

XTZ Series Zoom Stereo Microscope Instruction Manual



This manual describes maintenance, protection and warning during use.
Please read this manual carefully before you operate this microscope
and keep it together with the instrument.

Dear Ladies and Gentlemen:

Thanks for your trust. We wish our products could bring you success and satisfaction in your work. The XTZ Zoom Stereo Microscope features sharp image, special structure and multi function. We are manufacturer of microscope, our products are made with Computer Aid Design. As a partner of our customer, we would like to work with you and enjoy to offer you the most suitable products and the best service.

Before you use the instrument, please read the following notes:

- Permitted use:
This microscope is only used for microscope observation; do not misuse it for other purpose.
- No disassembly
Do not disassemble any part of this instrument unless special notes are given in the user's manual. Otherwise, it will damage the microscope or cause an electric shock to user. If you meet any problem with the products, please contact local representative of us.
- Warning of the hot parts:
XTZ Stereo Microscope have many accessories for your choice, for example: halogen bulb, ring fluorescent light, fiber optic illuminator and so on. During using the illuminator, do not touch bulb. Keep the combustible material far from hot lamp (such as :gasoline, plastic, ethanol, cloth and paper).
Never touch the bulb inside transmitted light base when the instrument is on power.
- Using correct supply voltage
There is a label describing the supply voltage on the back of light base. A wrong input voltage can cause damage to the instrument.
- Putting wire:
Putting wire with care, do not twisting with person to avoid instrument turn over, damaging other equipment or injuring person.
- Displacement
Before moving the microscope, disconnect the power cable and do not touch the objective lens with finger.
Working environment :
Room temperature: 0°C~40°C
Relative humidity: 0~85%
High temperature and humidity can cause mould and damage the instrument.
- Gentle operation
Microscope is a precise instrument, gentle operation is necessary. Any rough action or hard shock may cause damage.

Features:

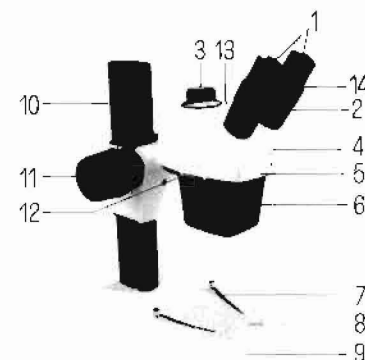
We are in honors to supply you new XTZ series zoom stereo microscopes. The features of XTZ zoom stereo microscope are sharp image, special structure and multifunction. Modular main body, stand, eyepiece, auxiliary lens and various kinds of special accessories will offer you many choices and satisfy your different demands.

XTZ is suitable to medium magnification's, various kinds of 3DM observation. Even if you needn't 3DM observe, XTZ also is the most economical microscope. The magnifications of zoom body can be bigger or less . All of the optic parts are sealed into the main body. In order to observe conveniently, main body can be rotated 180°, binocular tube inclined 60°. In fact it is the popular zoom stereo microscope used in various field.

- The way of magnification:zoom
- Zoom range: 0.7X-3X
- Zoom ratio: 1:4.3
- Total magnification: 2.1X-120X(with accessory lens)
Standard: 7X-30X
- Field of view: \varnothing 93mm- \varnothing 2mm
Standard: \varnothing 28mm- \varnothing 6.6mm
- Working distance: 247mm-34mm
Standard: 100mm
- Interpupillary distance: 50mm-75mm
- Dioptic correction: +2 ~ -2 diopter
- Binocular tube: incline 30°

Components

- | | | |
|----------------------------|--------------------|----------------------|
| 1.Eyepiece | 6. Objective Cover | 11. Focusing Knob |
| 2.Eyepiece Adjustable Ring | 7. Clip | 12. Lock Levers |
| 3.Magnification Knob | 8. Stage Plate | 13. Eyepiece Adaptor |
| 4.Optic Main Body | 9. Base | 14. Eyepiece Ring |
| 5.Supporting Ring | 10.Track Stand | |



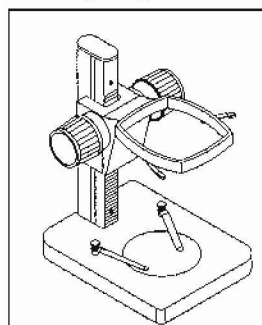
Total magnification= Fixed power × Supplementary lens power

eyepiece	Working distance (mm)	WFH10X 65		WF15X		WF20X	
		Mag.	Field of view (mm)	Mag.	Field of view (mm)	Mag.	Field of view (mm)
standard	100	7X - 30X	28 - 6.6	10.5X - 45X	24 - 5.6	14X - 60X	17 - 4
0.3X	247	2.1X - 9X	93 - 22	3.15X - 13.5X	80 - 19	4.2X - 18X	57 - 13
0.5X	168	3.5X - 15X	56 - 13	5.25X - 22.5X	48 - 11	7X - 30X	34 - 8
0.75X	105	5.25X - 22.5X	38 - 9	7.9X - 34X	32 - 7.5	10.5X - 45X	23 - 5.3
1.5X	44	10.5X - 45X	19 - 4.4	16X - 67.5X	16 - 3.7	21X - 90X	11 - 2.7
2X	34	14X - 60X	14 - 3.3	21X - 90X	12 - 2.8	28X - 120X	9 - 2

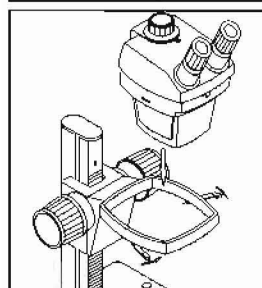
Assembling and Testing

Unpacking package

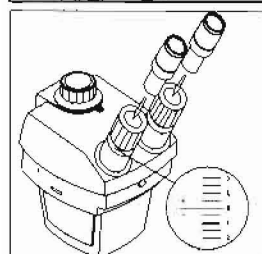
Unpacking the box: pick up the stand, and put it on the flat working stage.



