



# A45micro rechargeable li-ion Battery User Manual

WE STRONGLY RECOMMEND THAT YOU READ THIS INSTRUCTION BEFORE USING YOUR BEBOB A45MICRO 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 A45micro 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 A45micro can be charged in ambient temperature for optimum performance at 10°C
   30°C.
- bebob A45micro batteries can be recharged in any charge condition.



## **Discharging**

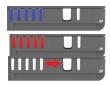
- Maximum load is 10.0A. When using the battery with video or lighting equipment, power consumption of the equipment must be 10.0A or below. For the protection of the battery, a load of 10.0A or over may activate the internal protection circuit and stop supply of power. In this case the status led will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

## **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.

#### **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	A45micro
Mount	A-Mount (Gold-mount compatible)
Capacity	3,0Ah; 43Wh
Voltage	14,4V DC
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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	0,33 Kg
Dimensions (WxHxD)	75x101x32mm
Chargers	bebob, Anton Bauer
Charging time (bebob AS2/AS4)	1,5 Hour
Operating Temp. Range	
Charge	+ 10°C ~ + 30°C recommended
Discharge	- 20°C ~ + 55°C
Storage	- 20°C ~ + 35°C (<85% RH)

#### Warranty

- The A45micro 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 <a href="https://www.bebob.de">www.bebob.de</a>.

#### **Disposal**

 The A45micro 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.



#### 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 A45micro attached to the camera or equipment it powers.
- You can transport in your carry-on luggage an unspecified number of spare A45micro:
  - Put tape over the contacts.
  - Put each single battery in a plastic bag before packing it in your carry-on luggage
- A45micro 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 <u>bebob UN Transport Documentation</u> and <u>A45micro UN Certificate</u>
- 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 <a href="https://www.fly-lithium.com">www.fly-lithium.com</a>,

## 2. Transport by Commercial Airline / Checked-in Luggage

- You can transport in your checked-in luggage a A45micro attached to the camera or equipment it powers and a maximum of 3 A45micro spare packed in the same piece of luggage
- A45micro 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 A45micro 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 <a href="www.fly-lithium.com">www.fly-lithium.com</a>,

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

- Li-Ion batteries, and so bebob A45micro, 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 A45micro, for an air cargo shipment.
- Li-lon 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 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 <a href="www.fly-lithium.com">www.fly-lithium.com</a>,







# **DECLARATION OF CONFORMITY UN38.3**

We herewith confirm that each battery of this type is proved to meet the requirements of applicable tests in the UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6/Amend.1, Part III, Sub-Section 38.3.

In the following, lithium battery test summary according to Sub-Section 38.3.5

(a), (b) Manufacturer: Bebob factory GmbH Phone:+49 (0)8963 - 48518

Höglwörther Str. 350 Fax: +49 (0)8985 - 6348513 81379 München E-Mail: norbert.hans@bebob.de Webpage: www.bebob.de Germany

Phone: +49 (0)8963-48518 Bebob factory GmbH Customer:

Höglwörther Str. 350 Fax: +49 (0)8985 - 6348513 81379 München E-Mail: norbert.hans@bebob.de Germany Webpage: www.bebob.de

Phone: +49 (0)6188 - 99410-0 (c) Test laboratory: Batteryuniversity GmbH

Fax: +49 (0)6188 - 99410-20 Am Sportplatz 30 63791 Karlstein am Main E-Mail: mail@bu-lab.eu Webpage: www.bu-lab.eu Germany

Lithium-ion batteries

BU-201900155-B1 (d) Report reference no.:

(e) Date of test report: June 28, 2019

(f) Description of devices under (i) Type:

0.3 ka (ii) Mass: test: (iii) Watt-hour rating: 43.0 Wh

4S1P US18650 VTC6 (iv) Physical description:

(v) Model numbers: A45Micro

(g) Performed tests: T.1 Altitude simulation: Passed

T.2 Thermal test: Passed T.3 Vibration: Passed T.4 Shock: Passed T.5 External short circuit: Passed

T.6 Impact/Crush: Not performed

T.7 Overcharge: Passed

T.8 Forced discharge: Not performed

(h) Reference to assembled battery testing requirements: Not applicable

(i) Applied standard: UN ST/SG/AC.10/11/Rev.6, Amend.1

Recommendations of the TRANSPORT OF DANGEROUS GOODS, Manual of Tests and

Criteria, Part III, section 38.3, Lithium metal and lithium ion batteries

(j) Signature:

Note: This confirmation is valid only in connection with the report reference