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## Portkeys LH5P ii

# Portkeys LH5P II Camera Field Monitor

## USER MANUAL

### 1. Product Overview

The Portkeys LH5P II is a high-performance 5.5-inch 4K HD HDMI touchscreen camera field monitor designed for professional videography and filmmaking. It features a 10-bit panel with a resolution of 1920 x 1080, a 1000:1 contrast ratio, and a daylight-viewable brightness of 2,200 nits. This monitor provides essential monitoring tools and extensive camera control capabilities, making it a versatile addition to any camera rig.



Image 1.1: The Portkeys LH5P II monitor shown with its various included accessories, including cables, antennas, and a protective case.

## 2. What's in the Box

Verify that all items are present in the package:

- 1x LH5P II Monitor
- 1x 5-pin Aviation to D-Tap Type B Power Cable
- 2x 2.4G Straight Head Antenna
- 1x LANC Control Cable
- 1x Type-C Control Cable
- 1x Safety Box
- 1x U Disk

## 3. Setup Guide

### 3.1 Powering the Monitor

The LH5P II monitor can be powered using two methods:

- **NP-F Style Battery:** Attach a compatible Sony NP-F style battery to the built-in battery plate on the rear of the monitor.
- **External Power:** Use the provided 5-pin Aviation to D-Tap Type B Power Cable to connect the monitor to an external power source (7.4V-24V).

### 3.2 Connecting Video Input/Output

The monitor features both HDMI input and output ports:

- Connect your camera's HDMI output to the **HDMI IN** port on the monitor.
- If you need to loop out the video signal to another display, connect a cable from the **HDMI OUT** port.

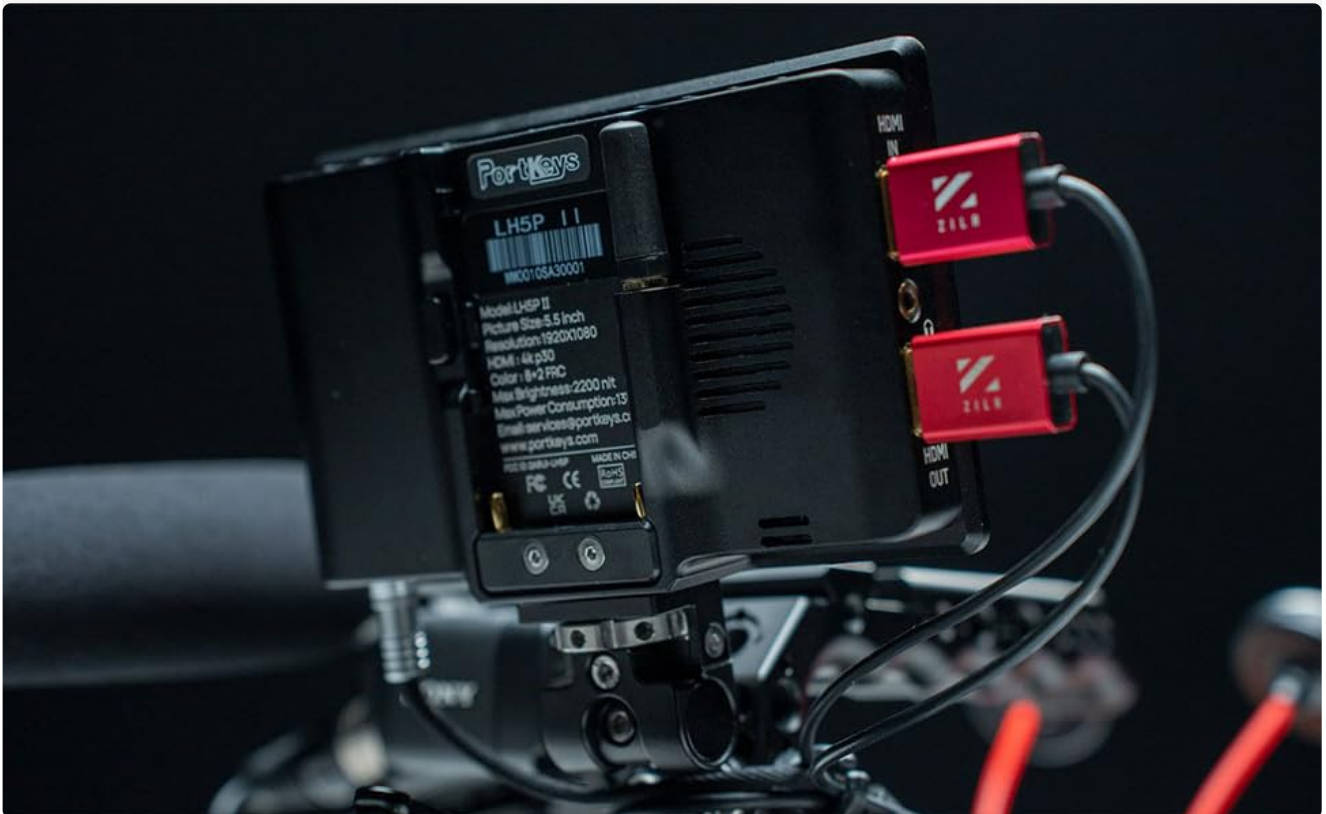


Image 3.1: Rear view of the Portkeys LH5P II monitor, highlighting the HDMI IN and HDMI OUT ports for video signal connection.

### 3.3 Attaching Antennas

For wireless camera control functionality, screw the two 2.4G Straight Head Antennas into their designated ports on the monitor.

## 4. Operating the Monitor

### 4.1 Basic Navigation

The LH5P II features a responsive touchscreen for intuitive navigation. You can also use the physical buttons located on the side of the monitor for menu access and control.



