



V98micro rechargeable li-ion Battery User Manual

WE STRONGLY RECOMMEND THAT YOU READ THIS INSTRUCTION BEFORE USING YOUR BEBOB V98MICRO BATTERY! PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE

Features

- A high capacity battery which is compact and lightweight. Direct fitting to a camera via V-Mount.
- Five-step LED power indicator (100% - 80% - 60% - 40% - 20%).

Safety instructions

- Only for professional use! Keep batteries out of reach of children and personnel that has not been instructed in the use of high capacity Lithium-ion batteries!
- Use only with recommended charger.
- Keep the battery dry and do not immerse in water.
- Never open the case of the battery.
- Do not expose to temperature over 60°C.
- Do not expose the battery to fire! May explode if thrown into fire!
- Maximum Load 10.0A.
- Do not put the battery on a device when the red charging LED flashes.
- Handle with care! Do not throw! Do not drop!

Charging

- Never leave batteries unattended while charging
- Wait 30 Minutes after discharge before you put the battery on a charger.
- The bebob V98micro battery can be charged with an external bebob charger (or equivalent) with Lithium-ion (Li-ion) charging ability.
- Approximate charge time may vary depending on charger and temperature.
- bebob V98micro can be charged in ambient temperature for optimum performance at 10°C - 30°C.
- bebob V98micro batteries can be recharged in any charge condition.

Discharging

- Maximum load is 10.0A. When using the battery with video or lighting equipment, power consumption of the equipment must be 10.0A or below. For the protection of the battery, a load of 10.0A or over may activate the internal protection circuit and stop supply of power. In this case the status led will turn red.
- The battery can be used in ambient temperature of - 20°C - + 55°C.

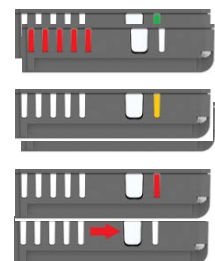
Camera Data Communication

- Blue leds: Arri/Sony Data Protocol
- Red leds: Red Data Protocol
- To switch between both status, press the Check button for 5s



Status led

- Status led lighting Green: Full Capacity over 70% of New
- Status led lighting Yellow: Full Capacity between 50% and 70% of New
- Status led lighting Red: Full Capacity under 50% of New



Flash Light

- To switch On/Off press the Check Button Twice

Specifications

Model	V98micro
Mount	V-Mount
Capacity	6,8Ah; 98Wh
Voltage	14,4V DC
Maximum Output Voltage	16.8 V DC
End Voltage	12.0 V
Cells	Lithium-Ion Trimix made in Japan
Max. Discharge Current	10.0A
Twist D-Tap	14.4V unreg. Max. 5A
USB Port	5V, 1.0A
Fuel Gauge	5-Step LED
Weight	0,55 Kg
Dimensions (WxHxD)	75x101x48mm
Chargers	bebob, idx, sony, pag
Charging time (bebob VS2/VS4)	2 Hours
Operating Temp. Range	
Charge	+ 10°C ~ + 30°C recommended
Discharge	- 20°C ~ + 55°C
Storage	- 20°C ~ + 35°C (<85% RH)

Warranty

- The V98micro is covered by a 2 years unconditional warranty on all parts, except the cells.
- The cells are covered by a 1 year warranty, 70% of the original capacity.
- For warranty issues or if you have any additional questions, please contact the appropriate bebob distributor listed at www.bebob.de.

Disposal

- The V98micro battery has to be disposed within a dedicated collection container for used device batteries. Please be aware that only empty batteries are allowed for disposal in collection containers. In case the battery is not completely discharged, precautions against a potential short-circuit have to be taken.

Storage

- Storage temperature range is - 20°C ~ + 35°C (<85% humidity).
- To store the battery for a long period (longer than 4 Weeks), the battery should be charged between 50% and 75%. The battery should be recharged every 4 Weeks.
- After storage some self-discharge will occur. Before re-use it is advisable to recharge the battery fully.

Transport as of April 1st 2016

- This Summary reflects our current Knowledge.

1. Transport by Commercial Airline / Carry-on Luggage

- You can transport in your **carry-on luggage** a V98micro attached to the camera or equipment it powers.
- You can transport in your **carry-on luggage** an unspecified number of spare V98micro:
 - Put tape over the contacts.
 - Put each single battery in a plastic bag before packing it in your **carry-on luggage**
- **V98micro do not need to be discharged to 30% SoC for transport as personal luggage, this is only a requirement of cargo shipments.**
- Carry a copy of the [bebob UN Transport Documentation](#) and [V98micro UN Certificate](#)
- We recommend that you confirm with your carrier of choice, to determine any further restriction or local policies, before travelling. **You will find the actual regulation of your carrier of choice in the bebob transport information system www.fly-lithium.com,**

2. Transport by Commercial Airline / Checked-in Luggage

- You can transport in your **checked-in luggage** a V98micro attached to the camera or equipment it powers and a maximum of 3 V98micro spare packed in the same piece of luggage
- **V98micro do not need to be discharged to 30% SoC for transport as personal luggage, this is only a requirement of cargo shipments.**
- Carry a copy of the [bebob UN Transport Documentation](#) and [V98micro UN Certificate](#)
- We recommend that you confirm with your carrier of choice, to determine any further local restriction or policies, before travelling. **You will find the actual regulation of your carrier of choice in the bebob transport information system www.fly-lithium.com,**

3. Transport as air-, road- and sea-freight

- Li-Ion batteries, and so bebob V98micro, when shipped by air, road or sea are classified as dangerous goods class 9 and subject to special UN certified packaging.
- Air transport authority training and authorisation (PK 1) are required for packing any more than 2 V98micro, for an air cargo shipment.
- **Li-Ion batteries for air cargo must have a state-of-charge of no more than 30% for shipping, means only one out of the five fuel gauge led lights up.**
- We recommend that you confirm with your carrier of choice, to determine any further local restriction or policies, before travelling. **You will find the actual regulation of your carrier of choice in the bebob transport information system www.fly-lithium.com,**



CERTIFICATE

The tested batteries mentioned below are in compliance with the requirements of

UN Manual of Tests and Criteria - Section 38.3

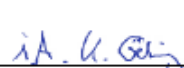
(ST/SG/AC.10/11/Rev.6.1)

Certificate/Test Report-No.: TZ_000176_UN
Product Description: Bebob factory 4S2P V98micro
Customer Data: Bebob factory GmbH
 Höglwörther Str. 35
 81379 München
Date: 08.02.2019

Step	Result
UN 38.3.4.1 Altitude simulation	pass
UN 38.3.4.2 Thermal test	pass
UN 38.3.4.3 Vibration	pass
UN 38.3.4.4 Shock	pass
UN 38.3.4.5 External short circuit	pass
UN 38.3.4.6 Impact / Crush	not required*
UN 38.3.4.7 Overcharge	pass
UN 38.3.4.8 Forced discharge	not required*

* This test is not required for battery testing if it is already passed at the UN38.3 test of the built-in cell.
 The certificate is only valid with the associated Test Report.


 Adrian Selke
 Head of Quality Assurance, Authorized Representative


 Klaus Gehring
 test technician