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AmScope M30-ABS-KT1-W

AmScope M30-ABS-KT1-W Kids Biological Microscope Kit User Manual

Model: M30-ABS-KT1-W

INTRODUCTION

This manual provides essential instructions for the safe and effective use of your AmScope M30-ABS-KT1-W Kids Biological Microscope Kit. Please read this manual thoroughly before operating the microscope to ensure proper setup, operation, and maintenance. This kit is designed for educational purposes, allowing young scientists to explore the microscopic world.

DURABLE METAL FRAME

DURABLE LONG-LASTING METAL CONSTRUCTION
FRAME WITH FORWARD-FACING ROTATING TURRET



ROTATABLE METAL ARM
REDUCES EYE AND NECK STRAIN,
PROVIDES A MORE COMPREHENSIVE
VIEW AND ENABLE SHARING, PROVIDING
CHILDREN WITH COMFORTABLE USE



90°

Image: The microscope features a durable metal frame and a rotatable arm for comfortable viewing and sharing.

PACKAGE CONTENTS

Your AmScope M30-ABS-KT1-W Microscope Kit includes the following items:

COMPLETE ACCESSORY KIT

RIGHT OUT OF THE BOX, THIS KIT IS THE PERFECT TOOL FOR YOUR BUDDING SCIENTIST.



Image: Complete Accessory Kit showing all included components neatly organized within the carrying case.

- 1x Monocular Microscope with Metal Arm (120X-1200X)
- 1x Eyepiece (8X)
- 1x Eyepiece (20X)
- 1x Carrying Case
- 1x Petri Dish
- 1x Plastic Tweezer
- 1x Spare Bulb
- 1x Plastic Scalpel
- 1x Plastic Spatula
- 1x Plastic Stirring Rod
- 1x Pipette
- 5x Prepared Slides
- 7x Blank Slides
- 16x Slide Labels
- 15x Slide Labels (additional)
- 3x Collecting Vials

- 2x AA Batteries

SETUP

1. **Unpacking:** Carefully remove all components from the carrying case. Inspect for any damage.
2. **Battery Installation:** The microscope requires two AA batteries for the LED illumination. Locate the battery compartment, usually at the base of the microscope. Insert the batteries according to the polarity markings (+/-).



Image: Battery compartment for two AA batteries, located at the base of the microscope.

3. **Eyepiece Installation:** Select either the 8X or 20X eyepiece and gently insert it into the top tube of the microscope.
4. **Placement:** Place the microscope on a stable, flat surface in a well-lit area.

OPERATING INSTRUCTIONS

1. Illumination

Your microscope features two illumination methods:

- **Natural Light:** For natural illumination, position the microscope so that the reflecting mirror at the

base can capture ambient light and direct it upwards through the specimen. Adjust the mirror angle for optimal brightness.

- **LED Light:** For direct illumination, switch on the built-in LED light. This is powered by the installed AA batteries.



Image: Illustration of the natural light reflecting mirror and the built-in LED light source.

2. Preparing a Specimen Slide

- **Prepared Slides:** Use the included prepared slides for immediate viewing.
- **Blank Slides:** To prepare your own specimen:
 - a. Place a small, thin specimen (e.g., a tiny leaf, a drop of water) onto the center of a blank slide.
 - b. Using the pipette, add a drop of water or a suitable mounting medium over the specimen.
 - c. Gently lower a cover slip over the specimen at an angle to avoid air bubbles.
 - d. Use the tweezers or scalpel for handling small specimens.

3. Viewing a Specimen

1. **Place Slide:** Secure the prepared or custom slide onto the specimen stage using the two stage clips.
2. **Select Magnification:** Rotate the nosepiece to select the desired objective lens (e.g., 10X, 40X, 100X). Remember that total magnification is the eyepiece magnification multiplied by the objective

lens magnification (e.g., 8X eyepiece * 10X objective = 80X).

3. **Adjust Focus:** While looking through the eyepiece, slowly turn the coarse focusing knob (the larger knob) to bring the specimen into approximate focus. Then, use the fine focusing knob (the smaller knob, if available) for sharper detail.
4. **Adjust Light:** Fine-tune the illumination using the mirror or LED light for the clearest view.

IDEAL FOR BEGINNERS

IDEAL FOR BUDDING SCIENTISTS TO OBSERVE, LEARN AND EXPLORE MORE ABOUT INSECTS, PLANTS AND LOTS MORE



MAGNIFICATIONS

120X - 1200X MAGNIFICATIONS
HELP IN EXPLORING THE MYSTERY
OF THE TINY WORLD

METAL ARM

STURDY STAIN-RESISTANT METAL
ARM ENSURES LONG LASTING
STABILITY AND DURABILITY

ILLUMINATION

REFLECTING MIRROR FOR NATURAL
ILLUMINATION ; BUILT - IN LIGHT
FOR DIRECT ILLUMINATION

SPECIMEN STAGE

THE STAGE CLIPS EASILY HOLD
THE SPECIMEN SLIDES ON THE
STAGE FOR BETTER VIEWING

Image: Key components for viewing, including objective lenses, focusing knobs, and specimen stage with clips.

MAINTENANCE

- **Cleaning Lenses:** Use only specialized lens cleaning paper and lens cleaning solution to clean the eyepiece and objective lenses. Never use abrasive cloths or household cleaners.
- **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:** Always store the microscope in its carrying case when not in use to protect it from dust and damage. Remove batteries if storing for extended periods to prevent leakage.



Image: The microscope kit stored securely in its portable carrying case, ready for transport or storage.

- **Handling:** Always carry the microscope by its metal arm and base. Avoid touching the lenses with your fingers.

TROUBLESHOOTING

| Problem | Possible Cause | Solution |
|--|--|--|
| Image is blurry or out of focus. | Incorrect focus adjustment; objective lens not properly aligned; dirty lens. | Adjust coarse and fine focus knobs. Rotate nosepiece to ensure objective lens clicks into place. Clean lenses with lens paper. |
| No light from LED illuminator. | Batteries are dead or incorrectly installed; LED bulb is faulty. | Check battery polarity and replace batteries if necessary. If problem persists, replace the spare bulb. |
| Dark spots or dust visible in the field of view. | Dust on eyepiece, objective lens, or slide. | Clean the eyepiece, objective lens, and specimen slide. |
| Specimen not visible. | Specimen not centered; too thick; insufficient illumination. | Ensure specimen is centered on the stage. Use thinner specimens. Adjust illumination. |

SPECIFICATIONS

| Feature | Detail |
|---------------------|---|
| Model | M30-ABS-KT1-W |
| Magnification Range | 120X - 1200X |
| Eyepieces | 8X, 20X |
| Objective Lenses | Achromatic |
| Illumination | Built-in LED (Battery Powered), Natural Light Reflecting Mirror |
| Power Source | 2x AA Batteries |
| Focusing | Coarse and Fine (Rack-and-Pinion) |
| Body Material | Metal Arm & Base |
| Item Weight | 2.95 pounds (1.34 Kilograms) |
| Package Dimensions | 13.07 x 9.69 x 6.02 inches |

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or contact AmScope customer service directly. Keep your proof of purchase for any warranty claims.

AmScope Customer Service: For assistance, please visit the official AmScope website or contact their support channels as listed on their packaging or website.