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SmallRig RC 100B COB LED Video Light User Manual

Contents

SmallRig

SmallRig RC 100B COB LED Video Light

Product Specifications

- Brand: SmallRig
- Model: COB LED Video Light
- Working Temperature: -10~45°C (14~113°F)
- Certifications: CE, RoHS, FCC, ISED, RCM

Product Usage Instructions

Important Storage and Maintenance Guidelines

- Before storage, ensure the gear has cooled down completely. Store it in the appropriate compartment in the carry bag.
- Store the gear in a cool, dry, and clean environment. Avoid damp areas or proximity to liquids, flammable substances, or volatile solvents to prevent damage.
- Clean the surface with a dry, soft cloth. Disconnect the power adapter and body connection cable before cleaning or maintenance.
- Do not immerse the gear in water or any liquids to avoid electric shock.
- Do not dismantle the gear without authorization. Consult professional repair personnel for malfunctions and repairs.
- Use only SmallRig recommended accessories or certified accessories from qualified manufacturers to prevent hazards.

Product Operation

- To power on the RC 100B, turn the ON/OFF switch to ON after connecting to the power source. Rotate the INT knob one round to power it on.
- Turn the switch to OFF to shut down the gear. The Bluetooth name suffix will be displayed at the bottom of the white startup interface.
- Click the CCT/FX Mode button to cycle between color temperature mode (CCT mode) and special effects mode (FX mode).
- Long-press the mode button for 2 seconds to store current parameters and enter PRESET mode. Rotate the INT knob to select presets and click to confirm.
- Up to four sets of preset parameters can be stored.

FAQ

- **Q: Can I use non-SmallRig accessories with this gear?**
  A: Using non-SmallRig recommended accessories may cause hazards such as fire or electric shock. It is advised to use accessories provided by SmallRig or certified accessories from qualified manufacturers based on SmallRig's specifications.
- **Q: What should I do if the gear malfunctions?**
  A: If the gear malfunctions, consult the relevant purchase channel for repairs by professional personnel. Unauthorized dismantling may void the warranty.
- **Q: How many presets can be stored in the gear?**
  A: Up to four sets of preset parameters can be stored in thegear.

RC 100B COB LED Video Light – User Manual
HVIN:RC100B

Part 1

Foreward

Thank you for purchasing the SmallRig COB LED video light. Please read the user manual carefully before using it.

Important Prompt

1. Please keep the user manual properly. For your safety and the safety of others, please ensure that this user manual is enclosed with the gear when it is borrowed by someone.
2. Please read all warnings carefully and adhere to the gear usage specifications outlined in this manual.
3. Children should only operate this equipment under adult supervision. Please do not leave the gear unattended Children should only operate this equipment under adult supervision. Please do not leave the gear unattended
4. Children should only operate this equipment under adult supervision. Please do not leave the gear unattended
5. After using the gear, the COB chip board, top, and bottom of the gear will become extremely hot. Please avoid touching these areas until the gear has cooled down. For your safety and well-being, do not block the cooling holes and avoid directly exposing your eyes to the COB LED chip.

6. If you need to use a longer power cable, please make sure that the rated amp mark on the power cable is larger or equal to the rated amp on the gear.

7. To avoid stumbling over the power cable or accidentally pulling it, which may cause the gear to lose power, please properly secure the power cable after use. Also, be cautious and make sure not to place the power cable near heat sources or interfaces.

8. Please do not operate the gear or power cable if they are damaged. In the event that the gear or accessories are damaged or experiencing a fault, please seek assistance from a qualified repairing engineer.

9. Please make sure that the gear has completely cooling down before storage. Place it in the appropriate compartment in the carry bag.

10. To ensure proper operation of the gear, it is recommended to store it in a cool, dry, and clean environment. Do not store the gear near damp areas or in the vicinity of liquids, flammable substances, or volatile solvents to avoid damaging the gear.

11. Working temperature: -10~45℃ (14~113℉)

12. Reference storage temperature/ humidity: 20℃ ± 5℃ (59~77℉) / 60±15%

13. If you need to clean the surface of this gear, please use a dry, soft cloth for cleaning. Before cleaning and performing maintenance, make sure to disconnect the power adapter and body connection cable.

