

User Manual

Binocular Zoom Stereo Microscope Body

Model H42



MicroscopeNet.com

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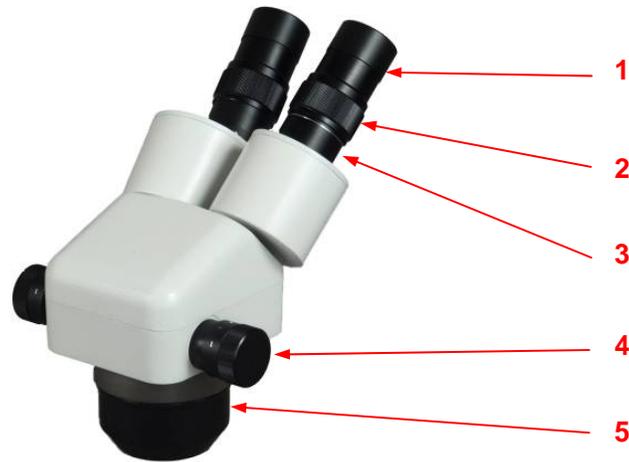
i. Caution

1. Find the “UP” sign and place the Styrofoam container on the table or bench so that the arrow is pointing upward. Open the shipping carton carefully to prevent any accessories or small items (i.e. eyepieces) from dropping and being damaged.
2. Do not discard the molded Styrofoam container. The container should be retained should the microscope ever requires reshipment.
3. Keep the instrument out of direct sunlight, high temperature or humidity, and dusty environments. Ensure that the microscope is located on a smooth, level and firm surface.
4. The boom stand is heavy. Put it on a sturdy and level surface. Be careful during assembly, operating, or moving it.

ii. Care and Maintenance

1. Do not attempt to disassemble any component including eyepieces, objectives or focusing mechanism.
2. Keep the instrument clean; remove dirt and debris regularly. Accumulated dirt on metal surfaces should be cleaned with a damp cloth. More persistent dirt should be removed using a mild soap solution. **Do not use organic solvents for cleansing.**
3. The outer surface of the optics should be inspected and cleaned periodically using an air stream from an air bulb. If dirt remains on the optical surface, use a soft cloth or cotton swab dampened with a lens cleaning solution (available at camera stores). All optical lenses should be swabbed using a circular motion. A small amount of absorbent cotton wound on the end of a tapered stick makes a useful tool for cleaning recessed optical surfaces. Avoid using an excessive amount of solvents as this may cause problems with optical coatings or cemented optics or the flowing solvent may pick up grease making cleaning more difficult.
4. Store the instrument in a cool, dry environment. Cover the microscope with the dust cover when not in use.

1 Components Illustration



- | | | |
|-----------------|------------------|----------------------|
| 1. Eyepiece | 3. Eyepiece Tube | 5. Objective Housing |
| 2. Diopter Ring | 4. Zoom Knob | |

2 Installation

2.1 Installing the microscope body

The microscope body should work with a microscope stand, which has a microscope body holder to hold the microscope.

- 1) Loosen the locking thumb screw on the microscope holder of the stand.
- 2) Insert the microscope objective housing in to the holder ring, make sure it seats on the ring firmly, and tighten the locking screw.
(The microscope stand is sold separately.)

2.2 Change the Eyepieces

- 1) Loosen the set screw on each eyepiece tube.
- 2) Take off the eyepieces.
- 3) Insert the eyepieces you want to use into the eyepiece tube. Tighten the set screw on each eyepiece tube.

3 Operation

3.1 Focusing

There is no focusing mechanism with the microscope body. Normally, the focusing mechanism is on the stand. Refer to the instruction of the stand for the focus adjustment.

3.2 Adjusting the magnification

The objective magnification can be adjusted by turning the zoom knobs on the microscope body. The zoom ratio is 1:4.

3.3 Adjusting interpupillary distance

While observing with both eyes, hold the left and right eye tubes, swing inwards or outwards. The interpupillary distance is correct when the left and right fields of view coincide completely.

3.4 Adjusting eyepiece diopter

- 1) Using your right eye only, observe your specimen through the eyepiece and bring it into focus by adjusting the focus knob.
- 2) Then observe the specimen with your left eye only through the left eyepiece. If the specimen is not in focus, rotate the diopter ring until a sharp image is obtained.
- 3) Since both sides are adjustable, you may also do the above in the opposite way, in other words, left eye first and right eye second.

4 Specifications

Model	H42
Total Magnification	10X ~ 80X
Microscope Body	Binocular, 45° inclined, 360° swiveling Adjustable interpupillary distance 55 ~ 75mm (2-3/16" ~ 2-15/16") Adjustable diopter on both eyepiece tubes
Eyepieces	1 pair of SWF10X/22 1 pair of WF20X
Objectives	Zoom 1X ~ 4X Zoom ratio: 1:4
Working Distance	80mm (3-1/4")
Field of View	Max 20mm (3/4")
Dimension	15cm x 19.5cm x 20.6cm (5-15/16" x 7-11/16" x 8-1/8")
Net weight	1.83 kg (4 lb)

5 Troubleshooting Guide

Problem	Cause	Solution
Totally dark in the view field	The cover of objective housing is still on	Take off the cover
Incomplete binocular vision	The interpupillary distance is not correct	Adjust the interpupillary distance
	Diopter is not correct	Adjust the diopter
	The right and left eyepiece are not the same	Check and mount the same eyepieces
Dirt or dust on the view	Dirt or dust on the eyepiece lens, objective lens, auxiliary lens	Clean the lens with a camera cleaning kit
	Dirt or dust on specimen	Clean the specimen
Image Blur when zoomed	Diopter adjustment of the eyepieces is not complete	Complete diopter adjustment
	Focus adjustment is not complete	Complete focus adjustment