SSK SSK Dual Bay NVMe SSD Duplicator & M.2 NVMe/SATA Enclosure Bundle

SSK NVMe SSD Cloner & M.2 Enclosure User Manual

Model: SSK Dual Bay NVMe SSD Duplicator & M.2 NVMe/SATA Enclosure Bundle

1. Introduction

This user manual provides comprehensive instructions for the SSK NVMe SSD Cloner and M.2 Enclosure Bundle. This bundle includes a dual-bay NVMe SSD duplicator for offline cloning and PC connectivity, and a versatile M.2 NVMe/SATA SSD enclosure for external storage. Please read this manual carefully before using the devices to ensure proper operation and maximize performance.

2. Product Overview

2.1 Components Included

- SSK Dual Bay NVMe SSD Cloner/Duplicator
- SSK M.2 NVMe/SATA SSD Enclosure Adapter
- USB-C to USB-C Cable (20Gbps)
- USB-A to USB-C Cable (10Gbps)
- 12V/2A Power Adapter (for Cloner)

2.2 Key Features

- **Dual Bay NVMe SSD Cloner:** Supports offline cloning of NVMe SSDs without a computer.
- **High-Speed Data Transfer:** Up to 20Gbps (USB 3.2 Gen 2x2) for the cloner, and up to 10Gbps (USB 3.2 Gen 2) for the single enclosure.
- **Tool-Free Design:** Easy installation and removal of M.2 SSDs.
- **Wide Compatibility:** The single enclosure supports M.2 NVMe and SATA SSDs (B+M Key, M Key) in sizes 2242, 2260, and 2280. *Note: The dual-bay cloner only supports NVMe SSDs.*
- **Simultaneous Access:** The dual-bay cloner allows simultaneous read and write access to two NVMe SSDs when connected to a PC.

Figure 2.2.1: SSK Dual Bay NVMe SSD Cloner with SSDs.

This image displays the SSK dual-bay NVMe SSD cloner, designed for easy insertion of two M.2 NVMe SSDs for cloning or data access.

Figure 2.2.2: SSK M.2 NVMe/SATA SSD Enclosure Adapter.

This image shows the compact SSK M.2 NVMe/SATA SSD enclosure adapter, along with its USB-C to USB-C and USB-A to USB-C cables, providing versatile connectivity for external storage.

3. Setup Guide

3.1 Dual Bay NVMe SSD Cloner Setup

1. **Power Connection:** Connect the provided 12V/2A power adapter to the DC IN port on the cloner and plug it into a power outlet.
2. **SSD Insertion:**
    - For cloning: Insert the **Source NVMe SSD** into the "Source" slot and the **Target NVMe SSD** into the "Target" slot. Ensure SSDs are fully seated.
    - For PC connection: Insert one or two NVMe SSDs into the desired slots.

    Note: The cloner only supports NVMe M.2 SSDs. SATA M.2 SSDs are not compatible with this device.
3. **PC Connection (Optional):** If using as an external enclosure, connect the cloner to your computer using the provided USB-C to USB-C (20Gbps) or USB-A to USB-C (10Gbps) cable.

Figure 3.1.1: Cloner with power and SSDs.

This image illustrates the SSK dual-bay cloner connected to its power adapter, with two NVMe SSDs inserted, ready for operation.

3.2 M.2 NVMe/SATA SSD Enclosure Setup

1. **Open Enclosure:** Slide open the enclosure cover.
2. **SSD Insertion:** Carefully insert your M.2 NVMe or SATA SSD into the slot, ensuring it is fully seated. Secure it if necessary (tool-free design typically uses a rubber stopper).
3. **Close Enclosure:** Slide the cover back until it clicks into place.
4. **PC Connection:** Connect the enclosure to your computer using either the USB-C to USB-C or USB-A to USB-C cable. No external power is required for this enclosure.

Figure 3.2.1: Single Enclosure as External Storage.

This image demonstrates the SSK M.2 NVMe/SATA SSD enclosure connected to a laptop, functioning as a portable external storage device.

