

HP B3NT0UT#ABA

HP Z8 G5 Workstation User Manual

Model: B3NT0UT#ABA

1. INTRODUCTION AND OVERVIEW

The HP Z8 G5 Workstation is engineered for demanding processor-intensive workloads, offering exceptional performance for AI, machine learning, real-time ray tracing, and 3D visualization & simulation. Its dual-socket design supports up to 64 cores across two Intel Xeon W CPUs, up to two high-end GPUs, and 1 TB DDR5 RAM, providing significant expandability. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your HP Z8 G5 Workstation.



Figure 1: Front view of the HP Z8 G5 Workstation. This image displays the robust black tower design, highlighting the front panel's ventilation and accessible ports.

2. WHAT'S IN THE BOX

Upon unboxing your HP Z8 G5 Workstation, verify that all components are present:

- HP Z8 G5 Workstation Unit
- Standard Keyboard
- Standard Mouse

If any items are missing or damaged, please contact HP support immediately.

3. SETUP GUIDE

Follow these steps for the initial setup of your workstation:

1. **Unpacking:** Carefully remove the workstation and its accessories from the packaging. Retain the packaging for future transport or service.
2. **Placement:** Place the workstation on a stable, flat surface. Ensure adequate ventilation around the unit. The workstation dimensions are approximately 28.25 x 24.75 x 13.25 inches (L x W x H) and it weighs about 77 pounds.
3. **Connect Peripherals:**
 - Connect the keyboard and mouse to the available USB ports.
 - Connect your monitor(s) to the appropriate video output ports (e.g., DisplayPort, HDMI) on the graphics card.
 - Connect any other necessary peripherals such as external drives or audio devices.
4. **Network Connection:** Connect an Ethernet cable to the network port for wired internet access, or configure wireless networking if a Wi-Fi adapter is installed.
5. **Power Connection:** Connect the power cord to the workstation's power input and then to a grounded electrical outlet.



Figure 2: Angled view of the HP Z8 G5 Workstation. This perspective highlights the side panel and the overall robust chassis design, useful for understanding placement and access.

4. OPERATING INSTRUCTIONS

This section covers basic operation of your HP Z8 G5 Workstation.

4.1 Powering On and Off

- **To Power On:** Press the power button located on the front panel of the workstation. The system will initiate the boot process.
- **To Power Off:** It is recommended to shut down the operating system (Windows 11 Pro) gracefully. Go to the Start Menu, select Power, and then choose "Shut down." Avoid direct power-off unless necessary to prevent data loss.
- **Restart:** To restart the system, follow the same steps as powering off, but select "Restart" from the power options.

4.2 System Features and Expansion

The HP Z8 G5 Workstation is designed for high-performance computing and offers significant expansion capabilities:

- **Processor Power:** Equipped with Intel Xeon Silver 4514Y processors, supporting up to 64 cores across two CPUs for intensive multi-threaded workflows.
- **Graphics:** Supports up to two high-end GPUs, such as the NVIDIA RTX A1000 8 GB Graphics, for advanced visualization and AI acceleration.
- **Memory:** Expandable up to 1 TB DDR5 RAM.
- **Storage:** Features Serial ATA/600 and NVMe controllers, with 2 front accessible NVMe bays for quick storage expansion. Supports RAID Levels 0, 1, 5, 10.
- **Expansion Slots:** Includes 7 PCIe slots for additional cards and components, accessible with tool-less design for easy upgrades.



Figure 3: Another angled view of the HP Z8 G5 Workstation. This view provides a comprehensive look at the chassis, aiding in identifying various ports and features.

5. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your HP Z8 G5 Workstation.

- **Cooling and Airflow:** The Z8 G5 is designed with smart fan control and precisely placed vents for efficient heat removal. Ensure that all vents are unobstructed to maintain proper airflow. Avoid placing the workstation in enclosed spaces.
- **Cleaning:**
 - Regularly dust the exterior of the workstation with a soft, dry cloth.
 - Use compressed air to clear dust from vents and fan grilles. *Always power off and unplug the workstation before cleaning.*
- **Software Updates:** Keep your operating system (Windows 11 Pro) and drivers updated to ensure system stability and security.
- **Internal Access:** The workstation features tool-less access for internal components. When performing upgrades or maintenance, refer to the detailed service manual available on the HP support website.

6. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues. For more complex problems, refer to the HP support website or contact technical support.

- **No Power:**
 - Ensure the power cord is securely connected to both the workstation and the electrical outlet.
 - Verify the power outlet is functional by plugging in another device.
- **No Display:**
 - Check that the monitor is powered on and correctly connected to the workstation's video output port.
 - Ensure the correct input source is selected on your monitor.
- **System Slowdown:**
 - Close unnecessary applications.
 - Check for sufficient free storage space.
 - Ensure the system is not overheating; check fan noise and airflow.
- **Peripheral Not Detected:**
 - Try connecting the peripheral to a different port.
 - Restart the workstation.
 - Check the device manager in Windows for driver issues.

7. SPECIFICATIONS

Detailed technical specifications for the HP Z8 G5 Workstation:

Category	Specification
Product Model	HP Z8 G5 Workstation (Model: B3NT0UT#ABA)
Processor Type	Intel Xeon Silver 4514Y
Processor Core	Hexadeca-core (16 Core)

Category	Specification
Number of Processors Supported	2
RAM	64 GB (expandable up to 1 TB DDR5)
Storage	1 TB SSD (Serial ATA/600, NVMe Controller)
RAID Levels Supported	0, 1, 5, 10
Graphics	RTX A1000 8 GB Graphics
Operating System	Windows 11 Pro
Chipset	Intel C741 Chip
Form Factor	Tower
Color	Black
Product Dimensions (L x W x H)	28.25 x 24.75 x 13.25 inches
Item Weight	77 pounds
Manufacturer	Hewlett Packard
Date First Available	January 13, 2025
AI-powered	Yes

8. WARRANTY AND SUPPORT

For warranty information, technical support, and service, please refer to the official HP support website or contact HP customer service. The HP Wolf Pro Security Edition provides preconfigured enterprise-level security features. You can find additional resources and contact information at the official HP support portal www.hp.com/support. Optional protection plans may be available for extended coverage. Please consult your retailer or HP for details on available plans.