

BEAVERLAB Darwin DDL-M2A

BEAVERLAB Darwin M2A Digital Microscope User Manual

Model: DDL-M2A

1. INTRODUCTION

This manual provides detailed instructions for the proper use and maintenance of your BEAVERLAB Darwin M2A Digital Microscope. This device features a 4.0-inch IPS screen, a 2.0MP CMOS sensor for capturing full HD videos and photos, and a magnification range of 100X-1600X. It is equipped with 8 adjustable LED lights and an innovative RGB base lighting system for enhanced observation.

1.1 Package Contents

Verify that all items are present in your package:

- Darwin M2 Tube (Microscope Unit)
- Stand Base
- Charging Cable (USB-C)
- Prepared Slides (5 pieces)
- Blank Slides (10 pieces)
- Holding Clips (2 pieces)
- Nipper
- Dropper
- Tool Organizer
- Specimen Collection Box
- Microscope Science Book
- Observation Record Book
- User Manual
- 8GB Memory Card



Image: The BEAVERLAB Darwin M2A Digital Microscope with its full set of accessories, including slides, tools, and documentation.

2. SETUP

2.1 Assembly

1. Carefully remove the Darwin M2 Tube (microscope unit) and the Stand Base from the packaging.
2. Align the microscope unit with the slot on the stand base and gently slide it into place until it clicks securely.
3. Ensure the unit is firmly attached to prevent accidental dislodgement.

2.2 Charging the Device

The microscope is powered by a built-in Lithium Ion battery. Before first use, fully charge the device.

1. Connect the provided USB-C charging cable to the charging port on the microscope unit.
2. Connect the other end of the cable to a standard USB power adapter (not included) or a computer USB port.

3. The charging indicator light will illuminate. Charging is complete when the light changes color or turns off (refer to device screen for battery status).

2.3 Inserting the Memory Card

An 8GB MicroSD card is included for storing photos and videos.

1. Locate the MicroSD card slot on the microscope unit.
2. Insert the MicroSD card with the gold contacts facing down until it clicks into place.
3. To remove, gently push the card in until it springs out.

3. OPERATING INSTRUCTIONS

3.1 Powering On/Off

- To power on, press and hold the power button located on the microscope unit until the screen illuminates.
- To power off, press and hold the power button again until the device shuts down.

3.2 Adjusting Magnification

The Darwin M2A offers a magnification range of 100X to 1600X.

1. Place your specimen on the stage.
2. Use the focus knob on the side of the stand to bring the image into initial focus.
3. Utilize the digital zoom buttons on the microscope unit to adjust the magnification level from 100X to 1600X.

100X–1600X Magnification

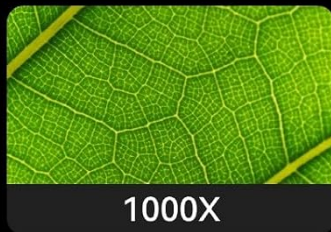


Image: Visual representation of a leaf specimen observed at various magnification levels (100X, 800X, 1000X, 1600X) on the microscope's screen.

3.3 Adjustable LED Lights and RGB Base Lighting

The microscope features 8 built-in adjustable LED lights and a unique RGB base lighting system.

- **Top LED Lights:** Press the dedicated light button on the microscope unit to cycle through brightness levels for the 8 top LEDs. These provide direct illumination for opaque specimens.
- **RGB Base Lighting:** The base includes adjustable RGB lights. Use the corresponding button to change the color of the light illuminating the specimen from below. This can enhance contrast and visibility for translucent specimens.

Dual Light Source Fill

Built-in 8 Adjustable LED Lights



Top Light Source



Bottom Light Source

Image: Illustration of the microscope's dual lighting system, highlighting the top ring light and the bottom light source integrated into the stage.

RGB Dying



White Light Dyeing
Effect



Blue Light Dyeing
Effect

Image: Comparison of a specimen viewed under white light versus blue light from the RGB base, demonstrating the 'dyeing' effect for improved contrast.