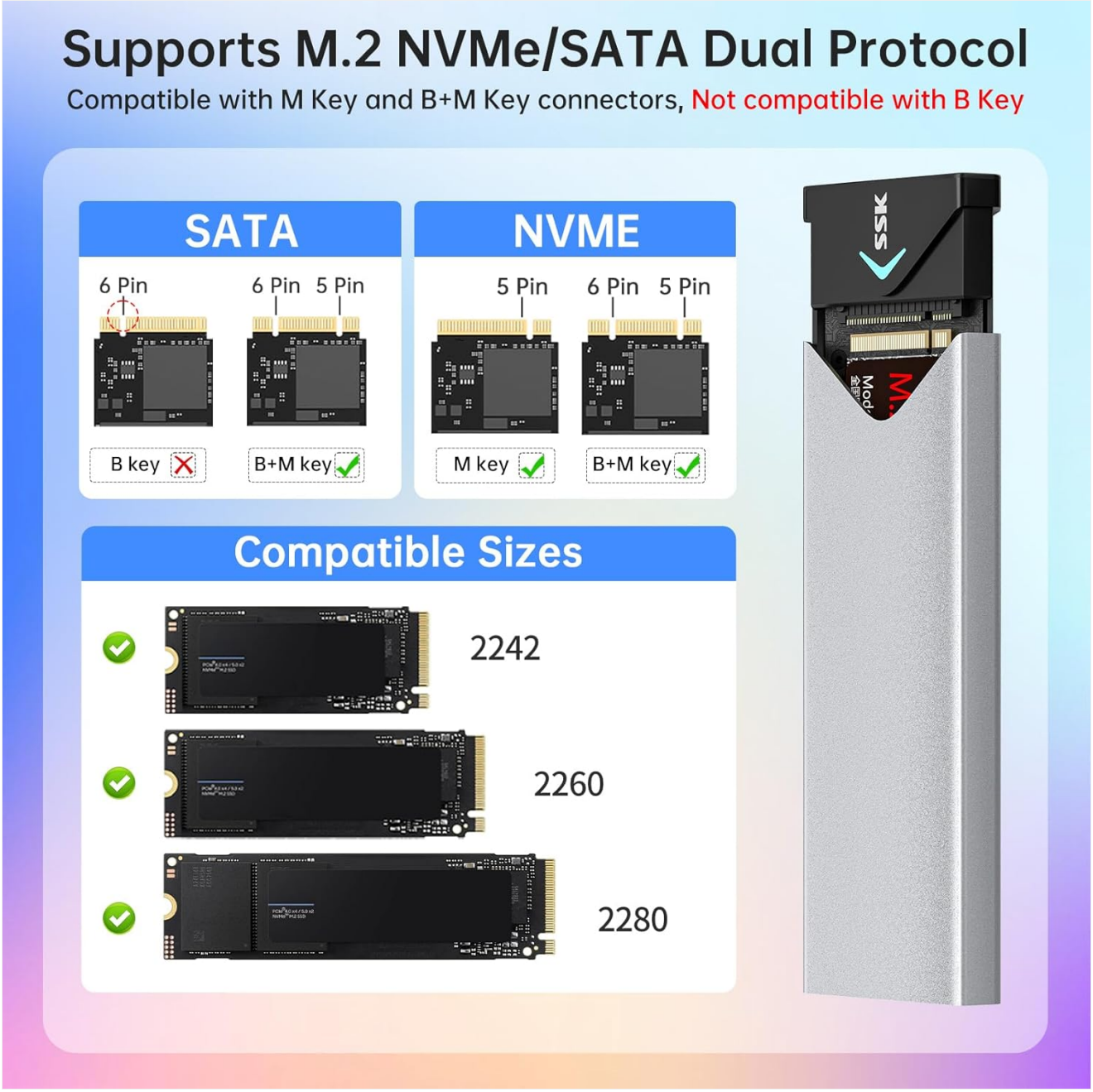

Figure 3.2.2: Single Enclosure Compatibility.

This diagram illustrates the compatibility of the single M.2 enclosure with different M.2 key types (M Key, B+M Key) for both NVMe and SATA protocols, and supported SSD sizes (2242, 2260, 2280).

4. Operating Instructions

4.1 Offline Cloning (Dual Bay Cloner)

Offline cloning allows you to duplicate an SSD without connecting to a computer. Ensure the target SSD has equal or greater capacity than the source SSD.

1. Ensure the cloner is disconnected from any computer.
2. Insert the **Source NVMe SSD** into the "Source" slot and the **Target NVMe SSD** into the "Target" slot.
3. Connect the 12V/2A power adapter to the cloner and plug it into a power outlet.
4. Press and hold the "Clone" button for approximately 3-5 seconds until the progress indicator lights (25%, 50%, 75%, 100%) begin to flash.
5. Release the button. Press the "Clone" button again briefly to confirm and start the cloning process.

6. The progress indicator lights will illuminate sequentially (25%, 50%, 75%, 100%) to show the cloning progress.
7. Once all four lights are solid, the cloning process is complete.
8. Safely remove the SSDs after disconnecting power.

Important: All data on the Target SSD will be erased during the cloning process. Back up any important data on the Target SSD before proceeding.

Figure 4.1.1: Cloner Controls and Slots.

This image provides a top-down view of the SSK dual-bay cloner, highlighting the "Source" and "Target" SSD slots, the clone button, and progress indicators.

4.2 Data Transfer (PC Mode - Dual Bay Cloner)

The dual-bay cloner can also function as a dual NVMe SSD enclosure when connected to a computer.

1. Insert one or two NVMe SSDs into the cloner's slots.
2. Connect the cloner to your computer using the appropriate USB cable (USB-C to USB-C for 20Gbps, USB-A to USB-C for 10Gbps).

3. Ensure the 12V/2A power adapter is connected to the cloner and plugged into a power outlet.
4. The SSD(s) will appear as removable drives on your computer. You can now read from or write to them.

Figure 4.2.1: 20Gbps Speed Performance.

This image displays a benchmark test demonstrating the high-speed data transfer capabilities (up to 1800MB/s read/write) of the SSK cloner when utilizing the 20Gbps USB 3.2 Gen 2x2 port.

4.3 Using the M.2 NVMe/SATA SSD Enclosure

The single M.2 enclosure provides a portable solution for accessing M.2 NVMe or SATA SSDs.

1. Ensure an M.2 SSD is properly installed inside the enclosure (refer to Section 3.2).
2. Connect the enclosure to your computer using either the USB-C to USB-C or USB-A to USB-C cable.
3. The SSD will appear as a removable drive on your computer. You can now use it for external storage, backup, or data transfer.

Figure 4.3.1: 10Gbps Speed Performance.

This image shows a benchmark test illustrating the data transfer speeds (up to 10Gbps) achievable with the SSK single M.2 enclosure when connected via USB 3.2 Gen 2.

5. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the devices. Avoid using liquid cleaners or solvents.
- **Storage:** Store the devices in a cool, dry place away from direct sunlight and extreme temperatures.
- **Handling:** Handle the devices and SSDs with care to prevent physical damage. Avoid dropping or subjecting them to strong impacts.
- **Firmware:** Periodically check the SSK official website for any available firmware updates for optimal performance and compatibility.