14. To reduce the risk of electric shock, it is strictly prohibited to immerse this gear in water or any other liquids.

15. To reduce the risk of electric shock, it is strictly prohibited to dismantle this gear without authorization. If the gear malfunctions and requires repairs, please consult the relevant purchase channel and submit it to professional repair personnel. Non-standard assembly and repairs may cause safety hazards. Unauthorized dismantling is strictly prohibited and, once verified, SmallRig will consider the warranty void.

16. Using non-SmallRig recommended accessories may cause hazards such as fire or electric shock. Please refer to the accessories provided by SmallRig or use certified accessories from qualified manufacturers based on the specifications provided by SmallRig. If it is verified that the use of non-compliant accessories leads to gear malfunction, SmallRig will consider the warranty void.

17. This gear has been certified with CE, RoHS, FCC, ISED, RCM, and other certifications. Please refer to the relevant national standards for use and operation. SmallRig will verify and consider the warranty void for gear malfunctions caused by improper operation. This user manual is created based on rigorous testing by SmallRig, and in the event of any changes in design and specifications, no separate notification will be provided.

Attention: Do not touch the COB LED chip and front cover glass.

FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in aresidential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will notoccur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to tryto correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party. Responsible for compliance could void the user's authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices).
This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement:

The equipment complies with FCC Radiation exposure limits set forth for uncontrolled environment This equipment should be installed and operated with minimum distance 20cm
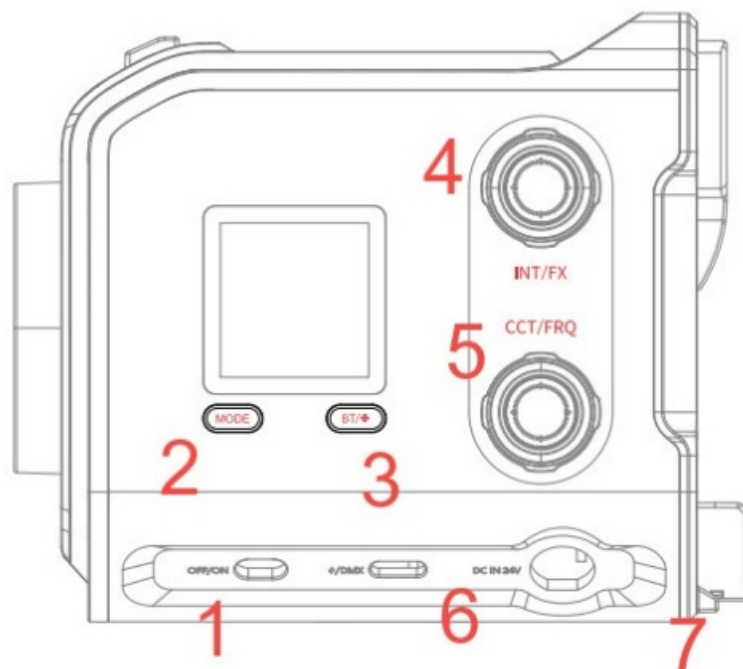
ISED Statement
English: This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Part 2

