



STEREO MICROSCOPE, MODEL 30LED

- If the black/white stage plate is mounted then please replace it with the glass stage plate. The frosted side of the glass stage plate should face down.
- Remove the cover from the underside of the objective tube (not always mounted).
- The enclosed transformer (charger) is connected to the stereo microscope and the mains.
- **IMPORTANT:** The microscope must be recharged for a minimum of 12 hours before using it for the first time.
- The batteries are not used, when the transformer is connected to the stereo microscope via the mains. It is therefore recommended to use the transformer when possible, thereby saving batteries for later use.
- The model has two illumination sources; top light (incident light) and bottom light (transmitted light).
- It can be a good idea to turn off the light, if the stereo microscope is used outdoors in bright sunlight. This will help save the batteries for later use.
- The transformer must never be connected to the stereo microscope, if it has been subjected to moisture. Wait until the stereo microscope has dried.

General use of the stereo microscope:

- Place an object under the objective revolving tube, and use the focusing knob to adjust the sharpness.
- If a sharp image cannot be attained due to the height of the

object, then carefully release the lock screw on the vertical post and find the correct height. Remember to lock the lock screw again. The support collar also needs to be locked.

- The magnification can be changed by turning the vertical revolving objective tube a half turn until a click is observed.
- Place the black/white stage plate on top of the glass stage plate, if you want to see an object on a black or white background. Incident light is used for this purpose.
- The glass stage plate should not be removed. Using the black/white plate on top of the glass plate prevents the plastic plate from damage if the transmitted light is not turned off.
- Interpupillary distance is adjusted on the stereo microscope by moving the eyepiece tubes/prism housings. Look into the eyepieces and move the prism housings (light colour) closer together or further apart. The interpupillary distance is adjusted when a single circular field is observed when viewing with both eyes.
- The stereo microscope is then adjusted to your sight to achieve a good and sharp image. Look through the right eyepiece with your right eye. Use the focusing knob to get a sharp image of the specimen. Then look with your left eye through the left eyepiece and adjust the sharpness with the dioptré ring on the eyepiece tube. The adjustment is finished, when the image seen with the left eye is sharp.

Adjustment of the height:

- The stereomicroscope is mounted on a pole stand. As mentioned above, this makes it possible to see large (and high) objects under it. Please be aware that the stereo microscope gets unstable, if the optical head is turned away from the main stand. It is important to fasten the stereomicroscope to a table if it is used in such a manner.
- The friction in the focussing adjustment can be altered with the enclosed special key if the stereomicroscope cannot hold the focus because it drops down. It is also used if the focusing knob is very tight to turn. The tip of the key is placed in one of the four holes in the axle inside one of the focusing knobs. It is then possible to tighten or loosen the ring that is placed around the axle, and with it adjusting the friction.

Illumination/charging:

- Light emitting diodes (LED's) are used for both top and bottom light sources of the stereo microscope. This type of illumination has very low power consumption, and it can therefore be run on rechargeable batteries.
- The stereo microscope is recharged by connecting the transformer to both the microscope and the mains. The switches are put in the '0' position. The charging time is approximately 8-12 hours.

IMPORTANT

The microscope must be recharged for a minimum of 12 hours before using it for the first time.

- Connect the transformer to both the microscope and the mains, if the microscope is to be used with mains as power source.
- It is not necessary to use the transformer, if the microscope is used with batteries as power source. The microscope is thus cordless.
- The batteries are standard rechargeable batteries of the NiMH-type (AA 1.2V). They do not get charging memory and the life span is therefore longer.
- If it is necessary to replace the batteries, then use the following procedure. The bottom plate is dismantled. The battery cover is dismantled (fastened with a little screw). The batteries can then be removed. **It is very important that the same type of batteries (NiMH 1.2V) is used.**

WARNING!

The batteries must NEVER be replaced with ordinary batteries (alkaline and similar), as they will explode if charged!

- The batteries have a capacity of approximately 8-12 hours before they have to be recharged.
- The LED's have a long life span (10,000 hours) and should therefore normally not need to be changed in the microscope's life span. If they have to be changed, then it should be done at the work shop.

Accessories (not included):

Eyepiece 20x

The longevity of the stereomicroscope can be improved if it is protected against dust, humidity, high temperatures and shocks.