Optoma EH416

Optoma EH416 Full HD 3D DLP Projector User Manual

Model: EH416

1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient operation of your Optoma EH416 Full HD 3D DLP Projector. Please read this manual thoroughly before using the projector and retain it for future reference. Proper use and maintenance will ensure optimal performance and longevity of your device.

Safety Information

- Do not look directly into the projector lens when the lamp is on. The intense light can cause eye damage.

- Ensure adequate ventilation around the projector. Do not block ventilation openings.

- Use only the power cord supplied with the projector. Connect to a properly grounded outlet.

- Do not expose the projector to rain, moisture, or excessive humidity.

- Refer all servicing to qualified service personnel. Do not attempt to open or repair the projector yourself.

2. WHAT'S IN THE BOX

Please verify that all items listed below are present in your package. If any items are missing or damaged, contact your dealer immediately.

- Optoma EH416 Projector

- Power Cord

- VGA to VGA Cable

- Remote Control

- Carrying Bag

- Batteries for Remote Control

- Multilingual CD-ROM User's Manual

- Quick Start Card

- Warranty Card

3. PRODUCT OVERVIEW

Key Features

- **High Brightness:** 4200 lumens for clear images in various lighting conditions.

- **High Contrast:** 20,000:1 contrast ratio for sharp, luminous images with deep blacks.

- **Full HD Resolution:** Native 1080p (1920x1080) resolution, supporting up to WUXGA (1920x1200).

- **Advanced Optical Lens:** Features a 1.6x zoom and vertical lens shift for flexible installation.

- **Extensive Connectivity:** Dual HDMI (one with MHL support), dual audio-in, VGA, and more.

- **sRGB Color Profile:** Enables vibrant and highly accurate colors based on Rec. 709 HDTV specification.

- **Wall Color Adjustment:** Compensates for brightness loss when projecting on non-white surfaces.

- **Edge Mask:** Eliminates soft edges and jaggedness on the projection border for a smooth image.

- **Integrated Audio:** Built-in 10W speaker.

Projector Components

The image below illustrates the main components of the Optoma EH416 projector, including the lens, control panel, and various ports.

Figure 1: Front view of the Optoma EH416 Projector, showing the lens and primary controls.

Connectivity Ports

The Optoma EH416 projector offers a wide range of connectivity options located on the rear panel for versatile integration with various devices.

- **HDMI (x2):** Digital input for high-definition video and audio. One port supports MHL for mobile devices.

- **VGA (x2):** Analog input for computer connections.

- **Audio In (x2):** 3.5mm stereo jack for analog audio input.

- **Audio Out:** 3.5mm stereo jack for connecting external speakers.

- **USB-A:** For power output or service.
- **RS232:** For projector control via a computer or control system.
- **RJ45 (Ethernet):** For network control and management.

4. SETUP

Projector Placement

The Optoma EH416 offers flexibility in placement due to its 1.6x zoom and vertical lens shift capabilities. Position the projector on a stable surface or mount it securely. Adjust the distance from the screen to achieve the desired image size. The 1.6x zoom allows for a larger image from a shorter distance or a smaller image from a longer distance without moving the projector.

Connecting Devices

1. **Power Connection:** Connect the power cord to the projector's power inlet and then to a grounded electrical outlet.
2. **Video Source:**
    - For HDMI devices (e.g., Blu-ray player, laptop): Connect an HDMI cable from your device to one of the HDMI ports on the projector.
    - For VGA devices (e.g., older laptops): Connect a VGA cable from your device to a VGA port on the projector. If audio is also required, connect a separate 3.5mm audio cable from your device to an Audio In port on the projector.
    - For MHL compatible mobile devices: Connect an MHL cable to the designated HDMI/MHL port.
3. **Audio Output (Optional):** If using external speakers, connect an audio cable from the projector's Audio Out port to your sound system.

Powering On/Off

- **To Power On:** Press the power button on the projector's control panel or the remote control. The power indicator light will turn blue.
- **To Power Off:** Press the power button twice. The projector will enter a cooling down cycle before completely shutting off. Do not unplug the projector during the cooling cycle.

