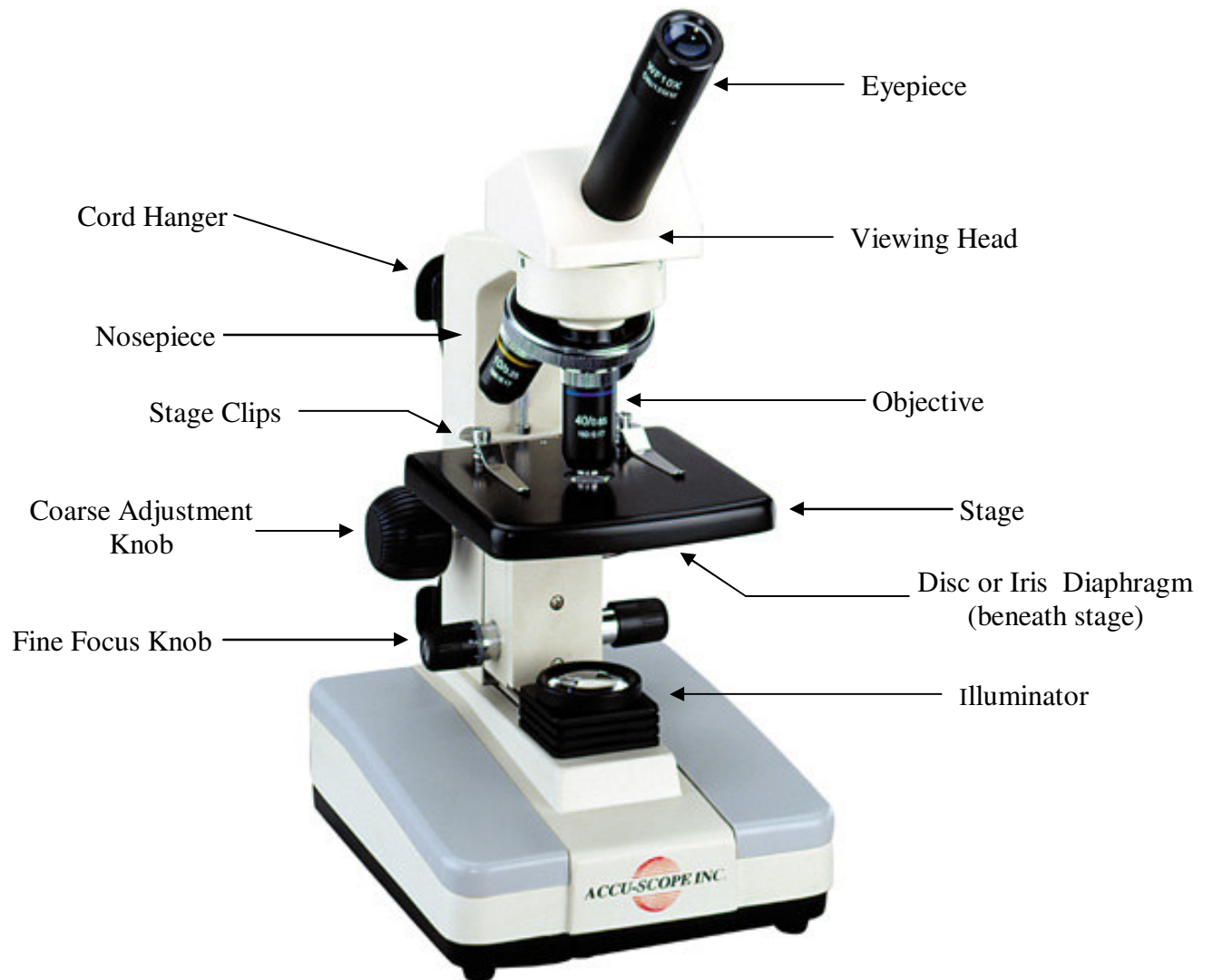


3088F MICROSCOPE SERIES INSTRUCTIONS

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LED SUPPLEMENTAL INSTRUCTIONS

Congratulations on your new LED (Light Emitting Diode) Cordless Rechargeable Microscope. Your microscope will provide many years of enjoyment when used and maintained properly

The LED cordless rechargeable microscope is completely portable and can be used in or outdoors or in any location of your institution where there is no electrical outlet access.