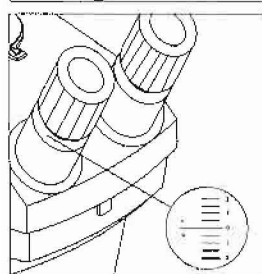
- ▶ Removing the two Lock Levers at either side of the arm.



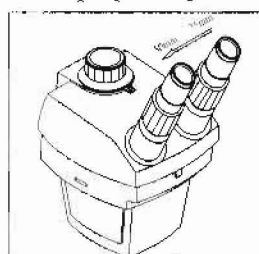
- ▶ Put the optic body in the support mount. It faces either forward or backward.
- ▶ Tighten the retaining clip of support square mount. Main body and the stand should be close, prevent it move when you using.



- ▶ Put the eyepieces into the binocular tube, before adjusting the dioptic adjustable ring for both eyepiece, make "0" scale.
- ▶ Observer with glasses usually need to adjust two or more dioptic adjustment. When wearless glasses, you need to refocus.

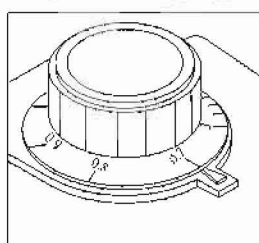


Interpupillary distance adjustment

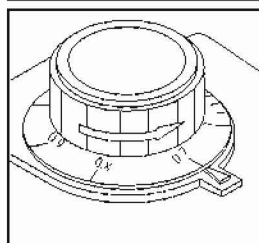


- ▶ Holding the binocular tube adjusts the interpupillary distance towards inside or outsides. The interpupillary distance is correct when you see a single field of view in both eyes. You can close one eye first, then judge the interpupillary distance whether correcting.
- ▶ Interpupillary distance: 50mm-75mm

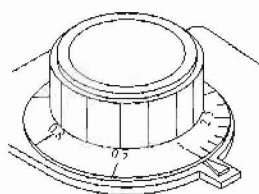
Step of changing the magnification



- ▶ Set the Magnification Knob to the lowest power 0.7X, illuminate and put the specimen in the center of view field. Turn the Focusing Knob until the best image is obtained.

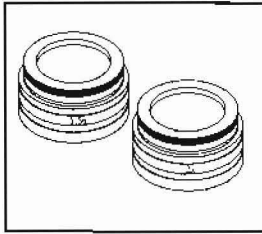


- ▶ After finishing above step, moving magnification knob slowly to the highest power, meanwhile turning the focusing knob to see clear image in the whole process.

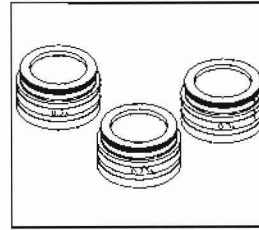


- ▶ Select the highest magnification for precision focus.
- ▶ Turn the knob from high power to low power, if it is parfocal, the image remains clear in the whole process, otherwise refocusing until you can observe the clear image.
- ▶ Some times this need to be done several times until the clear image is obtained

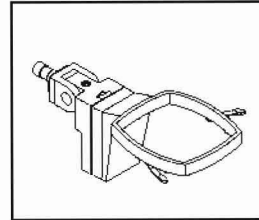
Note: Depth of field decreases as magnification increases. It is many times greater at low power than at high power. This means it is quicker and easier to bring the specimen into focus at low power, the precise focusing can be achieved at high power. Different observer need to refocus each time according to own conditions.



- ▶ Only add 1.5X or 2X objectives on the bottom of the body can increase the magnifications of zoom stereo body.
- ▶ If objective clamping during installation, add a few grease to the lens thread, wipe away the excess oil, then rescrew it.



- ▶ If you want to increase the working distance and enlarge view field, you can put the 0.3X, 0.5X or 0.75X auxiliary objectives on the bottom of body.
- ▶ The 0.3X, 0.5X or 0.75X lenses are suitable to those stands which working distance is long enough.



- ▶ #4124 Universal Arm can be used on boom stand or flexible arm stand.

Quality guarantee

- We guarantee the quality of our products and material we used. But do not cover damages resulting from careless or misuse, please handle your valuable instrument with great care. It will maintain its function with same precision for decades with your careful use.

Care

- Microscope is a precision instrument, gentle operation is necessary, any rude action or hard operation shaking may damage the instrument.
- Some important components, such as objectives, eyepieces, should be put in a safe place, avoid damaging.
- Keep the optic lens clean (such as eyepiece, auxiliary lens). Protect them from oil and grease. Dust and dirt will affect the quality of instrument. Clean the optic lens with absorbent cotton dipped mixture of pure ethanol and aether (1:4).
- It should be used in a clean and dry place.

When instrument is not used

- Put the eyepiece cover back, and a big plastic cover to the whole set. Then put it in a dry place.
- Specially, auxiliary lens and eyepiece had better been put in a container with dryer.

Special notes



This instrument is only used for microscopic observation.

All products are seriously inspected by our quality department. Do not Disassembly any part of the instrument unless instruction manual are given for doing so. If you find any fault, please contact us.

When the illumination is used, be careful for being hurt by hot. Before replace the bulbs, wait until it become cool. Keep combustible substances far from the hot point (such as gasoline, alcohol, aether) Make sure to set the correct voltage for the instrument, otherwise, it may cause heavy damage or personal injury.

We have the right to change the design if necessary, so this user manual does not describe all features of our products.

We have rights to make some innovation in design without any previous notice.



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