RUZIZAO XHU4003

RUZIZAO Digital Microscope XHU4003 User Manual

Model: XHU4003

1. Introduction

Thank you for purchasing the RUZIZAO Digital Microscope XHU4003. This industrial-grade digital microscope is designed for a wide range of applications, including electronic repair, coin observation, microorganism and tissue observation, lab research, school education experiments, precious metal identification, and electronic circuit board maintenance. Featuring a 48MP 4K camera, 150X zoom C-mount lens, and a bright LED ring light, it provides clear and detailed imaging for various tasks.

This manual provides detailed instructions on how to set up, operate, and maintain your digital microscope. Please read it thoroughly before use to ensure optimal performance and longevity of the product.



Figure 1.1: RUZIZAO Digital Microscope XHU4003 overview, highlighting the camera, optical lens, bright ring light, and multi-angle adjustable foldable stand.

2. Product Overview and Components

The RUZIZAO Digital Microscope XHU4003 comes with several key components designed for versatile use.

2.1 Packing List

- Microscope Camera (1)
- 150X Zoom C-Mount Lens (1)
- LED Ring Light (1)
- Foldable Stand (1)
- Remote Control (1) - *Note: Remote control battery (CR2025) is not included.*
- Power Plug (1)
- Instruction Manual (1)

2.2 Key Features

- **High-Resolution Camera:** 48MP (8000x6000) for photos, 4K (3840x2160) for video recording, and 1080P HD output via HDMI/Type-C. Supports up to 64GB TF card storage.
- **150X Zoom C-Mount Lens:** Adjustable magnification from 1X to 150X with a working distance of 50mm to 1000mm.
- **Bright LED Ring Light:** 56 bright LED beads with adjustable brightness (up to 60,000 Lux) and color temperature of 6500K-7000K for optimal illumination.
- **Flexible Foldable Stand:** Multi-angle adjustable stand with 4 adjustable parts for stable and precise positioning.
- **Remote Control:** For convenient operation, especially in HDMI output mode.

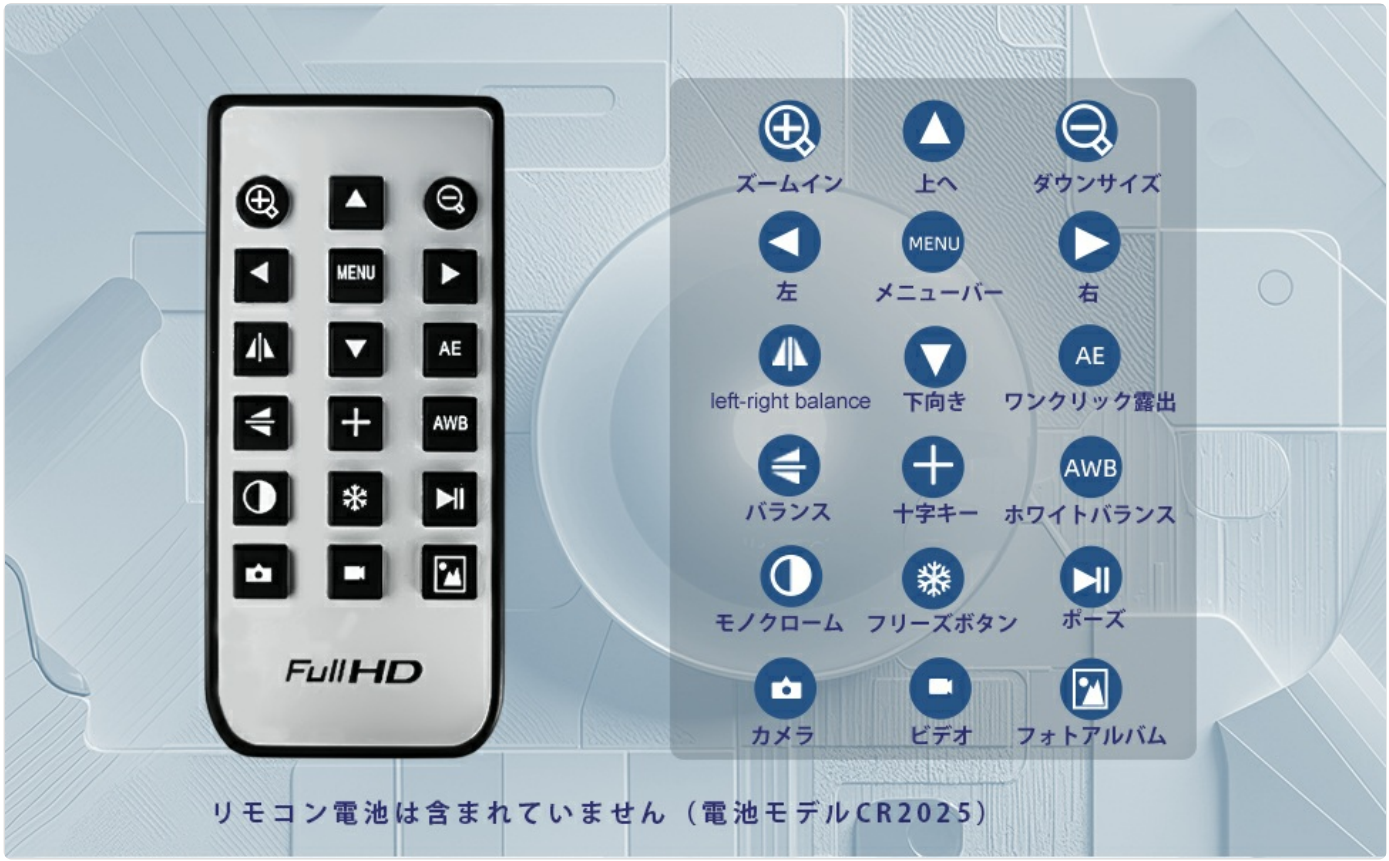


Figure 2.1: Intelligent CCD Camera features and applications.

3. Setup Instructions

Follow these steps to assemble and set up your RUZIZAO Digital Microscope.

3.1 Assembling the Stand

1. Attach the clamp base to a sturdy desk or workbench.
2. Insert the main arm of the foldable stand into the clamp base and secure it.
3. Adjust the four sections of the stand to your desired angle and height. Ensure all joints are tightened to prevent movement during observation.



Figure 3.1: Flexible adjustable foldable bracket for multi-angle positioning.

3.2 Attaching the Lens and Camera

1. Carefully screw the 150X C-mount lens onto the microscope camera.
2. Mount the assembled camera and lens unit onto the stand's mounting point. Secure it firmly.



Figure 3.2: The 150X Zoom C-Mount Lens.

3.3 Connecting the LED Ring Light

1. Attach the LED ring light around the microscope lens.
2. Connect the ring light's power cable to a suitable USB power source.