Product Overview

ON/ OFF Switch: After connecting to the power source, turn the switch to "ON" and rotate the INT knob one round to power on the RC 100B; turn the switch to "OFF" to shut down. The Bluetooth name suffix of the gear will be displayed at the bottom of the white startup interface. The screen display will change as follows.
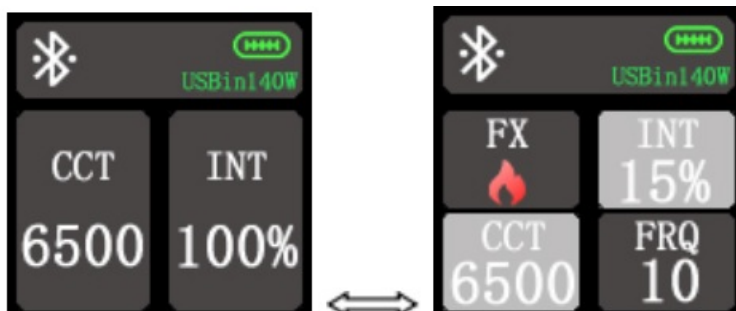
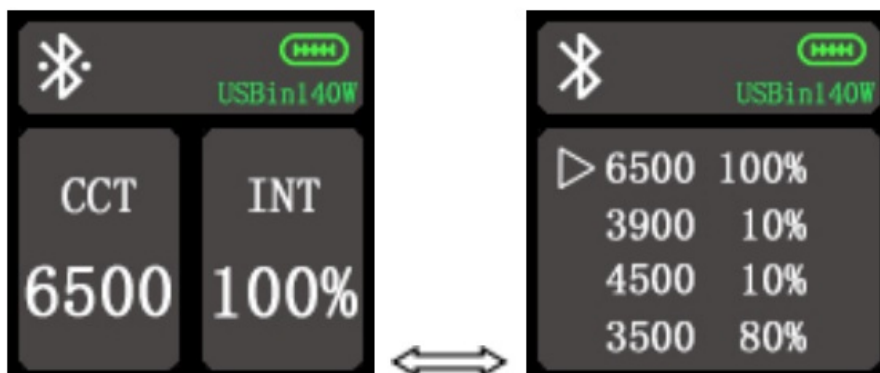**Mode Button:** Clicking this button will cycle between the color temperature mode (CCT mode) and the special effects mode (FX mode). The screen display will changed as follows. Clicking this button will cycle between the color temperature mode (CCT mode) and the special effects mode (FX mode). The screen display will changed as follows.

In CCT/ FX mode, long-press the mode button 2s to store the current parameters and goes into the PRESET mode.Rotate the INT knob to select the presets and click to confirm.Long-press the button 2s again or select the preset to exit. Up to four sets of preset parameters can be stored. The screen display will change as follows.

- No icon: Normal mode, unrestricted brightness;
- Red mute icon: Silent mode, 30% brightness limited mode;
- White fan icon: Low fan noise mode, 70% brightness limited mode.

The screen display will change as follows.

After powering on, long-press the Bluetooth/ Mute control button to reset the Bluetooth connection. The Bluetooth icon will flash quickly. You can open the SmallGoGo application and set up a network for the gear based on the Bluetooth suffix prompted during startup. If you haven't downloaded SmallGoGo before, please scan the QR code below for more information and download, or search and download it from app stores such as Google Play/App Store.

INT/ FX Knob Intensity/ Special Effect Knob : In CCT mode, rotating the knob clockwise/ counter-clockwise increases/ decreases the brightness output ratio. Clicking the knob allows for quick switching between 33%/ 66%/ 100% brightness output ratios.In FX mode, clicking the INT/ FX knob switches the cursor from brightness adjustment to effect adjustment. The screen display will change as follows.

Rotating the INT/ FX knob clockwise/ counter-clockwise at this point adjusts the 9 x light effects/ brightness ratio corresponding to the cursor area.
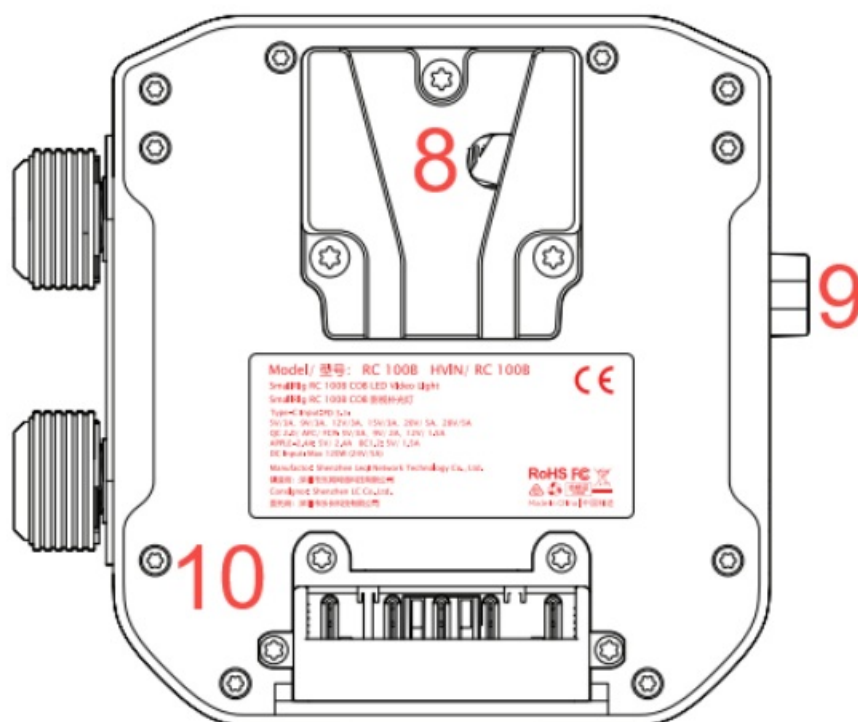
Paparazzi	Television	Falty bulb	Lightning	Breathing	Flickering	Party	Flame	Fireworks

