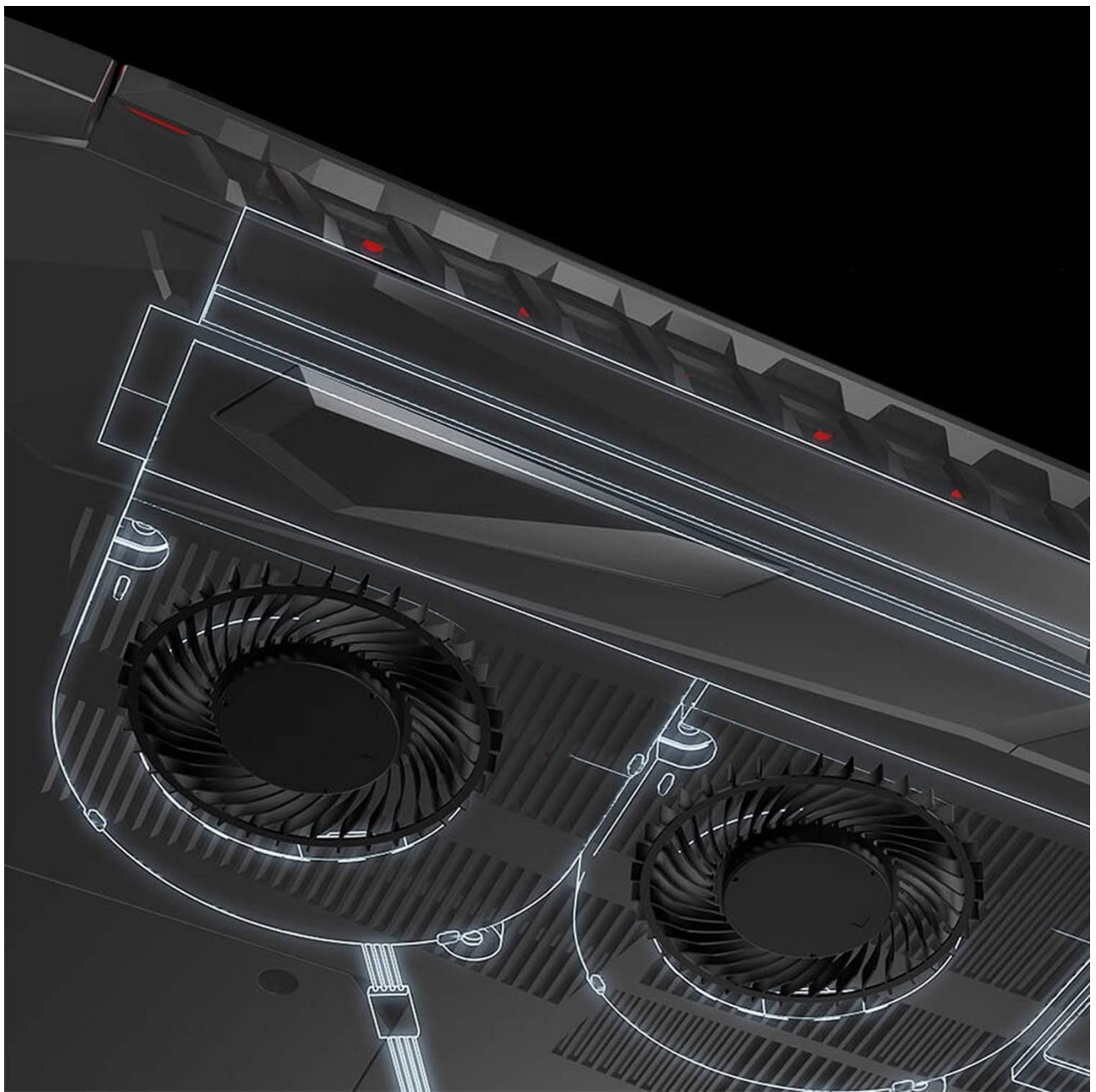


Figure 2.1: Laptop Ports and Connectors

- **USB Ports:** Connect USB devices such as mice, keyboards, or external storage drives to the available USB 2.0, USB 3.1 Gen 1, or USB 3.1 Type-C ports.
- **HDMI Port:** Connect an external display or projector using an HDMI cable to the HDMI 2.0 port.
- **Audio Jack:** Connect headphones or external speakers to the 3.5mm audio jack.
- **Ethernet Port (RJ-45):** For a wired network connection, connect an Ethernet cable to the RJ-45 port.

