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› JOYALENS JL246PS 3-Lens 7-inch HDMI Digital Microscope User Manual

JOYALENS JL246PS

JOYALENS JL246PS 3-Lens 7-inch HDMI Digital Microscope User Manual

This manual provides instructions for the proper setup, operation, and maintenance of your JOYALENS JL246PS Digital Microscope.

1. INTRODUCTION

The JOYALENS JL246PS is a versatile digital microscope featuring a 7-inch IPS LCD screen and three interchangeable lenses, offering magnification up to 4000X. It supports UHD 2160P video recording and is compatible with Windows PCs and HDMI displays, making it suitable for various applications including biological observation, coin inspection, and circuit board repair.



Image: The JOYALENS JL246PS Digital Microscope with its 7-inch display.

2. PACKAGE CONTENTS

Please verify that all items listed below are included in your package:

- Microscope Unit (x1)
- Plastic Stand (x1)
- Lenses: Lens A (x1), Lens B (x1), Lens C (x1)
- USB Spotlights (x2)
- USB Cable (x1)

- Switch Cable (x1)
- HDMI Cable (x1)
- Remote Control (x1)
- Prepared Slides (x5)
- Observation Box (x1)
- Tweezers (x1)
- Backdrop Boards (x3)
- Screwdriver (x1)
- 32GB Micro SD Card (x1)
- Instruction Manual (x1)



Image: All components of the JL246PS Digital Microscope package.

3. SETUP

1. **Assemble the Stand:** Attach the main support column to the base using the provided screws and screwdriver. Ensure it is securely fastened.
2. **Mount the Microscope Unit:** Slide the microscope unit onto the adjustable arm of the stand. Tighten the securing knob to hold it in place.
3. **Attach Spotlights:** Connect the two flexible USB spotlights to the designated ports on the microscope unit or stand. Position them to illuminate the observation area.
4. **Insert SD Card:** Insert the provided 32GB Micro SD card into the card slot on the microscope unit.
5. **Power On:** Connect the microscope to a power source using the USB cable and switch cable. Press the power button to turn on the device.

Video: Bracket Installation

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Video: This video demonstrates the step-by-step installation of the microscope bracket.

4. OPERATING INSTRUCTIONS

Basic Operation

1. **Power On/Off:** Press and hold the power button on the microscope unit to turn it on or off.
2. **Adjust Focus:** Rotate the focus wheel on the microscope unit to achieve a clear image on the screen.
3. **Adjust Object Distance:** Use the stand knob to adjust the vertical movement range of the object stage (0-58 mm) to set the appropriate distance for observation.
4. **Lighting Adjustment:** The two gooseneck spotlights and the bottom light on the base can be adjusted to provide optimal illumination for various objects and environments.

Video: Quick Start with Different Lenses

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Video: This video provides a quick guide to starting the microscope and using different lenses.

5. LENS USAGE

The JL246PS comes with three specialized lenses for diverse observation needs:

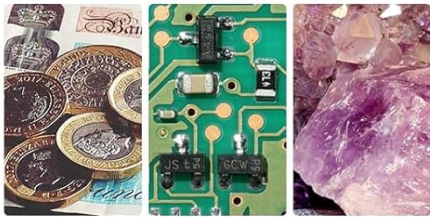
- **Lens A (18-720x):** Ideal for observing larger objects such as coins, rocks, plants, and for detailed circuit board repairs.
- **Lens B (1560-2040x):** Designed for biological slides and specimens, offering higher magnification.
- **Lens C (2760-4080x):** Provides the highest magnification for intricate biological observations and detailed specimen study.

3 Lens Microscope for All Your Needs

Lens [A]

18X – 720X

12mm – 320mm



Lens [B&C]

[B]:1560X – 2040X

[C]:2760X – 4080X



Image: The JL246PS microscope showcasing its three interchangeable lenses.

Changing Lenses

To change lenses, always hold the lens firmly while unscrewing or screwing it into place to prevent damage.

Step to switch lenses



Image: Steps for safely switching lenses on the microscope.

Video: Tips for Changing Lenses

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Video: This video provides helpful tips for changing lenses on the JL2469 Series microscope.

Lens A in Use: Coin Observation

Lens A to observe coins, plants, stones



Image: The microscope set up for coin observation using Lens A.

Video: Lens A for Coin Observation

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Video: Demonstration of using Lens A for detailed coin observation.

Video: Lens A for Electronic Work and Repair

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Video: This video illustrates the use of Lens A for electronic work and repair.

Lens B & C in Use: Biological Observation

Lens B&C for Biological Slides Observation



Image: The microscope configured for biological slide observation using Lens B or C.

Video: Lens B&C Observation Slide

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Video: This video demonstrates observing a biological slide using Lens B and C.

Video: Butterfly Specimen under the JL246PS Microscope

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Video: Observing a butterfly specimen with the JL246PS microscope.

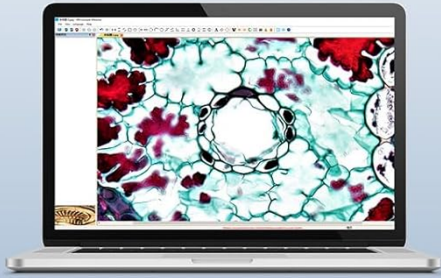
6. CONNECTIVITY

The JL246PS offers versatile connectivity options for enhanced viewing and data analysis:

- **HDMI Output:** Connect the microscope to an external monitor or TV using the provided HDMI cable for a larger display, reducing eye strain and facilitating group viewing.
- **USB Output:** Connect to a Windows PC (XP/7/8/10 compatible) via USB. Download the dedicated measurement software to perform functions like object length measurement and area calculation.

HDMI & USB Output for Larger View

Connection to a computer



USB Connection



Connection to HDMI display



HDMI Connection



Measurement software
Support Windows 7/8/10



Image: The microscope connected to both a computer via USB and an external HDMI display.

7. ILLUMINATION

The microscope is equipped with multiple lighting options to ensure clear observation under various conditions:

- **Two Removable Gooseneck Spotlights:** These adjustable lights provide flexible illumination from the sides, allowing you to highlight specific areas of your specimen.
- **Bottom Light:** Located on the base, this light is ideal for observing translucent specimens, especially when used with the provided backdrop boards.

Convenient Remote Control

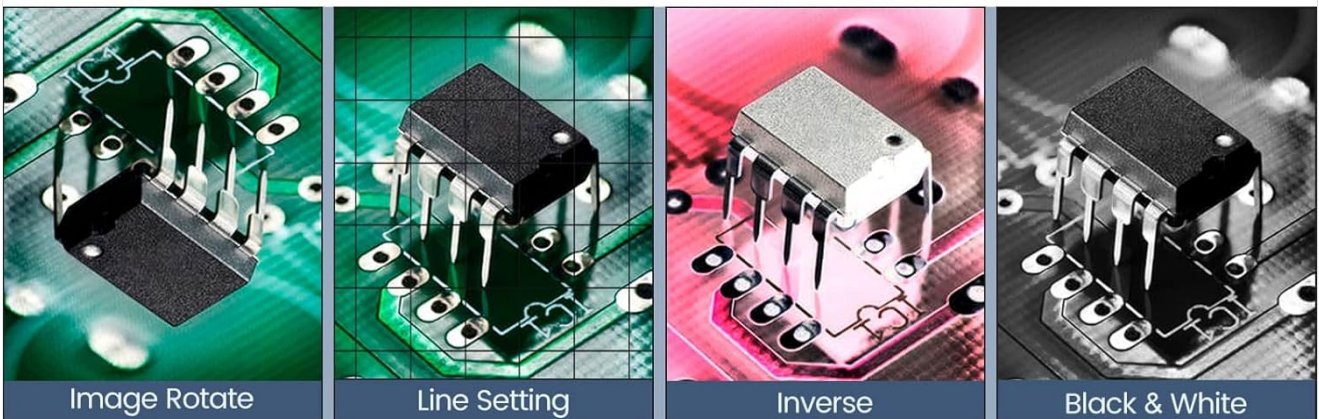


Image: The microscope's adjustable gooseneck spotlights and integrated bottom light.

8. REMOTE CONTROL

A smart remote control is included for convenient operation, allowing you to perform various functions without directly touching the microscope unit. This helps prevent screen shaking during critical observations or recordings.

- Take photos and record videos.
- Zoom in and out.
- Rotate images.
- Adjust settings.

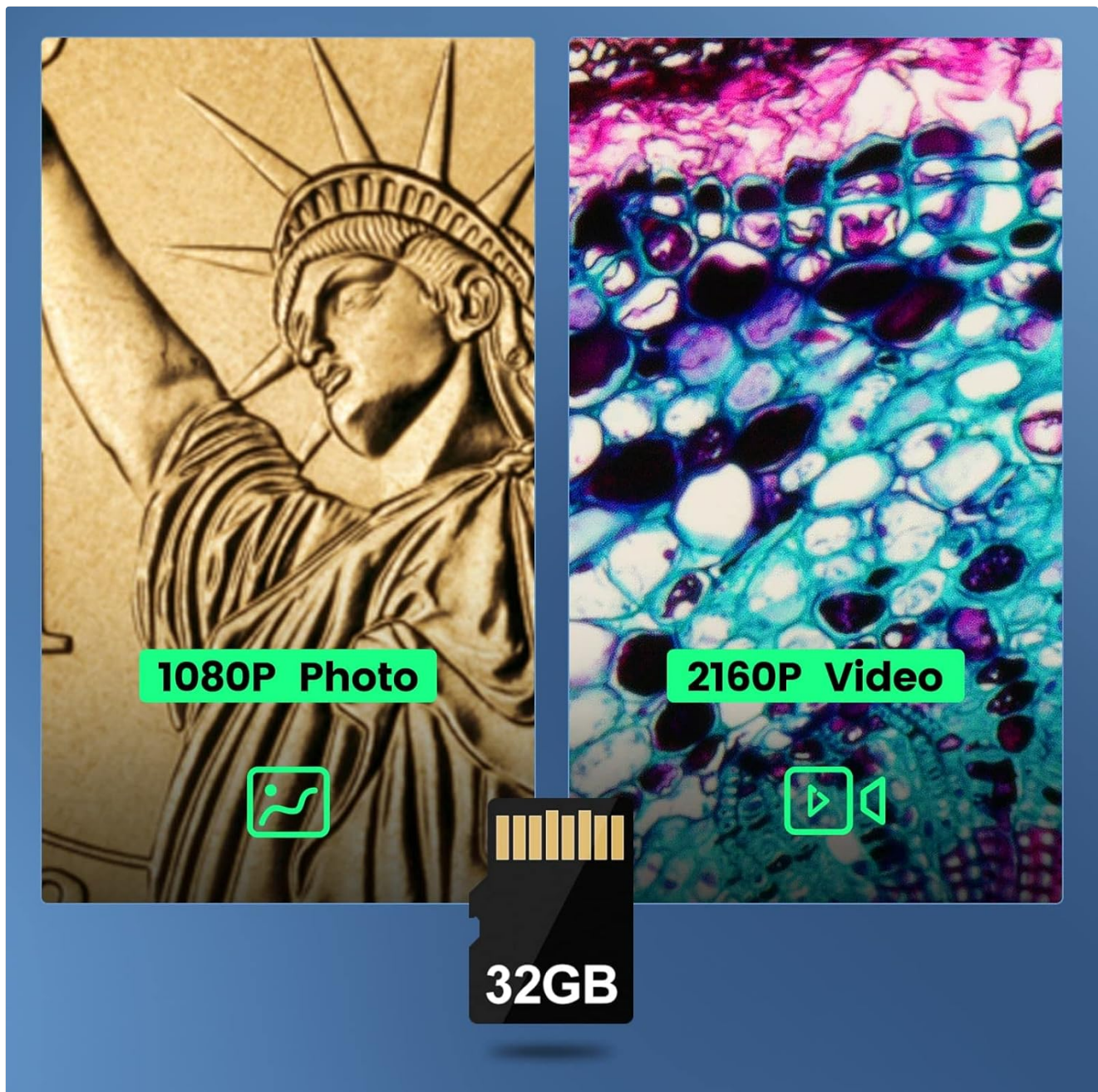


Image: The remote control for the microscope, illustrating its various functions.

9. IMAGE AND VIDEO RECORDING

The JL246PS supports capturing high-resolution images and videos directly to the included 32GB Micro SD card.

- **Photo Resolution:** Maximum 5600x4200 (24M).
- **Video Resolution:** UHD 2880x2160 at 24fps; FHD 1920x1080 at 60fps/30fps; HD 1280x720 at 120fps.

Lens A to observe coins, plants, stones



Lens A: 18X - 720X

Focus Range: 12mm - 320mm

Image: Display showing photo and video recording capabilities with the 32GB SD card.

10. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your microscope:

- **Cleaning:** Use a soft, lint-free cloth to gently wipe the exterior of the microscope. For lenses, use a specialized lens cleaning solution and cloth to avoid scratches.
- **Storage:** Store the microscope in a clean, dry environment, away from direct sunlight and extreme temperatures. Use the observation box for prepared slides and other small accessories.
- **Handling:** Always handle the microscope with care, especially when changing lenses or adjusting components.

11. TROUBLESHOOTING

Problem	Possible Cause	Solution
No image on screen	Power not connected; device not turned on; lens cap on.	Check power connection; press power button; remove lens cap.
Image is blurry	Incorrect focus; incorrect object distance; dirty lens.	Adjust focus wheel; adjust stand knob for object distance; clean lens.
No display on external monitor via HDMI	HDMI cable not connected properly; monitor input not set to HDMI.	Ensure HDMI cable is secure; select correct HDMI input on monitor.
Cannot connect to PC via USB	USB cable not connected properly; driver not installed; incompatible OS.	Ensure USB cable is secure; install measurement software/drivers; verify Windows XP/7/8/10 compatibility.
Spotlights not working	USB connection loose; light switch off.	Check USB connections; ensure light switch is on.

12. SPECIFICATIONS

Feature	Detail
Model Name	JOYALENS JL246PS
Light Source Type	LED
Material	Plastic
Color	Black
Product Dimensions (L x W x H)	7.5"L x 7.8"W x 11.8"H
Magnification Maximum	4000 x
Item Weight	1.91 Kilograms
Voltage	5 Volts
Compatible Devices	Laptop, Personal Computer
Objective Lens Description	Achromatic
Power Source	Corded Electric
UPC	616361267428
Model Number	ZXR-JL246PS-US

13. WARRANTY AND SUPPORT

Warranty: The JOYALENS JL246PS Digital Microscope comes with a 1-year warranty from the date of purchase, covering manufacturing defects.

Customer Support: For technical assistance, troubleshooting, or warranty claims, please contact JOYALENS customer service through the retailer where the product was purchased or visit the official JOYALENS store on Amazon: [JOYALENS Amazon Store](#).