Meiji Techno Co. Ltd.

Instructions for MA765 Drawing Attachment

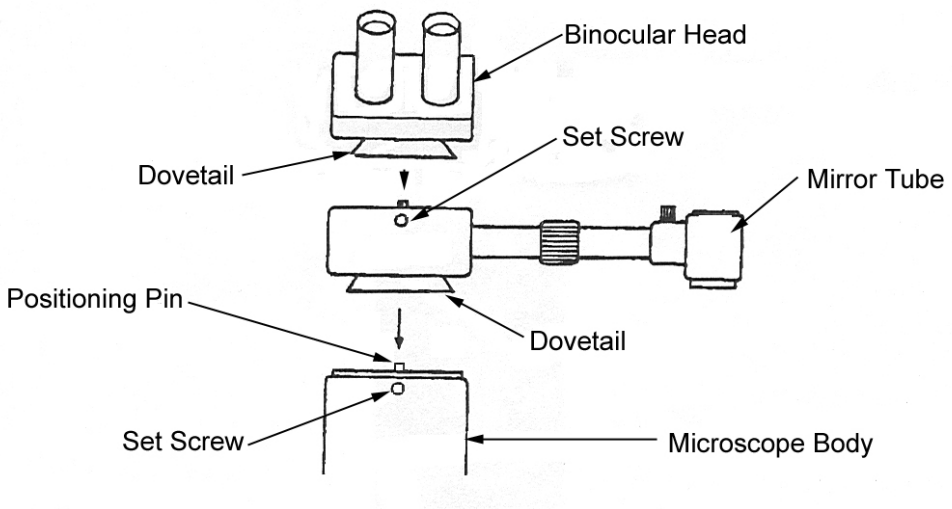
Operational Notes:

- Adjustments of the interpupillary distance on the head of the microscope must be done precisely as to render a perfect field of view (FOV).
- Drawing must be done while looking through BOTH eyetubes at all times.
- Balancing the brightness between the specimen being drawn and the drawing paper is crucial so adjustment of the light sources is critical and may take some time to achieve through experimentation.
- The perception of image “fogginess” may be seen in the eyetubes due to the drawing paper surface reflecting light back into the optics. This is considered normal and unavoidable.

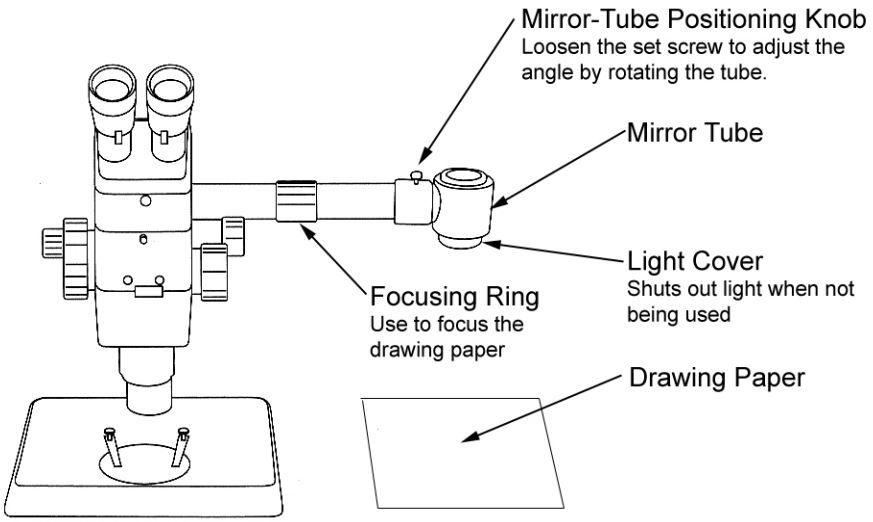
Assembly Instructions

Unwrap the drawing attachment and remove the microscope head by loosening the set screw.

If you are right handed, position the drawing tube so that the mirror tube is observing the right side of the microscope where the drawing paper is taped down to the working surface as seen in the drawing below.



Operational Diagram



Operation

1. Adjust the Interpupillary Distance on the microscope

Be sure that the interpupillary distance is properly set for the operator so that the field of view (FOV) is perfectly round.

2. Position the Drawing Paper

Next, tape down a piece of drawing paper so that it is properly centered under the mirror tube.

3. Remove the Light Cap.

Removing the light cap will allow the attachment to work. When not being used, the light cap can be put back on to close off any light coming into the system during normal use.

4. Adjusting the Mirror Tube

Loosen the mirror tube set screw as shown in the diagram above. Adjust the mirror tube so that the tube is perpendicular to the drawing paper surface and re-tighten the set screw.

NOTE: If the mirror tube and the drawing paper are not perfectly parallel, movement of the pen on the paper versus what is seen in the eyetubes will NOT coincide and will cause difficulty in drawing.

5. Focus of the specimen on the drawing paper

Focus the specimen on the drawing paper by using the focus knob on the microscope.

6. Focus of the drawing paper

If the image coming from the drawing paper appears out-of-focus, use the focusing ring in the center of the drawing attachment to sharpen the image. One might want to draw a few simple lines to use as a focus reference.

7. Balancing Brightness of the Images

It is the delicate balance of light from the two sources that allows both of the sources to be seen simultaneously in the microscope.

Typically, a dual arm fiber optic light source is used on the specimen while ambient or room light is used on the drawing paper.

Adjust the illumination by intensity and positioning to achieve an image which shows the specimen being superimposed onto the drawing paper while being able to see the pen, paper and subsequent drawing.

One may need to add an additional desk lamp to brighten up the drawing paper.

Another option would be a bottom lit paper surface like a glass top desk with built in diffused illumination like doctors, designers or photographers use.

In each case, it is a delicate balance which needs to be achieved.

8. Drawing

While observing the specimen through the microscope, trace the desired specimen features onto the paper.