

Vabiooth VB-M001-B

Vabiooth Dual-View Compound Monocular Microscope (Blood Version) User Manual

Model: VB-M001-B

1. INTRODUCTION

Thank you for choosing the Vabiooth Dual-View Compound Monocular Microscope, specifically designed for observing live blood. This instrument offers a magnification range of 40X to 2500X, featuring a 7-inch LCD screen and a 5MP electronic eyepiece for enhanced viewing and sharing. This manual provides essential information for the proper setup, operation, and maintenance of your microscope to ensure optimal performance and longevity.

2. SAFETY INSTRUCTIONS

- Always handle the microscope with care. Avoid sudden impacts or vibrations.
- Do not expose the microscope to direct sunlight, high temperatures, or high humidity.
- Ensure the microscope is placed on a stable, level surface during use.
- Disconnect the power cord before cleaning or performing any maintenance.
- Never attempt to disassemble the optical or electrical components. Refer to qualified personnel for repairs.
- Keep the lenses clean and free from dust, fingerprints, and oil. Use only specified cleaning materials.
- Keep out of reach of children without adult supervision.

3. PACKAGE CONTENTS

Verify that all components are present upon unpacking:

- Vabiooth Compound Monocular Microscope Body
- 7-inch LCD Screen with 5MP Electronic Eyepiece
- Wide-field Eyepieces (WF10X, WF25X)
- Achromatic Objective Lenses (4X, 10X, 40X, 100X Oil Immersion)
- Aluminum Carry Case
- Power Adapter

- Microscope Slides and Cover Slips
- Immersion Oil (for 100X objective)
- Dust Cover



Image 3.1: Overview of the Vabiooth microscope and included accessories, neatly packed in its aluminum carry case.

4. COMPONENT IDENTIFICATION

Familiarize yourself with the main parts of your microscope:

- **Eyepieces:** Where you look to view the specimen. This model includes traditional eyepieces and a 5MP electronic eyepiece integrated with the LCD screen.
- **LCD Screen:** 7-inch display for direct viewing and sharing of magnified images.
- **Revolving Nosepiece:** Holds the objective lenses and allows for easy switching between magnifications.

- **Objective Lenses:** Provide primary magnification (4X, 10X, 40X, 100X).
- **Mechanical Stage:** A platform to place microscope slides, with controls for precise X-Y axis movement.
- **Stage Clips:** Secure the slide in place on the mechanical stage.
- **Coarse Focus Knob:** For large adjustments in focus.
- **Fine Focus Knob:** For small, precise adjustments in focus.
- **Illuminator (Light Source):** Provides light from below the specimen.
- **Condenser:** Focuses the light onto the specimen. Includes an iris diaphragm to control light aperture.
- **Base:** The bottom support of the microscope.

The 7-inch LCD display provides clear images for easy display of experimental results

Ergonomically designed to protect the cervical spine



7-inch
HD screen



5MP
E-eyepiece



360° rotatable
head & screen



30° angle
ocular tubes



Image 4.1: The 7-inch LCD display and ergonomic ocular tubes, designed for comfortable viewing and sharing.

Lab-Ready Quality

Additional 100X objective expand the maximum magnification to 2500x with different unique levels



Image 4.2: Detail of the objective lenses mounted on the revolving nosepiece, positioned above the mechanical stage.

5. SETUP

5.1 Unpacking and Placement

1. Carefully remove the microscope and all accessories from the aluminum carry case.
2. Place the microscope on a sturdy, level, and vibration-free surface.
3. Ensure adequate space around the microscope for comfortable operation.

5.2 Eyepiece and LCD Screen Installation

1. Insert the desired wide-field eyepiece (WF10X or WF25X) into the monocular tube.
2. The 7-inch LCD screen with the 5MP electronic eyepiece is pre-installed. Ensure it is securely attached and can rotate freely.

5.3 Power Connection

1. Connect the power adapter to the microscope's power input jack.
2. Plug the power adapter into a standard AC electrical outlet (110 Volts).
3. Turn on the main power switch, usually located on the base of the microscope.

6. OPERATION

6.1 Preparing a Specimen Slide

1. Place your prepared specimen slide onto the mechanical stage.
2. Secure the slide using the stage clips.
3. Use the mechanical stage adjustment knobs to center the specimen area you wish to observe under the objective lens.

6.2 Adjusting Illumination

1. Turn on the LED illuminator.
2. Adjust the intensity of the LED light using the dimmer control on the base.
3. Open or close the iris diaphragm on the Abbe condenser to control the contrast and resolution of the image. Start with a partially open diaphragm and adjust as needed for clarity.

LED illumination

1.25 NA Abbe condenser with iris diaphragm
for clear examination and light control



Image 6.1: The variable LED illuminator and 1.25 NA Abbe condenser, crucial for controlling light and contrast.

