

Slit Lamp Biomicroscope, 3-Step Magnification

Operating Manual

Ophthalmic Diagnostic Instrument

Intended use

Binocular biomicroscope with slit illumination for examination of the anterior segment of the eye, including cornea, iris, anterior chamber and lens.

Intended users

For use by trained healthcare professionals (ophthalmologists, optometrists and supervised trainees). Follow your facility's protocols and applicable regulations.

Read this manual completely before first use and keep it with the product. This document provides general operating, care and safety guidance. Where the product is supplied with manufacturer labeling or instructions, those take precedence. For questions, a replacement copy, or a digital copy of this manual, email sales@scimedstore.com.

1. Safety

Safety warnings and cautions

- For use by trained healthcare professionals. Follow your facility's protocols and applicable regulations.
- Connect only to a grounded outlet with the supply voltage marked on the unit.
- Switch off and unplug before cleaning, changing the bulb or fuse, or moving the unit.
- Do not allow liquids to enter the housing or power supply.
- Use the lowest illumination and shortest exposure needed; prolonged bright light can cause patient discomfort and light exposure to the eye.
- The halogen bulb and lamp housing become hot. Let them cool before touching.
- Clean the chin rest and forehead rest between patients.
- Lock the base before moving the table or the patient to avoid sudden movement.

2. Package contents

- Slit lamp biomicroscope
- Halogen bulb
- Mirror
- Testing rod
- Dust cover
- Fuse
- Manual

Check contents on receipt. Report missing or damaged items to sales@scimedstore.com within 48 hours of delivery.

3. Specifications

Microscope type	Galilean binocular
Magnification changer	3-step: 5x, 10x, 20x objective
Eyepieces	Wide-field 15x
Total magnification	15x, 30x, 60x
Slit rotation	0-180 degrees, continuous
Illumination tilt	5, 10, 15, 20 degrees
Slit apertures	12, 9, 7, 3, 0.2 mm, plus wedge-shape variable
Filters	Cobalt blue, green (red-free), yellow, open
Bulb	Halogen 6 V 20 W
Base	Joystick control with locking mechanism
Power supply	110 V or 220 V (specified at order)

4. Unpacking and setup

- 1 Place the slit lamp on a stable instrument table and secure it as the table design requires.

- 2 Check that the supply voltage marked on the unit matches your local supply, then connect to a grounded outlet.
- 3 Fit the eyepieces and set each to zero diopters.
- 4 Insert the testing rod in its mount, focus on it at the lowest magnification and adjust each eyepiece until the image is sharp for your eyes. Remove the testing rod.
- 5 Set the interpupillary distance of the binoculars to your own.
- 6 Switch on the illumination and check that the slit beam is centered and focused in the same plane as the microscope.

5. Operation

Positioning the patient

- 1 Clean the chin rest and forehead rest.
- 2 Adjust table and chin rest height so the patient sits comfortably with the eyes at the marker on the headrest.
- 3 Ask the patient to place the chin on the rest and the forehead against the band.
- 4 Ask the patient to look at a fixation target or at your ear.

Examination

- 1 Start with low magnification, low brightness and a wide beam.
- 2 Use the joystick to bring the eye into focus; move forward and back for focus and side to side for position.
- 3 Select the slit width with the aperture control and rotate the slit as needed.
- 4 Change the illumination angle to suit the structure being viewed.
- 5 Increase magnification with the 3-step changer for detail.
- 6 Use the cobalt blue filter for fluorescein assessment and the green or yellow filters as required by your clinical method.
- 7 Lock the base when a steady view is needed.
- 8 Turn the brightness down and switch off the lamp when the examination is finished.

6. Cleaning and disinfection

- Switch off and unplug before cleaning.
- Wipe the chin rest and forehead rest between patients with a disinfectant compatible with the materials, per facility protocol.
- Wipe external surfaces with a soft cloth lightly dampened with mild detergent. Do not spray liquids directly on the unit.
- Clean eyepiece and objective lenses with lens tissue and lens cleaner only. Do not use abrasives, solvents or alcohol on coated optics.
- Clean the mirror gently with lens tissue.

7. Maintenance and storage

- Cover the instrument with the dust cover when not in use.
- Keep the joystick base slide clean so movement stays smooth.
- Replace the bulb only with the type marked on the unit (halogen 6 V 20 W). Let the lamp cool first and avoid touching the new bulb glass with bare fingers.
- Replace fuses only with the rating marked on the unit.
- Refer electrical and optical repairs to qualified service personnel.

8. Troubleshooting

Problem	Likely cause	What to do
Lamp does not light	No power, blown bulb or fuse	Check the outlet and switch; replace the bulb or fuse with the correct rating.
Slit beam and microscope not focused together	Eyepieces not set for user	Refocus eyepieces using the testing rod.
Image blurred	Dirty optics or wrong eyepiece setting	Clean lenses with lens tissue; reset eyepieces.
Joystick movement stiff	Dirt on base slide or lock engaged	Release the lock and clean the slide.
Beam dim	Brightness turned down or bulb aging	Increase brightness or replace the bulb.
Uneven or shadowed beam	Bulb not seated correctly	Switch off, let cool, and reseal the bulb.

9. Disposal

- Dispose of the unit as electronic waste in accordance with local regulations. Do not discard in household waste.
- Dispose of used bulbs in accordance with local regulations.

10. Warranty and support

Products are covered by SciMed's standard warranty (12 months from purchase unless a different period is stated on your invoice). Warranty terms: scimedstore.com/pages/warranty.

Support, spare parts and additional copies of this manual: sales@scimedstore.com. Please include your order number and a photo of the product or issue.

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