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> Opqqq ODM301 Pro 1200X Digital Biological Microscope User Manual

Opqqq ODM301

Opqqq ODM301 Pro 1200X Digital Biological Microscope User Manual

Model: ODM301 Pro | Brand: Opqqq

1. INTRODUCTION

This manual provides detailed instructions for the proper setup, operation, and maintenance of your Opqqq ODM301 Pro Digital Biological Microscope. This device is designed for observing microscopic specimens with up to 1200X magnification, featuring a 7-inch IPS screen for enhanced viewing and sharing.

Key features include:

- 7-inch IPS Screen for clear display and sharing.
- WiFi connectivity for real-time viewing and file management via app.
- Three metal achromatic lenses offering up to 1200X magnification.
- 8MP photo and 1080P video capture capabilities.
- USB/HDMI output for larger display on external monitors.
- Dual LED lighting system (top and bottom) with adjustable brightness.
- Integrated measurement scale for precise observations.
- 2000mAh rechargeable battery for portable use (up to 3 hours).

2. WHAT'S IN THE BOX

Verify that all components are present upon unboxing:

- 1 X Opqqq ODM301 Pro LCD Digital Microscope
- 1 X Power Cable
- 1 X HDMI Cable
- 1 X Power Adapter

- 1 X Carrying Case
- 5 X Blank Slides
- 5 X Prepared Slides

PACKING LIST



Figure 1: All components included in the Opqqq ODM301 Pro package. This includes the microscope unit, power accessories, carrying case, and both blank and prepared slides for immediate use.

3. SETUP

3.1 Powering On

Connect the microscope to the power adapter using the provided power cable. The device can also operate on its internal 2000mAh rechargeable battery for up to 3 hours of portable use. Ensure the battery is charged for cordless operation.

3.2 Initial Configuration

Upon first power-on, you may need to configure basic settings such as language, date/time, and display

preferences. Navigate through the on-screen menu using the control buttons located below the display.

3.3 Attaching a Sample Slide

1. Gently place a prepared or blank slide onto the mechanical stage.
2. Secure the slide using the stage clips.
3. Use the stage adjustment knobs to center the area of interest under the objective lens.

Video 1: Demonstrates the process of placing a specimen slide onto the microscope stage and making initial adjustments. This video is provided by Opqqq Store.

4. OPERATING INSTRUCTIONS

4.1 Adjusting Magnification

The microscope features a revolving nosepiece with three metal achromatic objective lenses (e.g., 4X, 10X, 40X) to achieve various magnification levels up to 1200X. Rotate the nosepiece to select the desired objective lens. Always start with the lowest magnification for initial viewing.

4.2 Focusing

Use the coarse and fine focus knobs located on the side of the microscope to bring your specimen into sharp focus on the 7-inch IPS screen. The coarse adjustment knob is for large movements, while the fine adjustment knob allows for precise focusing.

4.3 Illumination Control

The ODM301 Pro is equipped with a dual LED lighting system:

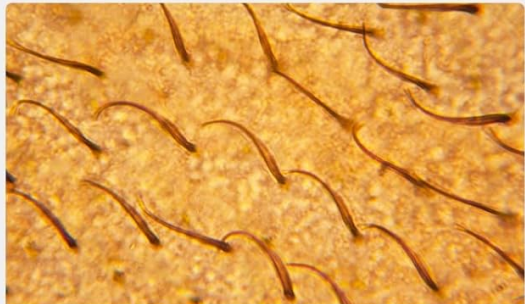
- **Bottom Light:** Illuminates transparent specimens from below. Adjust its brightness using the control dial.
- **Top Light:** Illuminates opaque objects from above. Adjust its brightness as needed.

Proper illumination is crucial for clear observation. Experiment with both light sources and brightness levels to achieve optimal viewing for different specimen types.