6. Troubleshooting

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Cloner not powering on / LEDs not lighting up.	Power adapter not connected or faulty.	Ensure the 12V/2A power adapter is securely connected to the cloner and a working power outlet.
SSD not recognized by computer (Cloner or Enclosure).	◦ SSD not properly seated. ◦ Incorrect SSD type (e.g., SATA in NVMe-only cloner). ◦ Cable connection issue. ◦ SSD unformatted or uninitialized.	◦ Re-insert the SSD firmly. ◦ Verify SSD compatibility with the specific device (Cloner: NVMe only; Single Enclosure: NVMe & SATA). ◦ Try a different USB port or cable. ◦ Check Disk Management (Windows) or Disk Utility (macOS) to initialize/format the SSD if it's new.
Offline cloning fails or stops.	◦ Target SSD capacity is smaller than Source SSD. ◦ SSDs not properly inserted. ◦ Power interruption.	◦ Ensure Target SSD capacity is equal to or greater than Source SSD. ◦ Re-insert both SSDs firmly. ◦ Ensure stable power supply during cloning.
Slow transfer speeds.	◦ Using a lower-speed USB port/cable. ◦ Computer's USB controller limitations.	◦ Ensure you are using a USB 3.2 Gen 2x2 port (20Gbps) for the cloner or USB 3.2 Gen 2 port (10Gbps) for the single enclosure on your computer. ◦ Use the provided high-speed cables. ◦ Some Thunderbolt 3/USB4 ports may default to 10Gbps for non-Thunderbolt devices.

7. Specifications

Feature	Detail
Max Number of Supported Devices (Cloner)	2 (NVMe M.2 SSDs)
Data Transfer Rate (Cloner)	Up to 20 Gigabits Per Second (USB 3.2 Gen 2x2)
Data Transfer Rate (Single Enclosure)	Up to 10 Gigabits Per Second (USB 3.2 Gen 2)
Hardware Interface	USB 3.2 Gen 2x2 (Cloner), USB 3.2 Gen 2 (Single Enclosure)
Brand	SSK

Feature	Detail
Material	Plastic, Metal
Compatible Devices (Cloner)	NVMe M.2 SSDs (2242, 2260, 2280)
Compatible Devices (Single Enclosure)	NVMe M.2 SSDs (M Key, B+M Key) and SATA M.2 SSDs (B+M Key) in sizes 2242, 2260, 2280
Power Supply (Cloner)	12V/2A DC Adapter
Power Supply (Single Enclosure)	USB Bus Powered

8. Warranty and Support

SSK products are designed for reliability and performance. For warranty information, technical support, or any inquiries regarding your SSK NVMe SSD Cloner and M.2 Enclosure Bundle, please visit the official SSK website or contact their customer support directly. Keep your purchase receipt for warranty claims.
Official SSK Store: SSK Store on Amazon

Related Documents - SSK Dual Bay NVMe SSD Duplicator & M.2 NVMe/SATA Enclosure Bundle

	SSK-DK100 Dual Bay HDD Docking Station User Manual User manual for the SSK-DK100 dual bay hard drive docking station, detailing its features, specifications, installation, mobile hard drive mode, and offline cloning capabilities.
	SSK DK108 Dual Bay HDD Docking Station User Manual User manual for the SSK DK108 Dual Bay HDD Docking Station. Learn about its features, how to use it in Mobile Hard Disk and HUB modes, and find solutions to common problems. Supports 2.5/3.5 inch SATA HDDs/SSDs with USB 3.0 connectivity.
	SSK SC211 Type-C All-in-One Adapter Product Manual Comprehensive user manual for the SSK SC211 Type-C All-in-One Adapter, detailing its specifications, interfaces, connection diagrams, and frequently asked questions. This adapter expands connectivity for laptops and other Type-C devices.

	[SSK SD301 Portable Solid State Flash Drive User Manual] Discover the SSK SD301 Portable Solid State Flash Drive, a high-speed external SSD featuring dual USB-A and USB-C interfaces for broad compatibility across computers, tablets, and smartphones. This user manual provides essential information on its features, connection, usage, and storage capacity, ensuring optimal performance and data security.
	[SSK SD300 Portable Solid State Flash Drive User Manual] User manual for the SSK SD300 Portable Solid State Flash Drive, detailing product features, connection instructions, compatibility, and troubleshooting.
	[SSK SC302 Type-C Multifunctional Docking Station User Manual] User manual for the SSK SC302 Type-C Multifunctional Docking Station. This guide provides detailed information on product description, connection diagrams, technical specifications, and frequently asked questions. The adapter supports 4K/60Hz resolution via HDMI and 100W Power Delivery (PD) fast charging, compatible with various systems including Windows, macOS, Android, and Linux.