

Reichert-Jung

REFERENCE MANUAL

STEREOSTAR[®] ZOOM **STEREOSCOPIC** Microscopes



A CAMBRIDGE INSTRUMENTS
COMPANY

TABLE OF CONTENTS

Section	Page
Warranty	2
Claims and Returns	3
Product Changes	3
Service	3
Set-Up Procedure	5
Installation	8
Focusing Procedure	8
Installation of Coaxial Illuminator on 580 Zoom Pod	8
Alignment of the Coaxial Illuminator	9
Magnification	9
Illumination	10
Lamp Replacement	13
Stage Plate Leveling and Height Adjustments	13
To Reverse Power Body	13
To Adjust Focusing Tension	14
Care and Cleaning	14
Lubrication	14

WARRANTY

SCOPE AND DURATION OF WARRANTIES

Seller warrants to Buyer that the Cambridge Instruments products to be delivered hereunder will (i) be free from defects in material, manufacturing workmanship, and title, and (ii) conform to Seller's applicable product descriptions and specifications, if any, contained in or attached to Seller's quotation. If no product descriptions or specifications are contained in or attached to the quotation, Seller's applicable products descriptions and specifications in effect on the date of shipment shall apply. The criteria for all testing shall be Seller's applicable product specifications utilizing factory specified calibration and test procedures and instruments.

All product warranties, except the warranty of title, and all remedies for warranty failures are limited in time as shown in the table below.

PRODUCT WARRANTED

STEREOSTAR® Microscope

DURATION OF WARRANTY PERIOD

12 Months

Any product or part furnished without charge to Buyer during the warranty period to correct a warranty failure shall be warranted to the extent of the unexpired term of the warranty applicable to the repaired or replaced product.

The warranty period shall commence on the date the product is sold to the buyer and the warranty period shall be twelve (12) months from the date of purchase.

WARRANTY EXCLUSIONS

Except as set forth in any applicable patent indemnity, the foregoing warranties are exclusive and in lieu of all other warranties, whether written, oral, express, implied or statutory. NO IMPLIED STATUTORY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY. Warranty coverage does not include consumable supplies such as lamps, bulbs, charts or cards. Warranty coverage does not include any defect or performance deficiency (including failure to conform to product descriptions or specifications) which results, in whole or in part, from (1) negligent storage or handling of the product by Buyer, its employees, agents or contractors, (2) failure of Buyer to prepare or maintain the site or provide power requirements or operating environmental conditions in compliance with any applicable instructions or recommendations of Seller, (3) adverse power conditions or environmental conditions such as erratic power, voltage spikes, RF or magnetic interference, HVAC failure or other causes

beyond the reasonable control of the Seller, (4) absence of any product, component, or accessory recommended by Seller but omitted or removed at Buyer's direction, (5) any design, specification, or instruction furnished by Buyer, its employees, agents or contractors, (6) any alteration of the product by persons other than Seller, (7) combining Seller's product with any product furnished by others where such combination causes failure of or degradation to performance of Seller's produce, (8) combining incompatible products of Seller, (9) improper maintenance of the product, or failure to comply with any applicable instructions or recommendations of Seller, or (10) acts of God, acts of civil or military authority, fires, floods, strikes or other labor disturbances, war, riot, or other causes beyond the reasonable control of the Seller. Seller does not warrant products of others which are not included in Seller's published product catalog.

BUYER'S REMEDIES

If Seller determines that any product fails to meet any warranty during the applicable warranty period, Seller shall correct any such failure by either, at its option, repairing, adjusting, or replacing without charge to Buyer any defective or nonconforming product. Seller shall have the option to furnish either new or exchange replacement parts or assemblies, provided the Buyer returns the product to one of the Cambridge Instrument Inc. Service Centers.

Warranty service during the applicable warranty period will be performed without charge to Buyer during Seller's normal business hours. Warranty service will be provided by having the item shipped to a Cambridge Instruments Inc. Technical Services facility, along with a copy of the original invoice which the item was purchased. While every effort will be made to render services promptly, this does not include any guarantee of specific response time or uptime, which may be available for purchase under separate contract. Subject to the availability of personnel, after hours service is available upon request at an additional charge.

The remedies set forth herein are conditioned upon Buyer promptly notifying Seller within the applicable warranty period of any defect or nonconformance.

