HALOGEN LIGHT SOURCE for TRANSMITTED LIGHT
model AH-LSH

HALOGEN LIGHT SOURCE for REFLECTED LIGHT
model AH-M-LSH

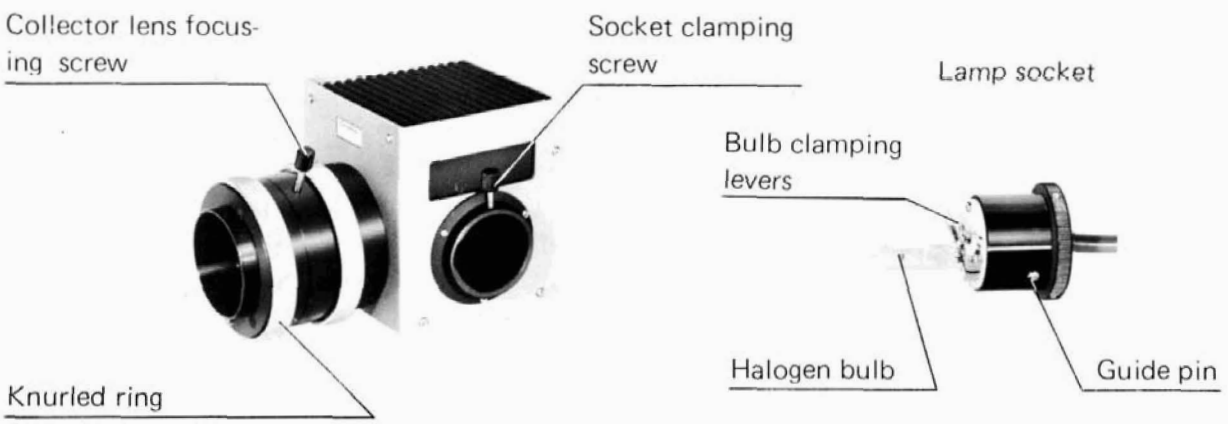
TRANSFORMER model TH

I. STANDARD EQUIPMENT

Lamp house with bulb socket and built-in collector lens	1
Halogen bulbs, JC12V100W	2
Frosted glass 45WF(90) (for Model AH-LSH only)	1
Transformer Model TH	1
Spare fuses	2

II. NOMENCLATURE

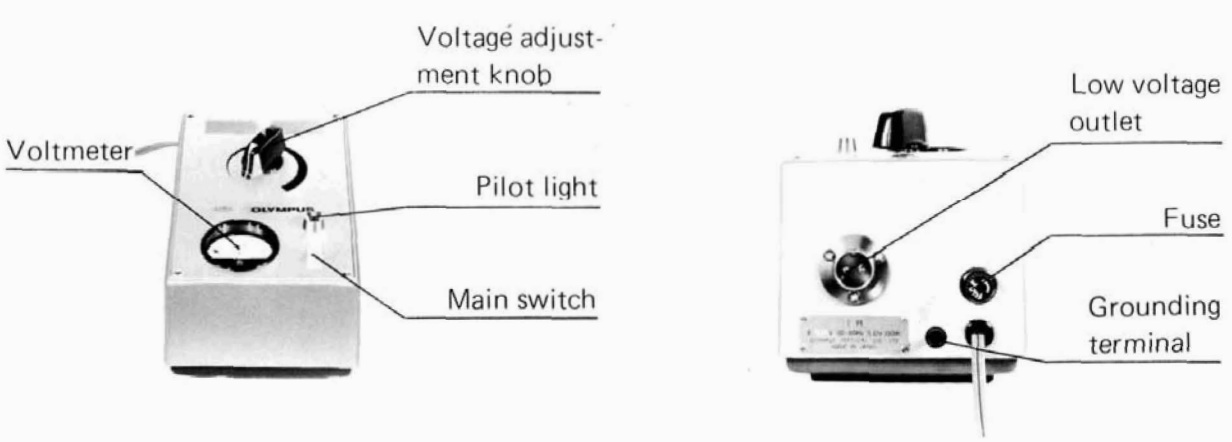
A. Lamp house



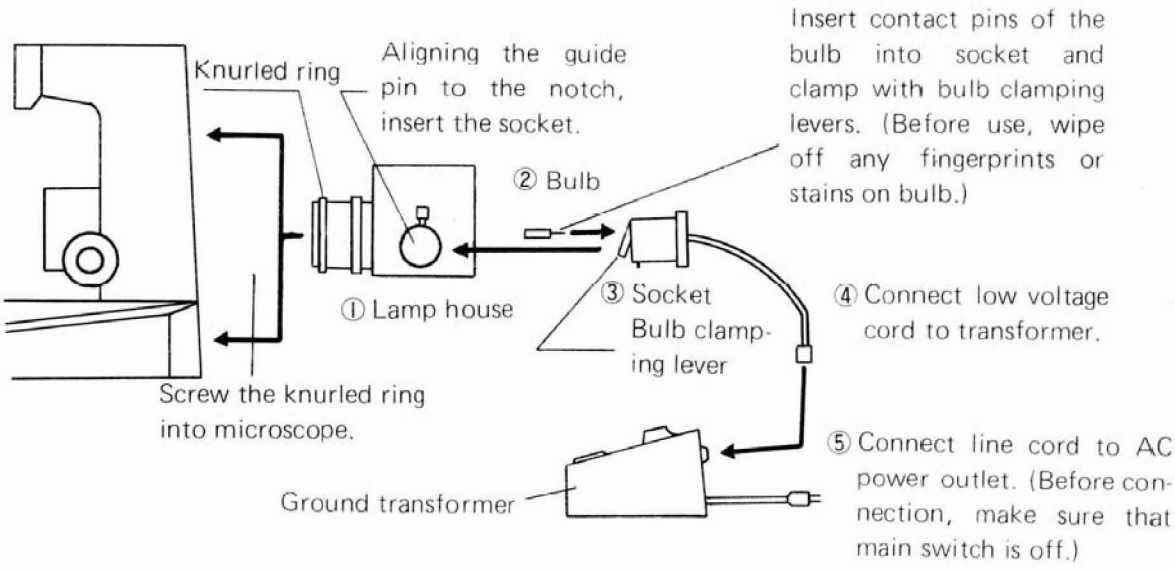
B. Frosted glass 45WF(90)

