LABDEX

Binocular Biological Microscope

LX1224BMC

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1. Introduction

Binocular Biological Microscope LX1224BMC is designed with siedentopf binocular head, quadruple click stop nosepiece and eyepiece WF10X. It has coarse and fine focusing adjustment helps in better observation of the specimen. This microscope comes with LED as external source of illumination. It is compact and light in weight, it is perfect for routine microscopic analysis and easy to operate system.

2. Features

- Easy to operate
- It has binocular head
- NA 1.25 Abbe Condenser with Iris Diaphragm and filters
- LED as external source of illumination
- Double Layers Mechanical Stage
- Fine focusing adjustment
- Compact and light in weight

3. Specifications

Model No.	**LX1224BMC**
Viewing head	Seidentopf Binocular Head, Inclined at 30°, Interpupillary 48-75mm, 360° Rotation
Nosepiece	Quadruple, click stop
Eyepiece	WF10X
Objectives	Achromatic objective 4x, 10x, 40x, 100x (oil)
Stage	Double Layers Mechanical Stage 140x132mm/75x45mm
Focusing	Coaxial Coarse & Fine Adjustment, Fine range 20mm, Focusing interval 0.002mm
Condenser	NA 1.25 abbe condenser with Iris diaphragm and filters
Illumination	LED illumination for long life, brightness adjustable

4. Applications

Biological microscope can be used for routine microscopic analysis of samples in research laboratories, schools, institutes and colleges

5. Instrument Introduction

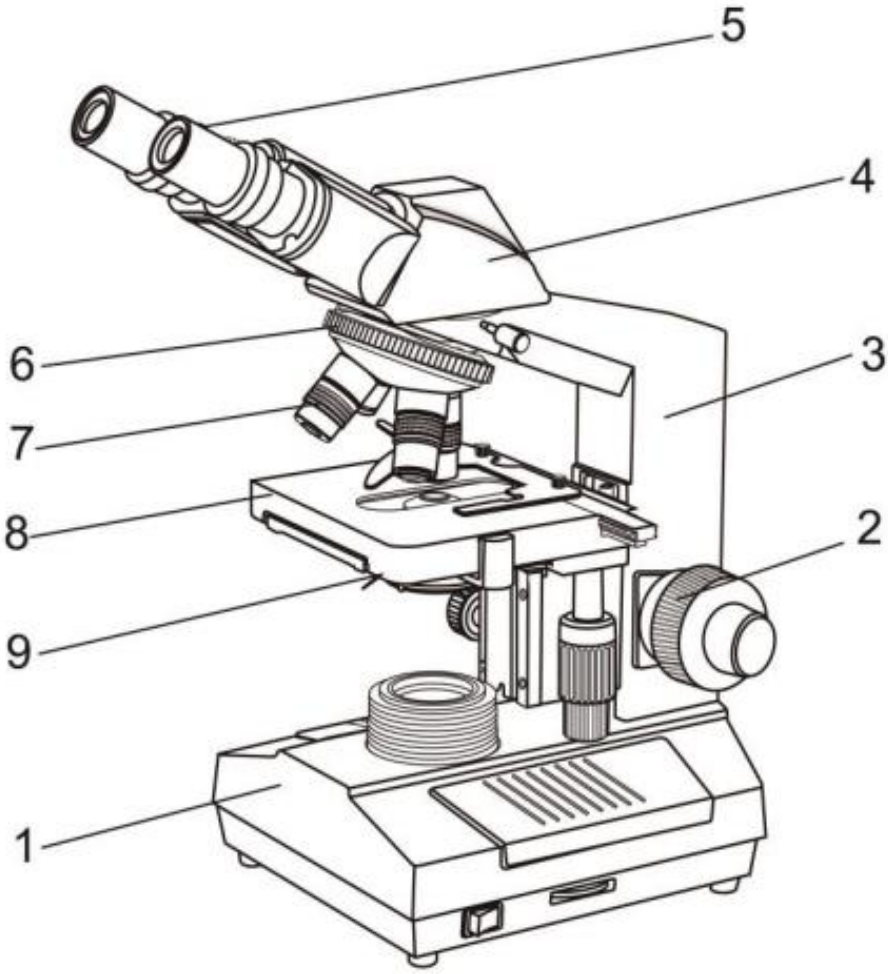

Figure-1 Structure of Binocular Biological Microscope LX1224BMC

1) Stand
2) Rise and fall support
3) Arm
4) Binocular head
5) Eyepiece
6) Nosepiece
7) Objective
8) Stage
9) Condenser

LX1224BMC is composed of nine main component parts:

(1) **Stand:** It's the base bearing the total weight of the microscope, with a built-in illumination system, electronic parts, and connecting control.

(2) **Rise and fall support:** It connects with the stage, arm, and condenser. The stage and condenser can move vertically through it for proper operation.

(3) **Arm:** It's the central part connecting the frame and every main component part. It's provided with a coaxial coarse/fine focus system, with a tension adjustable knob and limited stopper. It guarantees the stage rises and falls smoothly.

(4) **Viewing head:** It can fit on a 45°inclined monocular, binocular, or trinocular head.

(5) **Eyepieces:** Using WF10X or WF16X (optional) wide field eyepiece.

(6) **Nosepiece:** It guarantees comfortable and precise rotation by a quadruple revolving nosepiece.

(7) **Objective:** 4X, 10X, 40(S), and 100X (S, Oil) high-quality achromatic objectives make the imaging clear.

(8) **Stage:** Using a double-layer mechanical stage, it can be operated much more easily by a coaxial knob in low position.

(9) **Condenser:** ABBE condenser N.A. =1.25 with iris diaphragm.

6. Operations

1) Insert the eyepieces 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 secure it in the position with the tablet and move it to the center of the stage.
2) Turn on the power switch and adjust the brightness from dark to bright slowly. After working, you must adjust the brightness to a little dark before you tune it off.
3) Observe the specimen from the lower magnification objective first and move the specimen to the center of the view field, then rotate the higher magnification objective. You may use the fine focusing knob to obtain a clear image. When 100X (S, Oil) objective is used, you should fill up with cedar wood oil (without bubble) between the front of the objective and the specimen surface. After working, it should be wiped with a few xylenes immediately.
4) To obtain a bright and clear image, the illumination must be adjusted. When a 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 be replaced, 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) Examine the connection of every part that is firm when opening the package and installing the microscope. Be careful, not overexert to break the instrument.
2) Operate correctly and put the dust cover on the microscope after work to prevent dust and oil strain.
3) Don't dismantle the instrument rashly beside the replaceable lest the correct position should be breached.
4) Keep the instrument in a dry and cool place and away from pollution and corrosion.
5) When the objectives and eyepieces won't be used for a long time, place them into a dry box, and put the dust cover onto the microscope.