



INVERTED METALLURGICAL  
MICROSCOPE MODEL 3035  
INSTRUCTIONS

ACCU-SCOPE INC.  
73 Mall Drive  
Commack, NY 11725

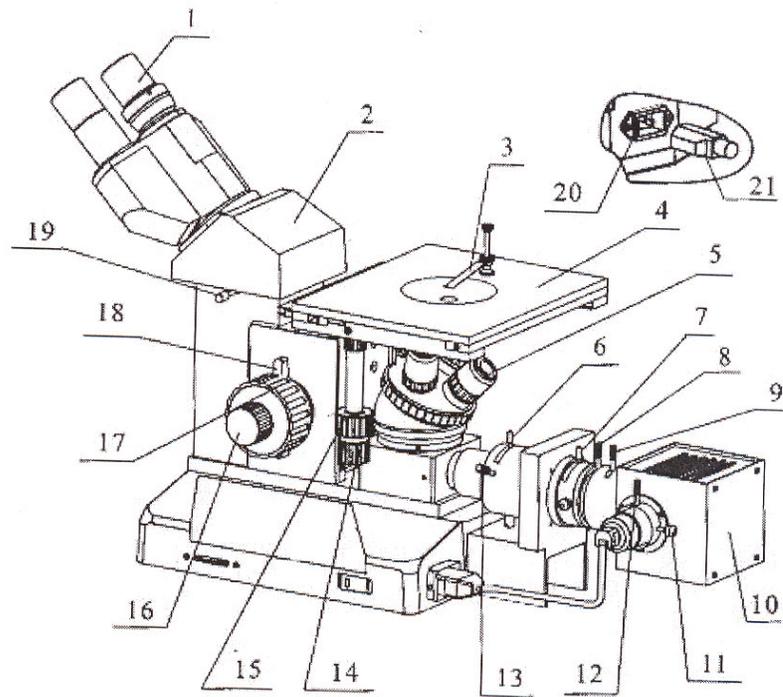
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**NEW YORK MICROSCOPE COMPANY INC.**  
AKA **MEL SOBEL MICROSCOPES**

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(Fig.1)

- 1.eyepiece 2.binocular 3.stretchy clip 4.mechanical stage 5.objective  
 6.field diaphragm adjustment pole 7. aperture diaphragm adjustment pole  
 8. filter 9. condenser adjustment pole 10. lamp box 11. lamp holder lock  
 screw 12. lamp adjustment pole 13.field diaphragm adjustment screw  
 14.cross movement knob 15. lengthways movement knob 16.fine focusing  
 knob 17.coarse focusing knob 18.limit knob 19.tube holding screw  
 20.electrical outlet 21.power supply plug

## **1.0 INTRODUCTION**

Congratulations on the purchase of your new ACCU-SCOPE microscope. ACCU-SCOPE microscopes are engineered and manufactured to the highest quality standards. Your ACCU-SCOPE microscope will last a lifetime if used and maintained properly. Each ACCU-SCOPE microscope is tested and inspected by our own team of technicians in our New York facility. Careful quality control procedures ensure each microscope is of the highest quality prior to shipment.

## **2.0 UNPACKING**

Your microscope arrived packed in a molded styrofoam container. Do not discard the styrofoam container. The packing material should be retained for reshipment of your microscope if needed. . Avoid placing the microscope in dusty surroundings or in high temperature, humid areas, as mold and mildew will form. Carefully remove the microscope from the styrofoam container by its arm and base. Place the microscope on a flat vibration-free surface. Now check the components against the following standard equipment list:

1. Stand, which includes the supporting arm, focusing mechanism, mechanical stage, nosepiece and illumination system.
2. Trinocular viewing head.
3. Eyepieces as ordered.
4. Objectives as ordered.
5. Blue, green and yellow filters.
6. Stage plate inserts.

## **3.0 ASSEMBLY**

### **3.1 OBJECTIVES**

Raise the stage to its full limit. Remove the objectives from their plastic vials, taking precaution not to drop them or allow your fingers to touch the lenses. Install the objectives in a clockwise direction from the lowest to the highest power (i.e., 10X, 25X, 40xR and 60xR). Always rotate the nosepiece by using the knurled nosepiece ring.