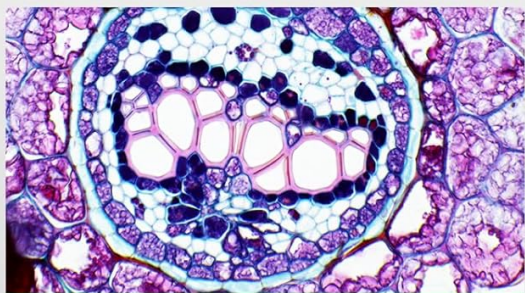


LED 

ILLUMINATION



TOP LIGHT
watch the real things



BOTTOM LIGHT
view specimens

Figure 2: The microscope features both top and bottom LED lights, allowing for versatile illumination of various specimens. Brightness is adjustable for optimal viewing.

4.4 Image and Video Capture

The microscope can capture 8MP photos and 1080P videos. Files are saved to an inserted SD card. Use the dedicated buttons on the device or the remote control (if applicable) to initiate recording or take photos.

4.5 Connectivity Options

- **WiFi & App:** Connect your smartphone or tablet (Android/iOS) via WiFi to view, zoom, and capture images/videos in real-time. Files can be saved to both your device and the SD card.
- **USB/HDMI Output:** Connect the microscope to a PC (Windows/Mac OS compatible) or projector using the provided USB or HDMI cables for a larger viewing experience. This is plug-and-play, requiring no additional software.

USB/HDMI

**OUTPUT
LARGER VIEWING**



Figure 3: The microscope's HDMI output allows for connection to larger displays, facilitating group observation and presentations.

4.6 Using the Measurement Scale

The integrated measurement scale allows for precise size determination of observed specimens. Refer to the on-screen display for scale readings, which adjust with magnification changes.

