

Vabiooth VB-M001-C-US

Vabiooth Constant Temperature Lab Monocular Compound Microscope VB-M001-C-US User Manual

Model: VB-M001-C-US

INTRODUCTION

This manual provides detailed instructions for the setup, operation, maintenance, and troubleshooting of your Vabiooth Constant Temperature Lab Monocular Compound Microscope. Please read this manual thoroughly before using the microscope to ensure proper function and longevity of the device.

PRODUCT FEATURES

- **Magnification:** 40X-2500X magnification with wide-field 10X/25X glass eyepieces and 4X/10X/40X/100X achromatic objective lenses.
- **7" LCD Screen:** Integrated 7-inch LCD display and 5MP electronic eyepiece for direct viewing and sharing, reducing neck strain with its ergonomic 30-degree tilt.
- **Constant Temperature Mechanical Stage:** Features an adjustable thermostat mechanical stage (0-50°C) to maintain optimal sample vitality, ideal for artificial breeding and insemination research. Includes 1.0mm stage divisions for precise slide manipulation.
- **Focusing:** Separate coarse and fine focus knobs for speed and accuracy.
- **Illumination:** Variable LED intensity transmitted illumination with a 1.25 NA Abbe condenser and iris diaphragm for clear examination and light control.
- **Portability:** Comes with a durable aluminum carry case for protection and easy transport.
- **Photo and Video Capture:** Supports still photo and video capture with a video capture card (sold separately).

Constant Temperature 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.



The stage can adjust the temperature from 0-50 degrees. It can keep the sample at the right temperature to maintain high vitality.



Figure 1: Constant Temperature Mechanical Stage & Focus. The stage allows precise movement and temperature control from 0-50 degrees Celsius.

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 2: 7-inch LCD Display. The ergonomically designed 7-inch HD screen with a 5MP E-eyepiece and 360-degree rotatable head provides a comprehensive view.

Lab-Ready Quality

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

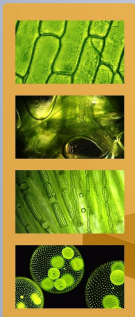


Figure 3: Lab-Ready Quality. The microscope offers 4x, 10x, 40x, and 100x achromatic objectives for up to 2500X magnification.

LED illumination

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



Figure 4: LED Illumination. Features a 1.25 NA Abbe condenser with iris diaphragm for clear examination and adjustable light control.

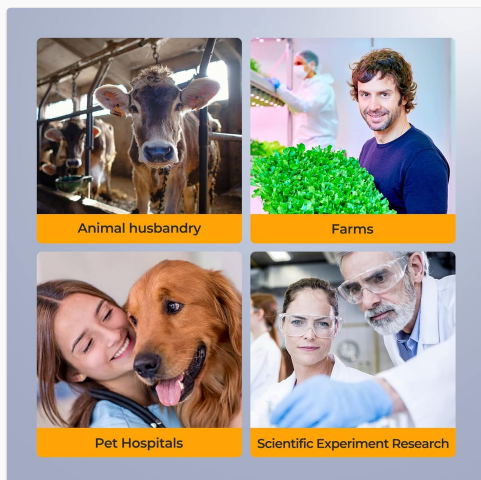


Figure 5: Diverse Applications. Suitable for use in animal husbandry, farms, pet hospitals, and scientific research.



Figure 6: High-Grade Packaging. The microscope and its accessories are securely stored in a durable aluminum carry case.

SETUP AND INSTALLATION

Follow these steps to set up your Vabiooth microscope:

1. **Unpacking:** Carefully remove all components from the aluminum carry case.
2. **Attach LCD Screen:** Securely attach the 7-inch LCD screen to the top of the microscope head. Connect the necessary cables.
3. **Install Mechanical Stage:** If not pre-installed, attach the mechanical stage to the microscope base.

Ensure it is firmly secured.

4. **Insert Eyepieces:** Place the desired eyepieces (10X or 25X) into the eyepiece tubes.
5. **Power Connection:** Connect the power adapter to the microscope and plug it into a suitable power outlet (110 Volts).

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Video: VB-M001 Vabiooth Dual-View Lab Compound Monocular Microscope. This video demonstrates the assembly and key features of the microscope.

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Video: Vabiooth Monocular Microscope. A general overview of the microscope's components and basic setup.

OPERATING INSTRUCTIONS

1. **Power On:** Turn on the microscope using the power switch.
2. **Place Specimen:** Secure your specimen slide on the mechanical stage using the stage clips.
3. **Adjust Magnification:** Rotate the revolving nosepiece to select the desired objective lens (4X, 10X, 40X, or 100X).
4. **Focusing:** Use the coarse adjustment knob for large focus changes and the fine adjustment knob for precise focusing.
5. **Adjust Illumination:** Use the dimming handwheel to adjust the brightness of the LED light source. Adjust the Abbe condenser and iris diaphragm for optimal contrast and resolution.
6. **Constant Temperature Stage:** Use the control buttons on the base to set the desired temperature for the mechanical stage (0-50°C). The current temperature will be displayed digitally.
7. **Rotating Head:** The 360-degree rotatable head allows for flexible viewing angles.

Advanced Operations

- **Taking Photos and Videos:** To capture still photos or videos, connect a USB 2.0 Audio Video Capture Card and RCA cables (male to male) to your microscope and PC. Install the provided software on your PC. The video below demonstrates the connection and software usage.
- **Setting Screen Language:** To change the language on the 7-inch LCD screen, turn on the monitor, click the 'M' button 6 times, then click the '>' button to cycle through and select your preferred language.
- **Adjusting Rotating Head:** The microscope head can be rotated 360 degrees. Loosen the securing screw, adjust the head to the desired angle, and then tighten the screw to fix its position.

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Video: How to take still photos and videos? This video guides you through connecting the microscope to a PC for image and video capture.

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Video: How to set the language of the screen? Learn how to navigate the monitor's menu to select your preferred language.

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Video: How to adjust the 360-degree rotating head? This video demonstrates the process of adjusting the microscope's rotating head.

MAINTENANCE

- **Cleaning Lenses:** Use only specialized lens cleaning paper and solution. Gently wipe objective lenses and eyepieces.
- **Cleaning Body:** Wipe the microscope body with a soft, dry cloth. Avoid using harsh chemicals.
- **Storage:** When not in use, store the microscope in its aluminum carry case in a dry, dust-free environment. Use a dust cover to protect it from dust and debris.
- **Immersion Oil:** For the 100X objective, use a small drop of immersion oil. After use, clean the oil from the lens immediately.

TROUBLESHOOTING

- **No Image on Screen:** Check all cable connections, especially the AV cable to the monitor. Ensure the microscope is powered on.
- **Blurred Image:** Adjust the coarse and fine focus knobs. Ensure the objective lens is clean and correctly positioned. If using the 100X objective, verify immersion oil application.
- **Image Misalignment (Eyepiece vs. Screen):** Due to movement during transportation, the angular position might shift. Loosen the screw on the eyepiece tube, adjust the image angle on the screen to match the eyepiece view, then tighten the screw.

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Video: Angle misalignment solution of eyepiece view and screen view. This video demonstrates how to correct image misalignment between the eyepiece and the screen.

SPECIFICATIONS

Feature	Specification
Brand	Vabiooth
Model Number	VB-M001-C-US
Magnification Maximum	2500 x
Eyepieces	Wide-Field 10X/25X
Objective Lenses	4X, 10X, 40X, 100X (Achromatic)
LCD Screen	7" LCD Screen, 5MP Electronic Eyepiece
Stage Type	Adjustable Thermostat Mechanical Stage

Stage Temperature Range	0-50°C
Light Source Type	LED
Condenser	1.25 NA Abbe Condenser with Iris Diaphragm
Real Angle of View	30 Degrees
Material	Aluminum
Voltage	110 Volts
UPC	617737842768

WARRANTY AND SUPPORT

The manufacturer's warranty period is **18 months** from the date of purchase.

Customer Support

For any questions or support, please contact the Vabiooth Customer Care Center:

- **Email & WhatsApp:** Vabiooth@outlook.com
- **Phone:** +86 17306342950
- **Operating Hours (EST):** Monday through Friday, 9:00-11:00 or 20:00-24:00 (excluding public holidays).
- When contacting us, please provide your order number.

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