

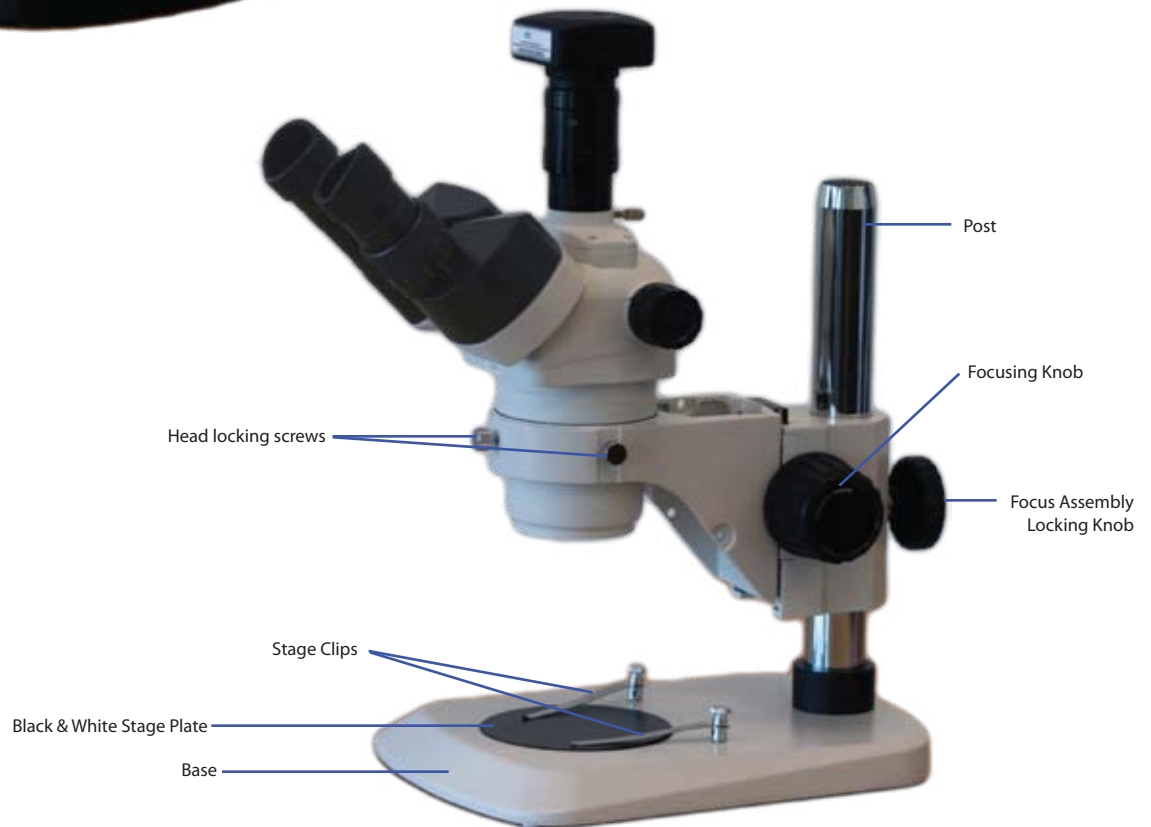
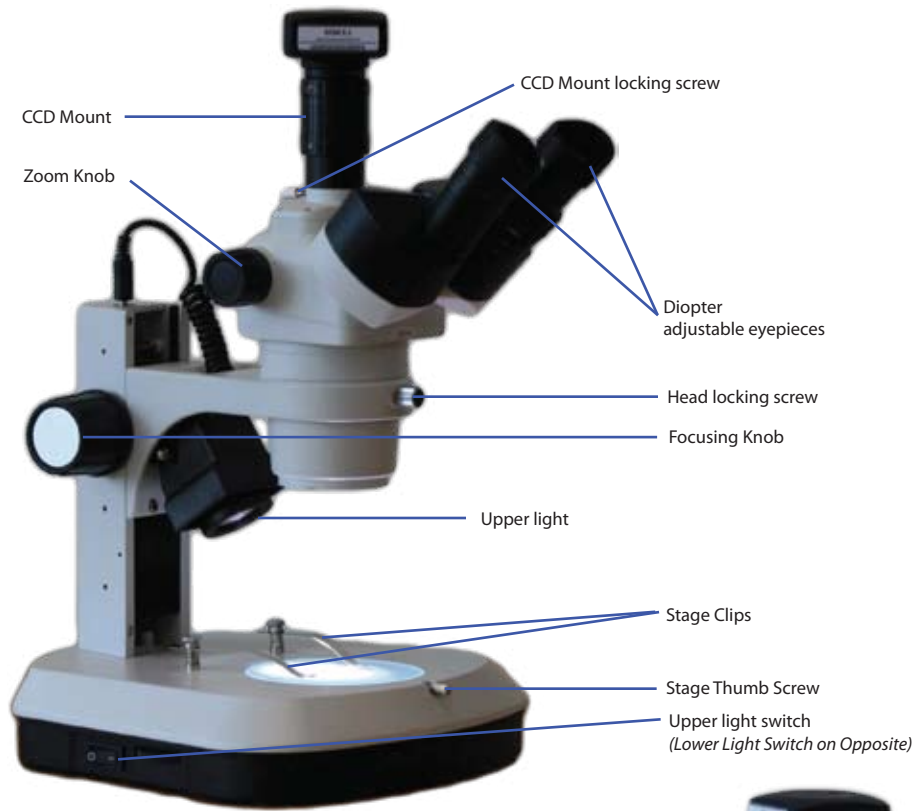


