

OMANO

OMVV-GX4 (T)

7x-45x Zoom Boom
Microscope

Instruction Manual



Please read instructions carefully before using microscope.

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SAFETY

- Disassembling the microscope may cause electric shock or damage to the instrument. Do **not** disassemble any part of the microscope unless noted in this instruction manual. If you run into a problem, please contact the repairs department at The Microscope Store, LLC, at (877) 409-3556 or send an e-mail to support@microscope.com.
- To avoid electric shock or damage to the instrument, unplug the ring light before replacing the bulb.
- The microscope should be kept at temperatures between 0°C-40°C/32°F-104°F, with a maximum humidity of 70 percent.
- Do not place the microscope in direct sunlight or under direct indoor light. Too much light can influence the image quality of the specimen.
- Avoid dust. When not in use, cover the microscope with a dust cover.
- Keep microscope on a level and sturdy surface.

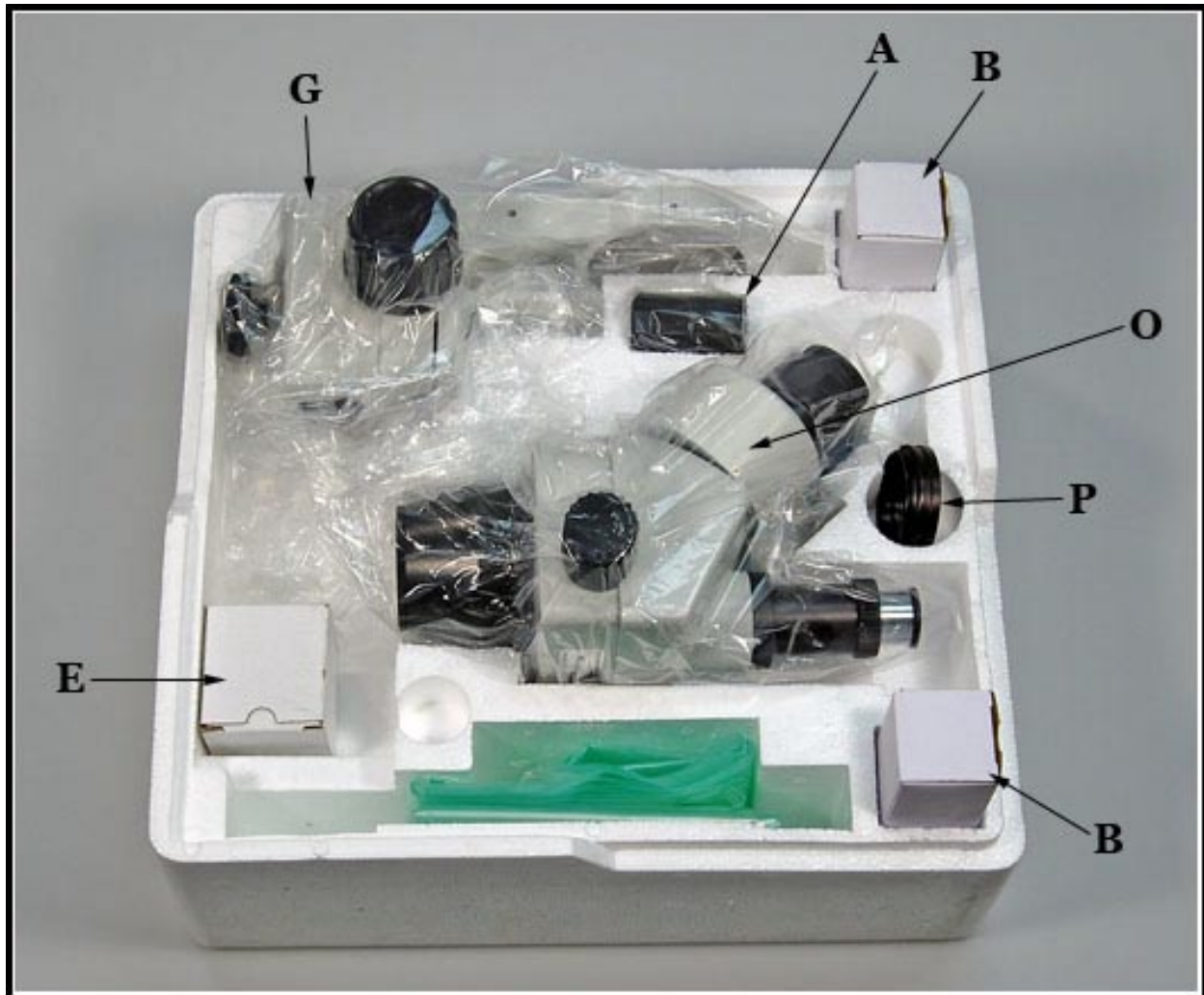
FEATURES

This microscope is suitable for research in medicine, environmental sanitation, farming and forestry. This type of microscope is also suitable for instruction and experimentation in universities and colleges.

