

[Manuals.plus](#) /

› [BRESSER](#) /

› BRESSER Researcher Electronic LCD Microscope User Manual

BRESSER 5702100

BRESSER Researcher Electronic LCD Microscope User Manual

Model: 5702100

INTRODUCTION

Welcome to the user manual for your BRESSER Researcher Electronic LCD Microscope. This digital microscope is designed to bring the microcosmos to your screen with ease, offering advanced features for educational, hobby, or professional use. It combines traditional optical microscopy with modern digital imaging capabilities, featuring an integrated LCD touchscreen and high-resolution camera sensor.

This manual provides essential information on setting up, operating, maintaining, and troubleshooting your microscope to ensure optimal performance and longevity.

SAFETY INFORMATION

Please read all safety instructions carefully before using the microscope. Failure to follow these instructions may result in injury or damage to the device.

- **Electrical Safety:** Ensure the power adapter is connected to a properly grounded outlet. Do not use the microscope near water or in excessively humid environments. Disconnect power before cleaning or servicing.
- **Handling:** Handle the microscope with care. Avoid dropping or subjecting it to strong impacts.
- **Optical Components:** Do not touch the lens surfaces with bare hands. Use a soft, lint-free cloth for cleaning.
- **Ventilation:** Ensure adequate ventilation around the microscope to prevent overheating.
- **Children:** This device is not a toy. Supervise children when they are using the microscope.
- **Storage:** Store the microscope in a clean, dry, and dust-free environment when not in use.

PACKAGE CONTENTS

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

- BRESSER Researcher Electronic LCD Microscope (Main Unit)
- 4x Achromatic DIN Objective
- 10x Achromatic DIN Objective
- 40x Achromatic DIN Objective (with specimen protection)

- 60x Achromatic DIN Objective (with specimen protection)
- Power Adapter
- USB Cable
- HDMI Cable
- User Manual (this document)
- Sample slides and cover slips (may vary by package)



Figure 1: Included accessories, including power adapter, USB cable, and HDMI cable.

PRODUCT OVERVIEW

Familiarize yourself with the main components of your BRESSER Researcher Electronic LCD Microscope.





Figure 2: Front view of the BRESSER Researcher Electronic LCD Microscope.

- **LCD Touchscreen:** Integrated 1024x600px display for live viewing, settings adjustment, and image/video capture.
- **Objectives:** Revolving nosepiece with 4x, 10x, 40x, and 60x achromatic DIN objectives. The 40x and 60x objectives feature specimen protection.
- **Stage:** Mechanical stage with coaxial crosstable for precise specimen movement.
- **Focus Knobs:** Coaxial coarse and fine focus knobs for precise focusing.
- **Abbe Condenser:** With iris diaphragm, fully adjustable and height adjustable for optimal illumination control.
- **Illumination:** Built-in light source for transmitted light microscopy.
- **SD Card Slot:** For storing captured images and videos (supports up to 32GB, SD card not supplied).
- **HDMI Port:** For connecting to external monitors, TVs, beamers, or smartboards.

- **USB Port:** For data transfer or connecting to a computer.



Figure 3: The integrated touchscreen with zoom functionality.





Figure 4: Rear view displaying the HDMI and SD card ports.

SETUP

1. **Unpacking:** Carefully remove all components from the packaging. Retain the original packaging for future storage

or transport.

2. **Placement:** Place the microscope on a stable, level surface away from direct sunlight, excessive heat, or vibrations.
3. **Power Connection:** Connect the power adapter to the DC input port on the microscope and then plug it into a suitable electrical outlet.
4. **SD Card Insertion (Optional):** If you wish to save images and videos, insert a compatible SD card (up to 32GB, not included) into the SD card slot on the side of the LCD screen. Ensure it is inserted correctly until it clicks into place.
5. **HDMI Connection (Optional):** For external display, connect one end of the HDMI cable to the HDMI port on the microscope and the other end to your monitor, TV, or projector.

OPERATING INSTRUCTIONS

Powering On/Off

- To power on, press the power button located on the microscope body. The LCD screen will illuminate.
- To power off, press and hold the power button until the screen shuts down.

Placing a Specimen

1. Rotate the revolving nosepiece to the lowest magnification objective (4x) to provide maximum working distance.
2. Open the stage clips and carefully place your prepared specimen slide onto the mechanical stage.
3. Use the coaxial crosstable knobs to center the area of interest on your specimen directly under the objective lens.

