OPERATING MANUAL

BIOLOGICAL MICROSCOPE

BMIC-702

CE ISO9001 CERTIFIED

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1. Application

The products have high degree of standardization, beautiful appearance, and also have the feature about rational structure, easy to use, clarity of visual field and quality stability. And these products also are the general Equipment for medical, research, and teaching.

2. Specification of Standard Accessories

1. Eyepieces

Category	Magnification	Diameter of view-field(mm)	Remark
Wide field eyepiece	WF10X	ф18	
	WF16X	ф11	

3. Objectives

Category	Magnification	Numerical aperture	Working distance	Remark
Achromatic objectives	4X	0.10	37.5	
	10X	0.25	7.613	
	40X(s)	0.65	0.632	spring
	100X(s.oil)	1.25	0.198	Spring oil

4. Total magnification

Objectives	Tube coefficient	Total magnification	
		Eyepiece 10X	Eyepiece 16X
4X	1X	40X	64X
10X		100X	160X
40X		400X	640X
100X		1000X	1600X

4. Mechanical tube length: 160mm
5. ABBE condenser, NA=1.25
6. Filter diameter: 32mm
7. Coarse/fine focal range:20mm
8. Stage size:X-Y:120*125mm

Longitudinal movement range: 70mm
Horizontal movement range: 30mm
9. lamp:LED lamp
10. power:AC input 220V

5. Structure

This series of microscopes are composed of the following main components.
1. Objective lens case and Nosepiece:
Microscope objective lenses are engraved with various tags: magnification, Mechanical tube length/ Cover slip thickness. Such as: objective 40X: 40/0.65; 160/0.17 means that the magnification is 40X; Mechanical tube length is 160mm; Cover slip thickness is 0.17mm, and about the objective 100X oil, it is engraved with 'oil'.
Nosepiece guarantees smooth rotation by quadruple revolving nosepiece.
2. Eyepiece: Using WF10X wide field eyepiece.
3.This series of microscope's binocular Tube spacing adjustable range is 55mm-75mm
4. Stage: it can be operated much easily by coaxial knob in low position.
5. Condenser: ABBE condenser N.A. =1.25 with iris diaphragm, kosher illumination is optional.
Condenser can move up and down, and the condenser through strict assembly and calibration, and Users should not arbitrarily disassemble.
6. Course Focusing Adjustment:
Coarse/fine focal range is 20mm. and it is on the bottom of left and right side. Rotating rough hands wheel, the working stage rapid decrease or increase. About the micro hands wheel, it can make the stage move up and down fine. There is an indexing on the micro hands wheel. Every lattice is 0.002mm.
7. Base:
This is the basis of the product; there are four Rubber machine feet, to make it more Stable.

6. Operation Instruction

1. Unpacking and installation：
Microscope packaging is foam and carton; host packed in plastic bags, Objective are on the transparent plastic box, Eyepiece with a plastic bag, it should be carefully when install.
2. Adjustment of the microscope:
1）Insert the eyepiece into the eyepiece tube, and screw objectives into the nosepiece in sequence of different magnification from low to high. Then put the specimen on the stage and secure it the position with tablet and move it to the center of stage.
2) Turn on the power switch and adjust the brightness form dark to bright slowly. After working, you must adjust the brightness to a little dark before you turn it off.
3）Observe the specimen from lower magnification objective firstly and move the specimen to thecenter of view field, then rotate higher magnification objective. You may use the fine focusing knob to obtain the clear image. When100X (soil) objective is used; you should fill up with cedar wood oil (without bubble) between the front of objective and the specimen surface. After working, it should be wiped with a few xylems immediately.
4） In order to obtain bright and clear image, the illumination must be adjusted. When different objective is chosen, you should adjust the iris diaphragm of the condenser and different brightness of the light.

5） When the lamp needs to replace, you should shut off the power switch and replace it after the lamp is cool. Note: The contact must be firmed, and the filament center should be adjusted.

7. Maintenance

1. Open the package carefully to avoid the damage of the lenses or accessories
2. Operate correctly, and put the dust cover on the microscope after work.
3. Don’t dismantle the instrument rashly besides the replaceable lest the correct position should be breached.
4. Keep the instrument in dry and cool place and away from the pollution and corrosion.
5. Please send the instrument to the special repair shop if it goes out of order.
6. When the objectives and eyepieces won’t be used for a long time, please place them into a dry box, and put the dust cover onto the microscope.

8. Full set of the instrument

1	Mainframe of bio-microscope	1 set
2	Eyepiece: WF10X WF16X	2 pcs of each
3	Tube	1 pc
4	Achromatic Objective:4X,10X,40X,100X(oil)	1pc of each
5	Cedar wood oil	0.3ml/bottle
6	Operation Manual	1 copy
7	Dust cover	1 pc

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