



Binocular Compound Microscope Instruction Manual



OM-118-B4S



OM-118-B4



Please read the instructions carefully before using the microscope

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SAFETY

- Do not disassemble any parts of the microscope, except where noted in the instruction manual.
- In case of a problem with the microscope, contact a professional repairman or the manufacturing factory.
- The microscope should be kept at temperatures between 0C – 40C / 32F – 104F, with a maximum humidity of 85%.
- Do not place the instrument in direct sunlight or under direct indoor light. This environment can influence the quality of the specimen imaging.
- Do not place the instrument in a dusty environment. When not in use, cover the microscope with a dust cover.
- Keep the instrument on a level and sturdy surface.
- Carry the microscope with two hands, one hand underneath the base unit and the other grasping the “neck” of the microscope.

PARTS LIST

	OM 118-B4S	OM 118-B4
Viewing Head	Binocular, inclined 45 degrees	Binocular, inclined 45 degrees
Eyepiece	Wide Field WF 10x eyepieces with diopter and interpupillary adjustment of 55-75mm	2pcs Wide Field WF 10x with dual diopters and interpupillary adjustment of 55-75mm
Objectives	4x, 10x, 40 Spring, 100x Spring/oil immersion achromatic objectives set in quadruple nosepiece	4x, 10x, 40 Spring, 100x Spring/oil immersion achromatic objectives set in quadruple nosepiece
Stage	Double layered mechanical stage (115mm x 125mm) with 70mm x 30mm range of movement and drop-down, coaxial controls	Plain Stage measures 120mm x 110mm plus mechanical slide holder with 60mm x 30mm range of movement
Condenser	Abbe 1.25 N. A	Abbe 1.25 N. A
Illumination	110v/220V 6V20W (Manually Switchable)	110v/220V 6V20W (Manually Switchable)
Accessories	Spare bulb, blue filter, fuse, immersion oil, dust cover	Spare bulb, blue filter, fuse, immersion oil, dust cover
Warranty	5 Years	5 Years
Shipping Weight	9lbs	8lbs
Dimensions	Box: 17" x 12" x 9" Microscope: 15"H x 6"W x 7"D	Box: 17" x 12" x 9" Microscope: 15"H x 6"W x 7"D

FEATURES

The microscope includes many professional features such as coaxial coarse/fine focus controls - essential for enjoyable viewing in that the viewer does not need constantly to look up from the microscope in order to adjust the fine focus. Other features include a mechanical slide holder with drop down coaxial controls, a professional Abbe 1.25 N.A condenser, and 6V20W halogen. Dual diopters for individual eye focusing come standard with 55-75mm interpupillary adjustment.

ASSEMBLY

1. Remove microscope from Styrofoam packing and place it on a stable worktable. Remove all plastic bags and paper covering (these can be discarded).
2. Connect cord to power supply and your microscope is ready for use.
3. Please note. The power supply is factory set at 115 volts. Please call for instructions if 220 volt operation is needed.

OPERATION

1. Make sure the 4x objective lens is in position for use. This will make it easier to put your slide in place as well as to position the item you wish to look at. (You start at low magnification and work up.) Put a slide on the stage and clamp it carefully with the moveable spring clip.
2. Connect the power and turn on the switch.
3. Always begin with the 4x objective. Turn the coarse focus knob until a clear image is obtained, then use the fine focus knob to enhance the observation of the specimen to its clearest image. When the desired view is obtained under the lowest power (4x), rotate the nosepiece to the next magnification level (10x). The nosepiece should “click” into position. Adjust the focusing knobs as needed to once again find a clear view of the specimen.
4. Turn the coarse adjustment (large) knob, observing the image of the specimen through the eyepiece. Use the fine adjustment (small) knob for more clarity.
5. The iris diaphragm below the stage can be opened (slide lever forward) or closed (slide lever back to left) to control the amount of light directed through the condenser. The condenser assembly under the stage can be shifted up or down by means of the control knob (left hand side under stage) to effectively move the light beam closer to (up) or away from (down) the specimen under observation. Try experimenting with various settings to get the most effective view of your specimen.
6. It is important to remember when adjusting the focus that the objective should never touch the specimen. When increasing to 100 x objective, the objective will appear to be very close to the slide. Because the 100x is an oil immersion objective, a drop of cedar-wood oil or other immersion oil should be applied in the gap between the objective and the specimen. (Note: All slides should be prepared with cover slips over the specimen for observation under the 100x objective.) The 100x oil immersion objective should be wiped off with a piece of soft clean cloth or lens tissue to remove the immersion oil immediately after using.

MAINTENANCE

1. The microscope should be kept out of direct sunlight in a cool, dry place, free from dust, fumes and moisture. It should be stored in a case or covered with a hood to protect it from dust.
2. The microscope has been carefully tested and inspected. Since all lenses have been carefully aligned, they should not be disassembled. If any dust has settled on the lenses, blow it off with an air blower or wipe off with a clean soft camel hairbrush. In cleaning mechanical parts and applying non-corrosive lubricant, take special care not to touch the optical elements, especially the objective lenses.
3. When disassembling the microscope for storage, always put the covers on the nosepiece opening to prevent dust settling inside the lenses. Also keep the neck of the head covered.
4. The 100x oil immersion objective should be wiped off with a soft, clean cloth or lens paper immediately after using.

NOTES: