

Vantec CB-M2SAT-U3

Vantec CB-M2SAT-U3 Multi-Function Storage Adapter User Manual

Model: CB-M2SAT-U3

1. INTRODUCTION

The Vantec CB-M2SAT-U3 Multi-Function Storage Adapter is designed to provide versatile connectivity and data management solutions for various storage devices. This adapter allows you to connect M.2 NVMe, M.2 SATA, 2.5-inch, or 3.5-inch SATA SSDs/HDDs to your computer system via a fast USB 3.2 Gen2x1 USB-C interface. It supports standalone cloning, data recovery, data transfer, and acts as a convenient dock or adapter for your storage needs. This manual provides detailed instructions for setup, operation, and troubleshooting to ensure optimal use of your device.

Connect devices:

> M.2 NVMe

> 2.5" SATA SSD/HDD

> M.2 SATA

> 3.5" SATA SSD/HDD



**Access data on any M.2 NVMe or
M.2 SATA or 2.5"/3.5" SATA devices**

Image 1.1: The Vantec CB-M2SAT-U3 Multi-Function Storage Adapter, a versatile device for connecting and cloning various storage drives.

2. PACKAGE CONTENTS

Please verify that all items are present in your package:

- Vantec Multi-Function Storage Adapter (CB-M2SAT-U3)
- Mount
- AC Adapter
- USB-C to C/A Cable
- Quick Install Guide

3. PRODUCT FEATURES

The Vantec CB-M2SAT-U3 offers a comprehensive set of features for data management:

- **Universal Compatibility:** Access data on M.2 NVMe, M.2 SATA, 2.5-inch, or 3.5-inch SATA devices.

- **M.2 Drive Support:** Compatible with M.2 NVMe/SATA drives of sizes 2242, 2260, 2280, 22110, 2580, and 25110.
- **High-Speed Connectivity:** Utilizes USB 3.2 Gen2x1 (10Gbps) with native USB-C and included USB-C to C/A cable.
- **Tool-Free Design:** No drivers needed; hot-swappable, plug-and-play functionality.
- **Multi-Clone Function:** Supports standalone cloning or software-based cloning for various drive combinations:
 - Clone M.2 NVMe to M.2 SATA
 - Clone M.2 NVMe to 2.5-inch SATA
 - Clone M.2 NVMe to 3.5-inch SATA
 - Clone M.2 SATA to M.2 NVMe
 - Clone 2.5-inch SATA to M.2 NVMe
 - Clone 3.5-inch SATA to M.2 NVMe
- **Multi-Storage Function:** Mount two drives simultaneously with individual drive letters.
- **Data Recovery & Transfer:** Ideal for data recovery, transferring data between drives, and accessing storage like a dock.
- **OS Upgrade Support:** Facilitates upgrading SATA OS drives to M.2 NVMe OS drives.
- **Broad OS Compatibility:** Designed for Windows 10/11, Mac OS X 10.10 or higher, and Linux OS, with UASP, BOT, and TRIM support.

Features:

- Access data on any M.2 NVMe or M.2 SATA or 2.5"/3.5" SATA devices
- Compatible with all M.2 NVMe/SATA of size 2242, 2260, 2280, 22110, **Plus New 2580 & 25110**
- Clone your drives in multiple combinations
- Use as a Data recovery tool to access drives
- Transfer data between drives
- Access your storage like a dock or an adapter
- Use as a USB backup device when connected to your storage
- Upgrade SATA OS drive to M.2 NVMe OS drive
- Uses USB 3.2 Gen2x1 (10Gbps), native USB C, USB C to C/A cable
- Tool-free, no driver needed. Hot-swappable, plug & ready
- Compatible with All OS with USB support, UASP, BOT, TRIM
- Multi-Connection Function
 - > Connect to different types of storage devices like M.2 NVMe, M.2 SATA, 2.5" SATA, 3.5" SATA
- Multi-Clone Function (standalone OR via software clone)
 - > Clone M.2 NVMe to M.2 SATA
 - > Clone M.2 NVMe to 2.5" SATA
 - > Clone M.2 NVMe to 3.5" SATA
 - > Clone M.2 SATA to M.2 NVMe
 - > Clone 2.5" SATA to M.2 NVMe
 - > Clone 3.5" SATA to M.2 NVMe
- Multi-Storage Function to mount two drives at the same time
 - > Mount M.2 NVMe and/or M.2 SATA individually drive letter
 - > Mount M.2 NVMe and/or 2.5" SATA individually drive letter
 - > Mount M.2 NVMe and/or 3.5" SATA individually drive letter
- Design for Windows 10/11, Mac OS X 10.10 or higher, and Linux OS