The preceding paragraphs set forth Buyer's exclusive remedies and Seller's sole liability for claims based on the failure of the products to meet any warranty, tort (including negligence and strict liability) or otherwise, and however, instituted, and, upon the expiration of the applicable warranty period, all such liability shall terminate. In no event shall Seller be liable for special or consequential damages. For products installed outside the U.S. the above warranties shall not apply. The

warranties applicable to such products shall be the warranties provided by the respective Cambridge selling organization in such countries.

CLAIMS AND RETURNS

If discrepancies are discovered, an immediate report should be made to the customer's ordering point referring to the packing list number. All packing should be carefully examined to insure that no small items are overlooked. Claims for loss or damage in transit should be made directly to the transportation company.

If, upon delivery, the outside of the packing case shows evidence of rough handling or damage, the transportation company's agent should be requested to make a "Received in Bad Order" notation on the delivery receipt. If there is no exterior evidence of rough handling upon delivery, but concealed damage is evident upon unpacking the shipment within 48 hours of delivery, the transportation company should be requested to make out a "Bad Order" report. This procedure is necessary in order to maintain the right of recovery from the carrier.

Customers are requested to contact their ordering dealer for permission to return any goods for any reason. The request should indicate the date and number of the invoice, or packing list. If arrangements are made for a return, the material should be plainly tagged with the customer's name and address, carefully packed and shipped PREPAID.

