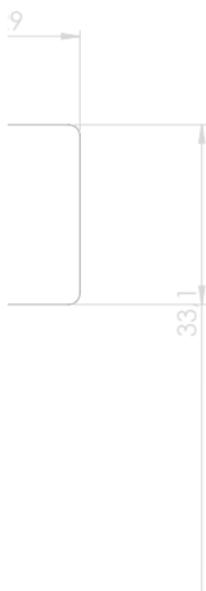


OPERATION INSTRUCTION
HOT SWAP ADAPTER ML-120



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1. SAFETY GUIDELINES

Before using this product with your camera, please note the following general safety information.

All persons installing, operating or servicing this product should familiarize themselves with the following information:

- ! Please be sure to read and follow the operation instructions set out in this manual.
- ! All users must be trained to work with this product.
- ! The operation instructions form part of the product and should be handed over to any future owner in the event of sale/transfer of the product.
- ! This manual should be retained for the life of the product for future reference.
- ! If you have any questions about this product, please ask only authorized specialist for advice or contact info@bebob-rouge.com.
- ! Subsequent updates should be kept with this manual.

Please note the following:

- ! Use the device according to the specification only (see Technical specification).
- ! Do not bypass connections.
- ! The casing may become hot. Caution: possible danger of burning!
- ! Damaged cables must be replaced immediately by an authorized service provider.
- ! Treat this product with care. Do not mishandle or drop.
- ! This product must be kept clean, free of dust, dry & do not immerse in water!

If you disregard this information, the system or your camera may incur damage!



We would ask that you please read the operating instructions in their entirety before operating the device in order to take full advantage of all system functions.

2. FEATURES OF ML-120

The ML-120 is a Hot Swap Adapter for the Red One Camera. It allows a change of batteries without interruption of the power to the camera.

When the battery runs empty, the ML-120 will take over the powering of the camera for 2 Minutes, at the same time giving a simultaneous alarm. During the first 90 seconds the ML-120 Alarm LED will flash RED, for the next 30 seconds the LED will display as a continuous solid RED. After 2 minutes (120 Seconds) the camera will switch off.

The ML-120 replaces the Standard V-mount on the RED Drive cradle, or other 3rd party battery mounts. Additionally, it features a 12 V DC D-Tap port, secured by a 5 A self-resetting fuse.

After use the ML-120 self-charges from the regular camera battery and will be fully charged within 40 minutes, the capacity of the ML-120 allows for 5 x 2 minute run times, with its self-charging system the ML-120 requires no further operator maintenance or interaction

When used with Red compatible batteries (RED Block, bebob) the ML-120 transfers battery-data to the screen of the camera to display remaining battery capacity information.

Features:

- 2 Step Empty battery-alarm
- 20 Wh built-in Power-buffer
Automatic switching by empty batteries to allow continuous powering of the camera
- 12 V D-Tap Port with self-resetting 5 A Fuse
- High-End V-Mount Plate to avoid possible poor contact between battery and camera
- Only 360 g

The ML-120 is a Hot Swap Adapter for the Red One Camera. It allows a change of batteries without interruption of the power to the camera.



3. INITIAL USE AND OPERATION

Building the ML-120 on the Red One

Remove the Standard V-Mount plate from your RED Drive cradle, or other 3rd party battery mount and replace with the ML-120. Connect a fully charged V-Mount Battery to the ML-120, the Yellow »Charging« LED will light, after 60 minutes the Green »Charged« LED will light and your ML-120 is ready for use. We recommend that that the ML-120 is always pre-charged before going on location. The D-Tap Port on the right side of the ML-120 delivers power at battery voltage (+/- 14,4 V) for powering any camera accessories. The load is limited to 5 A by a self-resetting fuse.



ML-120



CHARGING MODE



D-TAP PORT

Battery Swap

The ML-120 detects a battery as empty when the Voltage of the battery drops below 12,3 V (when under load) from which point the ML-120 will instantly take over powering the camera (for a maximum of 2 minutes) and will display the following LED alarm: (First 90 seconds flashes RED, final 30 second displays a solid RED.)

