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AmScope M162C-2L-PB10-WM-SP14-50P100S

AmScope 40X-1000X Student Microscope Kit User Manual

Model: M162C-2L-PB10-WM-SP14-50P100S

INTRODUCTION

This manual provides instructions for the proper setup, operation, maintenance, and troubleshooting of your AmScope 40X-1000X Student Microscope Kit. Please read this manual thoroughly before using the microscope to ensure optimal performance and longevity of the instrument.



Image: The AmScope 40X-1000X Student Microscope Kit, showing its compact design and primary components.

PACKAGE CONTENTS

Verify that all items listed below are present in your package:

- Microscope
- Book
- Slides
- Cover Slips
- Tools

PRODUCT FEATURES

The AmScope Student Microscope offers the following key features:

- Optical Glass Monocular Compound Microscope with Top & Bottom LED Lights
- 40X-1000X Five Wide Field Magnifications

- Sturdy Metal Frame with Coaxial Coarse & Fine Focusing
- Dual LED Light for Both Slides and Opaque Subjects

SETUP

1. **Unpacking:** Carefully remove all components from the packaging. Retain the packaging for future storage or transport.
2. **Placement:** Place the microscope on a stable, flat surface away from direct sunlight, high temperatures, dust, and vibrations.
3. **Power Connection:** This microscope is battery powered. Ensure fresh batteries are installed in the base compartment.
4. **Eyepiece Installation:** Insert the eyepiece (WF10X) into the top tube of the microscope.
5. **Objective Lenses:** The microscope comes with pre-installed objective lenses (4X, 10X, 40X). Rotate the revolving nosepiece to ensure they are securely in place.



Image: Front view of the AmScope Student Microscope, highlighting the eyepiece, objective lenses, and stage.

OPERATING INSTRUCTIONS

1. **Power On:** Locate the power switch, usually on the base, and turn on the illumination.

2. **Selecting Illumination:**

- For transparent specimens (slides), use the **bottom LED light**.
- For opaque specimens (solid objects), use the **top LED light**.
- Adjust the brightness using the dimmer control if available.

3. **Placing a Specimen:**

- Place a prepared slide or your own specimen on the stage.
- Secure the slide with the stage clips.
- Center the specimen over the opening in the stage.

4. **Selecting Magnification:**

- Begin with the lowest power objective lens (4X) by rotating the revolving nosepiece until it clicks into place.
- Higher magnifications (10X, 40X) can be selected as needed. The total magnification is the eyepiece magnification (10X) multiplied by the objective lens magnification.

5. **Focusing:**

- While looking through the eyepiece, slowly turn the **coarse focus knob** to bring the specimen into approximate focus.
- Once roughly focused, use the **fine focus knob** for sharp, detailed focusing.
- Adjust the diaphragm (located under the stage) to control the amount of light reaching the specimen, enhancing contrast.

6. **Viewing:** Adjust your eye to the eyepiece. If you wear glasses, you may be able to view with them on, or remove them if more comfortable.





Image: Side view of the AmScope Student Microscope, illustrating the coarse and fine focus knobs.

Instructional Video

Your browser does not support the video tag.

Video: An overview of the AmScope M162C-2L Student Microscope, demonstrating its features and basic operation. This video is provided by AmScope.

MAINTENANCE

- **Cleaning Lenses:** Use only specialized lens cleaning paper and lens cleaning solution. Gently wipe the lens surfaces. Avoid touching lenses with fingers.
- **Cleaning Body:** Wipe the microscope body with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Storage:** When not in use, cover the microscope with a dust cover (not included) and store it in a dry, cool place. Ensure the lowest power objective lens is in position and the stage is lowered.
- **Battery Replacement:** If the LED illumination dims or fails, replace the batteries in the base of the microscope. Use the

recommended battery type.

TROUBLESHOOTING

Problem	Possible Cause	Solution
No illumination	Power switch off, dead batteries, loose connection.	Turn on power switch. Replace batteries. Check battery compartment for secure connection.
Image is blurry or out of focus	Incorrect focus knob usage, objective lens not clicked into place, dirty lens.	Use coarse and fine focus knobs correctly. Rotate nosepiece until objective clicks. Clean objective and eyepiece lenses.
Dark field of view	Diaphragm closed, light intensity too low, wrong illumination selected.	Adjust diaphragm opening. Increase light intensity. Ensure correct top/bottom light is active for specimen type.
Dust or spots visible in view	Dust on eyepiece or objective lens.	Clean eyepiece and objective lenses using proper cleaning methods.

SPECIFICATIONS

Model Name	Amscope M162C-2L-PB10-WM-SP14-50P100S
Brand	AmScope
Magnification Maximum	1000x
Light Source Type	LED (Top & Bottom)
Objective Lens Description	Achromatic
Power Source	Battery Powered
Material	Metal
Product Dimensions (L x W x H)	16"L x 12"W x 8"H
Item Weight	4.2 Pounds
Color	Blue, Red

WARRANTY AND SUPPORT

This AmScope microscope comes with a **5 Year Manufacturer Warranty**. For warranty claims, technical support, or any questions regarding your product, please contact AmScope customer service directly. Refer to the AmScope website or your purchase documentation for contact information.