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Model: DGX Spark

This manual provides essential instructions for the setup, operation, and maintenance of your NVIDIA DGX Spark system.

INTRODUCTION

The NVIDIA DGX Spark is a compact, high-performance AI system designed for advanced AI model development and deployment. It features a 20-core Arm processor, 128GB LPDDR5x Unified RAM, and a 4TB NVMe M.2 SSD, all powered by the NVIDIA Blackwell Architecture and running NVIDIA DGX OS.

This manual will guide you through the process of setting up your DGX Spark, understanding its operation, performing basic maintenance, and troubleshooting common issues.

1. SETUP

1.1 Unpacking and Inspection

Carefully remove the NVIDIA DGX Spark from its packaging. Inspect the unit for any signs of physical damage. Ensure all components listed in the "What's in the Box" section are present.

- NVIDIA DGX Spark Unit
- Power Adapter



Figure 1.1: Top-down view of the NVIDIA DGX Spark unit.



Figure 1.2: The NVIDIA DGX Spark unit alongside its product packaging.

1.2 Connecting Peripherals

Connect your display, keyboard, and mouse to the appropriate ports on the DGX Spark. The unit features multiple USB 4.0 ports and an HDMI output.

- **Display:** Connect your monitor to the HDMI port.
- **USB Devices:** Connect your keyboard, mouse, and other USB peripherals to the available USB 4.0 ports.
- **Network:** For wired network access, connect an Ethernet cable to the 10GbE LAN port. Wireless connectivity is also available via WiFi 7.



Figure 1.3: Rear panel of the DGX Spark, illustrating the HDMI, 10GbE LAN, and USB 4.0 ports.



Figure 1.4: Side view of the NVIDIA DGX Spark, highlighting its compact form factor.

1.3 Powering On

1. Connect the power adapter to the DGX Spark unit.
2. Plug the power adapter into a wall outlet.

3. Press the power button located on the unit. The system will initiate the boot sequence.

2. OPERATING INSTRUCTIONS

2.1 NVIDIA DGX OS Overview

The NVIDIA DGX Spark comes preinstalled with NVIDIA DGX OS, a specialized operating system optimized for AI workloads. It includes the NVIDIA AI software stack, providing tools and frameworks for developing, fine-tuning, and deploying AI models.

Upon first boot, follow the on-screen instructions to complete the initial setup of the operating system, including user account creation and network configuration.

2.2 AI Development Environment

The preinstalled NVIDIA AI software stack provides access to various AI development tools. Refer to the official NVIDIA documentation for detailed guides on utilizing these tools for your AI projects.

- Accessing NVIDIA AI software stack documentation: [NVIDIA DGX Documentation](#)
- Information on AI model deployment: The DGX Spark supports local, data center, or cloud deployments for models up to 200 billion parameters.



Figure 2.1: Front view of the DGX Spark, featuring the NVIDIA logo.

2.3 Shutting Down the System

To properly shut down the NVIDIA DGX Spark, use the operating system's shutdown procedure. This ensures all data is saved and the system powers off safely.

1. Save all open work.
2. Navigate to the shutdown option within the NVIDIA DGX OS interface.
3. Select "Shut Down" and confirm.

Avoid direct power disconnection without proper shutdown to prevent data loss or system corruption.

3. MAINTENANCE

3.1 Cleaning the Unit

To maintain optimal performance and longevity, keep the DGX Spark clean. Use a soft, dry cloth to wipe the exterior surfaces. For dust accumulation in vents, use compressed air.

- **Do not** use liquid cleaners directly on the unit.
- Ensure the unit is powered off and unplugged before cleaning.

3.2 Software Updates

Regularly check for and install updates for the NVIDIA DGX OS and the NVIDIA AI software stack. These updates often include performance enhancements, security patches, and new features.

Refer to the NVIDIA DGX OS documentation for instructions on how to check for and apply system updates.

4. TROUBLESHOOTING

This section addresses common issues you might encounter with your NVIDIA DGX Spark.

4.1 System Not Powering On

- **Check Power Connection:** Ensure the power adapter is securely connected to both the DGX Spark and a working power outlet.
- **Verify Power Adapter:** Confirm that the power adapter is the one supplied with the unit.

4.2 Display Issues

- **Cable Connection:** Ensure the HDMI cable is securely connected to both the DGX Spark and the monitor.
- **Monitor Input:** Verify that your monitor is set to the correct input source (e.g., HDMI 1).
- **Monitor Functionality:** Test the monitor with another device to confirm it is working correctly.

4.3 Overheating and Unexpected Shutdowns

Some users have reported thermal issues leading to unexpected shutdowns. If your unit experiences this:

- **Ensure Proper Ventilation:** Place the DGX Spark in a location with adequate airflow. Do not block the ventilation openings.
- **Clean Vents:** Regularly clean dust from the unit's vents using compressed air.
- **Environmental Temperature:** Operate the unit within recommended ambient temperature ranges.
- **Contact Support:** If thermal issues persist despite proper ventilation and cleaning, contact NVIDIA support for further assistance.



Figure 4.1: Close-up of the textured side panel, indicating ventilation areas.

4.4 Network Connectivity Problems

- **Wired Connection:** Check the Ethernet cable and router connection.
- **Wireless Connection:** Verify WiFi settings in NVIDIA DGX OS. Ensure the correct network is selected and the password is entered accurately.

- **Bluetooth:** For Bluetooth devices, ensure they are in pairing mode and within range.

5. SPECIFICATIONS

The following table details the key technical specifications of the NVIDIA DGX Spark.

Feature	Specification
Processor	20-core Arm (10 Cortex-X925 + 10 Cortex-A725), 3.8 GHz
RAM	128GB LPDDR5x Unified RAM
Storage	4TB NVMe M.2 SSD
Graphics	NVIDIA Blackwell Architecture (Integrated)
Operating System	NVIDIA DGX OS
Network	10GbE LAN, WiFi 7, Bluetooth 5.3
Ports	4x USB 4.0, HDMI
Dimensions (H x W x D)	1.99" x 5.91" x 5.91" (approx.)
Weight	2.65 lbs (approx. 1.2 kg)
Color	Gold
Max Screen Resolution	3840x2160

6. WARRANTY INFORMATION

The NVIDIA DGX Spark comes with a **1-year limited warranty**. This warranty covers defects in materials and workmanship under normal use.

For detailed terms and conditions of the warranty, please refer to the official NVIDIA warranty documentation or visit the NVIDIA support website.

Optional extended protection plans may be available from third-party providers. For example:

- 3-Year Protection Plan (available for purchase separately)
- Complete Protect (monthly plan, covers multiple eligible purchases)

These additional plans are separate from the manufacturer's limited warranty and are subject to their own terms and conditions.

7. SUPPORT AND CONTACT

For technical assistance, product inquiries, or warranty claims, please contact NVIDIA support through their official channels.

- **NVIDIA Support Website:** <https://www.nvidia.com/support/>
- **NVIDIA DGX Documentation:** <https://docs.nvidia.com/dgx/>

When contacting support, please have your product model number (DGX Spark) and serial number ready. The serial number is typically located on a label on the unit's chassis.

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