2.3 Network Connection

- **Wireless (Wi-Fi):** Access network settings in Windows to connect to available Wi-Fi networks (Intel Wireless-AC 9560 802.11ac Gigabit WiFi 5 supported).
- **Wired (Ethernet):** Plug an Ethernet cable into the RJ-45 port for a stable wired connection (10/100/1000 Gigabit Ethernet LAN).

3. OPERATING INSTRUCTIONS

3.1 Keyboard and Input

The laptop features a backlit keyboard for enhanced visibility in various lighting conditions.



Figure 3.1: Backlit Keyboard with NitroSense Key

- **Backlight Control:** Use the dedicated function keys (Fn + F9/F10, or similar depending on model) to adjust keyboard backlight brightness.
- **NitroSense Key:** Press the dedicated NitroSense key (often marked with an 'N' logo) to launch the NitroSense utility for system monitoring and control.

3.2 Display Settings

The 17.3-inch Full HD (1920 x 1080) IPS display offers a 144Hz refresh rate and 3ms response time for smooth visuals.

- **Resolution:** The native resolution is 1920 x 1080 pixels. Adjust display settings in Windows for optimal viewing.
- **Refresh Rate:** Ensure the display refresh rate is set to 144Hz in Windows display settings for the best gaming experience.

3.3 Audio Features

Experience enhanced audio with Waves MaxxAudio and Acer True Harmony Technology.



Figure 3.2: MaxxAudio Integration

- **Volume Control:** Adjust volume using the dedicated function keys or through the Windows sound settings.
- **Microphones:** Acer Purified.Voice technology with two built-in microphones provides clear audio input.

3.4 NitroSense Utility

NitroSense is a pre-installed utility that allows you to monitor and control various aspects of your laptop's performance.