CCT/ FRQ Knob (Color Temperature/ Frequency Adjustment Knob): In CCT mode, rotating the knob clockwise/counter-clockwise increases/ decreases the color temperature value. Clicking the knob allows for quick switching between 3200K/ 4300K/ 5600K color temperatures.
In FX mode, clicking the CCT/ FRQ knob switches the cursor from color temperature adjustment to frequency adjustment. The screen display will change as follows.

In FX mode, rotating the knob clockwise/ counter-clockwise adjusts the color temperature/ frequency corresponding to the cursor area.

USB-C Power Supply and DMX Interface: You can connect a USB-C power source such as a 140W PD charger, battery grip, 100W PD power bank, etc., to provide a mobile power supply solution for the RC 100B, Max 110W DC input.. Additionally, you can connect a USB-C to DMX adapter to establish a wired DMX connection for the RC 100B.
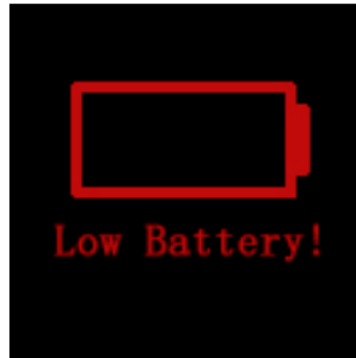

BP Input Interface: You can provide a mobile power supply solution for the RC 100B through the V-Mount battery or NP-F battery plate. It supports 100W V-Mount battery input/60W NP-F battery input.

Installations

1. . Remove or insert Silicone Cover: Follow the arrows to remove/ insert the silicone cover.

2. Installation and Removal for Mini-Mount Modifiers: Take mini reflector as an example. Align the mini-mount reflector with the mini-mount port on the front cover of the light. Rotate counter-clockwise to install. Push the Mini modifiers Release Button and rotate the mini reflector clockwise to remove.

3. Mounting the Light to a Light Stand: First, connect the light stand adaptor to the RC 100B using the 1/4″ threaded hole on the bottom. Then, install the light stand adaptor onto the light stand and adjust the angle of the RC 100B. Finally, tighten the tilt lock on the light stand adaptor to secure it. (Standard version include light stand adaptor)

4. Mounting the Light to a Grip Handle: Rotate the handle clockwise onto the RC 100B via the 1/4″ threaded hole on the bottom of the RC 100B. (Lite version include grip handle)

5. Photographic Lighting Umbrellas Installation: Insert the handle of the photographic lighting umbrellas into the umbrella hole of the light stand adaptor and tighten the knob on the side to secure it.

6. Creative Installation Methods: The RC 100B can be flexibly connected to accessories such as a magic arm or clamp via the 1/4" treaded hole to achieve lighting setups in places where it is inconvenient to use a light stand.
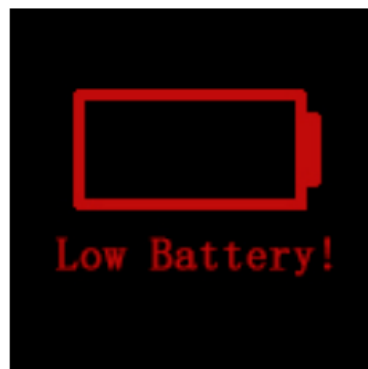

Power Supply

The RC 100B comes with BP interface/ USB-C interface/ mini XLR interface, allowing direct connection to V-mount batteries/ NP-F battery plate with NP-F970 batteries/ battery grips for mobile power supply, or continuous wall outlet power supply via PD chargers/ AC to DC adapters (optional).