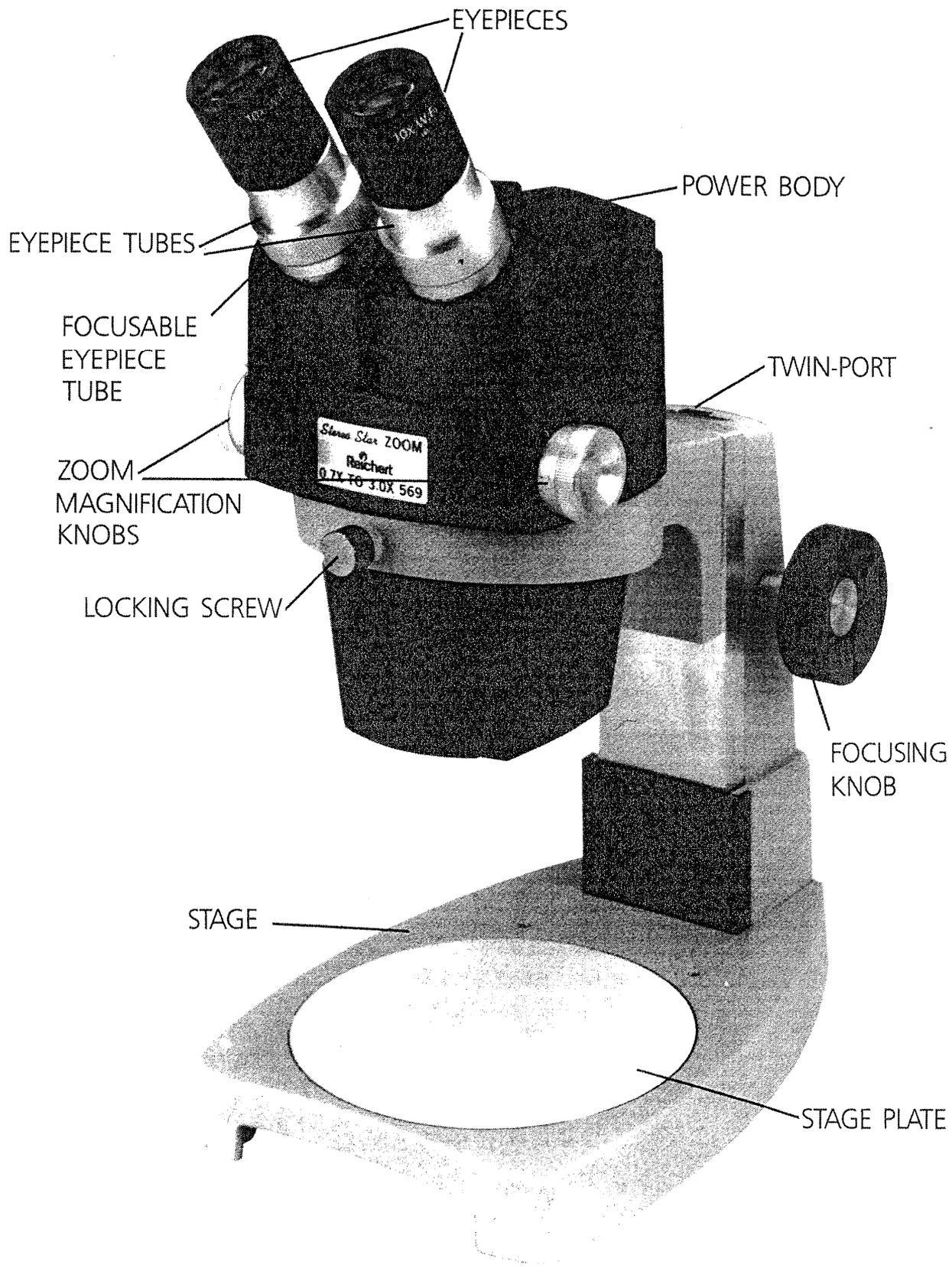
PRODUCT CHANGES

Cambridge Instruments reserves the right to change designs or to make additions to or improvements in its products without imposing any obligation on itself to add such to products previously manufactured.

The equipment supplied may not agree in all details with our description or illustrations because instruments are subject to modification and improvement.

SERVICE

Repairs should be performed only by qualified service personnel. Complete repair facilities are available at many Reichert-Jung authorized dealers, and Cambridge Technical Service Centers in Buffalo, NY, Rosemont, IL, Santa Clara, CA, Edison, NJ, and Dallas, TX.



SET-UP PROCEDURE

STANDS

A. 560 Stand

Shipped assembled. Remove protective adhesive paper from stage plates and install as in Figure 2.

B. 561 Stand, 561S Transilluminating Base

To fasten the 561S illumination base to the microscope stand set the locking lever of the substage base at the unlocked position as shown in Figure 1. Place the stand on the base so that the two screws are positioned in the appropriate holes in the substage base (see Figure 1). Move lever fully forward to lock. If the substage base is to be used permanently with the microscope, tighten the two slotted screws.

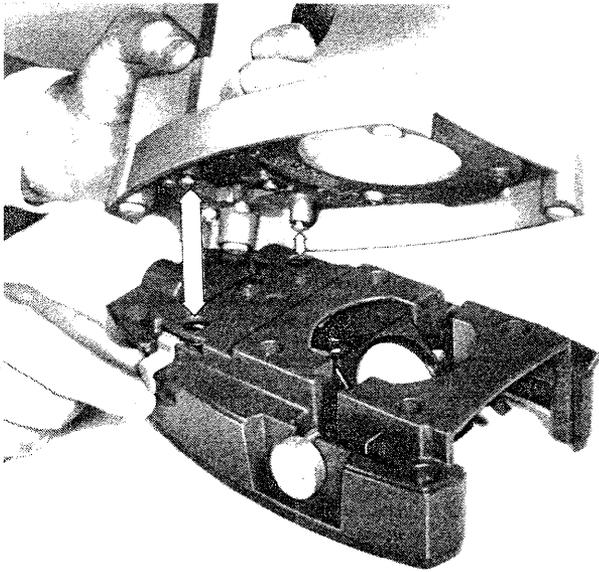


Figure 1. Locking lever in unlocked position.

NOTE: If upon moving the locking lever, you find that the locking mechanism does not engage beneath the screw heads, turn screws counterclockwise slightly. If locking mechanism engages but does not hold securely, turn screws clockwise.

Install the glass stage plate as in Figure 2.

The 561S Transilluminating Base accepts the STARLITE Illuminator through "port" at rear of base or receives the Fluorescence Illuminator through front of base. Can also be used with separate illuminator. A clear glass plate is provided with 561S Base.

Features include: Unique swing-in/out lens (No. 1, Figure 3) for evenly balanced illumination over the entire viewing area of the glass stage plate. This lens is particularly useful in illuminating larger fields of view subtended at lower magnifications. Mirror assembly (No. 2) with diffusing reflector on one side; plano mirror on opposite side. Recessed knob (No. 3) on both sides of the base