BENEFICIAL MEASUREMENT SCALE

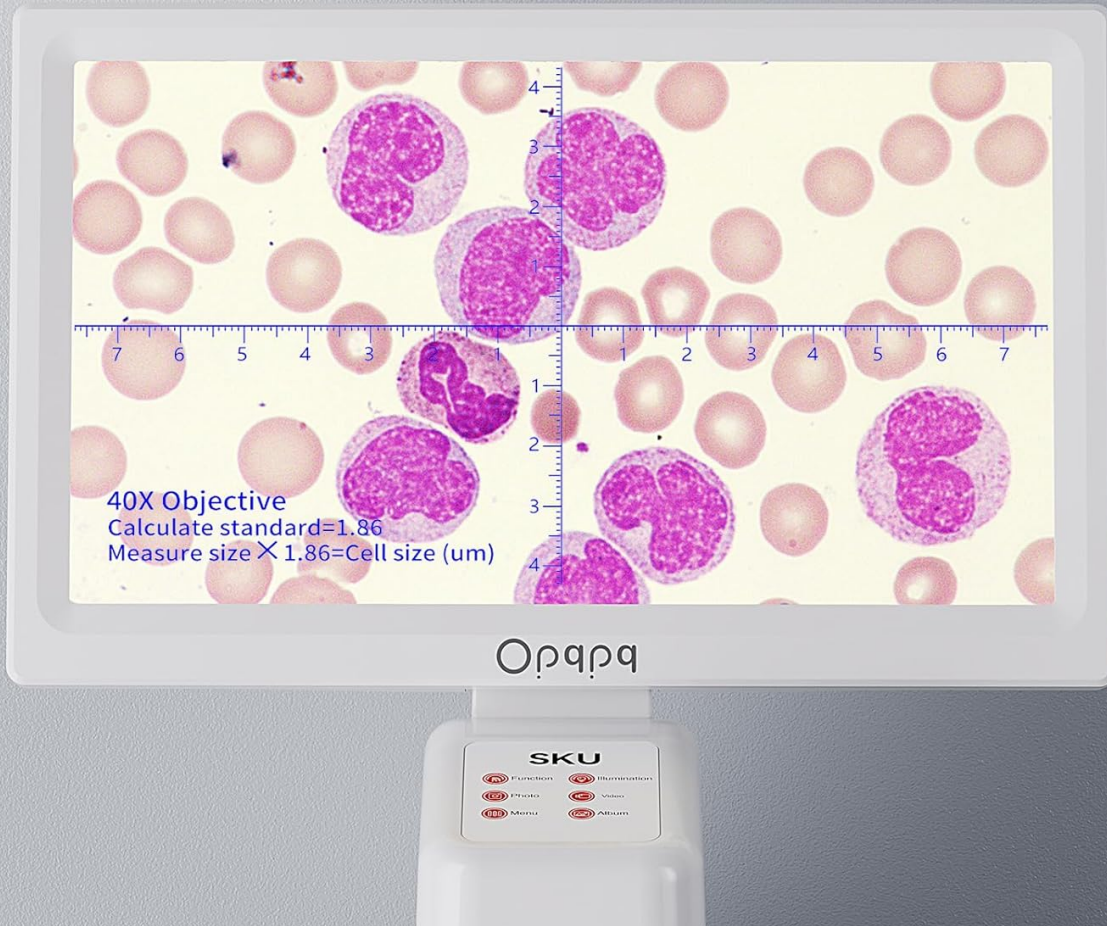


Figure 4: The 7-inch screen with an overlaid measurement scale, useful for quantifying specimen sizes.

4.7 Observing Specific Specimens

The 1200X magnification and high-resolution camera allow for detailed observation of various biological samples:

- **Microorganisms:** Observe detailed motions of paramecium or other waterborne organisms.
- **Cells:** Visualize blood cells, semen cells, and plant epidermal cells with clarity.

Video 2: Observation of Paramecium under the Opqqq ODM301 microscope, demonstrating its capability for viewing live microorganisms. This video is provided by Opqqq Store.

Video 3: Microscopic view of semen cells using the Opqqq ODM301 microscope, highlighting its precision for detailed biological samples. This video is provided by Opqqq Store.

Video 4: Blood cells observed under the Opqqq ODM301 LCD digital microscope, showcasing the clarity and magnification for cellular structures. This video is provided by Opqqq Store.

5. MAINTENANCE

5.1 Cleaning

Regularly clean the optical components (lenses, eyepieces, screen) with a soft, lint-free cloth and a specialized lens cleaning solution. Avoid using abrasive materials or harsh chemicals. Keep the microscope covered when not in use to prevent dust accumulation.

5.2 Storage

Store the microscope in its provided carrying case in a dry, dust-free environment. Ensure all components are securely fastened before transport.

6. TROUBLESHOOTING

- **No image on screen:** Ensure the power cable is securely connected or the battery is charged. Check that the objective lens is correctly rotated into position and the illumination is turned on and adjusted.
- **Blurry image:** Adjust the coarse and fine focus knobs carefully. Ensure the specimen is properly placed and flat on the stage. Clean the objective and eyepiece lenses if smudges are visible.
- **External display issues (USB/HDMI):** Verify that the cables are securely connected to both the microscope and the external device. Ensure the external device is set to the correct input source.
- **Missing SD card:** If the device was advertised with an SD card and it's missing, contact customer support. Without an SD card, photo and video capture functionality may be limited or unavailable.

7. SPECIFICATIONS

Feature	Detail
Model Name	ODM301 Pro
Brand	Opqpq
Magnification Maximum	1200 x
Screen Size	7" IPS Display
Photo Resolution	8MP
Video Resolution	1080P
Light Source Type	Dual LED (Top & Bottom)
Battery	2000mAh Lithium Ion (up to 3 hours use)
Connectivity	WiFi, USB, HDMI
Compatible Devices	Smartphone (Android/iOS), PC (Windows/Mac OS), Projectors
Material	7" IPS Display + ABS Stand, Holder

Item Weight	4.59 pounds
Package Dimensions	12 x 10 x 8.25 inches

8. WARRANTY AND SUPPORT

Warranty information for the Opqqq ODM301 Pro microscope is not explicitly detailed in the provided product data. For specific warranty terms, technical support, or service inquiries, please refer to the contact information provided in your product packaging or visit the official Opqqq website.