### **3.2 VIEWING HEAD**

Remove the protective plastic disk from the head and neck. Loosen the viewing head clamp screw slightly and set the head onto the microscope arm. Tighten the clamp screw to lock the head in the desired position.

### **3.3 EYEPIECES**

Remove the eyetube plugs and insert the eyepieces into the eyepiece tubes.

### **3.4 ILLUMINATION**

Insert the lamp housing into the receiving port on the base of the microscope. Secure the lamp housing by tightening the thumb screw. Plug the lamp housing into the receptacle on the microscope base.

### **3.5 FILTER**

Place the filter directly on the collector housing of the field diaphragm.

### **3.6 VOLTAGE CHECK**

Confirm that the input voltage indication at the rear or bottom of the microscope corresponds to your line voltage (110v or 220v). The use of a different input voltage indication will cause severe damage to your microscope.

### **4.0 OPERATION**

Plug the 3-prong power cord from the microscope into a grounded 120V A.C. electrical outlet. The cord from the lamp housing coming down the arm of the microscope should be plugged into the receptacle on the rear of the microscope base. Turn the illuminator dial to "ON." For longer bulb life always turn the illuminator dial "ON" and "OFF" with the bulb at the lowest illumination setting possible.

### **4.1 TRINOCULAR VIEWING HEAD**

To set the interpupillary distance, using both hands, move the eyepiece tubes together or apart until the full field of view is visible by both eyes simultaneously. An improper adjustment will cause operator fatigue. When the proper setting is reached determine the reading on the interpupillary scale. Set each eyepiece tube to the same number as your interpupillary distance. When viewing a specimen slide a complete circle should be seen in the viewing field. Beginners may take awhile to see a complete circular image field.

### **4.2 ILLUMINATION**

Depending upon specimen density and objective magnification the light level may need adjustment. Adjust the light intensity for comfortable viewing. The illumination level may vary when changing from one objective to another. Adjust the iris diaphragm to the smallest size allowable for a clear, sharp image of the specimen. The setting for the iris diaphragm will vary depending on the objective being used.

### III. INSTALLATION

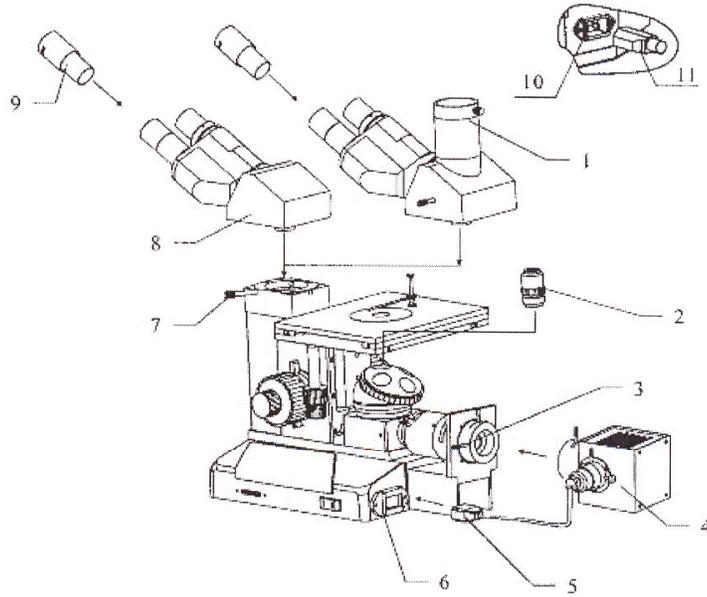
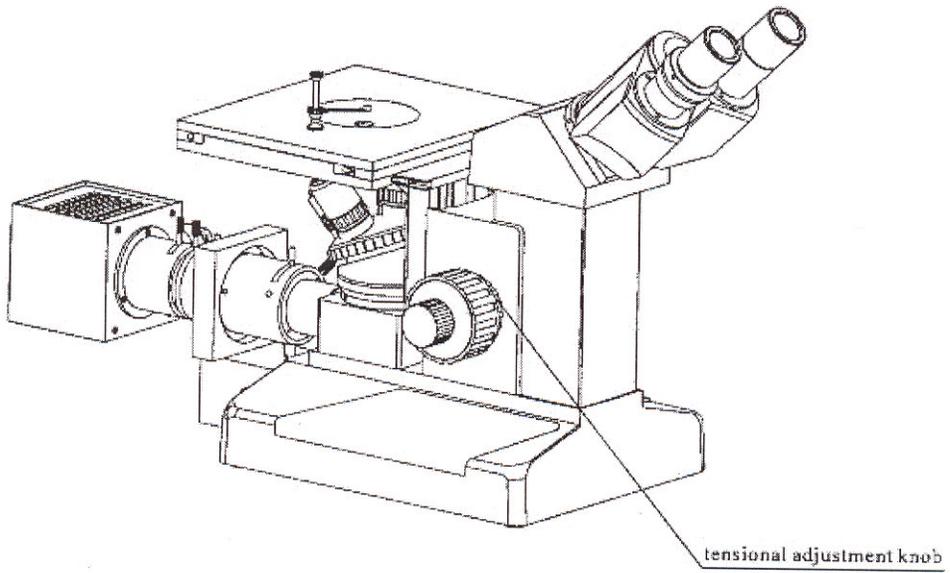


Fig.3

- 1.trinocular 2.objective 3.lamp box lock screw 4.lamp box  
5.lamp box plug 6.lamp box socket 7.tuble holding screw  
8.binocular 9.eyepiece 10.electrical outlet 11.power supply plug



### 4.3 FOCUSING

To ensure that you obtain sharp images with both eyes (since eyes vary, especially for those wearing glasses) any eyesight variation can be corrected in the following manner. Using your right eye only use the 10X objective and focus on your specimen by adjusting the coarse adjustment knob. When the image is in view bring the image to its sharpest focus by turning the fine adjustment knob. To obtain the same sharp image using your left eye, do not touch the coarse or fine adjustments. Rotate the left eyetube collar (#1, Figure 4) below the eyepiece until the sharpest image appears. Repeat several times to check. *Note – Do not counter rotate the focusing knobs. This will cause serious problems to the microscopes focusing system.*

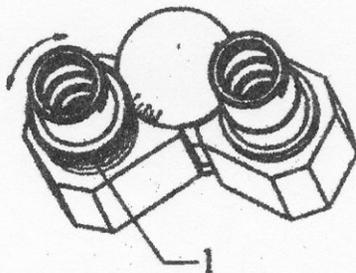


Figure 4

### 4.4 ADJUSTABLE TENSION CONTROL & PRESET FOCUS STOP

Located on the right side of the stand between the coarse adjustment knob (#2, Figure 5) and the microscope arm there is an adjustable tension control knob (#3, Figure 5) that is preset at our facility and ready to use. This allows the user to adjust the coarse control tension to their individual preference. If the tension is set too loose the stage will appear to drift downwards, set the tension at a comfortable level. The preset focus stop (#1, Figure 5) is preset by our factory technicians to prevent accidental damage to the specimen or objective. To set or reset the focus stop rotate the stop collar counter clockwise until it is free. Next using the particular objective you wish to use, focus on the specimen. When the specimen is in focus rotate the stop collar clockwise until it comes to a stop. **DO NOT** overtighten this collar.

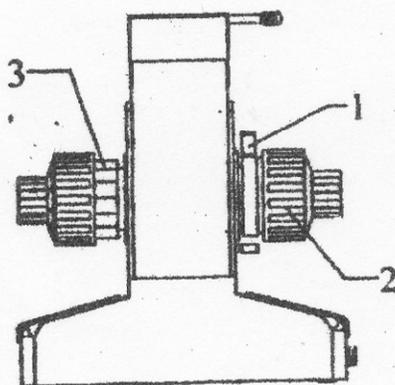


Figure 5

### 4.5 STAGE

Your microscope came equipped with two different stage plates. Please select and insert the correct stage plate for the specimen you wish to view. Stage plates can be simply and easily interchanged.

## 5.0 MAINTENANCE

Please remember to **never** leave the microscope with any of the objectives or eyepieces removed and always protect the microscope with the dust cover when not in use.

### 5.1 CLEANING THE MICROSCOPE

Accumulated dirt on the metal surface should be cleaned with a damp cloth. More persistent dirt should be removed using a mild soap solution. The outer surface of the optics should be inspected and cleaned periodically using an air stream from an air bulb. If dirt remains on the optical surface use a soft cloth or cotton swab dampened with a lens cleaning solution (available from any camera store). A small amount of absorbent cotton wound on the end of a tapered stick makes a useful tool for cleaning recessed optical surfaces. Avoid using an excessive amount of solvents, as this may cause problems with cemented optics or the flowing solvent may pick up grease from the mounts making cleaning more difficult. Immersion objectives should be cleaned immediately after use by removing the oil with lens tissues or a clean, soft cloth. **NOTE:** Optical glass surfaces should always be cleaned by using a circular motion.

### 5.2 LAMP REPLACEMENT

The illuminator lamp is the only item on your ACCU-SCOPE microscope, which requires periodic replacement. Switch off the power supply and UNPLUG the microscope. To replace your lamp follow these quick and easy steps:

1. Loosen the lamp holder holding screw (#2) and lamp adjustment handle (#3)
2. Remove the lamp socket (#1) from the lamp box.
3. Remove the old lamp, and replace it with a new lamp being careful not to touch the new lamp with your fingers.
4. Reinstall the lamp socket into the lamp box and reinsert the lamp holder holding screw and adjustment handle.
5. Some adjustment maybe required with the lamp adjustment handle to recenter your bulb.

Replacement Bulb: Catalog No. 3256-30W, 6v30w halogen bulb – Phillips #410849

### **5.3 SERVICE**

ACCU-SCOPE microscopes are precision instruments which require periodic servicing to keep them performing properly and to compensate for normal wear. A regular schedule of preventative maintenance by qualified personnel is highly recommended. Your authorized ACCU-SCOPE distributor can arrange for this service.

Should unexpected problems be experienced with your instrument, proceed as follows:

1. Contact the ACCU-SCOPE distributor from whom you purchased the microscope. Some problems can be resolved simply over the telephone.
2. If it is determined that the microscope should be returned to your ACCU-SCOPE distributor or to ACCU-SCOPE for warranty repair, pack the instrument in its original styrofoam shipping carton. If you no longer have this carton, pack the microscope in a crush-resistant carton with a minimum of three inches of a shock absorbing material surrounding it to prevent in-transit damage. The microscope should be wrapped in a plastic bag to prevent styrofoam dust from damaging the microscope. The microscope or part should be shipped post prepaid

### **LIMITED MICROSCOPE WARRANTY**

This microscope is warranted to be free from defects in material and workmanship for a period of five (5) years from the date of invoice to the original (end user) purchaser. This warranty does not cover damage caused in transit, damage caused by misuse, neglect, abuse or damage resulting from either improper servicing or modification by other than ACCU-SCOPE approved service personnel. This warranty does not cover any routine maintenance work or any other work that is reasonably expected to be performed by the purchaser. No responsibility is assumed for unsatisfactory operating performance due to environmental conditions such as humidity, dust, corrosive chemicals, deposition of oil or other foreign matter, spillage or other conditions beyond the control of ACCU-SCOPE INC. This warranty expressly excludes any liability by ACCU-SCOPE INC. for consequential loss or damage on any grounds, such as (but not limited to) the non-availability to the end user of the products under warranty or the need to repair work processes. All items returned for warranty repair must be sent freight prepaid and insured to ACCU-SCOPE INC., 73 Mall Drive, Commack, NY 11725 – USA. All warranty repairs will be returned freight prepaid to any destination within the Continental United States of America. Charges for repairs shipped back outside this region are the responsibility of the individual/company returning the merchandise for repair.

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