5. OPERATING THE PROJECTOR

Basic Operation

- **Source Selection:** Use the 'Source' button on the remote or control panel to cycle through available input sources (HDMI1, HDMI2/MHL, VGA1, VGA2).
- **Menu Navigation:** Press the 'Menu' button to access the On-Screen Display (OSD). Use the arrow keys to navigate and 'Enter' to select options.
- **Volume Control:** Use the volume buttons on the remote control to adjust the audio output from the built-in speaker or Audio Out port.

Image Adjustments

- **Focus and Zoom:** Rotate the focus and zoom rings on the projector lens to achieve a sharp and appropriately sized image.
- **Keystone Correction:** If the image appears trapezoidal, use the 'Keystone' function in the OSD menu or the dedicated button on the remote to correct the image shape. The EH416 supports ±40° vertical keystone correction.
- **Vertical Lens Shift:** This feature allows you to physically move the image up or down without tilting the projector, minimizing keystone distortion. Adjust the lens shift dial located near the lens.

- **Wall Color Adjustment:** Access this feature in the OSD menu to compensate for the color of your projection surface (e.g., blackboard, light yellow wall). This helps maintain accurate color reproduction even on non-white walls.

- **sRGB Color Profile:** For the most accurate and vibrant colors, especially when connecting to a PC, Mac, or sRGB compatible source, select the sRGB picture mode in the OSD. This profile adheres to the Rec. 709 HDTV specification.

- **Edge Mask:** This function, found in the OSD, helps to refine the edges of the projected image, eliminating any soft or jagged appearance on the border.

6. Maintenance

Cleaning the Projector

- **Lens:** Use a soft, lint-free cloth specifically designed for optical lenses. Do not use abrasive cleaners.

- **Casing:** Wipe the projector casing with a soft, dry cloth. For stubborn dirt, use a slightly damp cloth with a mild detergent, then wipe dry.

- **Air Vents:** Regularly check and clean the air vents to prevent dust buildup, which can lead to overheating. Use a soft brush or compressed air.

Lamp Care

The projector lamp has a finite lifespan. When the lamp life is nearing its end, a warning message may appear on the screen. Refer to the full user manual on the included CD-ROM for detailed instructions on lamp replacement. Always use genuine Optoma replacement lamps to ensure optimal performance and safety.

7. Troubleshooting

This section addresses common issues you might encounter. For more detailed troubleshooting, refer to the comprehensive user manual on the included CD-ROM.

- **No Image on Screen:**
  - Check if the projector is powered on and the lamp is lit.
  - Verify that the video source device is powered on and functioning correctly.
  - Ensure the video cable (HDMI, VGA) is securely connected to both the projector and the source device.
  - Select the correct input source using the 'Source' button on the remote or projector.

- **Blurry or Distorted Image:**
  - Adjust the focus ring on the projector lens.
  - If the image is trapezoidal, use the keystone correction function.
  - Ensure the projector is perpendicular to the screen or use vertical lens shift.

- **No Sound:**
  - Check the volume level on the projector and the source device.
  - If using an analog VGA connection, ensure a separate audio cable is connected.
  - Verify that the audio output is not muted.

- **Remote Control Not Working:**
  - Check and replace the batteries.
  - Ensure there are no obstructions between the remote and the projector's IR receiver.

8. Specifications

Feature	Detail
Model Number	EH416
Display Resolution	1920 x 1080 (Full HD)
Brightness	4200 Lumens
Contrast Ratio	20,000:1
Connectivity Technology	Wireless, HDMI, MHL, VGA
Product Dimensions	8.81 x 12.36 x 4.48 inches
Item Weight	6.6 pounds
Recommended Uses	Business, Education
Manufacturer	OPTOMA TECHNOLOGY
Date First Available	April 5, 2016

9. WARRANTY AND SUPPORT

Your Optoma EH416 projector comes with a manufacturer's warranty. Please refer to the included warranty card for specific terms, conditions, and registration information. For technical support, product registration, or to download the latest drivers and firmware, please visit the official Optoma website or contact Optoma customer service.