Image 3.1: Visual representation of the Vantec adapter's key features, including multi-drive support and cloning capabilities.

4. SETUP GUIDE

Follow these steps to set up your Vantec Multi-Function Storage Adapter:

4.1 Connecting Storage Devices

1. **Power Connection:** Connect the included AC adapter to the "DC 12V" power input connector on the adapter and then to a power outlet.
2. **USB Connection:** Connect the USB-C to C/A cable from the adapter's USB-C Upstream Port to an available USB port on your computer.
3. **Insert M.2 NVMe SSD:** Carefully insert your M.2 NVMe SSD into the M.2 NVMe slot (typically labeled on the right side). Secure it with the provided rubber stop.
4. **Insert M.2 SATA SSD:** Carefully insert your M.2 SATA SSD into the M.2 SATA slot (typically labeled on the left side). Secure it with the provided rubber stop.
5. **Insert 2.5"/3.5" SATA SSD/HDD:** For 2.5-inch or 3.5-inch SATA drives, align the drive with the central SATA

III/II/I connector and gently push it down until it connects securely.

Uses USB 3.2 Gen2x1, native USB C, USB C to C/A cable

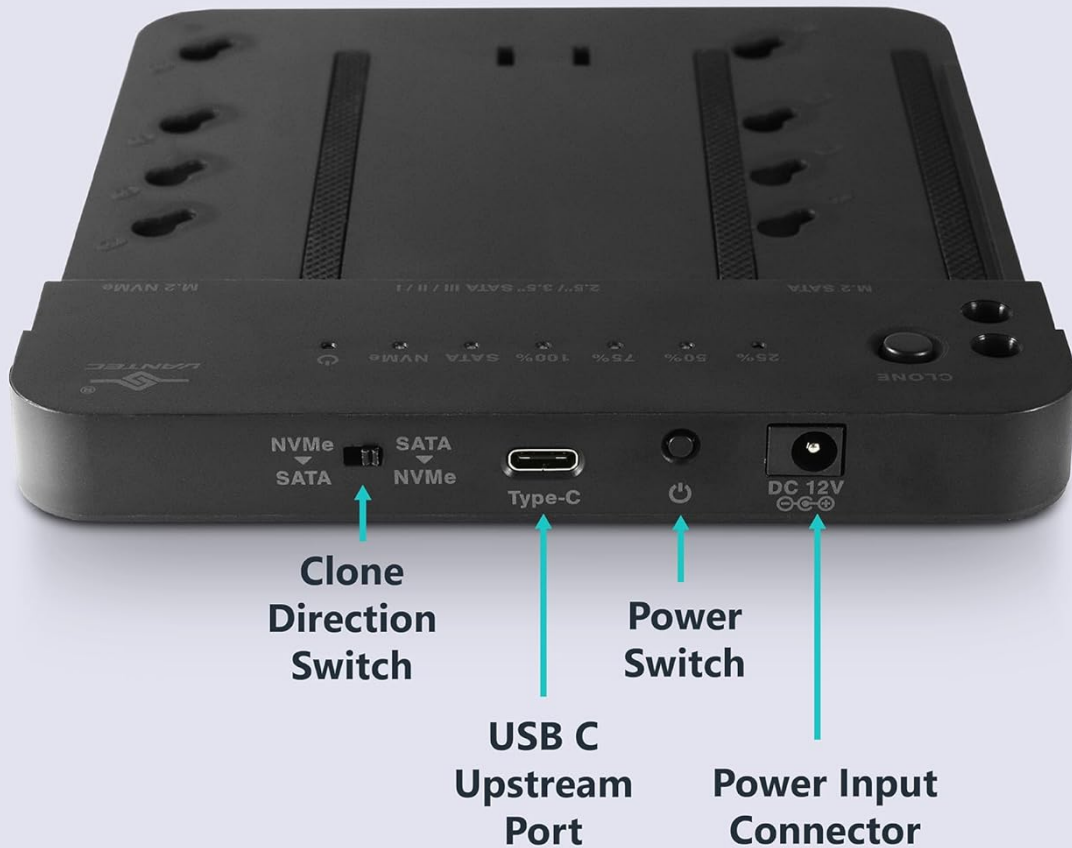


Image 4.1: Rear view of the adapter showing the USB-C upstream port, power switch, and DC 12V power input connector.



**Compatible with all
M.2 NVMe/SATA of sizes
2242, 2260, 2280, 22110, new 2580 & 25110**

Image 4.2: The adapter demonstrating compatibility with various M.2 NVMe/SATA sizes, 2.5-inch SATA SSDs, and 3.5-inch SATA HDDs.

4.2 Powering On

Once all desired drives are connected, press the Power Switch to turn on the adapter. The LED indicators will illuminate, signifying power and drive activity.

