

Vabiooth VB-M001-G-UK

Vabiooth Dual-View Lab Compound Monocular Microscope User Manual

Model: VB-M001-G-UK

Magnification: 40X-2500X | Display: 7" LCD

1. INTRODUCTION

This user manual provides comprehensive instructions for the Vabiooth Dual-View Lab Compound Monocular Microscope. Designed for detailed observation and analysis, this microscope features a 7-inch LCD display, adjustable mechanical stage, and a wide range of magnification options, making it suitable for various scientific and educational applications.



Figure 1: Vabiooth Dual-View Lab Compound Monocular Microscope and included accessories.

The microscope is equipped with a 5MP electronic eyepiece and a 360-degree rotatable 7-inch LCD display, allowing for a larger field of view and easy sharing of observations. Its robust construction, primarily metal, ensures durability and precision.

2. SETUP AND ASSEMBLY

Carefully unpack all components from the aluminum carry case. Ensure all parts listed in the packing list are present and undamaged. The main components include the microscope body, 7-inch LCD display, eyepieces (WF10X, WF25X), objective lenses (4X, 10X, 40X(s), 100X(Spring Oil)), power adapter, and prepared slides.

- 1. Attach the LCD Display:** Gently insert the 7-inch LCD display into the designated port on the microscope head. Ensure it is securely fastened. The display is 360-degree rotatable for optimal viewing angles.
- 2. Install Eyepieces:** Insert the desired wide-field eyepieces (WF10X or WF25X) into the ocular tubes. The 30-degree tilt of the ocular tubes is ergonomically designed to reduce neck strain.

3. **Mount Objective Lenses:** Rotate the revolving nosepiece to ensure the 4X objective lens is positioned over the stage. The microscope includes 4X, 10X, 40X(s), and 100X(Spring Oil) achromatic objective lenses.
4. **Connect Power:** Plug the power adapter into the microscope's power input and then into a standard 110V AC outlet.
5. **Place Specimen:** Position your prepared slide on the mechanical stage. Use the stage clips to hold it firmly in place.



Figure 2: Key components of the Vabiooth microscope, including various eyepieces, prepared slides, and objective lenses.

3. OPERATING INSTRUCTIONS

3.1 Power On and Illumination

Turn on the microscope using the power switch. Adjust the LED illumination intensity using the dimmer control. The 1.25 NA Abbe condenser with iris diaphragm allows for precise light control and clear examination.

LED illumination

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



Figure 3: Detailed view of the LED illumination system and Abbe condenser.

3.2 Focusing and Magnification

Begin with the lowest magnification (4X objective). Use the coarse focus knob for initial focusing, then refine with the fine focus knob. The coaxial coarse and fine focus knobs are located on both sides for ease of use. The mechanical stage provides smooth and precise movement along the X- and Y-axis for scanning the specimen.

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.



Figure 4: The adjustable mechanical stage and focus controls.

To increase magnification, rotate the nosepiece to the next objective (10X, 40X, or 100X). When using the 100X oil immersion objective, apply a small drop of immersion oil to the slide before lowering the objective into it. The microscope offers eight levels of magnification from 40X to 2500X.

Lab-Ready Quality

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



Figure 5: Achromatic objective lenses for various magnifications.

3.3 Using the LCD Display

The integrated 7-inch LCD display provides a direct view of the specimen, eliminating the need to constantly look through the eyepieces. This is ideal for group viewing and extended observation sessions. The display can be rotated 360 degrees for convenience.

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



Figure 6: The 7-inch LCD display provides clear images for easy display of experimental results.

The microscope supports still photo and video capture when connected to a video capture card (not included). This allows for documentation and sharing of your observations.

3.4 Video Demonstration

Watch the official product video for a live demonstration of various microscopic observations, including algae, pond microorganisms, mites, sperm viability, and live blood cells.

Your browser does not support the video tag.

Video 1: Demonstration of microscopic views including algae, pond microorganisms, mites, sperm, and live blood cells using the Vabiooth microscope.

4. MAINTENANCE

- **Cleaning Lenses:** Use only specialized lens cleaning paper and solution. Gently wipe objective lenses and eyepieces to remove dust and smudges. Avoid touching optical surfaces with bare hands.

- **Cleaning Body:** Wipe the microscope body with a soft, dry cloth. For stubborn dirt, a slightly damp cloth can be used, but ensure no moisture enters the internal components.
- **Storage:** When not in use, store the microscope in its aluminum carry case to protect it from dust, moisture, and physical damage. Ensure the lowest power objective is in place and the stage is lowered before storing.
- **Immersion Oil:** After using the 100X oil immersion objective, always clean the oil from the lens immediately using lens cleaning solution and paper.

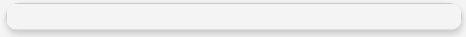


Figure 7: The high-grade aluminum carry case provides excellent protection for the microscope and its accessories.

5. TROUBLESHOOTING

Problem	Possible Cause	Solution
No image visible / Dark field	<ul style="list-style-type: none">• Power not connected or switched off.• Illumination intensity too low.• Iris diaphragm closed.• Objective lens not clicked into place.	<ul style="list-style-type: none">• Check power connection and switch.• Increase illumination intensity.• Open iris diaphragm.• Rotate nosepiece until objective clicks into position.
Image blurry / Cannot focus	<ul style="list-style-type: none">• Incorrect focusing technique.• Slide upside down.• Lenses dirty.	<ul style="list-style-type: none">• Use coarse focus first, then fine focus.• Ensure cover slip is facing up.• Clean objective and eyepiece lenses.
Dust or spots in view	<ul style="list-style-type: none">• Dust on eyepiece or objective.• Dust on specimen slide.	<ul style="list-style-type: none">• Clean eyepiece and objective lenses.• Clean the specimen slide.

6. SPECIFICATIONS

Brand: Vabiooth

Model Number: VB-M001-G-UK

Magnification Range: 40X-2500X

Eyepieces: Wide-Field 10X/25X

Objective Lenses: 4X, 10X, 40X(s), 100X(Spring Oil) Achromatic

Display: 7-inch LCD, 360-degree rotatable

Electronic Eyepiece: 5MP

Stage: Adjustable Mechanical Stage with 1.0mm divisions

Focusing: Coaxial Coarse and Fine Focus

Illumination: Variable LED Intensity, 1.25 NA Abbe Condenser with Iris Diaphragm

Material: Aluminum (main body and carry case)

Power Source: AC, 110 Volts

Item Weight: 11.05 pounds

Package Dimensions: 18.58 x 12.83 x 8.94 inches

7. WARRANTY AND SUPPORT

The manufacturer's warranty period is 18 months from the date of purchase. For technical support, warranty claims, or any inquiries, please contact Vabiooth Customer Care Center.

Email & WhatsApp: Vabiooth@outlook.com

WhatsApp Number: +86 17306342950

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

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

Mechanical stage with adjustment handle

With 1.0mm stage divisions, locks slide into place and provides precise slide manipulation along the X- and Y-axis to allow coordinates to be recorded, enabling the viewer to return to a specific location on the slide.



Figure 8: Additional resources like user guides, videos, and Q&A are available for comprehensive learning and troubleshooting.

For further information, you may also refer to the official User Guide (PDF) available at: [Vabiooth User Guide PDF](#)