

DIGITAL MICROSCOPE



Instruction Manual



Model : LDM-102

Please read this manual carefully before using the instrument

Labnics Equipment

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CHAPTER 1. INTENDED APPLICATION:-

This information manual will identify in a general way, the various parts and functions of 400X digital microscope. It is intended to familiarize the first time user with their instrument.

This microscopes is ruggedly built for classroom and laboratory use. The instrument's feature fully-coated achromatic optics, international standard DIN objective and eyepiece. Optically, it has excellent system with good resolution, centering, and paragon features. Mechanical movements are smooth and positive. Plain stage, and rack stop serve to minimize damage.

CHAPTER 2. SPECIFICATIONS:-

- **Magnification** : 40X, 100X, 400X.
- **Viewing Angle** : Monocular head, inclined at 45°.
- **Eyepiece** : WF10X.
- **Illumination** : (two illumination type for choice)
 1. Build-in 220V 15W incandescent lamp. Single lens (N.A0.65) with disc diaphragm.
 2. LED lamp, with charge and battery.
- **Plain stage size** : 90X90mm with slide clips.
- **Tube length** : 160mm.
- **Objective** : 4X, 10X, 40X(S).
- **Focusing** : Coarse adjustment.

CHAPTER 3. SET-UP:-

1. GETTING THE MICROSCOPE READY FOR USE:-

First, familiarize yourself both visually and physically with the mechanical parts of your microscope. Gently operate each part by hand (no tools required) to see how it behaves and what result it produces.

2. MOUNTING THE OBJECTIVE AND EYEPIECE:-

To put the eyepiece in place, simply slide it into the eyepiece tube. The objective lenses screw into the rotating nosepiece. If the four objectives are already mounted in the nosepiece, check to see if they are correctly placed or not. To do this, grip the knurled ring on the objectives with your fingers and turn it to the right. Do not tighten them with tools; they need only to be "finger tight". With all three objectives mounted in the nosepiece the entire nosepiece can be rotated by hand. As you rotate the nosepiece you will notice that each objective lens has a "click stop" which stops and holds the objective lens being used in its proper position relative to the optical axis of the microscope.

3. ILLUMINATION

In order to provide illumination to your new microscope, simple plugs the power cord into an electrical socket and switch your microscope "ON", and start working.

CHAPTER 4. OPERATION:-

Once you have set up your microscope, follow the steps given below to prepare the specimen to be studied for viewing:

- Place the slide to be viewed onto the stage, so that the stage clips hold it firmly in place. Position the slide so that the portion of the specimen that you wish to observe is below the 4X objective.
- Slowly rotate the coarse focus knob until the stage is approximately 1/8" from the objective, being sure not to let the slide come in contact with the objective, which can cause damage to both. When using the coarse focus knob, start with the objective as close to the stage as possible and focus from the bottom up.
- This will help to prevent any contact between the objective and the stage.
- Adjust the disc diaphragm attached, to control the reflection of light into the specimen.
- To change the magnification, first draw the objective to the position furthest from the stage. Then turn the objective turret until the desired objective is in place. Return the objective to the point closest to the stage and focus once again backing away from the stage.
- To determine the total magnification, multiply the magnification of the objective with that of the eyepiece. (e.g., 10X objective X 10X eyepiece = 100X magnification).

CHAPTER 5. MAINTENANCE:-

1. Keep the instrument in dry and cool place, and keep it away from acid or alkali. Put the dust cover over it when it is not used.
2. Keep lenses clean and remove dust with the help of soft brush.
3. This instrument is used at 0-40°C.

