Blackmagic Design CINECAMPOCHDEF6K

Blackmagic Design Pocket Cinema Camera 6K Instruction Manual

1. INTRODUCTION

This manual provides essential information for the setup, operation, maintenance, and troubleshooting of your Blackmagic Design Pocket Cinema Camera 6K. Designed for professional filmmaking, this camera features a 6144 x 3456 Super 35 sensor and a Canon EF lens mount, offering exceptional image quality and flexibility.

Figure 1: Front view of the Blackmagic Design Pocket Cinema Camera 6K, highlighting the EF lens mount.

2. Setup

2.1 Attaching a Lens

The camera is equipped with a Canon EF lens mount. Align the red dot on your EF lens with the red dot on the camera's lens mount and twist clockwise until it clicks into place. Ensure the lens is securely fastened before operation.

2.2 Inserting Storage Media

The camera supports SD UHS-II and CFast card recorders. Locate the card slots on the side of the camera. Insert your chosen media card with the contacts facing inwards until it locks into place.

2.3 Powering the Camera

The camera operates on a compatible battery (not included with this variant) or external power. Connect an external power source to the 12V DC input port. For extended shooting, external battery packs are recommended due to the camera's power consumption.

Figure 2: Side view of the camera, illustrating the HDMI, USB-C, and audio input ports.

3. OPERATING INSTRUCTIONS

3.1 User Interface and Controls

The camera features a built-in 5-inch touchscreen for intuitive menu navigation and settings adjustment. Physical buttons for common functions are located on the top and back of the camera for quick access.

Figure 3: Rear view of the camera, displaying the 5-inch touchscreen and dedicated control buttons.

3.2 Recording Settings

The camera supports various shooting resolutions and frame rates:

- **6144 x 3456 (6K):** Up to 50 fps
- **6144 x 2560 (6K 2.4:1):** Up to 60 fps
- **5744 x 3024 (5.7K 17:9):** Up to 60 fps
- **4096 x 2160 (4K DCI):** Up to 60 fps
- **3840 x 2160 (Ultra HD):** Up to 60 fps
- **3728 x 3104 (3.7K 6:5 anamorphic):** Up to 60 fps
- **2868 x 1512 (2.8K 17:9):** Up to 120 fps
- **1920 x 1080 (HD):** Up to 120 fps

The camera records in high-quality Blackmagic RAW and ProRes formats, offering extensive flexibility in post-production. The intuitive menu allows for easy selection of codecs and sensor usage.

3.3 Exposure and Color Control

The Pocket Cinema Camera 6K offers a wide 13 stops of dynamic range for film-like looks and excellent low-light performance with an expanded ISO range up to 25600. White balance settings are customizable. Exposure control can be set to automatic or manual.

3.4 Focus

The camera utilizes Contrast Detection Autofocus. For precise control, manual focus is often preferred, especially in professional filmmaking environments. The camera's large screen aids in accurate focusing.

3.5 Audio and Connectivity

Built-in microphones are available, but for professional audio, external audio sources are recommended via the mini XLR audio inputs. Video output is available via HDMI Type A, and data transfer/control is possible through the USB-C port.

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Video 1: A brief overview of the Blackmagic Design Pocket Cinema Camera 6K's user interface and key features, demonstrating menu navigation and settings adjustments.

4. MAINTENANCE

4.1 Sensor Care

To maintain optimal image quality, regularly check the sensor for dust or debris. If dead pixels appear, the camera features a Pixel Remapping function. To perform this, ensure the lens cap is on to fully eliminate light, then activate the function through the camera's menu. Refer to the on-screen prompts for detailed steps.

4.2 Cooling System

The camera includes an internal fan for cooling during operation. While the fan may produce some noise, it is essential for maintaining optimal operating temperatures, especially during prolonged recording sessions or in warm environments.

5. TROUBLESHOOTING

5.1 Short Battery Life

The Blackmagic Design Pocket Cinema Camera 6K is known for its high power consumption, resulting in relatively short battery life with standard camera batteries. It is highly recommended to use external battery packs (e.g., V-mount or Gold-mount batteries with a D-Tap to DC cable) or mains power for extended shoots.

5.2 Overheating

In rare cases, the camera may overheat and shut down, particularly during long recording sessions in high ambient temperatures. Ensure the camera's fan vents are unobstructed and consider using external cooling solutions if operating in extreme conditions.

5.3 Autofocus Limitations

The camera's Contrast Detection Autofocus is not designed for fast-paced, continuous autofocus tracking. For critical focus, especially in dynamic scenes, manual focus or external follow-focus systems are recommended.

6. SPECIFICATIONS

Figure 4: Physical dimensions of the Blackmagic Design Pocket Cinema Camera 6K.

Feature	Detail
Model Name	CINECAMPOCHDEF6K
Effective Sensor Size	23.10 x 12.99 mm (Super 35)
Lens Mount	Active EF Mount
Dynamic Range	13 Stops
Dual Native ISO	400 and 3200
Shooting Resolutions	Up to 6144 x 3456 (6K) at 50 fps
Storage Media	SD UHS-II, CFast 2.0
Video Outputs	1x HDMI Type A
Audio Inputs	2x Mini XLR, 1x 3.5mm Stereo
USB Interface	1x USB-C for external drive recording
Screen Size	5-inch LCD with touchscreen
Wireless Control	Bluetooth
Weight	900 Grams

7. WARRANTY AND SUPPORT

This product is covered by a manufacturer's warranty. For specific details regarding warranty duration, coverage, and claims, please refer to the documentation provided with your purchase or visit the official Blackmagic Design support website. Technical support and service information can also be found on the manufacturer's website.