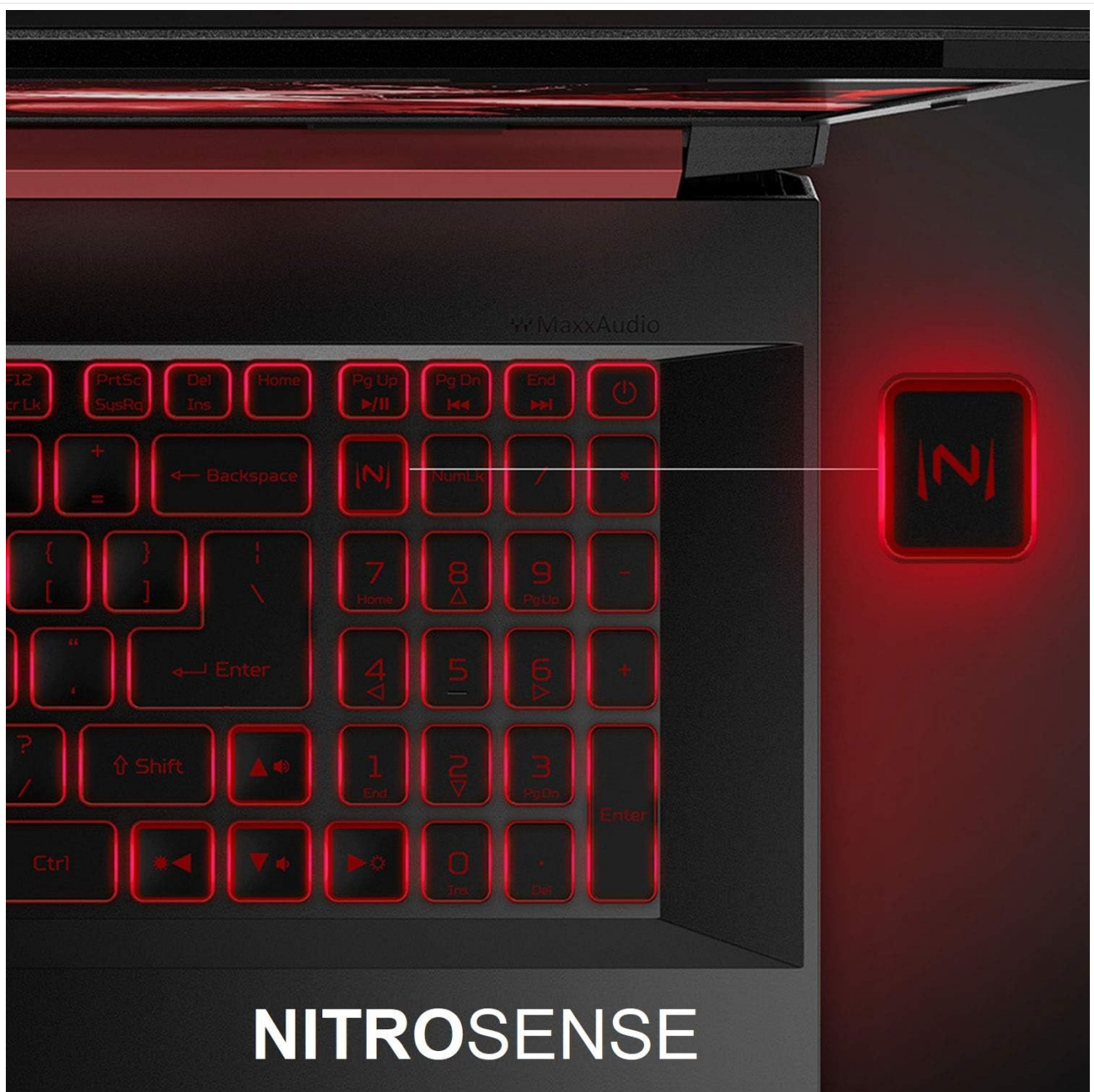


Figure 3.3: NitroSense Interface

- **Fan Control:** Adjust fan speeds (Auto, Max, Custom) to manage cooling performance.
- **System Monitoring:** View real-time CPU and GPU temperatures, load, and power plan settings.

3.5 Cooling System

The Acer Nitro 5 features Acer CoolBoost Technology with twin fans and dual exhaust ports to maintain optimal temperatures during intensive use.



Figure 3.4: Acer CoolBoost Technology Fans

4. MAINTENANCE

4.1 Cleaning

- **Screen:** Use a soft, lint-free cloth slightly dampened with water or a screen cleaner. Do not spray liquid directly onto the screen.
- **Keyboard and Chassis:** Use a soft cloth to wipe surfaces. For dust in crevices, use compressed air. Ensure the laptop is powered off before cleaning.
- **Vents:** Regularly check and clean the cooling vents to prevent dust buildup, which can impede airflow and lead to overheating.

4.2 Battery Care

- Avoid fully discharging the battery frequently.
- Store the laptop in a cool, dry place if not used for extended periods.
- The Lithium Ion battery provides up to 7 hours of battery life under typical usage.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your laptop.

5.1 Power Issues

- **Laptop does not turn on:** Ensure the AC adapter is securely connected to both the laptop and a working power outlet. Check if the battery is charged.
- **Battery not charging:** Verify the AC adapter and power cord are functioning correctly. Try a different outlet.

5.2 Display Issues

- **No image on screen:** Connect an external monitor to check if the issue is with the laptop's display. Ensure the display is not set to an external-only mode (Fn + F5 or similar).
- **Flickering or distorted image:** Update graphics drivers. Check display cable connections if using an external monitor.

5.3 Performance Issues

- **Slow performance:** Close unnecessary applications. Check for malware. Ensure sufficient free space on the SSD. Monitor CPU/GPU usage and temperature using NitroSense.
- **Overheating:** Ensure cooling vents are clear. Use NitroSense to increase fan speeds. Consider using a laptop cooling pad.

6. SPECIFICATIONS

Detailed technical specifications for the Acer Nitro 5 AN517-51-76V6.

Feature	Specification
Model Name	AN517-51-76V6
Processor	9th Gen Intel Core i7-9750H (2.6GHz, up to 4.5GHz)
Graphics Coprocessor	NVIDIA GeForce RTX 2060 with 6GB GDDR6 VRAM
Display	17.3" Full HD (1920 x 1080) IPS 144Hz 3ms
RAM	16GB DDR4 2666MHz
Storage	256GB NVMe SSD (with 1 additional PCIe M.2 slot and 1 HDD bay available)
Wireless Connectivity	Intel Wireless-AC 9560 802.11ac Gigabit WiFi 5 (Dual-Band 2.4GHz and 5GHz), Bluetooth 5.0
LAN	10/100/1000 Gigabit Ethernet (RJ-45)
Ports	1x USB 3.1 Type C Gen 1, 2x USB 3.1 Gen 1 (1 with Power-off Charging), 1x USB 2.0, 1x HDMI 2.0, Audio Jack
Operating System	Windows 10 Home
Battery Life	Up to 7 hours
Weight	5.73 lbs (2.6 kg)
Dimensions (LxWxH)	14.19 x 10.67 x 1.02 inches

7. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the warranty card included with your product or visit the official Acer support website. You can also find additional resources and drivers at www.acer.com/support. An official User Manual (PDF) is available for download at [this link](#).