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- › [SMALLRIG](#) /
- › [SmallRig V Mount Battery VB212 Instruction Manual](#)

## SMALLRIG VB212

# SmallRig V Mount Battery VB212 Instruction Manual

Model: VB212 | Brand: SMALLRIG

## 1. INTRODUCTION

The SmallRig VB212 V Mount Battery is a high-capacity power solution designed for professional video and photography equipment. Featuring a 212Wh / 14400mAh capacity, it offers versatile power output options including dual 140W bi-directional USB-C ports, D-TAP, USB-A, and DC ports. Its smart digital display provides real-time monitoring of power status, ensuring reliable performance for cameras, camcorders, video lights, monitors, and other devices.

# Lightning-Fast PD3.1 Charging

USB-C ports support PD3.1 fast charging standard providing exceptional performance with a maximum in / output of 140W



Figure 1: Front view of the SmallRig VB212 V Mount Battery.

## 2. SETUP

### 2.1 Unboxing

Upon opening the package, you will find the SmallRig VB212 V Mount Battery and a 240W USB-C charging cable. Please inspect all components for any signs of damage.

Video 1: Unboxing and initial overview of the SmallRig VB212 V Mount Battery, demonstrating its compact size and included accessories.

### 2.2 Physical Overview

The VB212 features a robust aluminum alloy body with silicone coating for durability. Key interfaces are located on the top and sides, protected by a cover buckle. The front panel includes a smart digital display.

# Multiple Interfaces, Multiple Choices

Adopts a parallel circuit, fast charging no slowing down. The output power will not be reduced when charging multiple devices at the same time (total no over 212W).