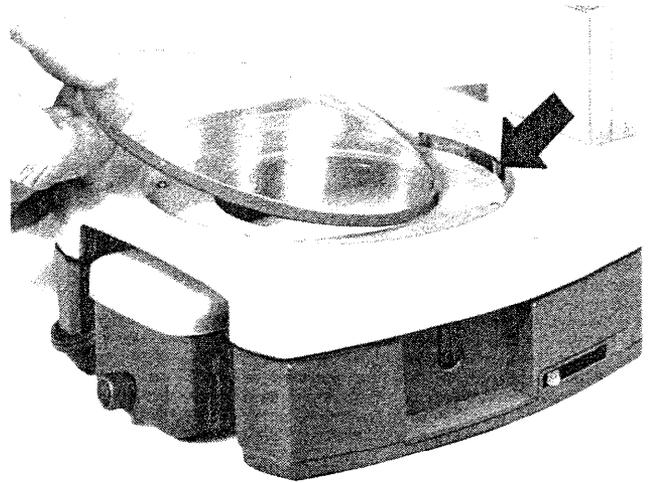


Figure 2. When inserting stage plate, press edge firmly against retaining spring. While maintaining tension "seat" front edge into stage.

for positioning of reflector or mirror. Two retaining clips (No. 4) to hold complete mirror assembly in position; and (No. 5) locking lever to secure 561S Base to 560 Stand.

C. 562 Stand

Shipped complete.

D. 563 Stand

Mount 562 Yoke into 563 Base and secure with wing nut. Remove protective adhesive from stage plates and install as in Figure 2. If using the 561S transilluminating base, see Section B above.

E. 22A Table Stand (Figure 4)

1.) Place lockwasher onto threaded mounting screw and insert screw through base.