This frosted glass can be inserted into the filter mount at the microscope base.

C. Transformer Model TH



III. ASSEMBLY



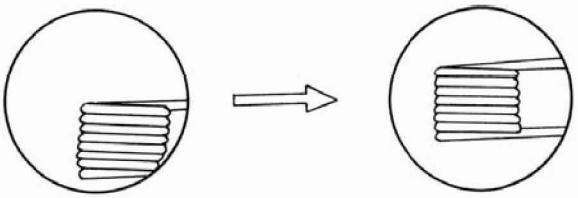
NOTE: When main switch is turned on or off at high voltage with a defective bulb attached, or without attaching any bulb in place, fuse may sometimes be burned out for protection of electric circuit. This does not mean any electric trouble. In that case, attach a fresh bulb or replace defective bulb with a new one.

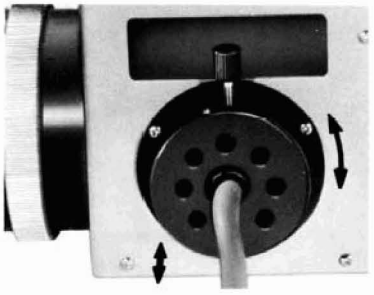
IV. OPERATION

A. Bulb centration

■ Model AH-LSH

1. First, make sure that the swing-out frosted glass at the light exit on the microscope base is disengaged, and that the swing-out auxiliary lens inside the base is in the light path (lever in vertical position).
2. Insert the centering frosted glass (provided to the microscope) into the filter mount at the light exit.
3. Ascertaining that the voltage adjustment knob is positioned to the minimum voltage, turn on the main switch of the transformer and the pilot light is on.
4. Adjust light intensity by the voltage adjustment knob.
5. Turn the collector lens focusing screw to the right or left, so that the filament can be easily recognized.
6. Center the filament image by loosening the socket clamping screw and sliding the socket back and forth, or rotating it clockwise or counterclockwise slightly.





7. After bulb centration, replace the centering frosted glass with the 45WF(90) frosted glass.

NOTE: Whenever bulb is replaced, make it sure to center a replacement bulb.

■ Model AH-M-LSH

1. Swing the objective 10X in light path.

2. Set the high/low magnification selector lever of the vertical illuminator (provided to the microscope) to position "H"

3. Ascertaining that the voltage adjustment knob is positioned to the minimum voltage, switch on the transformer and the pilot light is on.

4. Adjust light intensity by the voltage adjustment knob.

5. Push the light path selector lever all the way, and bring the specimen into focus.

6. Remove the eyepiece from the observation tube, and look into the tube.

7. Looking at the image of bulb filament at the back focal plane of the objective, center it by loosening the socket clamping screw, sliding the socket back and forth, or rotating it clockwise or counterclockwise slightly.

8. After completing the centration, re-insert the eyepiece into the observation tube.

NOTE: Turn the collector lens focusing screw to the right or left until illumination irregularities are minimized, if any.
Whenever bulb is replaced, make it sure to center a replacement bulb.

B. Brightfield observation

After completing the bulb centration, start your observation following the instruction manual for the Model VANOX.

C. Darkfied and fluorescence observation

For darkfield and fluorescence observation with the interference filters Model FITC (optionally available from Olympus), remove the frosted glass.

◎ Bulb replacement

1. Switch off the transformer.

2. Loosen the socket clamping screw and remove the socket.

3. Loosen the bulb clamping levers, and replace the defective bulb with a replacement bulb.

   NOTE: Wipe off thoroughly any fingerprints or stains on a bulb before use.

◎ Bulb life

When continuously used at 12V, the average life of this halogen bulb lasts 50 hours. This durability is, however, greatly reduced, if the bulb is used at higher voltages or when a stained bulb is used. On the contrary, at the voltage lower than 12V, for instance at 10V, the bulb life is prolonged by about 10 times, and at 8V, about 70 times. Therefore, it is recommended to use the bulb at lower voltages as well as possible.

◎ Fuse replacement

1. Disconnect the line cord from the AC power outlet.

2. Unscrew the cap of fuse holder and replace the defective fuse with a replacement fuse.

   NOTE: Although the transformer is insulated, it should be grounded to avoid any electric accident.

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