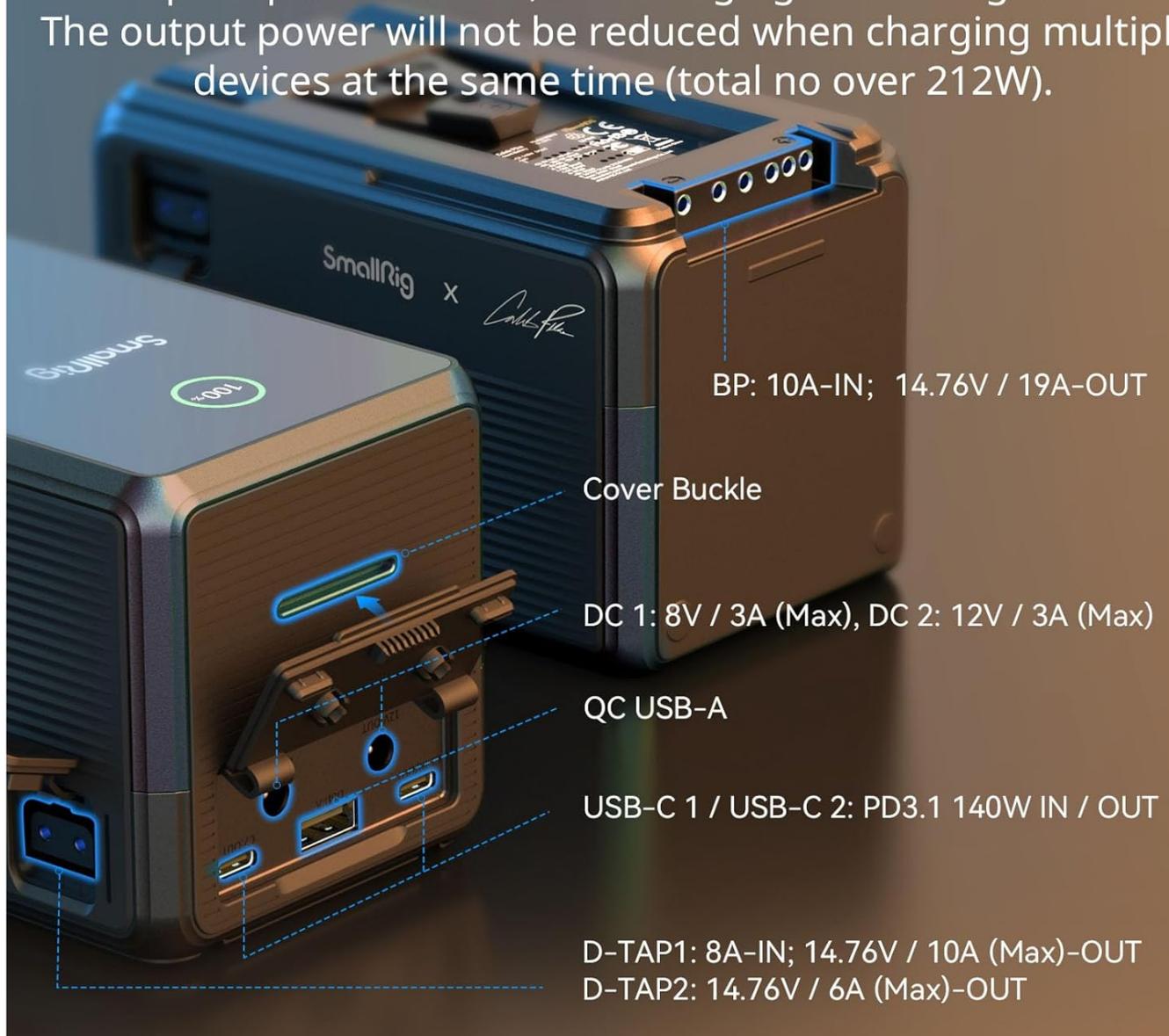


Figure 2: Detailed view of the multiple input/output interfaces on the SmallRig VB212, including USB-C, D-TAP, USB-A, DC 8V, DC 12V, and BP ports.

## 2.3 Initial Charging

Before first use, fully charge the battery. Connect a PD protocol charger to the USB-C1 port for optimal charging. The battery can be fully replenished in approximately 2 hours with a 140W charger (not included).

## Lightning-Fast PD3.1 Charging

USB-C ports support PD3.1 fast charging standard providing exceptional performance with a maximum in / output of 140W

### 3. OPERATING INSTRUCTIONS

#### 3.1 Connecting Devices

The VB212 offers various ports for powering different devices:

- **USB-C Ports (C1/C2):** Deliver up to 140W bi-directional power. Ideal for laptops, cameras, and fast charging the battery itself.
- **D-TAP Ports (DT1/DT2):** Provide 14.76V output, with DT1 supporting up to 10A and DT2 up to 6A. Suitable for video lights, monitors, and other camera accessories.
- **USB-A Port:** For charging smartphones, tablets, and other USB-powered devices.
- **DC Ports (8V/12V):** For specific devices requiring 8V or 12V DC power.
- **BP Port:** Standard V-mount connection for camera rigs and V-mount plates.

#### Low-Current Mode

Activate low-current mode with a 4 times clicks of the button and exit with 4 times clicks to ensure optimized charging for low-power devices like earphones, Bluetooth speakers, partial low-voltage monitor, and other accessories.

 **Please note** The low-current mode is only applicable to USB-A, D-TAP1 and D-TAP2 ports of the battery.

Figure 4: The SmallRig VB212 V Mount Battery connected to and powering multiple devices, demonstrating its parallel circuit capability.

#### 3.2 Low-Current Mode

To safely charge low-power devices such as earphones, Bluetooth speakers, or certain low-voltage monitors, activate Low-Current Mode by pressing the power button 4 times. The USB-A and D-TAP 1 & 2 ports on the battery screen will turn green. To exit this mode, press the power button 4 times again to prevent battery drain.

