

Carson MP-250

Carson MicroFlip 100x-250x LED UV Pocket Microscope (MP-250) Instruction Manual

Model: MP-250 | Brand: Carson

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1. INTRODUCTION

Welcome to the instruction manual for your Carson MicroFlip 100x-250x LED UV Pocket Microscope (MP-250). This compact and versatile microscope is designed for on-the-go exploration, offering high clarity imaging and magnification from 100x to 250x. It features both LED and UV illumination, and includes a smartphone digiscoping clip for capturing and sharing your observations. Ideal for students, educators, and anyone interested in microbiology and detailed observation.

2. SAFETY INFORMATION

- **Warning:** Not suitable for children under 36 months due to small parts.
- Do not look directly into the LED or UV light sources.
- Keep the microscope away from water and moisture.
- Handle with care to avoid dropping or impacting the device.
- Ensure batteries are inserted correctly according to polarity markings.

3. WHAT'S IN THE BOX

- Carson MicroFlip 100x-250x LED UV Pocket Microscope (MP-250)
- Smartphone Digiscoping Clip
- 1 Starter Slide with Cover Slip
- Wrist Strap
- Instruction Manual



Figure 1: Contents of the Carson MicroFlip MP-250 package.

4. SETUP

4.1. Battery Installation

1. Locate the battery compartment cover on the side of the microscope.
2. Slide the cover open.
3. Insert 1 AA battery (not included), ensuring correct polarity (+/-) as indicated inside the compartment.
4. Close the battery compartment cover securely.

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Video 1: Demonstrates the unboxing and battery installation for the Carson MicroFlip microscope. This video shows how to open the battery compartment, insert the AA battery, and close the compartment. It also briefly highlights the included slides and smartphone clip.

4.2. Attaching the Wrist Strap

Thread the included wrist strap through the designated loop on the microscope body to prevent accidental drops during use, especially when outdoors.

5. OPERATING INSTRUCTIONS

5.1. Powering On/Off

Press the **LED** button to turn on the white LED illumination. Press it again to turn it off. To activate the UV light, press and hold the **UV** button.

5.2. Adjusting Magnification

The MicroFlip offers variable magnification from 100x to 250x. Use the zoom wheel located on the side of the microscope to adjust the desired magnification level.

5.3. Focusing

Rotate the focus wheel (typically the larger, ribbed wheel) to bring your specimen into sharp focus. For optimal viewing, ensure the microscope is stable and the specimen is well-lit.



Figure 2: Overview of the Carson MicroFlip MP-250, highlighting key operational controls.

5.4. Viewing Specimens

- **For Prepared Slides:** Place a prepared slide onto the clear base of the microscope. Ensure the specimen is centered under the lens. Adjust focus and magnification as needed.
- **For Direct Observation:** For larger objects like leaves or fabrics, fold the clear base downwards. Place the microscope directly onto the surface of the object you wish to examine. Adjust focus and magnification.



Figure 3: Direct observation of a leaf using the Carson MicroFlip microscope.

6. KEY FEATURES

6.1. Smartphone Digiscoping

The included smartphone digiscoping clip allows you to attach your smartphone to the microscope eyepiece, enabling you to capture photos and videos of your observations. This feature is excellent for documenting findings and sharing discoveries with others.

1. Attach the smartphone clip to the eyepiece of the MicroFlip.
2. Secure your smartphone into the clip, aligning your phone's camera lens with the microscope's eyepiece.

3. Open your phone's camera app and adjust the position until the microscope's view is centered on your screen. Use your phone's zoom function for further adjustment.



Figure 4: Smartphone attached to the MicroFlip for digiscoping.

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Video 2: This video demonstrates how to attach a smartphone to the Carson MicroFlip microscope using the included clip and view specimens through the phone's camera. It shows the process of aligning the phone camera with the microscope eyepiece and adjusting focus to capture magnified images of various samples like a honeybee worker leg and a wisteria leaf.

6.2. High Clarity Imaging

The MicroFlip's lens system is designed to minimize distortion, providing sharp and clear images. This makes it an excellent tool for studying microbiology and observing fine details.

6.3. STEM Education Tool

This pocket microscope is a valuable educational toy for exploring cells, bacteria, and viruses. Its versatile illumination and magnification capabilities support hands-on learning in science, technology, engineering, and mathematics (STEM).

6.4. On-The-Go Exploration

With its lightweight design and wrist strap, the MicroFlip is perfectly suited for fieldwork. It allows users to explore and experiment with specimens found in nature, anywhere and anytime.

7. MAINTENANCE

- **Cleaning Lenses:** Use a soft, lint-free cloth specifically designed for optical lenses. Do not use abrasive materials or harsh chemicals.
- **Cleaning Body:** Wipe the microscope body with a soft, damp cloth. Avoid getting moisture into electronic components.
- **Storage:** Store the microscope in a dry, cool place away from direct sunlight and extreme temperatures. Remove batteries if storing for extended periods to prevent leakage.

8. TROUBLESHOOTING

| Problem | Possible Cause | Solution |
|--|--|---|
| No light from LED/UV. | Dead battery or incorrect battery installation. | Replace battery or check polarity. |
| Image is blurry. | Incorrect focus or magnification. | Adjust the focus wheel and zoom wheel until the image is clear. |
| Difficulty aligning smartphone camera. | Camera lens not centered with microscope eyepiece. | Carefully adjust the smartphone's position within the clip until the microscope's view is centered on the screen. |

9. SPECIFICATIONS

- **Model:** MP-250
- **Magnification:** 100x-250x
- **Light Source Type:** LED, UV
- **Power Source:** 1 AA battery (required)
- **Product Dimensions:** 2.4 x 1.25 x 4.3 inches (6.1 x 3.2 x 10.9 cm)
- **Item Weight:** 2.56 ounces (72.5 grams)
- **Material:** Acrylic
- **Color:** Gray
- **Manufacturer:** Carson Optical, Inc
- **Compatible Devices:** Smartphone



Figure 5: Dimensions of the Carson MicroFlip MP-250.

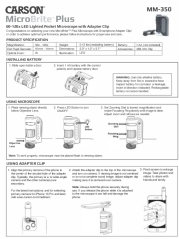



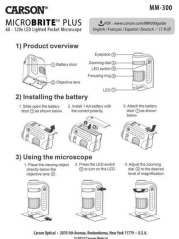

10. WARRANTY & SUPPORT

For warranty information, product support, or to purchase additional accessories, please visit the official Carson website or contact their customer service department. Refer to the packaging or official product page for the most up-to-date contact details.

Manufacturer: Carson Optical, Inc.

Online Support: [Visit the Carson Store on Amazon](#)

Related Documents - MP-250

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|---|--|
|  | <p>CARSON MM-350 MicroBrite Plus LED Lighted Pocket Microscope with Adapter Clip User Guide</p> <p>Instructions and specifications for the CARSON MM-350 MicroBrite Plus LED Lighted Pocket Microscope with Adapter Clip, including setup, usage, and safety warnings.</p> |
|  | <p>Carson MM-380 20x Microscope with Universal Smartphone Clip User Guide</p> <p>Comprehensive guide for the Carson MM-380 20x Microscope, detailing setup, usage, battery replacement, and safety warnings for optimal performance with your smartphone.</p> |
|  | <p>Carson MS-170 Biological Microscope: User Guide and Specifications</p> <p>Detailed guide for the Carson MS-170 Intermediate Biological Microscope (40x-1600x). Learn about setup, focusing, magnification, color filters, and care. Features product specifications and customer support information.</p> |
|  | <p>Carson MS-100 Biological Microscope Instruction Manual</p> <p>Detailed instruction manual for the Carson MS-100 Biological Microscope, covering setup, focusing, magnification, care, and specifications. Learn how to use your microscope effectively.</p> |
|  | <p>Carson MicroBrite Plus MM-300 Pocket Microscope User Guide</p> <p>User guide for the Carson MicroBrite Plus MM-300, a 60x-120x LED lighted pocket microscope. Includes setup, usage instructions, specifications, and safety warnings.</p> |
|  | <p>Carson MS-160 Biological Microscope Instruction Manual</p> <p>Instruction manual for the Carson MS-160 Biological Microscope, detailing setup, operation, focusing, magnification, and care. Includes specifications and accessories.</p> |