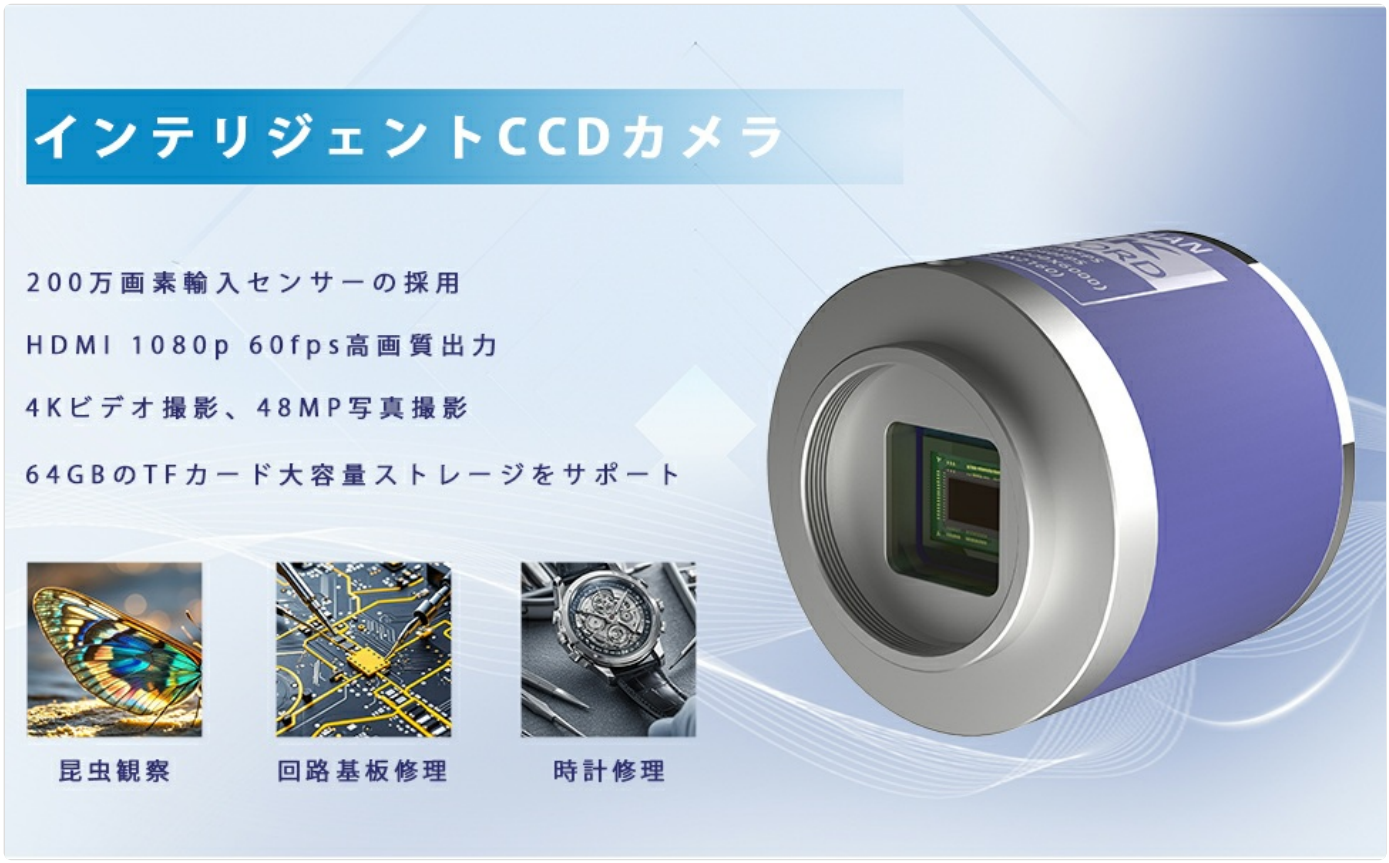


Figure 3.3: The bright LED ring light.

3.4 Power Connection

Connect the microscope camera to the power supply using the provided power plug. The camera supports Type-C for power and data transfer.

4. Operating Instructions

This section details how to operate your digital microscope for various functions.

4.1 Display Output Modes

The microscope supports HDMI and Type-C/USB output for displaying images and videos.

- **HDMI Output:** Connect the microscope to an HDMI monitor or TV for 1080P HD image output. In this mode, the remote control can be used to operate the microscope.
- **Type-C/USB Output:** Connect the microscope to a computer via the Type-C/USB port. The microscope will be recognized as a webcam, allowing you to view and capture images/videos using compatible software.

4.2 Adjusting Magnification and Focus

1. Place the object you wish to observe under the lens.
2. Rotate the knob on the 150X C-mount lens to adjust the magnification (1X to 150X).
3. Adjust the focus ring on the lens until the image on the display is clear. You may also need to adjust the working distance by moving the stand's arm up or down.

4.3 Using the LED Ring Light

The LED ring light provides essential illumination for clear observation.