5. OPERATING INSTRUCTIONS

5.1 Data Access and Transfer

When connected to your computer, the adapter will mount the inserted drives as individual drive letters. You can then access, manage, and transfer data between these drives using your operating system's file explorer.

5.2 Standalone Cloning Function

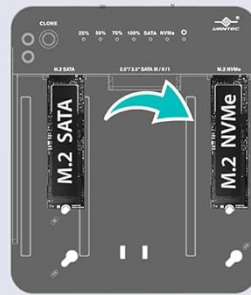
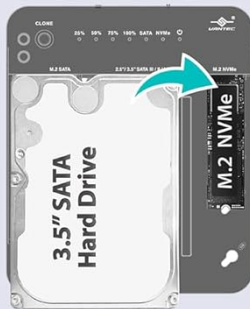
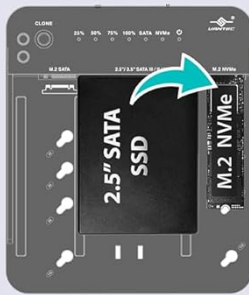
The adapter supports standalone cloning, meaning it can clone drives without being connected to a computer. This is ideal for upgrading drives or creating backups.

1. **Prepare Drives:** Ensure both the source drive (containing data to be copied) and the target drive (where data will be copied) are properly inserted into their respective slots. The target drive must be equal to or larger in capacity than the source drive.
2. **Set Clone Direction:** Use the "Clone Direction Switch" to select the desired cloning path. For example, to clone from M.2 SATA to M.2 NVMe, ensure the switch is set accordingly. Refer to the diagram below for specific combinations.
3. **Initiate Clone:** Press and hold the "Clone" button for approximately 3-5 seconds until the cloning progress LEDs (25%, 50%, 75%, 100%) begin to flash.
4. **Monitor Progress:** The LEDs will indicate the cloning progress. Once the 100% LED is solid, the cloning process is complete.
5. **Power Off:** Safely power off the adapter and remove the drives.

Important: Ensure the clone direction is correctly set to prevent accidental data loss on your source drive. All data on the target drive will be overwritten during the cloning process.

