All optical and mechanical equipment requires periodic servicing to keep it performing properly and compensate for normal wear. Anticipating this need by establishing a schedule of regular preventive maintenance will help to assure long life and sustain optimum performance by your instrument.

Such a program of planned preventive maintenance, involving a thorough cleaning, checking and adjustment of mechanisms is recommended. Qualified personnel with the proper training should perform this work.

Ken-A-Vision has quality technicians on staff to repair or service your microscopes. Contact us at 1.816.353.4787 for more details.

WARRANTY: TEN YEAR WARRANTY AGAINST DEFECTIVE PARTS AND WORKMANSHIP.

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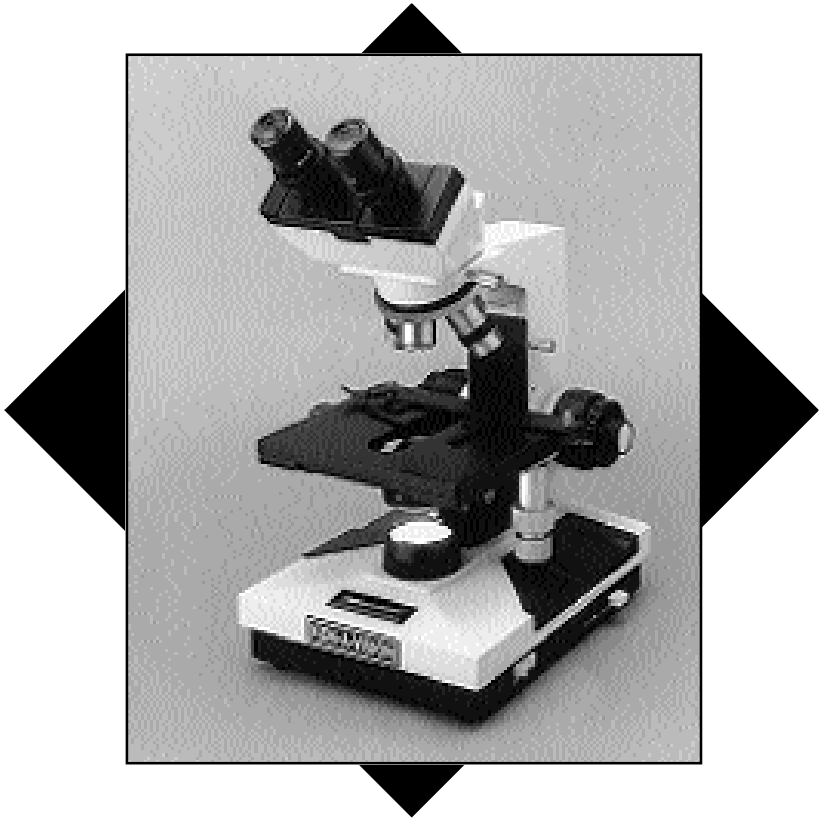

Research Scope

Instruction Manual

T-3300

RESEARCH MICROSCOPE

APPLICATION

Research Microscope is a professional laboratory instrument for the modern biology and medical sciences. Its modular design allows for a full range of accessories.

SPECIFICATIONS

- 10x Widefield Eyepiece w/ pointer
- 45° Inclined Rotating Head
- Coarse and Fine Coaxial
  Focal Adjustment
- Binocular Head
- Rack & Pinon
  Abbe NA 1.25 Condenser
- Mechanical Stage
- 20 watt Halogen Lamp

MICROSCOPE PREPARATION

Set the viewing head onto the microscope arm and lock the head by tightening the lock screw. Position the condenser with the handle of aperture diaphragm conveniently accessible. Swing the filter holder outward and insert the filter when it is necessary.

OPERATION

Built-In Illuminator

Plug the microscope power cord into a suitable grounded electrical outlet. Move the illuminator switch to the “ON” position. To obtain the desired illumination, adjust the light control dial. Put the specimen to be observed onto the stage of the microscope and clamp it firmly with the stage fingers. Bring the spot of specimen to be observed into the center of stage hole by rotating stage X – Y movement knobs.

Eyepiece

Set the interpupillary distance by moving the eyepiece tubes together or apart until the full field of view is visible by two eyes at the same time.

Focus

Focus the T-3300 microscope by observing with the 10x objective and 10x eyepiece on the side without diopter ring. Rotate the coarse adjustment knob to lift the stage until the image of the specimen can be seen roughly, then rotate the fine adjustment knob. A sharp image can then be obtained. (Loosen the auto focus stop knob for free stage motion when it is necessary). Prevent the objective lens from touching the specimen. (Tighten the auto focus stop to limit the stage moving past a certain point). Observe the image with the other eyepiece and adjust the diopter ring until the sharp image is obtained. Change the magnification of the objective as required by turning the nosepiece.

Depending upon specimen density and objective magnification, the light level should be adjusted. If the light is excessively yellow, place the blue filter in the condenser filter holder. To eliminate light irregularity when using low-power objectives such as 4x and 10x, raise or lower the condenser using the condenser adjustment knob. Close down the condenser iris diaphragm to the smallest size for observing a specimen with low contrast.

BULB REPLACEMENT

Before replacement, unplug the instrument. Open the lamp window in the bottom plate by pulling the window knob. After the lamp has cooled, carefully remove it from its socket and replace with a new lamp. Be careful not to touch the new lamp with your fingers. Never operate the microscope illuminator unless the lamp window is securely in place.

CARE AND MAINTENANCE

Our product is a precision instrument. Routine maintenance on your part is limited to keeping the microscope clean. Never leave the microscope with any of the objectives or eyepieces removed. Always protect the microscope with the dust cover when not in use.

Cleaning the Microscope

Accumulated dirt on the metal surface should be cleaned with a damp cloth. If this is inadequate, a mild soap solution should be used. The outer surfaces of the optics should be inspected from time to time for dirt and dust. An air stream from a rubber air bulb removes dust best. Remove more persistent dirt with a soft cloth or cotton swab dampened in alcohol or a mild solution of Windex and water. A small amount of absorbent cotton wound on the end of a tapered stick makes a handy tool for cleaning recessed optical surfaces. Avoid excessive use 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.

Clean immersion objectives immediately after use by removing the oil with lens tissue or a clean soft cloth. Occasionally the underside of the mechanical stage fingers may become coated with immersion oil and require cleaning.