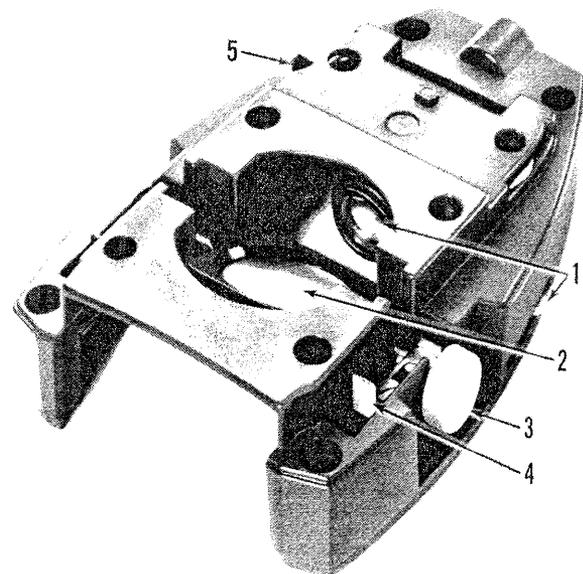


Figure 3. No. 561S Transilluminating Base

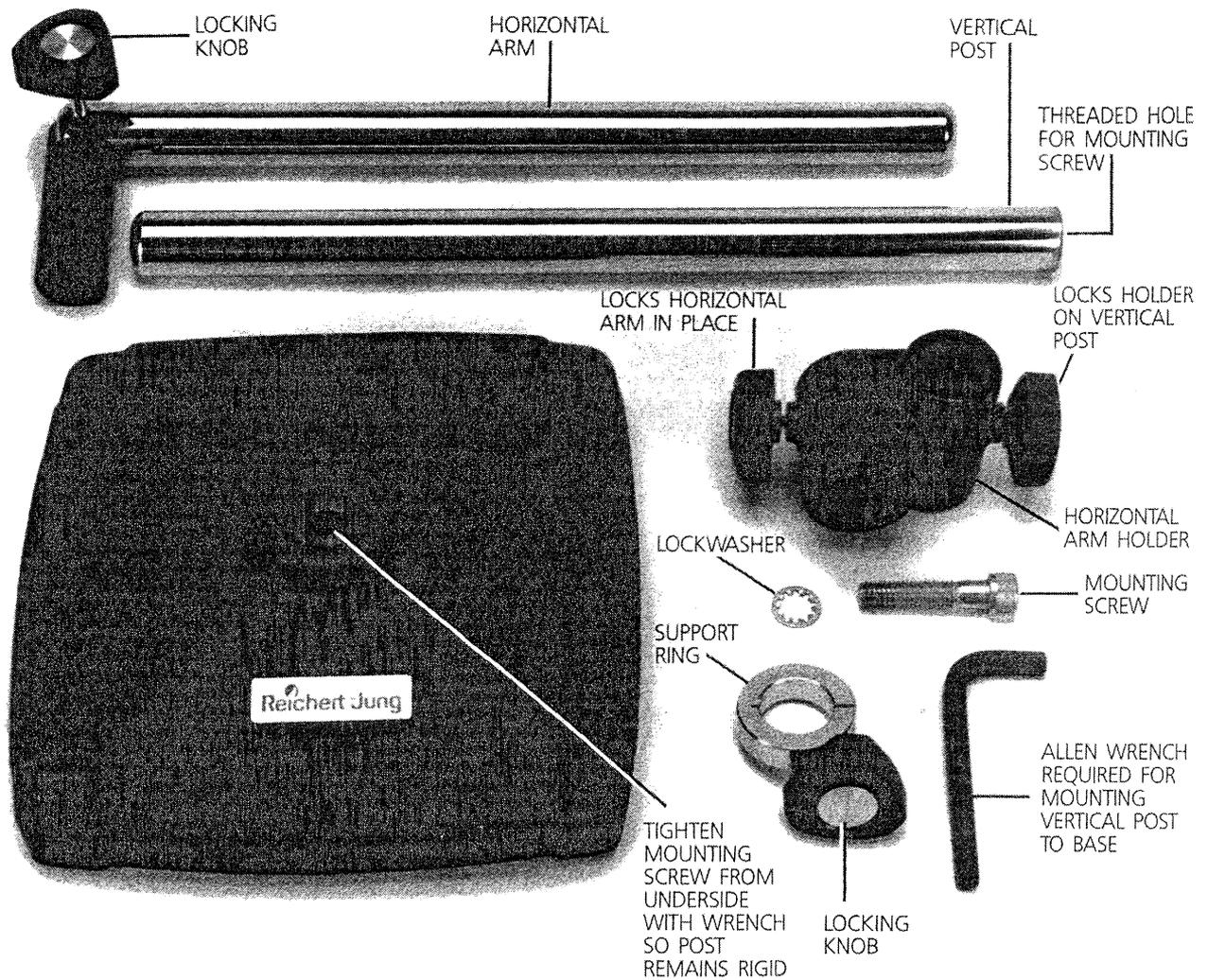


Figure 4.

- 2.) Attach threaded hole of Vertical Post to mounting screw.
- 3.) Tighten mounting screw from underside with wrench so Post will remain rigid.
- 4.) Slide Support Ring half way down Vertical Post and lock in place.
- 5.) Slide Horizontal Arm Holder down Vertical Post so that it rests on Support Ring, and lock in place.
- 6.) Loosen Lock Knob and slide Horizontal Arm into either of the two openings in Holder. The Arm is positioned as in Figure 5.
- 7.) Tighten Lock Knob on Horizontal Arm to prevent Arm from rotating about Post and from moving in or out. This will also prevent Horizontal Arm from moving up or down if it becomes necessary to reposition Support Ring.
- 8.) Install 562B-1 Yoke to the stand as in Figure 5.

F. 565 Stand

The 565 Stand is shipped complete. Install the 562S Yoke and Pillar into the arm as in Figure 6.

G. 566 Stand

Install 562S Yoke into the Hole at the top of the 566S base. Tighten set screw.

H. 581 Stand

Mount the Arm Assembly to the base from underneath, using the four screws provided, as in Figure 6A.