Image 4.1: The Portkeys LH5P II user interface, showing options for Motor, 3D LUT, Camera, Buttons, Function, Setting, Peaking, Zebra, False Color, and Luma Waveform.

## 4.2 Monitoring Tools

The monitor provides a suite of professional monitoring tools to assist with accurate exposure and focus:

- **Waveform:** Displays the luminance and chrominance levels of your video signal.
- **Peaking:** Highlights in-focus areas with a colored outline.
- **ARRI False Color:** Uses a color overlay to indicate exposure levels.
- **3D LUT:** Apply custom Look Up Tables for accurate color representation during monitoring. Monitoring tools can be applied before or after the 3D LUT.

## 4.3 Camera Control

The LH5P II offers extensive camera control capabilities, both wireless and wired:

- **Wireless Control:**
  - **Sony Cameras:** Connect wirelessly to Sony cameras (e.g., A7S III, A7M IV, A7M III, A1, A9I, A9II, A7C, FX3, RX10, RX0) via the removable 2.4 GHz WiFi antenna. This allows for changing camera settings, touch-to-focus, and assigning ISO/Aperture/Shutter/Zoom/Frame Rate adjustments to the +/- keys.
  - **Blackmagic Design Cameras:** Supports Bluetooth connection and camera control for BMPCC 4K, 6K,

and 6K Pro.

- **Wired Control:** Available for multiple Sony (e.g., FX30, FX6, FX9, A7S II, A7R IV), Canon (e.g., C70, C200, C300), Panasonic (e.g., GH5I, GH6, S5), BMD, and ZCAM E2 cameras using appropriate control cables.
- **TILTA Nucleus N/M:** Supports wired control of TILTA Nucleus N/M wireless follow focus motors, with the focus scale displayable on the monitor.



Image 4.2: The touch focus feature on the Portkeys LH5P II, allowing users to tap on the screen to adjust focus wirelessly with compatible cameras.

#### 4.4 Customizable Buttons

The monitor features customizable buttons for quick access to frequently used functions:

- **+/- Buttons:** Can be assigned to adjust camera settings such as ISO, Aperture, Shutter, Zoom, and Frame Rate.
- **F1-F4 Function Keys:** These keys can be customized to trigger various functions, including start/stop recording.

# +/- buttons customise camera control

Customisable camera control aperture, shutter, zoom, frame rate, ISO F1~F4 buttons can be set camera REG



Image 4.3: Close-up of the side of the Portkeys LH5P II monitor, illustrating the customizable +/- buttons and the F1-F4 function keys for camera control.

## 5. Specifications

<b>Feature</b>	<b>Value</b>
Screen Size	5.5 inches
Resolution	1920 x 1080
Brightness	2200 nits
Contrast Ratio	1000:1
Color Depth	10-bit (8+2FRC)
Viewing Angle	178°H/178°V
Dimensions	144 x 90 x 30.8 mm
Weight	285g (10.05oz)
Material	Aluminum Alloy + Tempered Glass
Input Voltage	DC 7V-24V
Maximum Power	13W
Cooling Fan	Yes
Max Input Resolution	4K DCI at 24p or 4K UHD at 30p
Audio Output	1 x 3.5mm

# Basic Parameters

● Screen Size	5.5"
● Dimension	144x90x30.8mm
● Viewing Angle	178°H/178°V
● Brightness	2200nit
● Resolution	1920x1080
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● Material	Aluminum Alloy +Tempered Glass
● Input Voltage	DC 7 -24V
● Maximum Power	13W
● Fan	Yes

Image 5.1: A visual representation of the basic technical specifications for the Portkeys LH5P II monitor.

## 6. Maintenance

To ensure the longevity and optimal performance of your Portkeys LH5P II monitor, follow these maintenance guidelines:

- **Cleaning:** Use a soft, lint-free cloth to gently wipe the screen and body. For stubborn smudges on the screen, use a specialized screen cleaning solution. Avoid abrasive materials or harsh chemicals.
- **Storage:** When not in use, store the monitor in its protective safety box in a cool, dry place away from direct sunlight and extreme temperatures.
- **Handling:** Always handle the monitor with care. Avoid dropping it or subjecting it to strong impacts.

## 7. Troubleshooting

If you encounter issues with your Portkeys LH5P II monitor, refer to the following common problems and solutions:

- **Firmware Update Unsuccessful:** If a firmware update fails, ensure you are following the official instructions

precisely. Verify the integrity of the downloaded firmware file and the USB connection. If issues persist, contact Portkeys customer support for assistance.

- **Unintended Recording or Menu Glitches (e.g., ZCAM):** This may indicate a software anomaly. Try power cycling the monitor (turn off, remove power, wait 30 seconds, then restart). Ensure your monitor's firmware is up to date, as updates often address such bugs. If the problem continues, perform a factory reset if available in the menu, or contact support.
- **Monitor Not Recognizing Camera (e.g., Sony FX3, A7IV):**
  - Verify that all HDMI and control cables are securely connected and undamaged.
  - Ensure the camera's HDMI output settings are correctly configured (e.g., resolution, clean HDMI output).
  - Check for compatibility between your specific camera model and the monitor's firmware. An outdated monitor firmware might not support newer camera models or their latest firmware versions.
  - Test with a different HDMI cable or camera if possible to isolate the issue.
- **No Power/Display:** Ensure the battery is charged and properly inserted, or that the external power supply is connected and functioning. Check the power switch on the monitor.

For persistent issues not covered here, please refer to the official Portkeys support resources or contact their customer service.

## 8. Warranty and Support

For information regarding product warranty, technical support, and service, please visit the official Portkeys website or contact their customer support directly. Keep your purchase receipt as proof of purchase for any warranty claims.