- **Zoom Range:** 7x-45x
- **Zoom Ratio:** 6.4:1
- **Viewing Head:** Binocular or trinocular, eye tubes inclined at 45 degrees with dual diopters +/-5mm
- **Eyepieces:** Widefield 10x + rubber eyecups
- **Interpupillary Adjustment:** 55-75mm
- **Focusing:** Dual side-mounted focusing controls
- **Illumination:** 8W fluorescent ring light + metal adapter ring
- **Microscope Stand:** Base plate 9" x 9"; Vertical Pole: 15"; Dual Horizontal Arms: 15", max 21" with focus block
- [Limited Lifetime Warranty](#)
- **Dust Cover, Operating Manual**

PARTS LIST

Fig. 1

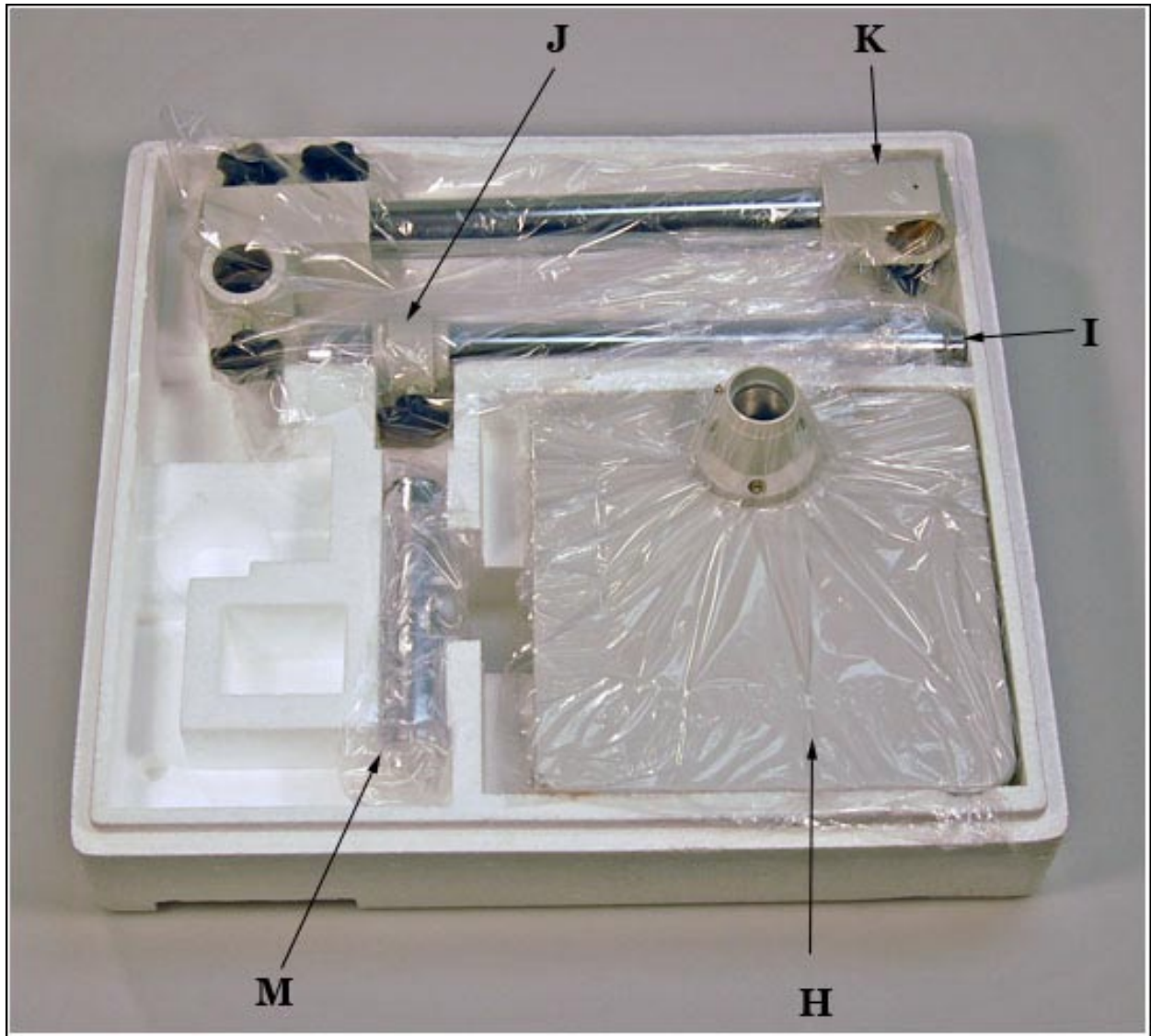


Contents in Box One (pictured above)