The LED cordless microscope is powered with a Nimh (Nickel Metal Hydride) rechargeable battery, when used properly you can sustain approximately 30-40 hours depending on the user before a charge is required.

Each Microscope is supplied with its own recharger and would require approximately 8 hours for a full charge. The life expectancy of the Nimh (Nickel Metal Hydride) battery is approximately 20,000 hours equivalent to 500 recharges before needing to replace any battery.

Note: Before replacing battery please contact your local authorized ACCU-SCOPE dealer or our technical service department Phone # 631-864-1000

NOTE: Your LED Microscope is functional and can be used while charging

To replace battery without contacting an authorized technician, please follow the instructions outlined below:

- 1: Unplug the microscope from the electrical outlet (if plugged in) and unplug recharger from rear of microscope (if plugged in)
- 2: Carefully place the microscope on the back of its arm so the bottom of the microscope base is facing towards the front (YOU)
- 3: Open the trap door on the bottom plate by pulling on the window knob
- 4: Slide the cover plate to the battery to the off area
- 5: Replace Nimh (Nickel Metal Hydride) rechargeable battery and reinstall the cover plate
- 6: Close the trap door, and place the microscope in an upright position
- 7: Re-attach the recharger to the rear input of the microscope and plug into an electrical outlet to charge or continued use while charging.
- 8: Allow the LED Microscope to charge for approximately 5 hours before using as cordless

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. From schools to technical institutes, hobbyists to home schooling, ACCU-SCOPE's 3088F Microscope Series has applications wherever clinical specimen viewing is needed.

2.0 UNPACKING

Your microscope arrived packed in a molded styrofoam container. **Do not discard the styrofoam container;** the styrofoam container should be retained for reshipment of your microscope if needed. Avoid placing the microscope in dusty, high temperature or humid areas as mold and mildew may form.

Carefully remove the microscope from the styrofoam container by its arm and base. Place the microscope on a dry, flat, vibration free surface. Now check the components with the following standard equipment list:

1. Stand, which includes the supporting arm, focusing mechanism, stage, nosepiece, disc or iris diaphragm, cord hanger, and illumination system.
2. Monocular or teaching head (depending on model ordered).
3. Eyepiece and objectives as ordered.
4. Dust cover.

3.0 ASSEMBLY

The microscope is completely pre-assembled.

3.1 OBJECTIVES

The objectives are pre-installed by our factory technicians prior to delivery. To change the magnification of the objectives, the nosepiece should be rotated in a clockwise direction. Rotate until a click is heard to insure the optical path is properly aligned.

3.2 VIEWING HEAD, EYEPIECES, CONDENSER AND DIAPHRAGM

The above items are pre-installed at our assembly facility in New York prior to delivery.

3.3 VOLTAGE CHECK

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

4.0 OPERATION

Plug the 3-prong line cord into a grounded 120v A.C. electrical outlet. Turn the illuminator switch to "ON."

4.1 FOCUSING

Turn the coarse adjustment knob counterclockwise this will lower the stage. Place a specimen slide on the center of the stage. Using the 4x objective bring the specimen into focus using the coarse and fine controls. Different objectives can be brought into view by revolving the nosepiece and using the fine adjustment knob because the objectives are parfocal. Each ACCU-SCOPE 3088F microscope is supplied with either a disc or iris diaphragm, depending on the model ordered. The amount of light can be adjusted by opening or closing the iris diaphragm or by turning the disc diaphragm. Adjust the diaphragm to the smallest size allowable for a clear, sharp image of the specimen.