Focusing and Magnification

1. Begin with the 4x objective. Use the coarse focus knob to bring the specimen into approximate focus on the LCD screen.
2. Once roughly focused, use the fine focus knob for precise and sharp focusing.
3. To increase magnification, rotate the revolving nosepiece to the next desired objective (10x, 40x, or 60x). The microscope is parfocal, meaning minimal refocusing should be required when changing objectives. Use the fine focus knob for final adjustments.
4. *Note:* The 40x and 60x objectives have spring-loaded tips to prevent damage to the slide or lens if they accidentally contact the specimen.



Figure 5: Examples of microscopic views on the LCD screen.

Adjusting Illumination

- **Light Intensity:** Use the illumination control knob (if present) to adjust the brightness of the light source.
- **Abbe Condenser:** Adjust the height of the Abbe condenser using its dedicated knob to optimize light collection and resolution.
- **Iris Diaphragm:** Open or close the iris diaphragm on the condenser to control the contrast and depth of field. A smaller aperture increases contrast and depth of field but reduces resolution.

Using the LCD Touchscreen

- The touchscreen allows you to view the live image, access settings, and capture media.
- **Settings:** Navigate through the menu options to adjust image parameters, video resolution, date/time, and other system settings.
- **Capture Images:** Tap the camera icon on the screen to take a still photograph of the current view. Images are

saved to the inserted SD card.

- **Record Videos:** Tap the video camera icon to start recording. Tap again to stop. Videos are saved to the SD card.
- **Playback:** Access the gallery or playback mode to review captured images and videos directly on the screen.
- **Zoom Function:** The touchscreen supports a digital zoom function, allowing you to magnify the displayed image further.

Connecting to External Display (HDMI)

- With the HDMI cable connected (as per Setup section), ensure your external display is set to the correct HDMI input.
- The microscope's live view will be mirrored on the external display, allowing for larger audience viewing or detailed analysis on a bigger screen.

MAINTENANCE

- **Cleaning Lenses:** Use a soft, lint-free lens cleaning cloth and specialized lens cleaning solution (if necessary) to gently wipe objective lenses and the LCD screen. Avoid abrasive materials.
- **Cleaning Body:** Wipe the microscope body with a soft, damp cloth. Do not use harsh chemicals or solvents.
- **Dust Protection:** Always cover the microscope with a dust cover (not included) when not in use to prevent dust accumulation on optical and mechanical parts.
- **Storage:** Store the microscope in a cool, dry, and dust-free environment. If storing for extended periods, remove the SD card.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Microscope does not power on.	No power connection; faulty power adapter.	Check power cable connection; ensure outlet is working; try a different power adapter if available.
Image is blurry or out of focus.	Incorrect focus adjustment; wrong objective selected; dirty lens.	Adjust coarse and fine focus knobs; ensure correct objective is clicked into place; clean objective lenses.
No image on LCD screen.	Light source off; objective not properly engaged; camera issue.	Check illumination control; rotate objective nosepiece until it clicks into position; restart microscope.
Cannot save images/videos.	No SD card inserted; SD card full or corrupted; SD card not compatible.	Insert a compatible SD card; delete old files or use a new SD card; ensure SD card is formatted correctly.
No image on external HDMI display.	HDMI cable not connected properly; incorrect input selected on external display.	Check HDMI cable connections; select the correct HDMI input on your monitor/TV.

SPECIFICATIONS

- **Model:** BRESSER Researcher Electronic LCD Microscope
- **Item Model Number:** 5702100
- **Sensor:** Integrated Sony IMX206 (16MP)

- **LCD Screen:** 1024x600px Touchscreen
- **Objectives:** 4x, 10x, 40x, 60x Achromatic DIN (RMS thread, 45mm parfocal length)
- **Maximum Magnification:** 600x (optical)
- **Condenser:** Abbe Condenser with Iris Diaphragm
- **Stage:** Coaxial Mechanical Stage
- **Focus:** Coaxial Coarse and Fine Focus
- **Storage:** SD Card Slot (max. 32GB, not included)
- **Connectivity:** HDMI, USB
- **Light Source Type:** Halogen
- **Power:** 240 Volts (via included power adapter)
- **Product Dimensions:** 8.07 x 7.48 x 15.35 inches (20.5 x 19 x 39 cm)
- **Item Weight:** 7.26 pounds (3.3 Kilograms)
- **Material:** PLA (Polylactic Acid), PE (Polyethylene)
- **Color:** Black

WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact BRESSER customer service. Refer to the contact details provided with your product packaging or visit the official BRESSER website.

Online Resources: www.bresser.de

© 2024 BRESSER. All rights reserved.
This manual is subject to change without notice.

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

Open the live page

<https://manuals.plus/asin/B09QX3BSWL>

More documents and user manuals: <https://manuals.plus/>