Richter Optica

6122 Innovation Way
Carlsbad, California 92009

(800) 942 - 0528 US TOLL FREE
(760) 438 - 0528 INTERNATIONAL

Instructions for Models:
S-6.6-BL, S-6.6-TPD, S-6.6-BLED, S-6.6-TD-LED



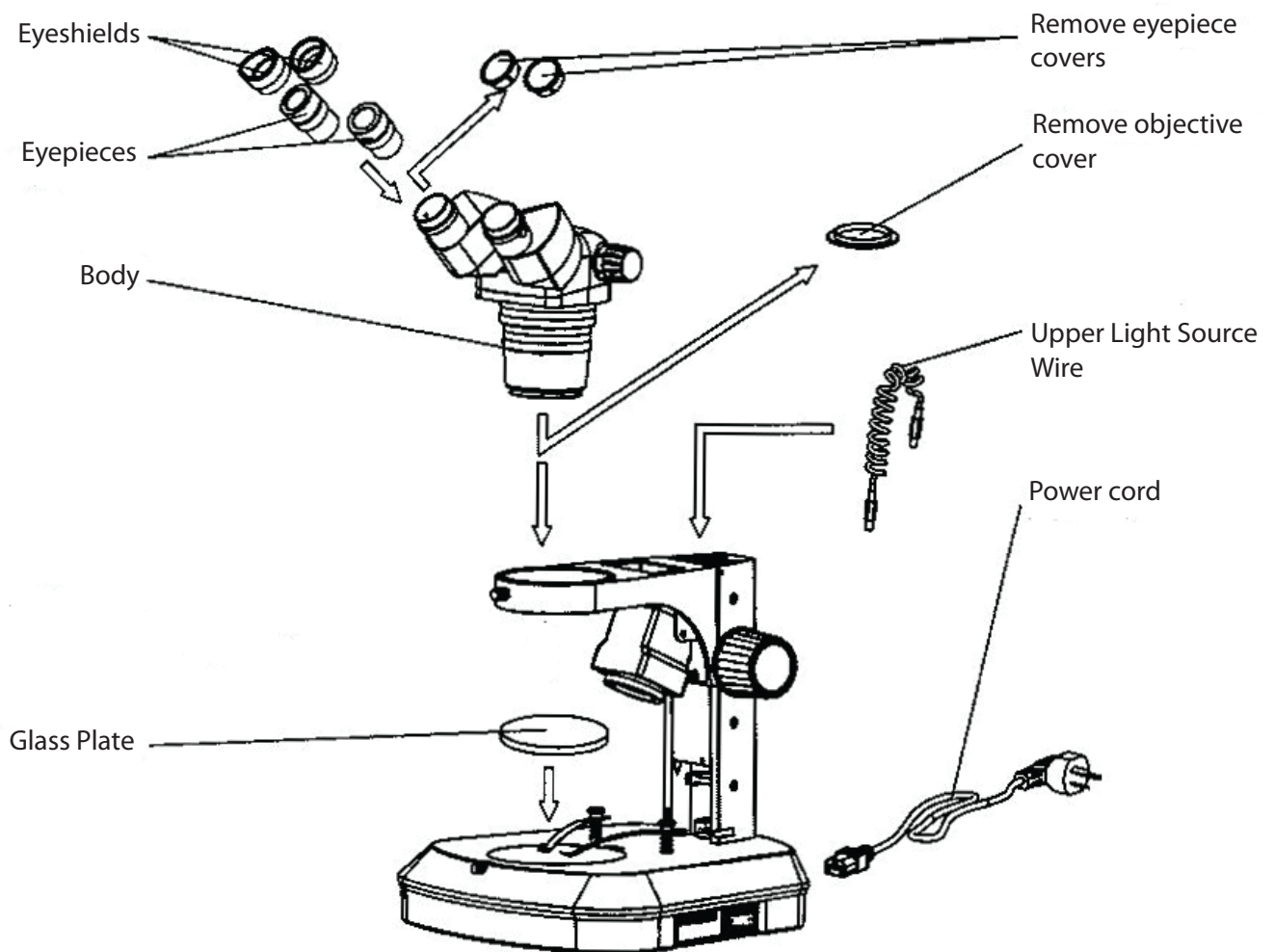
Thank you for your purchase of a Richter Optica microscope. The information in this manual is provided to answer most questions that can arise when operating your microscope and to help you avoid unnecessary maintenance expenses in the future.