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 or compressed air. 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). Optical lenses should always be cleaned in a circular motion. A small amount of absorbent cotton wound on the end of a tapered stick makes for 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.

5.2 LAMP REPLACEMENT

The illuminator lamp is the only item on your ACCU-SCOPE microscope that requires periodic replacement. Always UNPLUG the microscope before replacing the bulb. Carefully rest the microscope on its back. Unscrew the thumbscrew on the bottom plate of the microscope. After the lamp has cooled remove the old lamp from the socket. Without directly touching the surface of the new bulb with your fingers, fully place the bulb into the socket. Reattach the bottom plate with the two thumbscrews. Never operate the microscope unless the bottom plate is secured properly. Return the microscope to the upright position.

Replacement bulbs – The 3088F microscope uses Catalog No. 3368, 5 watt fluorescent bulb. Replacement bulbs and other parts and accessories are available from your authorized ACCU-SCOPE dealer.

5.3 SERVICE

ACCU-SCOPE microscopes are precision instruments that require periodic servicing to keep it 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 you experience a problem with the microscope proceed as follows:

1. Contact the ACCU-SCOPE distributor from whom you purchased the microscope. Some problems can be resolved easily over the telephone.
2. If it is determined the microscope should be returned to your distributor or 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 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.
3. Enclose a detailed letter in the shipping carton describing the nature of the problem, your name, address and telephone number.

ACCU-SCOPE LIMITED WARRANTY

This microscope is 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. This warranty does not cover damage caused in-transit, misuse, neglect, abuse or damage resulting from 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. 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 only 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. 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 or company returning the merchandise for repair.

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TROUBLESHOOTING GUIDE

If a problem occurs during the course of use, please refer to the tables below before contacting your ACCU-SCOPE distributor.

OPTICAL		
Problem	Cause	Corrective Measure
Darkness at the periphery or uneven brightness in the field of view	Revolving nosepiece not in click stop position	Revolve the nosepiece to click-stop position by swinging the objective correctly into the optical path
Dirt or dust on the viewfield	Dirt or dust on the lens - eyepiece, condenser, objective, collector lens or specimen	Clean the lens
Poor image quality	<p>No coverglass attached to the slide</p> <p>Coverglass is too thick or thin</p> <p>Slide may be upside down</p> <p>Immersion oil is on a dry objective (especially the 40xR)</p> <p>No immersion oil used with 100xR objective</p> <p>Air bubbles in immersion oil</p> <p>Condenser aperture is closed or open too much</p> <p>Condenser is positioned too low</p>	<p>Attach a 0.17mm coverglass</p> <p>Use a coverglass of the appropriate thickness (0.17mm)</p> <p>Turn slide over so the coverglass faces up</p> <p>Check the objectives, clean if necessary</p> <p>Use immersion oil</p> <p>Remove bubbles</p> <p>Open or close properly</p> <p>Position the condenser at the upper limit</p>

IMAGE PROBLEMS		
Image moves while focusing	Specimen rises from stage surface Revolving nosepiece is not in the click-stop position	Secure the specimen in the slide holder Revolve the nosepiece to the click-stop position
Insufficient brightness	Aperture diaphragm closed too far Condenser position too low	Open to the proper setting Position the condenser at the upper limit
MECHANICAL PROBLEMS		
Image will not focus with high power objectives	Slide upside down Cover glass is too thick	Turn the slide over so the cover glass faces up Use a 0.17mm cover glass
High power objective contacts slide when changed from low power objective	Slide upside down Cover glass is too thick Diopter adjustment is not set properly	Turn the slide over so the cover glass faces up Use a 0.17mm cover glass Readjust the diopter settings
Lamp does not light when switched on	No electrical power Lamp bulb burnt out Fuse blown out	Check power cord connection Replace bulb Replace fuse
Slippage of focus when using the coarse focusing knob Fine focus is ineffective	Tension adjustment is set too low Tension adjustment is set too high	Increase the tension on the focusing knobs Loosen the tension on the focusing knobs