- Turn on the LED ring light using its power switch.
- Rotate the dimmer knob on the ring light to adjust the brightness to your preference.

4.4 Capturing Photos and Videos

The microscope supports capturing 48MP photos and 4K videos.

- Insert a TF card (up to 64GB, not included) into the microscope camera's slot.
- Use the remote control (in HDMI mode) or connected PC software (in USB mode) to trigger photo capture or video recording.



Figure 4.1: Video and photo capabilities of the digital microscope.

4.5 Connecting to PC Software

To use the microscope with PC software:

1. Connect the microscope to your computer's USB port using a Type-C cable.
2. The microscope should be recognized as a webcam. Open your preferred camera software (e.g., Windows Camera app, or a dedicated microscope software).
3. If specific software is required, refer to the QR code in the included instruction manual for download links.

Figure 4.2: Guide to connecting and using PC software.

4.6 Remote Control Functions

The remote control allows for convenient operation when connected via HDMI. Ensure a CR2025 battery is installed (not

included).

Figure 4.3: Remote control button functions.

5. Maintenance

Proper maintenance ensures the longevity and optimal performance of your digital microscope.

- **Cleaning the Lens:** Use a soft, lint-free cloth and a specialized lens cleaning solution to gently wipe the lens. Avoid touching the lens surface with bare hands.
- **Cleaning the Body:** Wipe the microscope body and stand with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- **Storage:** When not in use, store the microscope in a clean, dry, and dust-free environment. Use a dust cover if available.
- **Avoid Impact:** Handle the microscope with care to prevent drops or impacts that could damage internal components or optical elements.
- **Power Off:** Always power off the microscope and disconnect it from the power source when not in use or during cleaning.

6. Troubleshooting

If you encounter any issues with your microscope, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
No image on display	Power not connected; Incorrect output mode; Loose cable connection; Monitor input not selected.	Check power connection; Ensure correct HDMI/USB mode is selected; Reconnect cables firmly; Select correct input on monitor.
Image is blurry	Out of focus; Incorrect working distance; Dirty lens.	Adjust focus ring; Adjust stand height/working distance; Clean the lens.
LED light not working	Power not connected to ring light; Dimmer set to minimum; Faulty LED.	Check USB power connection; Adjust dimmer knob; Contact support if LEDs are faulty.
Remote control not responding	No battery or low battery; Not in HDMI mode; Obstruction between remote and microscope.	Install/replace CR2025 battery; Ensure microscope is in HDMI output mode; Remove any obstructions.
Cannot save photos/videos	No TF card inserted; TF card full or corrupted; Incorrect file format.	Insert a TF card; Delete unnecessary files or use a new TF card; Format TF card if necessary.

If the problem persists after trying these solutions, please contact customer support.

7. Specifications

Feature	Detail
Model	XHU4003

Feature	Detail
Brand	RUZIZAO
Camera Resolution (Photo)	48MP (8000x6000)
Video Resolution	4K (3840x2160), 1080P@60FPS, 1080P@30FPS
Output Interface	HDMI, Type-C/USB
Lens Type	150X Zoom C-Mount Lens
Magnification (Display)	1X - 150X
Working Distance	50mm - 1000mm
Light Source	56-LED Ring Light
LED Color Temperature	6500K - 7000K
Max Illuminance	60,000 Lux
Storage	Supports up to 64GB TF Card
Material	Metal
Product Weight	1.65 kg
UPC	768351109055

8. Warranty and Support

8.1 Warranty Information

This RUZIZAO Digital Microscope XHU4003 comes with a 1-year manufacturer's warranty from the date of purchase. The warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by misuse, accidents, unauthorized modifications, or improper maintenance.

Please retain your proof of purchase for warranty claims.

8.2 Customer Support

If you have any questions, concerns, or require technical assistance with your RUZIZAO Digital Microscope, please do not hesitate to contact our customer support team. We are committed to providing excellent service and support.

For support, please refer to the contact information provided on the product packaging or the official RUZIZAO website.

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Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question