3.4 Capturing Photos and Videos

The microscope can capture 1920x1080 resolution photos and videos.

- While observing a specimen, press the photo button to capture an image.
- Press the video button to start recording. Press it again to stop recording.
- All captured media will be saved to the inserted MicroSD card.

Our Microscopes Have 2 Modes

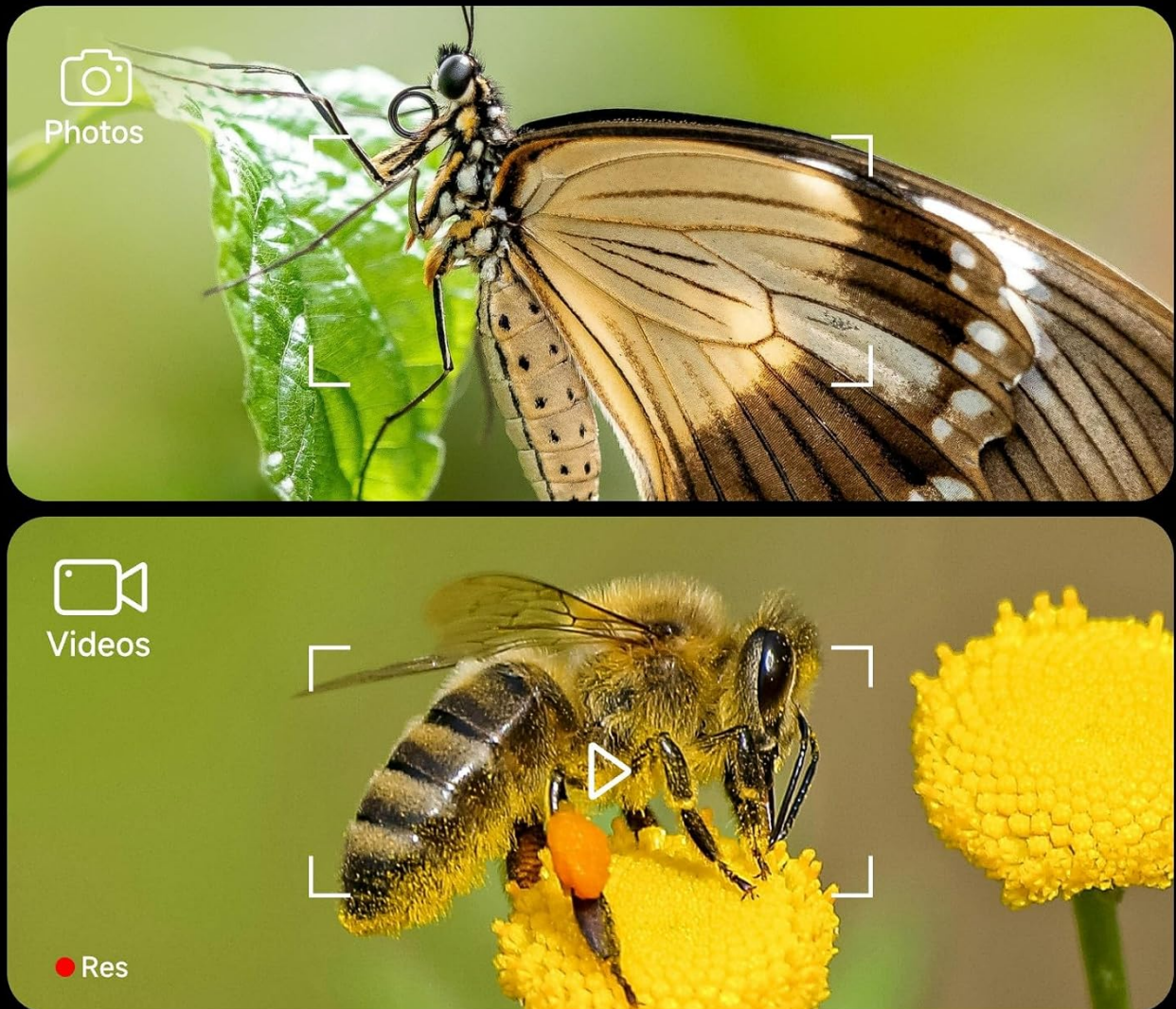


Image: The microscope's display showing icons for photo and video capture modes, with example images of a butterfly and a bee.