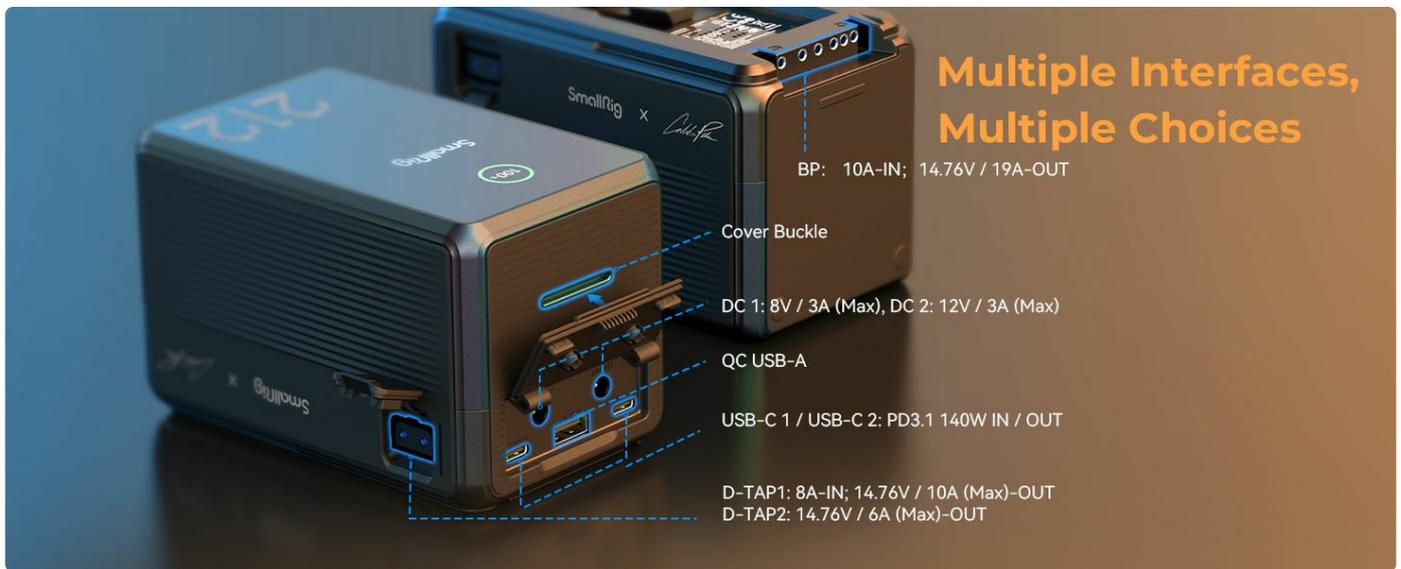


Figure 5: The SmallRig VB212 V Mount Battery in Low-Current Mode, charging small electronic devices like earbuds.

### 3.3 Real-Time Power Monitoring

The bright smart digital display provides instant visibility into:

- Port status (input/output)
- Voltage and power output for each port
- Remaining battery life (percentage and estimated time)

Press the check button once to activate the display. Double-press the button to toggle between wattage and voltage display for active ports. To put the display to sleep, press the button once.

# TFT Color Display

Get precise power readings for each port and total output. Stay in control with real-time monitoring of battery life and power output. Experience advanced functionality effortlessly.

## Battery Life

It tells you exactly how many minutes you have remaining on your battery

## Battery Level

## 8V-Out Port

## USB-C1 Port

## USB-C2 Port

## USB-A Port

## Total Distribution of Power

## 12V-Out Port

## D-TAP1 Port

## D-TAP2 Port

## Battery Voltage

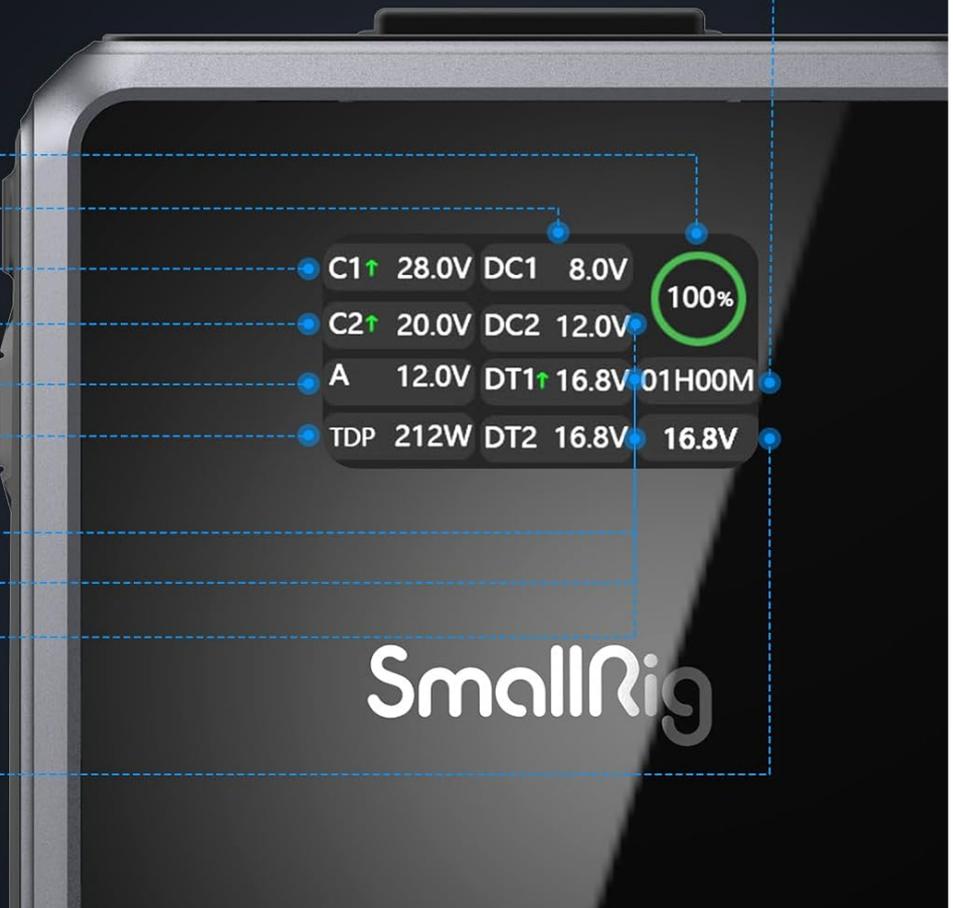


Figure 6: Close-up of the TFT color display on the SmallRig VB212, showing detailed information about battery life, port status, and power distribution.