CLONE SWITCH Setting

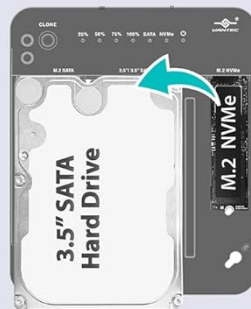
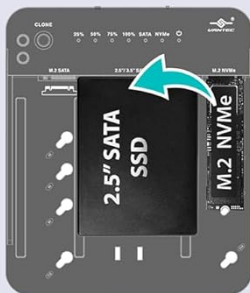
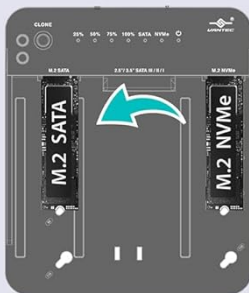
for 2.5" SATA or 3.5" SATA or M.2 SATA TO >>> M.2 NVMe



CLONE SWITCH:

Clone from M.2 SATA to M.2 NVMe
 Clone from 2.5" SATA to M.2 NVMe
 Clone from 3.5" SATA to M.2 NVMe

for M.2 NVMe TO >>> 2.5" SATA or 3.5" SATA or M.2 SATA



CLONE SWITCH:

Clone from M.2 NVMe to M.2 SATA
 Clone from M.2 NVMe to 2.5" SATA
 Clone from M.2 NVMe to 3.5" SATA

Clone your drives in multiple combinations

Image 5.1: Detailed diagram illustrating the correct clone switch settings for various source and target drive combinations.

6. SPECIFICATIONS

Hardware Interface	USB 3.2 Gen 2
Brand	Vantec
Color	Black
Product Dimensions (L x W x H)	6.5" x 5.5" x 0.6" (164mm x 140mm x 16mm)
Hardware Platform	Linux PC, Mac OS X, Windows PC
Memory Storage Capacity	Up to 32 TB
Compatible Devices	M.2 NVMe, M.2 SATA, 2.5" SATA SSD/HDD, 3.5" SATA SSD/HDD
Hard Disk Form Factor	2.5 Inches (for SATA drives)
Supported Devices Quantity	2 (simultaneously)
Data Transfer Rate	10 Gigabits Per Second
Enclosure Material	Metal, Plastic
Item Weight	6.9 Ounces
Manufacturer	Vantec Thermal Technologies
UPC	844767023724

Tool-free, no driver needed. Hot-swappable, plug & ready



Image 6.1: The adapter with its physical dimensions indicated in millimeters.

7. TROUBLESHOOTING

If you encounter issues with your Vantec Multi-Function Storage Adapter, please refer to the following common solutions:

- **Device Not Detected:**
 - Ensure the power adapter is securely connected and the power switch is ON.
 - Verify the USB cable is firmly connected to both the adapter and your computer. Try a different USB port or cable.
 - Check if the storage drive is properly seated in its slot.
 - For new drives, they may need to be initialized and formatted in your operating system's Disk Management (Windows) or Disk Utility (Mac) before they appear.
- **Cloning Failure:**
 - Confirm the target drive's capacity is equal to or larger than the source drive's capacity.

- Ensure the "Clone Direction Switch" is set correctly for your desired cloning path.
- Verify both source and target drives are securely connected and detected by the adapter (indicated by LEDs).
- Disconnect the adapter from the computer during standalone cloning.
- **Slow Transfer Speeds:**
 - Ensure you are connected to a USB 3.2 Gen2x1 (10Gbps) compatible port on your computer. Older USB ports will result in slower speeds.
 - The performance of the drives themselves can affect transfer speeds.
- **Intermittent Connection:**
 - Check all cable connections for looseness.
 - Ensure the power adapter is providing stable power.
 - Try connecting the adapter to a different USB port on your computer.

8. WARRANTY AND SUPPORT

The Vantec CB-M2SAT-U3 Multi-Function Storage Adapter comes with a **1-year parts and labor warranty** from the date of purchase. This warranty covers manufacturing defects and ensures your product functions as intended under normal use.

For technical support, warranty claims, or further assistance, please visit the official Vantec website or contact their customer service department. Please have your product model number (CB-M2SAT-U3) and proof of purchase ready when contacting support.