Please carefully read instructions before operating microscope. Nomenclature used to describe components and controls are identified on opposite page.

UNPACKING

Do not discard styrofoam container or packing materials until you are sure shipment is complete and undamaged (retain styrofoam shipping container to store your microscope when it is not in use). Remove all tape and packing material used to protect microscope during shipment. Make certain lens surfaces do not come in contact with dirt, fingerprints or oil. Damage of lens surfaces occur when they come in contact with such contaminants, and image quality is reduced.

ASSEMBLY



OPERATION

1. Illumination (only for S-6.6-BLED & S-6.6-TD-LED Models)
 - a. Before operating the microscope, adjust the intensity controls located on each side of the base to the minimum position. This should be done prior to each time light is turned on or off. Failure to do so will significantly shorten the life of the bulb.
 - b. Make certain that the main voltage of your microscope corresponds to the voltage of your power outlet, either 120v or 220v. Insert microscope power cord into power outlet.
 - c. The S-6.6-BLED & S-6.6-TD-LED Models are furnished with two stage plates (the S-6.6-BL and S-6.6-TPD Models are furnished with one B/W). The frosted stage plate can be used when viewing transparent specimen slides or for viewing specimen that are thin enough for light to pass through (insect wings, plant leaves, etc.) The plastic black/white contrast plate can be used when viewing opaque objects or for dissecting. Choose side of plate providing best contrast with specimen.
 - D. *For models S-6.6-BLED & S-6.6-TD-LED, there are two rocker switches on either side of the base of the microscope.*

Left side = Turns incidental light on (top illumination)

Right side = Turns transmitted light on (substage illumination)

To remove stage plate: Loosen locking set screw on front of base but unscrewing to the left.

2. Interpupillary Adjustment

This will permit each user to adjust the spacing between eyepieces in order to accommodate distance between their eyes. While looking through the microscope eyepieces with both eyes, grasp eyepiece tube housings with both hands and rotate them, moving eyepieces apart or together until a full field of view is observed and the images blend into one. Interpupillary distance is now corrected for your own inter-ocular distance and does not require further adjustment later unless another user changes the adjustment.