6.3 Focusing and Magnification

1. Rotate the revolving nosepiece to select the lowest power objective lens (4X).
2. While looking through the eyepiece or at the LCD screen, use the **coarse focus knob** to bring the specimen into approximate focus.
3. Use the **fine focus knob** for sharp, detailed focusing.
4. To increase magnification, rotate the nosepiece to the next objective lens (10X, 40X). Re-adjust fine focus as needed.
5. For the highest magnification (100X oil immersion), apply a small drop of immersion oil directly onto the specimen slide in the area to be viewed. Carefully rotate the 100X objective into the oil drop. Focus using only the fine focus knob.

Mechanical Stage & Focus



Mechanical stage provides smooth and precise movement for examination of specimen slides.



Separate coarse and fine focus knobs for speed focusing and accuracy.



Image 6.2: The mechanical stage with X-Y adjustment controls and the coaxial coarse and fine focus knobs.

6.4 Using the LCD Screen

The 7-inch LCD screen provides a convenient way to view specimens and share observations. The screen can rotate 360 degrees for optimal viewing angles. The integrated 5MP electronic eyepiece transmits the image directly to the screen.

- Ensure the LCD screen is powered on.
- Adjust the screen's brightness and contrast settings as desired for clear viewing.
- The screen allows for a larger field of view compared to traditional eyepieces, making it suitable for group observation.

6.5 Capturing Photos and Videos

The microscope supports still photo and video capture. This functionality typically requires an external video capture card, which is not included with the microscope. Once connected, follow the instructions provided with your video capture card for recording images and footage.

7. MAINTENANCE

7.1 Cleaning Lenses

- Use a soft, lint-free cloth or lens paper specifically designed for optical instruments.
- For stubborn smudges, use a small amount of lens cleaning solution. Apply the solution to the cloth, not directly to the lens.
- Never touch optical surfaces with your fingers.
- Clean the 100X oil immersion objective immediately after use to prevent oil from drying on the lens.

7.2 General Cleaning

- Wipe the microscope body with a soft, damp cloth. Avoid using harsh chemicals or abrasive cleaners.
- Ensure no liquids enter the internal components.

7.3 Storage

- When not in use, cover the microscope with the provided dust cover.
- Store the microscope in its aluminum carry case in a cool, dry, and dust-free environment.
- Remove any slides or immersion oil from the stage and objectives before storage.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No illumination	Power cord disconnected; power switch off; bulb failure.	Check power connections; turn on switch; contact support if bulb is faulty.
Image is blurry/out of focus	Incorrect focus adjustment; objective lens not fully engaged; dirty lens.	Adjust coarse and fine focus; rotate nosepiece until objective clicks into place; clean lenses.
Dark field of view	Iris diaphragm closed; low illumination intensity; objective lens too high.	Open iris diaphragm; increase light intensity; lower stage or raise objective.
Dust or spots in view	Dust on eyepiece, objective, or specimen.	Clean eyepieces and objectives; ensure specimen slide is clean.
Mechanical stage not moving smoothly	Accumulated dirt or debris.	Clean the stage area carefully. Do not lubricate without professional guidance.

9. SPECIFICATIONS

Feature	Detail
Model Number	VB-M001-B
Magnification Range	40X - 2500X
Eyepieces	WF10X, WF25X, 5MP Electronic Eyepiece
Objective Lenses	Achromatic 4X, 10X, 40X(S), 100X(Spring Oil)

Feature	Detail
LCD Screen	7-inch, 360-degree rotatable
Stage	Adjustable Mechanical Stage with 1.0mm divisions
Illumination	Variable LED Intensity, 1.25 NA Abbe Condenser with Iris Diaphragm
Focus System	Coaxial Coarse and Fine Focus Knobs
Power Source	AC (110 Volts)
Material	Aluminum
Item Weight	10.88 pounds
Package Dimensions	18 x 13 x 9.1 inches

10. WARRANTY AND SUPPORT

10.1 Warranty Information

This Vabiooth microscope is covered by an **18-month warranty** from the date of purchase. Please retain your proof of purchase for warranty claims. The warranty covers manufacturing defects and malfunctions under normal use. It does not cover damage caused by misuse, accidents, unauthorized repairs, or normal wear and tear.

10.2 Customer Support

For any questions, technical assistance, or warranty inquiries, please contact Vabiooth customer support:

Email: Vabiooth@outlook.com

Phone/WhatsApp: +86 17306342950

Operating Hours: Monday through Friday (EST 9:00-11:00 or 20:00-24:00), excluding public holidays.

WhatsApp Direct Link: [Click here to chat on WhatsApp](#)

When contacting support, please provide your order number for faster service.



Image 10.1: Vabiooth customer support contact details and WhatsApp QR code.

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

Email

you@example.com

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