## 4. MAINTENANCE

### 4.1 General Care

The VB212 is constructed with an aluminum alloy body, silicone coating, TPU, and PC V0 materials, making it drop-resistant, heat-resistant, and fire-retardant. The scratch-resistant PC and acrylic cover protect the digital display. Keep the cover buckle closed when ports are not in use to protect them from dust and debris.



Figure 7: Exploded view illustrating the robust construction of the SmallRig VB212, including its aluminum frame, silicone coating, and fire-retardant backplate.

## 4.2 Battery Safety

The battery is equipped with an Intelligent Battery Management System (BMS) that protects against short circuits, over-temperature, over-voltage, over-current, over-charge, and over-discharge. It is certified by FCC, MSDS, UN38.3, IEC 62133, UL2054, and UL62368.



Figure 8: Diagram illustrating the Intelligent BMS (Battery Management System) within the SmallRig VB212, highlighting its various protection features.

## 5. TROUBLESHOOTING

### 5.1 Power Leakage / Self-Discharge

If the battery experiences significant power loss when not in use, ensure that Low-Current Mode is properly exited. If the issue persists, try resetting the battery by repeatedly pressing the power button (more than 10 times quickly) or holding it for approximately 20 seconds. If the problem continues, contact customer support.

### 5.2 Slow Charging

For optimal charging speed, use a PD protocol charger and connect it to the USB-C1 port. Ensure the charger provides sufficient wattage (e.g., 140W) to achieve the advertised 2-hour full charge time. When charging via D-TAP, ensure voltage does not exceed 16.8V and current stays below 8A to protect the battery.

## 6. SPECIFICATIONS

Feature	Detail

Model	VB212
Capacity	212Wh / 14400mAh (14.76V)
Rated Power Output	212W
Input (USB-C1 / USB-C2)	140W (Max)
Output (USB-C1 / USB-C2)	5V/3A, 9V/3A, 12V/3A, 15V/3A, 20V/5A, 28V/5A (Max)
Output (USB-A)	5V/3A, 9V/3A, 12V/2.5A (Max)
Output (D-TAP1)	14.76V/10A (Max)
Output (D-TAP2)	14.76V/6A (Max)
Output (8V-OUT)	8V/3A (Max)
Output (12V-OUT)	12V/3A (Max)
Output (BP)	14.76V/19A (Max)
Charging Time	2 Hours (with 140W PD fast charger)
Product Dimensions	3.12 x 5.2 x 3.12 inches (132 x 83 x 80 mm)
Item Weight	2.97 pounds (1345g)

# Product List and Specifications

SmallRig x Caleb Pike

## VB212 mini V Mount Battery

ID 4293

VB212 mini V Mount Battery × 1

240W USB-C Charging Cable × 1



Product Dimensions: 132.0 × 83.0 × 80.0mm / 5.2 × 3.3 × 3.1in

Product Weight (Including Charging Cable): 1345.0 ± 10.0g / 47.4 ± 0.4oz

Package Dimensions: 166.0 × 130.5 × 99.0mm / 6.5 × 5.1 × 3.9in

Package Weight: 1630.0 ± 10.0g / 57.5 ± 0.4oz

Figure 9: Visual representation of the product list and key specifications for the SmallRig VB212 V Mount Battery.

## 7. WARRANTY AND SUPPORT

The SmallRig V Mount Battery VB212 is backed by a 24-month worry-free warranty. SmallRig's policy is to replace, not repair, ensuring you receive a functional product quickly. For any support inquiries or warranty claims, please refer to the official SmallRig website or contact their customer service directly.

## In the Box

V Mount Battery VB212 × 1  
240W USB-C Charging Cable × 1



## Product Parameters

Model	Material	Capacity	Rated Power
VB212	Aluminum Alloy, Silicone, TPU, PC V0	14.76V 14.4Ah 212.544Wh	Output: 212W Input: 140W

### Product Dimensions

132.0 × 83.0 × 80.0mm / 5.2 × 3.3 × 3.1in

### Product Weight

1345.0 ± 10.0g / 47.4 ± 0.4oz

### Charging Time

2 Hours

(Only when used with PD fast charging GaN charger and cable of 140W or above)

Figure 10: Image highlighting the 2-Year Service and warranty provided for the SmallRig VB212 V Mount Battery.