

## AmScope ODM301 Max

# Amscope DM300HD Digital Microscope User Manual

Model: ODM301 Max

## INTRODUCTION

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This manual provides comprehensive instructions for the setup, operation, and maintenance of your Amscope DM300HD Digital Microscope. Designed for educational and scientific observation, this device combines optical magnification with digital imaging capabilities. Please read this manual thoroughly before using the microscope to ensure proper function and longevity.

## WHAT'S IN THE BOX

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Carefully unpack all components and verify that all items listed below are present. If any items are missing or damaged, please contact customer support.

- 1 X DM300HD Max Biological Digital Microscope with Screen
- 1 X Power Cable
- 1 X HDMI Cable
- 1 X Power Adapter
- 5 X Prepared Slides
- 5 X Blank Slides
- 1 X 32GB Micro SD Card
- 1 X Carrying Case



Image: The Amscope DM300HD Digital Microscope shown alongside its included carrying case, illustrating the complete package contents.

## PRODUCT FEATURES

The Amscope DM300HD Digital Microscope offers a range of features designed for enhanced observation and ease of use:

- **Ergonomic 7-Inch IPS Display:** Provides a clear, broad view directly on-screen, reducing eye strain.
- **WiFi & APP Connectivity:** Enables real-time viewing, zooming, and capturing of photos/videos via compatible Android and iOS devices.
- **Double-Layer Precision Stage:** Features 1.0mm stage divisions, secure slide locking, and precise X and Y axis manipulation for accurate observations.
- **High Magnification:** Equipped with 3 metal achromatic lenses offering up to 1200x magnification for detailed observation of microscopic structures.
- **High-Resolution Imaging:** Captures 8MP photos and 1080P videos, saving directly to the included 32GB MicroSD card.

- **Multiple Output Options:** USB/HDMI output allows connection to projectors, PCs, laptops (Windows and Mac OS compatible), and televisions for larger-scale viewing.
- **Dual LED Illumination:** Features top and bottom LED lights with adjustable brightness for illuminating both opaque and transparent specimens.
- **Detailed Measurement Scale:** Includes a measuring scale for accurate specimen sizing with each lens.
- **Portable and Rechargeable:** Built-in 2000mAh rechargeable battery provides up to 3 hours of use, ideal for various settings.

## VERSATILE HIGH-QUALITY MICROSCOPE



Image: An overview of the AmScope DM300HD Digital Microscope, pointing out its key features such as the IPS display, dual LED illumination, adjustable magnification, and mechanical stage.

## SETUP

1. **Unpacking:** Carefully remove the microscope and all accessories from the packaging. Retain the packaging for future storage or transport.
2. **Power Connection:** Connect the power adapter to the microscope's USB-C port and plug it into a power outlet. The built-in battery will charge automatically. The microscope can be operated while charging.



3. **SD Card Insertion:** Locate the microSD card slot (usually on the side or back of the display unit). Insert the included 32GB microSD card until it clicks into place. This card is essential for saving photos and videos.
4. **Initial Power On:** Press and hold the power button (typically located near the display) for a few seconds until the screen illuminates.
5. **Stage Preparation:** Ensure the mechanical stage is clean and free of debris. The stage clips are used to secure microscope slides.



## DUAL LED ILLUMINATION

Switch between incident and transmitted illumination depending on the specimen type

Image: A close-up view of the AmScope DM300HD Digital Microscope in use, demonstrating the dual LED illumination system. The top light illuminates opaque objects, while the bottom light illuminates transparent slides.

## OPERATING INSTRUCTIONS

### 1. Placing a Specimen

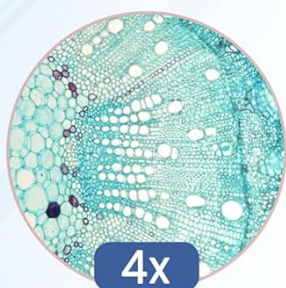
1. Place a prepared slide or specimen on the mechanical stage.
2. Use the stage clips to gently secure the slide.
3. Adjust the X-Y stage knobs to center the area of interest under the objective lens.

## 2. Adjusting Magnification and Focus

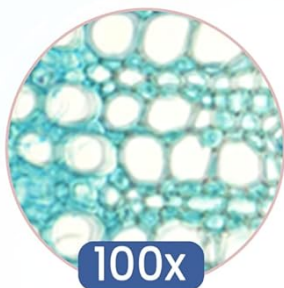
1. Rotate the revolving nosepiece to select the desired objective lens (4x, 10x, 40x, 100x). Start with the lowest magnification (4x) for initial viewing.
2. Use the coarse focus knob (larger knob) to bring the specimen into approximate focus.
3. Use the fine focus knob (smaller knob) for precise focusing until the image on the screen is sharp.
4. For 100x oil immersion objective, apply a small drop of immersion oil to the slide before rotating the 100x objective into place.

### High Magnification

4X to 100X optical magnification  
Up to 20X digital zoom



4x

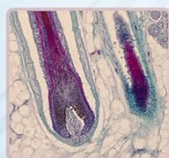


100x

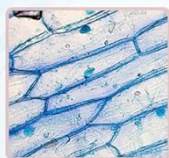
#### Double-Layer Precision Mechanical Stage

It enables coordinate recording for accurate, detailed observations

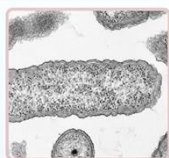
Ideal for Learning, Exploring,  
and Innovating



**Hair Follicles**



**Cells**



**Bacteria**

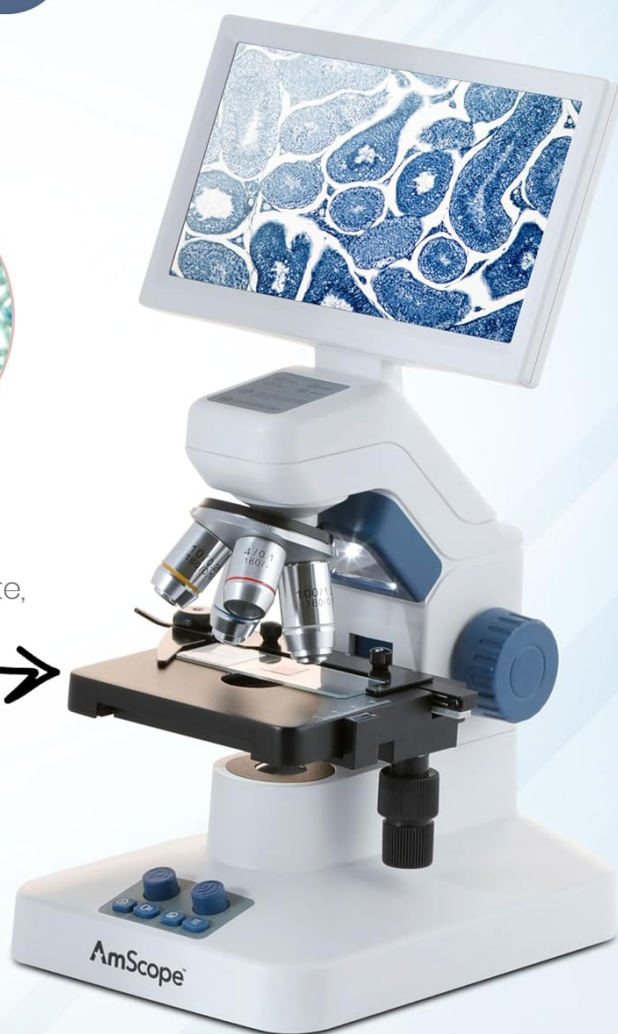


Image: The Amscope DM300HD Digital Microscope displaying magnified views of specimens at 4x and 100x, illustrating its high magnification capabilities and the precision mechanical stage.

