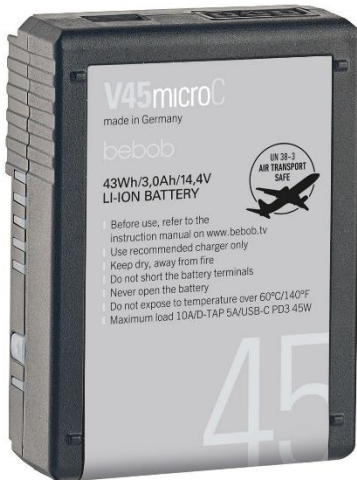




V45microC – Rechargeable Li-Ion Battery User Manual

**WE STRONGLY RECOMMEND READING THIS
MANUAL BEFORE USING YOUR BATTERY!**

**PLEASE KEEP THIS MANUAL FOR FUTURE
REFERENCE.**

Features

- **High performance** and robust micro V-Mount battery – compact and lightweight
- **USB-C PD3 support** (output and input – no propriety charger required)
- **Auto Communication setup** (Arri, Sony, BMD, Red, Fuji among others) with advanced communication via SM-Bus with 5-Step LED Display (easy indication of state of charge and state of health)
- **Special functions:** flashlight, optimized storage
- **Safety certified** (Product Safety, Transport Safety, EMC and more)
- **Serviceable** and **sustainable** with cell pack replacement

Safety Instructions

- For professional use only!
- Keep batteries out of reach of children and untrained personnel.
- Use only with recommended chargers.
- Keep the battery dry and do not immerse in water.
- Never open the battery casing.
- Do not expose to temperatures over 60°C.
- Do not expose the battery to fire – risk of explosion!
- Do not exceed the maximum discharge current (see Specifications).
- Do not exceed the maximum discharge voltage (see Specifications).
- Do not place the battery on a device when the red charging LED flashes.
- Handle with care – do not throw or drop!

Charging

- Never charge unattended.
- Keep flammable materials away from the charging area and avoid high external thermal loads.
- Wait 30 minutes after discharge before charging.
- Charging possible via USB-C (PD3, max 40W) or D-Tap with a bebob charger (or equivalent using the CC-CV method).
- Do not exceed maximum voltage (see Specifications).
- Approximate charging time may vary depending on the charger and ambient temperature.
- Charge the battery only within the specified temperature range. For optimum performance, bebob batteries should be charged at ambient temperatures between 10°C and 30°C.
- bebob batteries can be recharged from any state of charge.
- The flashing LED fuel gauge indicates the state of charge during the charging process.

Discharging

- The maximum discharge current must not be exceeded (see Specifications).
- When using the battery with video or lighting equipment, the power consumption of the equipment must remain within the specified limits. To protect the battery, any load equal to or above the maximum discharge current may trigger the internal protection circuit and interrupt power supply. In this case, the fuse will automatically reset after a few minutes.
- Keep flammable material away from the discharging area and avoid high external heat exposure.
- The end-of-discharge voltage must not fall below the specified minimum (see Specifications).
- The battery can be used within the specified operating temperature range: - 20°C - + 60°C.

Storage

- The battery must be stored within the specified ranges for temperature, relative humidity, and state of charge (see Specifications)
- Storage temperature range: - 20°C ~ + 40°C (<80% humidity).
- For long-term storage (longer than 4 weeks), the battery should be charged to between 50% and 75% of capacity. The battery should be recharged every 4 weeks.
- Some self-discharge will occur during storage. Before reuse, it is recommended to fully recharge the battery.

Disposal

- Dispose of the battery in designated collection containers for used device batteries. Only fully discharged batteries may be disposed of this way. In case the battery is not fully discharged, ensure protection against short circuits.

Camera Data Auto Communication

- Blue LEDs: Arri/Sony/Blackmagic Data Protocol
- Red LEDs: Red Data Protocol



Status LEDs

- Green: Capacity > 70% of original
- Yellow: Capacity 50% - 70% of original
- Red: Capacity < 50% of original



Flashlight

- Press the Check Button twice to switch On/Off.



Warranty

- The V98microC is covered by a 2-year unconditional warranty on all parts except the cells.
- The cells are covered by a 1-year warranty with 70% of the original capacity.
- For warranty issues or if you have any additional questions, please contact your local bebob distributor (<https://bebob.de/content/en/dealers-and-distributors/>)

Specifications

MODEL	V45microC
Mount	micro V-Mount
Capacity	3Ah; 43Wh
Voltage	14,4V DC
OUTPUT PERFORMANCE	
Maximum Output Voltage	16,8 V DC
End Voltage	10,0 V
Cells	Lithium-Ion (Panasonic)
Max. Discharge Current	16A
OUTPUT INTERFACE	
USB-C (PD3)	max 45W (with 5V; 9V; 12V; 15V / 3A max)
Safety Twist D-Tap	14,4V unreg.; 5A (spark prevention)
INPUT INTERFACE	
USB-C (PD3)	max 40W
Safety Twist D-Tap	16,8 V DC (max 80W)
Chargers	V-Mount bebob, IDX, Sony, a.o.
Charging time (bebob VS2/VS4)	1,5 Hour
COMMUNICATION	
Fuel Gauge	5-Step LED (SoH, SoC)
Compatibility	Auto Communication Setup (Arri, Sony, BMD, Red, Fuji)
GENERAL	
Weight	0,33 kg
Dimensions (WxHxD)	75x101x32mm
OPERATION TEMPERATURE	
Charge	10°C ~ + 45°C recommended
Discharge	- 20°C ~ + 60°C
Storage	- 20°C ~ + 40°C (<80% RH)
SAFETY	
Product Safety	IEC 62133-2
Transport Safety	UN38.3
Electro Magnetic Capability	FCC, CE
Conformity	CE, UKCA a.o.
SPECIALS	
Flashlight, optimized storage	
SERVICEABILITY	
Maintenance capability, repairable	
SUSTAINABILITY	
Re-cellable (cell pack refreshment)	

Transport Regulations (as of January 1, 2023)

This summary reflects our current knowledge of Dangerous Goods Regulations¹:

1. Transport by Commercial Airline / Carry-on Luggage

- You may transport a battery <100 Wh in your **carry-on luggage** if it is attached to the camera or equipment it powers.
- You may transport up to 20 spare batteries <100 Wh² in your **carry-on luggage**:
 - Cover the contacts with tape.
 - Place each battery in a separate plastic bag before packing it in your **carry-on luggage**.
- Batteries <100 Wh **do not need to be discharged to 30% SoC when transported as personal luggage. This requirement applies only to cargo shipments.**
- Carry a copy of the bebob UN Transport Documentation (www.bebob.de)
- We recommend confirming any additional restrictions or local policies with your chosen airline before traveling.

2. Transport by Commercial Airline / Checked-in Luggage

- Batteries are strictly prohibited in **checked-in luggage**

3. Transport as Air, Road, or Sea Freight

- Li-Ion batteries, including bebob batteries <100 Wh are classified as dangerous goods (class 9) when shipped by air, road or sea, and are subject to special UN-certified packaging.
- For air cargo shipments, training and authorisation by the air transport authority are required for packing batteries <100 Wh.
- **Li-Ion batteries for air cargo must be shipped at no more than 30% state of charge, meaning only one of the five fuel gauge LEDs should be lit.**
- Always confirm with your carrier of choice for any additional restrictions or local regulations before shipping.

¹ e.g. based on IATA DGR 64th Edition from January 2023

² However, the carrier may approve the carriage of more than 20 batteries. Please contact the carrier in case.