To ensure fully output of the gear, it is recommended that users use V-mount batteries of 98Wh or above (V-mount battery voltage should not exceed 35V)/ USB-C PD power supplies of 100W or above/AC to DC adapters to power the RC 100B. Additionally, when powering the RC 100B with a USB-C PD power supply of 100W or above, please use a USB-C to USB-C charging cable that complies with the PD 3.1 specification. (The standard version includes a PD 3.1 charging cable)

Please note that if the power of the USB-C power supply is less than 100W, such as a USB-C PD power bank providing only 45W output power, the illumination output of the RC 100B will only reach around 45%. Furthermore, due to limitations in the peak output of different brands of V-mount batteries/ NP-F batteries, using batteries below the NP-

F970 specification or V-mount Battery below 98Wh may cause abnormal operation of the gear/battery. Using two NP-F970 batteries will only provide approximately 60% of the maximum illumination output for the RC 100B.

The RC 100B features a low battery alert function. When the external battery power is detected to be below 12V, a low battery alert will be triggered. Please replace the battery promptly or connect to another power source.

Overheating protection:

To ensure the long-term stable operation of the RC 100B, it is recommended to store and use this equipment in accordance with the temperature, humidity, and environment mentioned in the "Important Prompt" The RC 100B features a built-in overheating protection function. If the temperature of the COB Chip exceeds the limitation of 100℃/ 212℉, the gear will activate overheating protection status.

Overheating protection:

To ensure the long-term stable operation of the RC 100B, it is recommended to store and use this equipment in accordance with the temperature, humidity, and environment mentioned in the "Important Prompt" The RC 100B features a built-in overheating protection function. If the temperature of the COB Chip exceeds the limitation of 100°C/ 212°F, the gear will activate overheating protection status.

PART 3

Product Specifications:

Power Consumption Max	100W	Cooling Mode	Active Cooling
CRI	96	TLCI	97
ColorTemperature	2700K-6500K (±200K)		
Input	USB-C Input PD 3.1: 5V/3A 9V/3A 12V/3A 15V/3A 20V/ 5A 28V 5A Max 140W QC 2.0/ AFC/ FCP: : 5V/ 3A 9V/ 2A 12V/ 1.5A Max 18W APPLE-2.4A: 5V/ 2.4A Mini XLR Input 24V/4.7A (Max 110W) BP Input 11V-16.8V/3.58-9.1A Max 100W V mount/ Max 60W NP-F)		
Dimensions	11.5 * 9.5 * 9.5 cm	Weight	700g±20g

Light Source Test Data Sheet Bare Light:

Color Temperature (Setting)	Output percentage	Illumination (Lux @1m)	CRI Ra	TLCI	△UV	SSI	TM-30	
							Rf	Rg
2700K	2669	3150	97	97	0.0051	90	95	96
3200K	3211	3630	98	98	-0.0015	91	97	102
5600K	5516	4610	97	99	-0.0006	85	96	103
6500K	6413	4240	97	99	0.0015	83	96	102

With mini Reflector

Color Temperature (Setting)	Output percentage	Illumination (Lux @1m)	CRI Ra	TLCI	△UV	SSI	TM-30	
							Rf	Rg
2700K	2632	13500	97	97	0.0057	89	95	96
3200K	3143	15400	98	98	-0.0007	91	97	102
5600K	5630	20100	97	99	0.0006	86	96	102
6500K	6531	16300	96	99	0.0033	84	96	101

Part 4

Documents / Resources

SmallRig RC 100B COB LED Video Light [pdf] User Manual
RC100B, 2BC2U-RC100B, 2BC2URC100B, RC 100B COB LED Video Light, RC 100B, COB LED Video Light, LED Video Light, Video Light, Light

References

- **User Manual**