Microscope Head (O)
2 WF 10X/20 Eyepieces (B)
Eyecups (A)

0.5x Barlow (E)
Focusing block (G)
Dust Cover
Ring light adapter (P)

Fig. 2

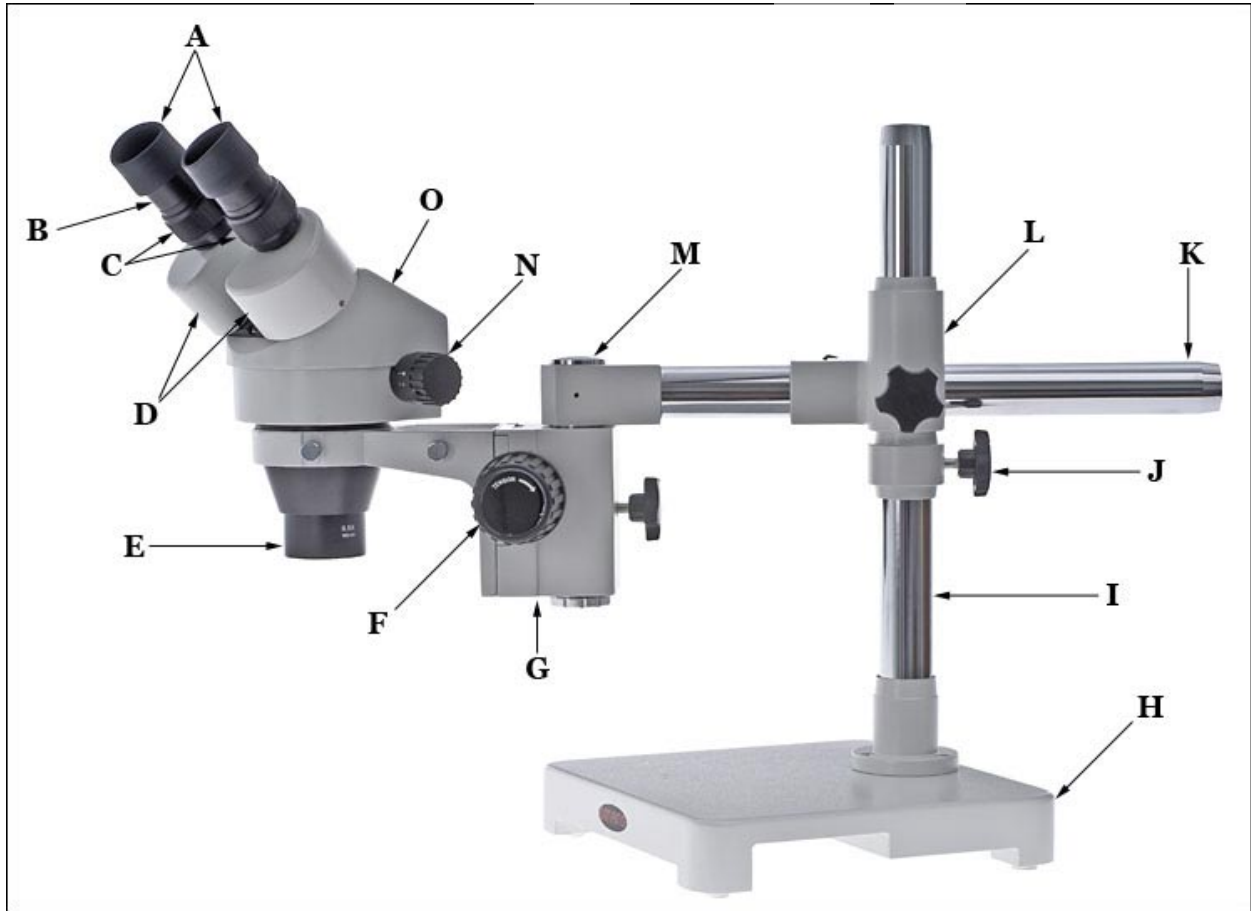


Contents in Box Two (pictured above):

- Base Plate (H)
- Hanging Bar (M)
- Support Collar (J)
- Horizontal Post (K)
- Vertical Post (I)
- Horizontal / Vertical Slide Block (L)

- Extras:**
- (1) 8 Watt florescent ring light system
 - (1) Spare florescent bulb
 - Manual