## 3. Adjusting Illumination

1. The microscope features dual LED illumination. Use the bottom light for transparent specimens (slides) and the top light for opaque objects.
2. Adjust the brightness of each light source using the dedicated control knobs or buttons on the microscope base.

## 4. Capturing Photos and Videos



1. Once the image is focused and illuminated, press the dedicated photo button to capture an 8MP image.
2. Press the video button to start recording 1080P video. Press it again to stop recording.
3. All captured media will be saved to the inserted 32GB microSD card.



Image: A user interacting with the AmScope DM300HD Digital Microscope, highlighting the control buttons on the base for capturing high-resolution photos and videos.

## 5. WiFi and App Connectivity

1. Turn on the microscope's WiFi function (refer to on-screen menu for specific steps).
2. Download the AmScope app on your Android or iOS device.
3. Connect your device to the microscope's WiFi network.
4. Open the app to view live feed, zoom, and capture media remotely. Files can be saved to both your phone and the SD card.

## 6. External Display Connection (USB/HDMI)

1. To connect to a larger display, use the provided HDMI cable to connect the microscope to an HDMI-compatible monitor or projector.

2. Alternatively, connect the microscope to a PC or laptop via a USB cable. The microscope should be recognized as a webcam or imaging device, allowing live viewing through compatible software (no extra software needed for basic functionality).

## MAINTENANCE

- **Cleaning Lenses:** Use only specialized lens cleaning paper and lens cleaning solution. Gently wipe objective lenses and the display screen. Never use abrasive materials or harsh chemicals.
- **Cleaning Body:** Wipe the microscope body with a soft, damp cloth. Avoid getting moisture into electronic components.
- **Storage:** When not in use, store the microscope in its carrying case in a cool, dry, dust-free environment. Ensure the lowest power objective is in place and the stage is lowered.
- **Battery Care:** For optimal battery life, avoid fully discharging the battery frequently. Charge the microscope regularly, especially if storing for extended periods.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Microscope does not power on.	Low battery or power adapter not connected.	Connect the power adapter and allow the battery to charge. Ensure the power button is pressed firmly.
Image is blurry or out of focus.	Incorrect focus adjustment or objective lens.	Adjust coarse and fine focus knobs. Ensure the correct objective lens is selected and properly rotated into position. Clean the objective lens if necessary.
No image on external display (HDMI/USB).	Incorrect cable connection or display input.	Verify HDMI/USB cable connections. Ensure the external display is set to the correct input source. Check microscope's output settings.
Cannot connect via WiFi/App.	WiFi not enabled on microscope or incorrect network selection.	Ensure WiFi is enabled on the microscope. Connect your smart device to the microscope's specific WiFi network. Restart both devices if necessary.
Cannot save photos/videos.	SD card missing, full, or corrupted.	Ensure the 32GB microSD card is properly inserted. Check available space on the card. Format the card if issues persist (this will erase all data).

## SPECIFICATIONS

Feature	Detail
Model Name	DM300HD
Item Model Number	ODM301 Max
Brand	AmScope
Display	7" IPS Display
Magnification Maximum	1200x

Feature	Detail
Objective Lens Description	Achromatic
Light Source Type	LED (Dual: Top and Bottom)
Compatible Devices	Laptop, Personal Computer, Smartphone, Tablet, Television
Battery	2000mAh rechargeable (up to 3 hours use)
Storage	32GB Micro SD Card (included)
Item Weight	5.04 pounds
Package Dimensions	13.07 x 9.76 x 8.82 inches
Material	7" IPS Display + ABS Stand
Color	White
Voltage	5 Volts

## WARRANTY AND SUPPORT

The Amscope DM300HD Digital Microscope is backed by a five-year warranty, ensuring quality and reliability. For technical assistance, troubleshooting, or warranty claims, please contact AmScope customer support through their official website or the retailer where the product was purchased. For more information, visit the [AmScope Store on Amazon](#).