



## Owner's Manual

### Model: Micro

#### PRECAUTIONS



**WARNING!**  
Risk of electric shock  
Dangerous voltage inside

Please follow these precautions:

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To prevent electrical shock, do not open the cabinet. Refer to qualified personnel for service only.

Do not use the unit continuously for more than 24 hours with camera auto focus on. It may cause damage to the camera lens.

Be careful not to spill water or other liquids onto the unit, or allow combustible or metallic objects to get inside the cabinet.

Unplug the visualiser from the wall outlet when it is not being used for a long period of time.

Clean the cabinet with a soft cloth lightly moistened with a mild detergent solution.

Clean the lens carefully with an air spray or soft dry cloth to avoid scratching it.

When the lamps flash or become dark, they should be replaced with new ones.

Avoid switching arm lights and back light frequently.

Remove the camera lens cap before power the unit on.

# Using the GeneeVision Micro

- 1** Check that the lowest power objective is in place, and that the objective is as near to the stage as possible (adjust with the coarse focusing knob). Check that the substage condenser, if fitted, is as close to the underside of the stage as possible and that the iris diaphragm is fully open. If there is no substage condenser, check that the annulus ring or iris diaphragm is adjusted to allow as much light as possible to reach the objective.
- 2** Plug the microscope in (or the lamp if the microscope has a mirror). Look down the eyepiece and adjust the condenser focus (if fitted) as follows: use a sharp pencil or a mounted needle. Place the point of the pencil or needle on the light source (or mirror) so that the point is directly below the hole in the centre of the stage. Looking down the eyepiece, adjust the condenser knob slowly until the point is in sharp focus. **DO NOT ADJUST THE POSITION OF THE CONDENSER AFTER THIS POINT!**
- 3** Adjust the amount of light passing through the eyepiece as follows: pull out the eyepiece (not always possible) and look down the tube. Close the iris diaphragm (if fitted) or rotate the annulus ring so that the field of view is three quarters illuminated. Replace the eyepiece.
- 4** The microscope is now correctly set up. Focus on a specimen first using the lowest power objective, and then increase the magnification as desired. When using the higher power objectives it is good practice to start with the objective as close to the slide as possible, and rack away from the slide. This prevents the longer higher powered objectives from being racked down through the slide by mistake. As you swing the high powered objectives into position, the specimen should automatically be in approximate focus. If it is not, bring it into approximate focus using the coarse focusing knob, and then adjust to sharpness using the fine focus knob. At higher magnifications it may be necessary to adjust the amount of light entering the objectives by opening the iris or moving the annulus.
- 5** If the field of view is dark, try cleaning the eyepiece and the objective. This should only be attempted using lens tissue, not any other sort of tissue. If this does not rectify the problem, see your biology teacher or the biology technician.
- 6** Never attempt to adjust the position of the screws holding the condenser in position. These screws both retain the condenser in its holder and maintain it in the correct position. If you do inadvertently adjust these screws please report to the biology technician at once.

## Using Oil Immersion:



To visualise very small objects (typically bacteria) you need to use an oil immersion objective. This is normally marked 'Oil' and x100. To use the oil immersion objective, follow the steps below.

Focus the condenser as described before (oil immersion will not work on a microscope without an Abbe condenser)

Select the oil immersion objective and rack away from the stage so there is a clear space between the bottom of the objective and the stage surface.

Put the slide onto the stage and centre it under the oil immersion objective. Put one drop only of immersion oil onto the centre of the slide.

Looking at the stage from the slide, slowly lower the oil immersion objective towards the slide until it touches the oil drop. The objective must remain in contact with the oil throughout examination of the slide.

Look down through the eyepiece and focus using the fine focus knob until you can see the specimen. It may be necessary to open the iris diaphragm wider than usual.

After use, clean excess oil off of the slide and the objective by wiping with plain lens tissue. Thoroughly clean the objective and the slide with lens tissue moistened with alcohol (IMS will do). All oil must be removed from the objective before returning the microscope to store.