

ICY BOX IB-1816M-C31

ICY BOX M.2 NVMe Enclosure User Manual

Model: IB-1816M-C31

1. INTRODUCTION

The ICY BOX M.2 NVMe Enclosure (Model IB-1816M-C31) allows you to install an M.2 NVMe SSD and connect it to your PC, laptop, or MacBook via USB-C or Thunderbolt 3. This enclosure supports M.2 NVMe (PCIe) memory modules with an M-Key socket in form factors 2230, 2242, 2260, or 2280. It provides high-speed data transfer rates of up to 10 Gbit/s via its USB 3.1 Gen 2 interface.

2. SAFETY INFORMATION

- Do not expose the device to moisture or extreme temperatures.
- Avoid dropping or subjecting the device to strong impacts.
- Do not attempt to disassemble or repair the device yourself. Refer to qualified personnel for service.
- Ensure proper ventilation to prevent overheating, especially during prolonged use. The aluminum casing is designed for heat dissipation.
- Always handle the SSD and enclosure with care to avoid static discharge.

3. PACKAGE CONTENTS

Please check the package for the following items:

- 1 x ICY BOX IB-1816M-C31 M.2 NVMe Enclosure
- 1 x USB 3.1 Type-C to Type-C cable (50 cm length)
- 1 x USB 3.1 Type-C to Type-A cable
- 1 x Screwdriver

- 1 x Screw set (for SSD and enclosure assembly)
- 2 x Adhesive covers (optional, for front and rear sides)
- 1 x Quick Start Guide

4. SETUP AND INSTALLATION

Follow these steps to install your M.2 NVMe SSD into the enclosure:

1. **Prepare the Enclosure:** The enclosure is closed with two screws on the front side (the side with the USB port). Use the provided screwdriver to remove these two screws.
2. **Remove the Internal Board:** Carefully slide out the internal circuit board from the aluminum casing.
3. **Install the M.2 NVMe SSD:**
 - Locate the M-Key socket on the internal board.
 - Gently insert your M.2 NVMe SSD into the M-Key socket at an angle. Ensure the SSD's notch aligns with the key in the socket.
 - Once fully seated, gently press down the other end of the SSD until it is flat against the board.
 - Secure the SSD using the provided screw from the screw set. There will be a small standoff and screw to fix the SSD in place according to its length (2230, 2242, 2260, or 2280).
4. **Reassemble the Enclosure:**
 - Carefully slide the internal board with the installed SSD back into the aluminum casing. Ensure it slides smoothly into the grooves.
 - Align the front side cover with the USB port and screw holes.
 - Reinsert and tighten the two screws to secure the front cover.
5. **Apply Adhesive Covers (Optional):** If desired, you can glue the two self-adhesive covers to the front and rear sides of the enclosure for a finished look.

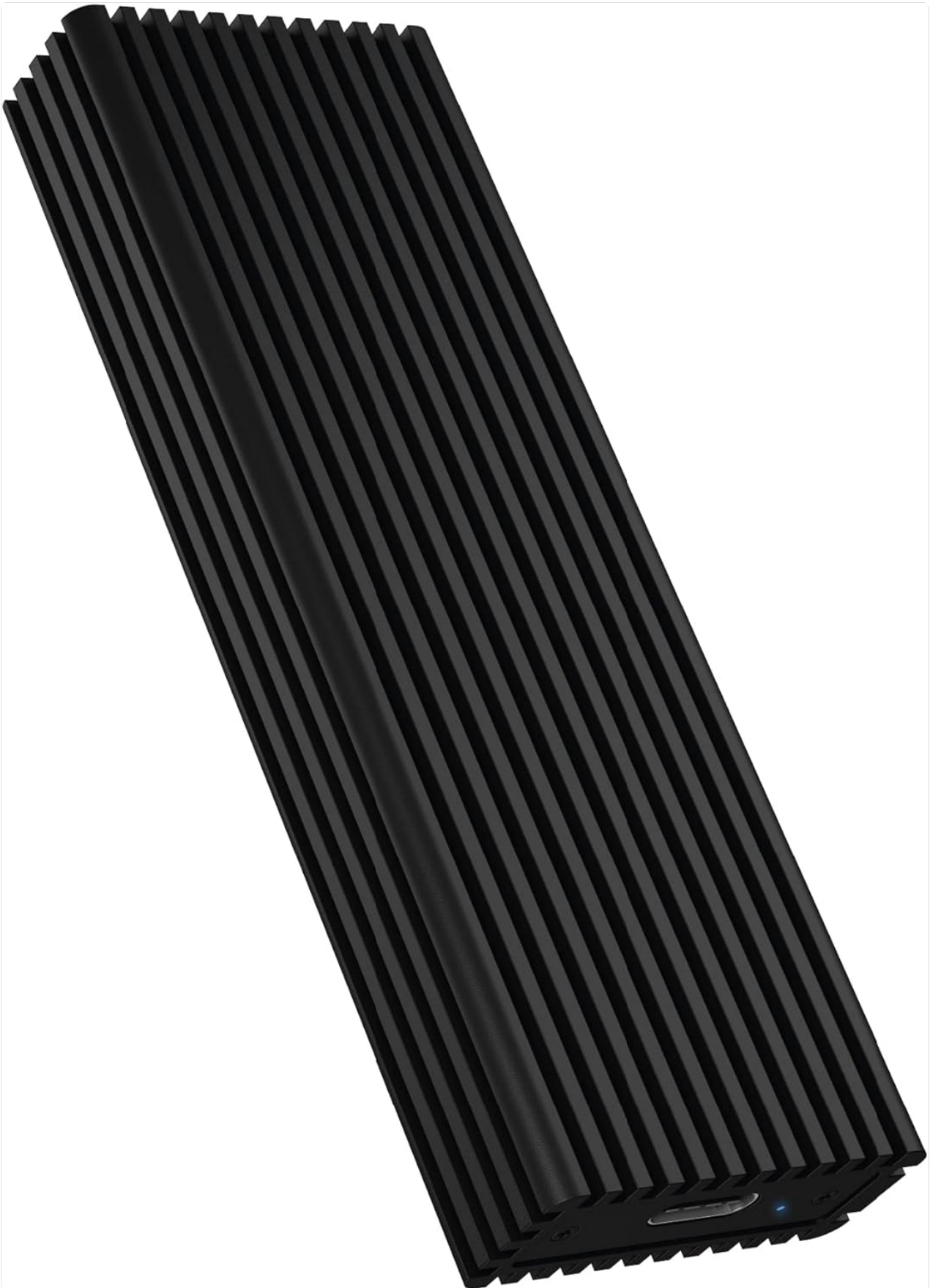


Figure 1: The ICY BOX M.2 NVMe Enclosure, showcasing its black aluminum casing with prominent cooling fins designed for efficient heat dissipation. The USB-C port and status LED are visible on one end.

5. OPERATING INSTRUCTIONS

1. **Connect to Host Device:** Use one of the provided USB cables (USB-C to USB-C or USB-C to USB-A) to connect the enclosure to an available USB 3.1 Gen 2 (or higher) port on your computer or compatible device. The enclosure is also compatible with Thunderbolt 3 ports.
2. **Power Supply:** Power is supplied directly via the USB port. No external power adapter is required.
3. **Status LED:** A blue status LED on the enclosure indicates operation and data access. It will illuminate when connected and blink during data transfer.
4. **Disk Recognition:** Your operating system (Windows, macOS) should automatically detect the new storage device. If it's a new SSD, you may need to initialize and format it through Disk Management (Windows) or Disk Utility (macOS) before use.
5. **Safe Removal:** Always safely eject or unmount the drive from your operating system before disconnecting the cable to prevent data corruption.

6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the enclosure. Do not use liquid cleaners or abrasive materials.
- **Storage:** When not in use, store the enclosure in a cool, dry place away from direct sunlight and extreme temperatures.
- **Firmware:** Periodically check the ICY BOX official website for any firmware updates for the enclosure, though typically not required for this type of device.

7. TROUBLESHOOTING

- **Device Not Detected:**
 - Ensure the USB cable is securely connected to both the enclosure and the host device.
 - Try a different USB port on your computer.
 - Test with a different USB cable.
 - Verify that the M.2 NVMe SSD is correctly installed and seated firmly in the enclosure's socket.
 - Check if the SSD is properly initialized and formatted in Disk Management (Windows) or Disk Utility (macOS).
- **Slow Transfer Speeds:**
 - Ensure you are connected to a USB 3.1 Gen 2 (10 Gbit/s) compatible port on your computer. Older USB 2.0 or 3.0 ports will result in lower speeds.
 - Verify that your M.2 NVMe SSD itself supports high transfer speeds.
 - Close other applications that might be using significant system resources.
- **Enclosure Gets Warm:**
 - It is normal for the aluminum enclosure to become warm during operation, especially during heavy data transfer. This is due to its design as a heatsink to dissipate heat from the SSD.
 - Ensure adequate airflow around the enclosure.

- **SSD Compatibility Issues:**

- This enclosure is designed exclusively for M.2 NVMe (PCIe) SSDs with an M-Key socket. It is not compatible with M.2 SATA (AHCI) SSDs (which typically have a B-Key or B+M-Key).
- Verify your SSD type before installation.

8. SPECIFICATIONS

Model	IB-1816M-C31
Material	Aluminum
Interface	USB 3.1 Gen 2 (10 Gbit/s)
Connector	USB Type-C
SSD Compatibility	M.2 NVMe (PCIe) SSDs with M-Key
SSD Form Factors	2230, 2242, 2260, 2280
Dimensions (LxWxH)	4.13 x 1.42 x 0.59 inches (10.49 x 3.61 x 1.50 cm)
Weight	2.82 ounces (0.08 kg)
Power Source	USB Bus-powered
Operating System Support	Windows, macOS
Features	UASP, Plug & Play, HotSwap

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official ICY BOX website or contact your local distributor. Keep your purchase receipt as proof of purchase for warranty claims.

Manufacturer: RaidSonic Technology GmbH