



CONSTRUCTION OF THE MICROSCOPE

Objectives:

All objectives are produced according to DIN-standard. The 40x objective has a spring mount to avoid breakage of specimens and objective. The three-hole objective revolver makes it easy to change between the different objectives.

Focusing knobs and stage stop adjustment:

The two adjustment knobs for coarse and fine focussing are placed on both sides of the microscope. The biggest knob is used for the coarse adjustment and the small knob is used for the fine adjustment. A vertical finger screw is placed behind the stage. When the lock nut is loosened it is possible to turn the finger screw, and thereby settle the upper limit of the stage movement. This protects the specimen from touching and/or damaging the objectives. The stage stop adjustment (specimen protection) will also make it easier to focus fast. The microscope is delivered with a pre-set stage stop adjustment and it should therefore not be required to make further adjustments.

Stage:

The specimen is placed on the stage by pressing down on the two stage clips and then placing the specimen under them. The specimen can be moved by pushing it gently with your fingers.

Condenser and iris diaphragm:

The condenser has a built-in iris diaphragm with a little handle for adjustment. The adjustment of the iris diaphragm is important to obtain a good image. Closing the iris diaphragm decreases the light but increases the contrast and depth of sharpness of the image. Adjustment of the iris diaphragm might be necessary when switching between objectives.

Illumination/charging:

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

IMPORTANT

The microscope must be recharged for a minimum of 10 hours before using it for the first time.

- Connect the transformer to both the microscope and the mains, if the microscope is used with mains as power source.
- It is not necessary to use the transformer, if the microscope is used with the built-in batterie as power source. The microscope is thus cordless.
- If the built-in batterie needs to be replaced, please send to supplier for batterie replacement.

WARNING!

- The batterie have a capacity of approximately 8-12 hours before it has 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.

General use of the microscope:

- Put the microscope on a dry and clean place.
- Turn on the microscope by turning the light intensity knob (see above for information on charging and use of the light via batteries or mains).
- Adjust the light intensity with the iris diaphragm.
- Place a specimen on the stage. Move the stage up and down with the coarse focusing knobs to obtain a clear and sharp image. Use the fine focusing knobs to make the last (fine) adjustment.
- Rotate the objective revolver so that the preferred objective is moved into the light path. The objectives are parfocal. This means that only a minor adjustment in focus might be necessary, when changing magnification.

Maintenance:

- Put the microscope on a dry and clean place.
- The objectives are manufactured according to strict standards and tested in the factory. Please never try to disassemble them yourself.
- The surface of the lenses must never be touched with fingers or hard things. If the glass surfaces are dirty use a clean and previously unused piece of lens paper to clean it.
- Remove dust from the glass surface with a clean lens brush or an air dust cleaner for optics.
- Always use a specialized optical cleaning agent and wipe the glass surface gently several times. Each time with a fresh piece of lens cleaning paper.

Adjustment of friction:

- The friction in the focussing adjustment can be altered with the enclosed special key if the microscope 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.

Caution:

- Never turn the two focussing knobs against each other. It will damage them!
- Turn off the microscope when it is not used, and cover it with the enclosed dust cover.