3. Focusing

- a. Adjust zoom control knobs (located on both sides of the head) so that the lowest magnification number "0.7" is positioned at the white notch index on head. Lower magnifications have larger fields of view, making it easier to position and locate area to be viewed.
 - b. Place object on stage plate.
-

- c. Position focusing knobs in the center of focusing range.
- d. On mounted post models, the height of the viewing head can be adjusted up or down on the post in order to focus on different sized objects. Loosen the locking knob located on the locking support collar, allowing the support collar to slide down to bottom of post. While firmly holding focusing holder containing viewing head with one hand, loosen locking knob located on back of focusing holder so that head can move freely up or down on post.

While looking through microscope, move viewing head up or down on post until object can be seen in approximate focus. Tighten focusing holder locking knob. Position the support collar under the focusing block and tighten locking knob on support collar. It is not necessary to make this adjustment every time you change objects to be viewed, so long as the different objects are of similar thickness or height.

- e. On models with lighted post stands, the up/down movement of the viewing head is limited to the traverse permitted by the regular focusing knobs.
- f. The right eyepiece has a knurled diopter adjustment ring. Rotate the diopter until the zero (0) lines up with the notch on the diopter.
- g. Adjust zoom control to the highest magnification by aligning the number "4.6" on the knob to the white index point on the head.
- h. While looking through the right eyepiece with one eye, rotate focusing knob until specimen comes into sharp focus through the right eyepiece.
- i. Adjust zoom control knob to the lowest magnification.
- j. Adjust the right diopter until the image is sharp. Do not change the focusing knob position.
- k. The image should now be sharp throughout the zoom power range.

MAINTENANCE

WARNING: For your own safety, turn switch off and remove plug from power source before maintaining your microscope. If the power cord is worn, cut or damaged in any way, have it replaced immediately to avoid shock or fire hazard.

- 1. Optical Maintenance
 - a. Do not attempt to disassemble any lens components. Consult a microscope service technician when any repairs not covered by instructions are needed.
 - b. Prior to cleaning any lens surface, brush dust or lint off lens surface using a camel hair brush. You can also use an ear syringe or canned compressed air, sold by computer stores.

- c. To clean eyepiece lenses, do not remove from eyepiece tube. Clean only the outer lens surface. Breathe on lens to dampen surface, then wipe with lens paper or use a cotton swab moistened with distilled water. Wipe lenses with a circular motion, applying as little pressure as possible. Avoid wiping dry lens surface as lenses are scratched easily. If excessive dirt or grease gets on lens surfaces, a small amount of Windex can be used on a cotton swab or lens tissue. To clean objective lenses, do not remove objectives from microscope. Clean front lens element only, following same procedure.

2. Mechanical Maintenance

The only mechanical adjustment the microscope might require is the tension of the focusing mechanism. This has been adjusted at the factory, but over the course of time it may loosen and cause the head of the microscope to slip downward on the focusing block.

The tension adjustment collar is located between arm and focus knob on left side of microscope when the stage is facing towards you. With a jewelers type screwdriver, loosen slotted set screw located on knurled surface of the tension adjustment collar. Turn collar clockwise to tighten tension, counter-clockwise to loosen tension. After adjusting, tighten set-screw to lock collar into place.

NOTE: It is recommended that you leave the tension as loose as possible for ease of focusing, yet not so loose that it permits the head of the microscope to drift downward from its own weight and cause the microscope to “drift” out of focus.

TROUBLESHOOTING

Problem	Reason for Problem	Solution
Light Fails to Operate	Outlet inoperative	Have qualified service technician repair outlet
	AC Power Cord not Connected	Plug into outlet
	Lamp Burned Out	Replace Lamp
	Fuse Blown	Replace Fuse
Image does not remain in focus	Head of microscope drops from its own weight	Adjust tension control
Poor Resolution (Image not sharp)	Objective lenses dirty	Clean Objective Lenses
	Eyepiece lens dirty	Clean Eyepiece Lenses
Spots in field of View	Eyepiece lens dirty	Clean Eyepiece Lenses
***Spots in field of view can also result from dirt on inside of eyepiece. It is recommended that you have a service technician clean inside of lens		