3.5 Detachable Design: Handheld and Vertical Modes

The microscope unit can be detached from the stand for handheld use.

- **Vertical Mode (with stand):** Ideal for stable, precise observation of slides and stationary objects.
- **Handheld Mode (detached):** Suitable for observing larger objects or specimens in their natural environment, such as plants or coins. To detach, gently pull the microscope unit upwards from the stand base.

Detachable Design



Handheld Mode
Suitable for outdoor



Vertical Mode
Suitable for indoor

Image: The microscope demonstrating its versatility, shown in handheld mode for outdoor observation and in vertical mode on its stand for indoor use.

3.6 Connecting to a PC

The microscope can be connected to a PC for larger screen viewing and data transfer.

- Connect the microscope to your computer using the USB-C cable.
- The device may appear as a removable storage drive, allowing you to access photos and videos.
- For live viewing on a PC, a dedicated program may be available from the manufacturer's website. Note that in PC-connected mode, the resolution might be limited to 720p, and digital zoom functions on the microscope may be disabled.

Built-in Wifi to Upload Anytime



Image: The microscope displaying images on its screen, with a smartphone nearby indicating a Wi-Fi connection for uploading content.

4. MAINTENANCE

4.1 Cleaning

- **Lens and Screen:** Use a soft, lint-free cloth specifically designed for optical surfaces to clean the lens and screen. Do not use abrasive cleaners or solvents.
- **Body:** Wipe the microscope body and stand with a slightly damp cloth. Ensure no liquid enters any openings.

4.2 Battery Care

- To prolong battery life, avoid fully discharging the battery frequently.
- Store the device in a cool, dry place when not in use for extended periods.

4.3 Storage

- Always place the protective cover over the microscope lens when storing.
- Store the microscope and its accessories in a clean, dry environment, away from direct sunlight and extreme temperatures.

5. TROUBLESHOOTING

If you encounter issues with your microscope, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on.	Low battery; Power button not pressed correctly.	Charge the device fully. Press and hold the power button for a few seconds.
Image is blurry or unclear.	Improper focus; Lens is dirty; Incorrect magnification.	Adjust the focus knob. Clean the lens with an optical cleaning cloth. Adjust digital zoom.
LED lights are not working.	Lights are turned off; Low battery.	Press the light button to turn on/adjust brightness. Charge the device.
Cannot save photos/videos.	No MicroSD card inserted; MicroSD card is full or corrupted.	Insert a MicroSD card. Delete unnecessary files or replace the card. Format the card (this will erase all data).
PC connection issues.	Faulty USB cable; Driver issues.	Try a different USB-C cable. Ensure the microscope is powered on. Check manufacturer's website for PC software/drivers.

6. SPECIFICATIONS

Feature	Detail
Model Name	M2A
Item Model Number	DDL-M2A
Display	4.0-inch IPS Screen
Sensor	2.0MP CMOS
Photo/Video Resolution	1920x1080
Magnification	100X-1600X
Light Source	8 Adjustable LED Lights (top), RGB Base Lighting (bottom)

Feature	Detail
Power Source	1 Lithium Ion Battery (included), USB-C rechargeable
Storage	MicroSD Card (8GB included)
Material	Plastic
Color	White
Item Weight	4.4 pounds
Package Dimensions	9.41 x 9.41 x 7.32 inches
Manufacturer	BeaverLab—Beaver technology
Date First Available	April 12, 2024

7. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your product or visit the official BEAVERLAB Darwin website. You may also contact the seller directly through the platform where the product was purchased for assistance.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question