Fig. 3



- A. Eyecups
- B. Eyepieces
- C. Diopter
- D. Interpupillary Adjustment
- E. 0.5x Barlow
- F. Coarse Adjustment Knob
- G. Focus Block
- H. Base Plate
- I. Vertical Post
- J. Support Collar with Locking Screw

- K. Horizontal Bar
- L. Adapter Block
- M. Hanging Bar
- N. Zoom Controls
- O. Microscope Head
- P. Ring Light Adapter (see Fig. 1)

ASSEMBLY

The complete list of parts for this microscope are on page 3; be certain to check if you have all the parts before discarding any packing material. The diagrams in this manual were created to aid in both learning the parts of your microscope and to better assist you in assembly.

*Refer to **Fig. 3** when putting together your microscope

- 1.) Place **Base** (H) on a solid, level surface
- 2.) Screw **Vertical Post** (I) into **Base** (H); once it is hand-tight secure it with locking screw.
- 3.) Slide **Support Collar** (J) onto **Vertical Post** (I) (about the height you would like to operate microscope) and secure with attached locking screw.
- 4.) Slide **Adapter Block** (L) with the **Horizontal Bar** (K) mounted to it onto the **Vertical Post** (I) and secure with the vertical locking screw already threaded into the adapter block.
- 5.) Insert **Hanging Bar** (M) into the **Horizontal Bar** (K) after unthreading the notched ring on the bottom of the hanging bar.
- 6.) Attach the **Focusing Block** (G) onto the **Hanging Bar** (M) from the bottom and secure it with locking screw.
- 7.) Reattach the notched ring back onto the **Hanging Bar** (M) to insure that the **Focus Block** (G) does not fall off of the microscope.
- 8.) Place **Microscope Head** (O) into **Focus Block** (G) securing it with the silver thumbscrew on the focus block. (There are three holes and one screw that allow you to secure the microscope head as you wish.)
- 9.) Remove **Eyepieces** (B) from packaging and slide them into their respective places on the **Microscope Head** (O)
- 10.) Place **Eyecups** (A) onto **Eyepieces** (B) with the sloped side up and away from your nose.
- 11.) Screw **0.5x Barlow** (E) or **Ring Light Adapter** (P) into the bottom of the microscope head.
- 12.) Mount **Ring Light** (P) to what you chose to mount in previous step.

OPERATION

Before you use the microscope make sure it is on a flat, sturdy surface to avoid potential injury to yourself or damage to the microscope.

- a. First, determine your focal distance by raising the microscope head; make sure the zoom is at its lowest setting and place your hand under the microscope as you look through the eyepieces. Raise your hand slowly until it comes into focus. Once your hand is in focus, note the placement of your hand. This is roughly the distance you want between the microscope and your specimen.
- b. After you have determined your focal distance lower you're the horizontal bar to the desired height. Make sure to also adjust the support collar so the microscope does not fall.
- c. Interpupillary distance (the distance between the eyes) can be adjusted by sliding the eyepiece tubes left or right.
- d. Bring the specimen close to focus by adjusting the horizontal bar, and turning the coarse adjustment knob until you get a rough image through the eyepiece.
- e. If vision in one eye is blurry, turn the diopters on that eyepiece so you can achieve fine focus for that eye. *Note that adjusting and readjusting is normal to achieve a clear, crisp image.*
- f. Next, turn the zoom controls on either side of the microscope while looking through the eyepieces. The size of the subject will change depending on which way you turn the controls. You will have to readjust the coarse adjustment knob when your subject becomes blurry.
- g. If you purchased the trinocular version of this microscope, pull the silver knob on the left side of the microscope head to activate the trinocular port. It is important to note that you will not be able to see anything out of your left eye when using the trinocular port. Just push the knob back in to close the trinocular port. Vision through the left eyepiece should be restored at this point.

MAINTENANCE

Switch off the power supply after each use. Clean the microscope with a soft cloth and wipe off dust from the lens surfaces, then cover it with the included dust cover. If you do not plan to use the microscope for a long period of time it is best to store it in the provided Styrofoam packaging or in a microscope case.

SPECIFICATIONS

Working Distance: Without Barlow lens, 90mm
With 0.5x Barlow lens, 165mm

Conjugate Distance: 195mm

Magnification: 40X – 1000X

Mechanical Stage: Size: 140mm x 140mm
The range of longitudinal movement: 50mm
The range of transversal movement: 70mm

Observation Tube: Binocular Tube

Illumination System: Fluorescent ring light; 8 Watt

Focusing System: Coarse Adjustment Range: 500mm
Fine Adjustment Division: 0.002mm

NOTES: