SAFETY NOTES

1. Open the shipping carton carefully to prevent any accessory, i.e. auxiliary objectives or eyepieces, from dropping and being damaged.

2. Keep the instrument out of direct sunlight, high temperature or humidity, and dusty environments.

3. If any specimen solutions or other liquids splash onto the stage, objective or any other component, disconnect the power cord immediately and wipe up the spillage. Otherwise, the instrument may be damaged.

4. **LAMP REPLACEMENT -- CAUTION**: the glass envelope of the lamp may be extremely hot. DO NOT attempt to change the lamp before it is completely cooled or without wearing adequate skin protection.

5. All electrical connectors (power cord) should be inserted into an electrical surge protector to prevent damage due to voltage fluctuations.

6. **FUSE REPLACEMENT** -- For safety when replacing the fuse (ONLY replace with the same size, type and rating of original fuse), be sure the main switch is in the off position, disconnect the power cord from outlet, and replace the fuse. Reconnect the power cord and turn unit on.

7. Confirm that the input voltage indicated on your microscope corresponds to your line voltage. The use of a different input voltage other than indicated will cause severe damage to the microscope. NOTE: Always plug the stereomicroscope power cord into a suitable grounded electrical outlet. A grounded 3-wire cord is provided.

CARE AND MAINTENANCE

1. Do not attempt to disassemble any component including the eyepieces, objectives or focusing assembly.

2. Keep the instrument clean; remove dirt and debris regularly. Accumulated dirt on metal surfaces should be cleaned with a damp cloth. More persistent dirt should be removed using a mild soap solution. Do not use organic solvents for cleansing.

3. 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, lint free cloth or cotton swab dampened with a lens cleaning solution (available at camera stores). All optical lenses should be swabbed using a circular motion. 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 optical coatings or cemented optics or the flowing solvent may pick up grease making cleaning more difficult.

4. Store the instrument in a cool, dry environment. Cover the microscope with the dust cover when not in use.

5. ACCU-SCOPE® microscopes are precision instruments which require periodic servicing to maintain proper performance 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.
INTRODUCTION

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

UNPACKING AND COMPONENTS

Your microscope arrived packed in a molded shipping carton. Do not discard the carton: the shipping carton should be retained for reshipment of your microscope if needed. Avoid placing the microscope in dusty surroundings or in high temperature or humid areas as mold and mildew can form. Carefully remove the microscope from the shipping carton and place the microscope on a flat, vibration-free surface.

COMPONENTS DIAGRAM

![Diagram of 3075 Stereo Microscope]

NOTE: Stand ordered may not be as pictured above.
COMPONENTS DIAGRAM (continued)

- Trinocular Head
- Lock-screw
- C-mount adapter
- Light Path Selector Lever
OTHER AVAILABLE CONFIGURATIONS

Binocular on E-LED Stand

Binocular on LED Stand

Trinocular on Pole Stand

Binocular on Boom Stand

Binocular on Ball Bearing Boom Stand

Binocular on Articulating (Flex Arm) Stand
ASSEMBLY

The diagram below shows how to assemble the various modules. The numbers indicate the order of assembly.

When assembling the microscope, make sure that all parts are free of dust and dirt, and avoid scratching any parts or touching glass surfaces.

*Mount the C-mount adapter to camera first, then mount the camera to the microscope*
ADJUSTMENT AND OPERATION

For Microscopes Purchased With Illuminated Stands

VOLTAGE CHECK
Confirm that the input voltage indicated on the rear label of the microscope corresponds to your line voltage. The use of a different input voltage than indicated will cause severe damage to your microscope.

Connecting the Power Cord (Fig. 1)
Turn the power switch ⑥ to the off position (O) before connecting the power cord ⑦.

Insert the power cord plug ⑦ into the power jack of the microscope; make sure the connection is snug.

Plug the power cord ⑧ into the power supply receptacle.

Using the Black & White Stage Plate & Setting the Specimen (Fig. 2)
The White side of the stage plate is generally used when viewing specimens. If the specimen is white or bright in color, the Black side of the stage plate can be used to make the image appear clearer.

Set the glass stage plate ⑨ on the center of the base, and secure the slide with the two stage clips ⑩.

Using the Glass Stage Plate
For examination of specimens requiring transmitted illumination, use the frosted/glass stage plate.
ADJUSTMENT AND OPERATION (continued)

Adjusting Binocular Viewing Head

Adjusting Interpupillary Distance (Fig. 3)
Different users have different interpupillary distances (this distance is between the centers of the pupils of each eye). When the operator changes, it will be necessary to adjust the interpupillary distance.

While looking through the eyepieces, hold the left and right eyetubes of the viewing head and adjust the eyetubes by opening or closing them until the left and right fields of view coincide completely and you are able to see a complete circle.

Adjusting Diopter Ring (Fig. 4)
Set the diopter rings of both eyepieces to “0” position. (Do this when users change, because different users will have different diopter settings.)

Place an easy-to-observe specimen on the stage plate, i.e., a coin.

Rotate the zoom knob to the highest magnification, then turn the focusing knob to focus the specimen.

Rotate the zoom knob to the lowest magnification, looking only into the left eyepiece, adjust the diopter ring on left eyepiece to focus the specimen. Then repeat procedure for the right eyepiece.

NOTE: The working distance (the distance between the microscope objective to the top of the specimen) of the microscope is 100mm, the binocular head focus mount can be mounted onto higher or lower positions according to your needs by removing the clamping bolt with the Allen wrench provided.
Focus Adjustment

Adjusting the Rotation Tension of the Focus Adjustment Knob (Fig. 5, Fig. 6)

To adjust tension, hold both left and right focus adjustment knobs ① with both hands, hold the left knob (to prevent it from turning), and rotate the right knob clockwise to increase (tighten) or counterclockwise to decrease (loosen) the focus knob tension.

After tension adjustment has been completed, always rotate both adjustment knobs in the same direction.

Changing the Magnification (Fig. 5)

The zooming knobs ③ located on both sides of the zooming body will change the magnification of the specimen image.

Total Magnification = Magnification of zoom body x magnification of eyepiece (i.e., 4.5 x 10=45x)

NOTE: If using any of the optional auxiliary objectives, then the above magnification would be multiplied by auxiliary objective magnification. (i.e., auxiliary 0.5 x 45=22.5x)

Moving the Microscope

Before moving the microscope, be sure to remove any slide/samples. When moving the microscope, hold the stand and base to keep it level.
Mounting & Removing the Micrometer (Fig. 7)

Unscrew the mounting ring from the eyepiece. Clean the micrometer and insert it into the mounting ring with the inscription side up. Screw the mounting ring back onto the eyepiece.

To remove the micrometer, unscrew the mounting ring from the eyepiece, then carefully take out the micrometer and wrap it in clean soft paper for storage. Screw the mounting ring back onto the eyepiece.

Using an Auxiliary Lens (Fig. 8)

The auxiliary lens can be threaded onto the bottom of the microscope body.

The 0.5x auxiliary lens can be used with most stands if purchased along with the extension tube.

The 0.3x and 0.4x auxiliary lenses can only be used with boom stands, ball bearing stands, or the flex arm stand.
Trinocular Viewing Head

Mounting the Camera (Fig. 9)
The c-mount adapter is shipped assembled and separate from the microscope.

Mount the camera by screwing the threaded end of the c-mount adapter into the camera first. Insert the camera and adapter into the hole in the top of the viewing head and tighten the lock screw.

Selecting the Light Path (Fig. 10)
To view through the binocular head only, slide the light path selection lever to “OUT”.

To view through the binocular/trinocular head, slide the light path selection lever to “IN.”

Make sure to move the lever all the way to the “OUT” or “IN” position.

Adjusting the Image (Fig. 10 & 11)
Slide the light path selector level to the “IN” position. Turn the zoom knob to the maximum magnification, observe through the camera and adjust the focusing knob to make the image clear. Turn the zoom adjustment knob to the minimum magnification. If the image is not clear, turn the adjustment ring on the c-mount adapter until it is clear.

Repeat the process until the image is clear within the entire zoom range.
### OPTICAL DATA

<table>
<thead>
<tr>
<th>Objective</th>
<th>0.3X</th>
<th>0.4X</th>
<th>0.5X</th>
<th>0.75X</th>
<th>1X</th>
<th>1.5X</th>
<th>2X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Distance</td>
<td>287mm</td>
<td>217mm</td>
<td>177mm</td>
<td>117mm</td>
<td>100mm</td>
<td>47mm</td>
<td>26mm</td>
</tr>
<tr>
<td>10X Magnification</td>
<td>2.0x-13.5x</td>
<td>2.7x-18.0x</td>
<td>3.4x-22.5x</td>
<td>5.0x-33.8x</td>
<td>6.7x-45.0x</td>
<td>10.1x-67.5x</td>
<td>13.4x-90.0x</td>
</tr>
<tr>
<td>View Field (mm)</td>
<td>109.5-16.3</td>
<td>82.1-12.2</td>
<td>65.7-9.8</td>
<td>43.8-6.5</td>
<td>32.8-4.9</td>
<td>21.9-3.3</td>
<td>16.4-2.4</td>
</tr>
<tr>
<td>15X Magnification</td>
<td>3.0x-20.3</td>
<td>4.0x-27.0</td>
<td>5.0x-33.8x</td>
<td>7.5x-50.6x</td>
<td>10.1x-67.5x</td>
<td>15.1x-101.3x</td>
<td>20.1x-135x</td>
</tr>
<tr>
<td>View Field (mm)</td>
<td>79.6-11.9</td>
<td>59.7-8.9</td>
<td>47.8-7.1</td>
<td>31.8-4.7</td>
<td>23.9-3.6</td>
<td>15.9-2.4</td>
<td>11.9-1.8</td>
</tr>
<tr>
<td>20X Magnification</td>
<td>4.0x-27.0x</td>
<td>5.4x-36.0x</td>
<td>6.7x-45.0x</td>
<td>10.1x-67.5x</td>
<td>13.4x-90.0x</td>
<td>20.1x-135.0x</td>
<td>26.8x-180x</td>
</tr>
<tr>
<td>View Field (mm)</td>
<td>59.7-8.9</td>
<td>44.8-6.7</td>
<td>35.8-5.3</td>
<td>23.9-3.6</td>
<td>17.9-2.7</td>
<td>11.9-1.8</td>
<td>9.1-1.3</td>
</tr>
<tr>
<td>25X Magnification</td>
<td>5.0x-33.8x</td>
<td>6.7x-45.0x</td>
<td>8.4x-56.3x</td>
<td>12.6x-84.4x</td>
<td>16.8x-112.5x</td>
<td>25.1x-168.8x</td>
<td>33.5x-225x</td>
</tr>
<tr>
<td>View Field (mm)</td>
<td>44.8-6.7</td>
<td>33.6-5.0</td>
<td>26.9-4.0</td>
<td>17.9-2.7</td>
<td>13.4-2.0</td>
<td>9.0-1.3</td>
<td>6.7-1.0</td>
</tr>
<tr>
<td>30X Magnification</td>
<td>6x-40.5x</td>
<td>8x-54x</td>
<td>10x-67.5x</td>
<td>15x-101x</td>
<td>20x-135x</td>
<td>30x-202x</td>
<td>40x-270x</td>
</tr>
<tr>
<td>View Field (mm)</td>
<td>34.8x-5.1</td>
<td>26.1-3.87</td>
<td>20.9-3.1</td>
<td>13.9-2.1</td>
<td>10.4-1.55</td>
<td>6.9-1</td>
<td>5.2-7.5</td>
</tr>
</tbody>
</table>
## TROUBLESHOOTING

Under certain conditions, performance of this unit may be adversely affected by factors other than defects. If a problem occurs, please review the following list and take remedial action as needed. If you cannot solve the problem after checking the entire list, please contact your local dealer for assistance.

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double images</td>
<td>Interpupillary distance is not correct</td>
<td>Readjust it</td>
</tr>
<tr>
<td></td>
<td>Diopter adjustment is not correct</td>
<td>Readjust it</td>
</tr>
<tr>
<td>Dirt appears in the view field</td>
<td>Dirt on the specimen</td>
<td>Clean specimen</td>
</tr>
<tr>
<td></td>
<td>Dirt on the surfaces of eyepieces</td>
<td>Clean eyepieces</td>
</tr>
<tr>
<td></td>
<td>Dirt on surface of objective</td>
<td>Clean objective</td>
</tr>
<tr>
<td></td>
<td>Dirt on stage</td>
<td>Clean stage</td>
</tr>
<tr>
<td>Image is not clear</td>
<td>Dirt on the surface of objectives</td>
<td>Clear objectives</td>
</tr>
<tr>
<td>Image is not clear while focusing</td>
<td>Diopter adjustment is not correct</td>
<td>Readjust diopter</td>
</tr>
<tr>
<td></td>
<td>Focusing is not correct</td>
<td>Readjust it</td>
</tr>
<tr>
<td>The focusing knob is not smooth</td>
<td>The focusing knob is too tight</td>
<td>Loosen it to a suitable position</td>
</tr>
<tr>
<td>The image is obscure because of the head slipping down during observation</td>
<td>The focusing knob is too loose</td>
<td>Tighten it to a suitable position</td>
</tr>
<tr>
<td>A line appears when observing through eyepiece or video device</td>
<td>Light path selection lever is not at the correct position</td>
<td>Turn it to the correct position</td>
</tr>
<tr>
<td>Lamp does not work</td>
<td>Wrong setting of bulb</td>
<td>Set the bulb correctly</td>
</tr>
<tr>
<td></td>
<td>Bulb has burned out</td>
<td>Replace the bulb</td>
</tr>
<tr>
<td></td>
<td>Fuse has burned out</td>
<td>Replace the fuse</td>
</tr>
<tr>
<td></td>
<td>Dirt on the stage obstructed the path of light</td>
<td>Clean the stage</td>
</tr>
<tr>
<td>Lamp burns out frequently</td>
<td>Voltage from power supply is too high</td>
<td>Use a transformer to decrease the voltage</td>
</tr>
<tr>
<td></td>
<td>The bulb is not standard</td>
<td>Use the recommended bulb</td>
</tr>
<tr>
<td>Fuse burns out frequently</td>
<td>Voltage from power supply is too high</td>
<td>Use a transformer to decrease the voltage</td>
</tr>
<tr>
<td>Light flickers</td>
<td>Bulb needs replacement</td>
<td>Replace bulb</td>
</tr>
<tr>
<td></td>
<td>The wires are not connected correctly</td>
<td>Correctly connect the wires</td>
</tr>
</tbody>
</table>
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.

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. Always ship the microscope in an upright position; *NEVER SHIP A MICROSCOPE ON ITS SIDE*. The microscope or component should be shipped prepaid and insured.

LIMITED MICROSCOPE WARRANTY

This microscope and its electronic components are warranted to be free from defects in material and workmanship for a period of five years from the date of invoice to the original (end user) purchaser. The LED lamp is warranted for a period of two years from the date of invoice to the original (end user) purchaser. This warranty does not cover damage caused in-transit, misuse, neglect, abuse or damage resulting from improper servicing or modification by other then ACCU-SCOPE approved service personnel. This warranty does not cover any routine maintenance work or any other work, which is reasonably expected to be performed by the purchaser. Normal wear is excluded from this warranty. 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 product(s) under warranty or the need to repair work processes. Should any defect in material, workmanship or electronic component occur under this warranty contact your ACCU-SCOPE distributor or ACCU-SCOPE at (631) 864-1000. This warranty is limited to the continental United States of America. 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, for all foreign warranty repairs return freight charges are the responsibility of the individual/company who returned the merchandise for repair.

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