If an empty battery is replaced with a charged one (voltage under load of over 14,5 V) within the two minute period, powering of the camera instantly reverts back to the main camera battery and the alarm LED will not show. The ML-120 will start to recharge itself via the camera battery and the Yellow charge LED will show and change to Green when fully recharged. The ML-120 continues to monitor the camera voltage and can be used at time during the charge process.

If the empty battery is not replaced within 2 minutes the camera will switch off.



BATTERY ALARM



BATTERY ALARM

Alarm led's brightness

To allow the Alarm LED to be visible in bright environments (Sunlight etc) but not disturbingly over bright in darker environments (Studio etc), the ML-120 has automatic brightness adjust: The brighter the environment the brighter the alarm LED will show. The Environment Light detector is located at the top – middle of the ML-120 housing.

Covering the housing will switch off the automatic brightness adjust and the alarm LED will flash with maximum brightness.

Using the ML-120 with RED Compatible batteries as RED BRICK or Rouge V90RM or V140RL

The ML-120 supports the data protocol between the batteries and the camera, when using the ML-120 the remaining battery capacity will be displayed on the LCD-Screen. When the battery is empty and has been switched off, the display will show DC.

Using the ML-120 with non RED Compatible batteries

The Capacity display in the LCD Screen will show DC.



BRIGHTNESS SENSOR



% DISPLAY OF THE CAPACITY



BATTERY SWITCHED OFF

4. CLEANING, MAINTENANCE, AND CARE

- ▮ All system parts require zero maintenance
- ▮ Do not open casing
- ▮ A dry, lint-free cloth is recommended for cleaning
- ▮ Do not use any cleaning agents
- ▮ Damaged cables must be replaced immediately by an authorized service provider.

5. OPTIONAL EQUIPMENT

- ▮ VS-2 Simultaneous 2-channel Charger with built-in 75 Wh AC Adapter
- ▮ V90 RM 6,0 Ah/14,8 V Li-Mangan High load V-Mount battery (Max Load 10A)
- ▮ V140 RL 9,2 Ah/14,8 V Li-Ion V-Mount battery (Max Load 10 A)

For prices and further accessories, visit www.bebob-rouge.de or call +49.89.27818282

6. TECHNICAL SPECIFICATIONS

WEIGHT	approx. 520 g
INCL. V-MOUNT PLATE AND LEMO CABLE:	
DIMENSIONS	139 x 79 x 45 mm
INCL V-MOUNT PLATE	
OUTPUT LEMO 6 PIN:	14,8 V, Max 10 A
OUTPUT D-TAP:	14,8 V, Max 5 A
BUFFER CAPACITY	1,5 Ah, 22 Wh
MAXIMALER LADESTROM	0,65 A
MAXIMALER ENTLADESTROM	10 A

7. TROUBLE SHOOTING

The product does not include any parts requiring maintenance. If there is a problem, please check the following items first:

TROUBLE	CAUSE	HELP
Flashes red with a full battery	The battery is too old or capacity is small	Use only battery with a load capability of the Minimum 6,5 A
No Voltage at the D-Tap output	The Load applied is over 5,0 A	Reduce the load
No Voltage at the D-Tap and at the Lemo With a full battery	The load applied is over the capability of the battery	Reduce the load or use batteries with higher load-capability
No power at 14,4 V output	Output overload	Decrease load and try again
After 4 hours, the ML-120 Stills show charging (yellow led)	the cells of the ML-120 are used	Contact us for a re-cell

If this does not solve the problem, please do not hesitate to contact us on +49.89.27 81 8282.

8. WARRANTY INFORMATION

The ML-120 is covered by a 2 years Cell warranty and a 5 year hardware warranty. Damage occurring from the misuse caused by disregarding the supplied operating instructions, incorrect usage, handling, or external intervention will result in the forfeiting of all warranty claims. We do not accept any liability for material damage or personal injury caused by incorrect usage. We are not liable for any resulting damage. Arbitrary rebuilding of and/or changes to the ML-120 are not allowed for safety and conformity reasons. In this case, all warranty revised.

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