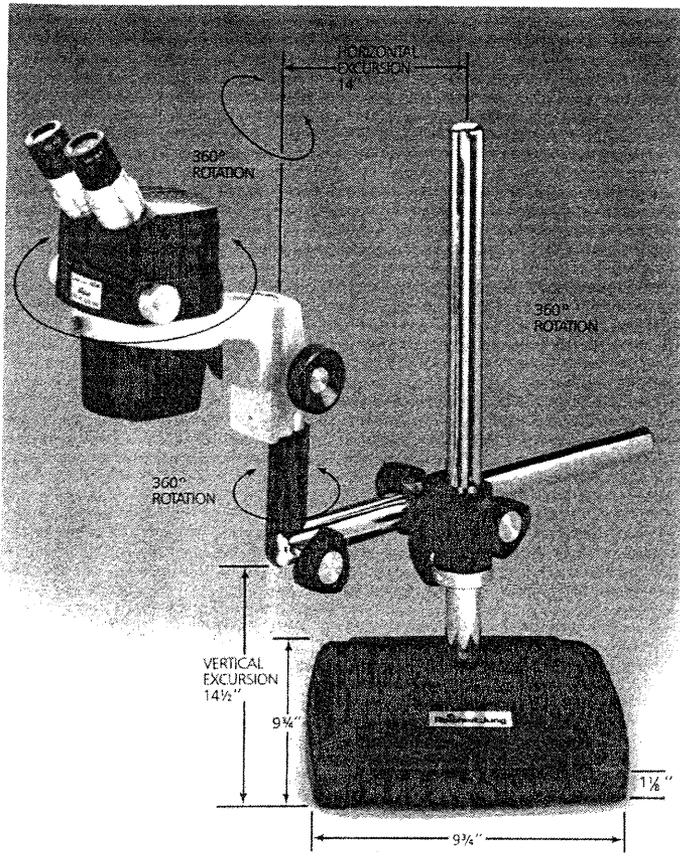


Figure 5.

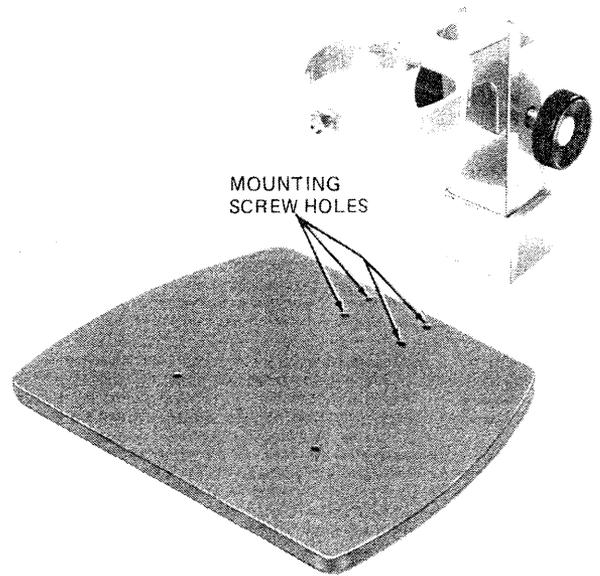


Figure 6A.

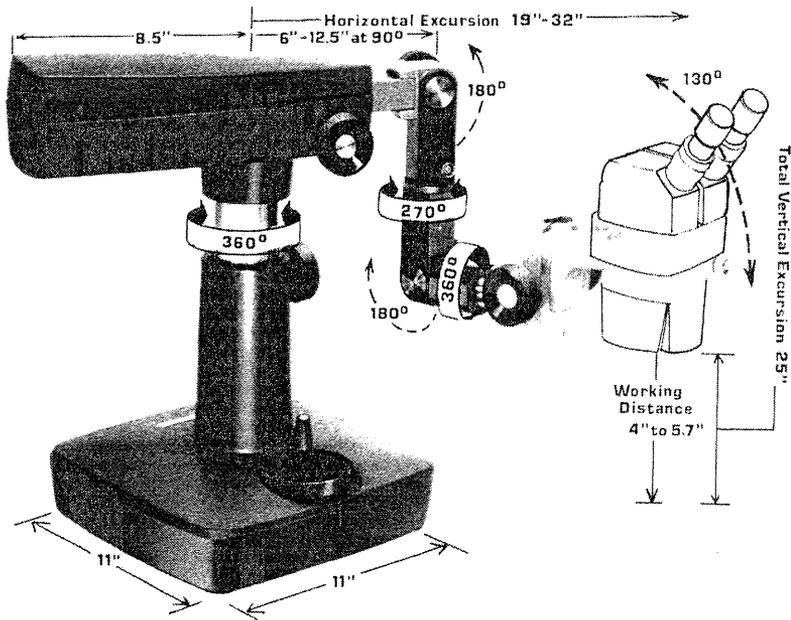


Figure 6.

INSTALLATION

Set the power body in the retaining ring of the microscope arm. Rotate body until the eyepiece tubes face in the desired direction and tighten locking screw. (See Figure 7.)



Figure 7. Check to see that locking screw has been turned out sufficiently before setting body in retaining ring.

Insert eyepieces into eyepiece tubes.

NOTE: If eyeglasses are worn, wear them while using the instrument.

FOCUSING PROCEDURE

- 1.) Set the calibrated zoom magnification knob (to operator's right) to highest power. (Not applicable to fixed power bodies.)
- 2.) With the left eye closed, look through the right eyepiece. Using a focusing knob, lower body of the microscope until a flat-surfaced object is in sharp focus.
- 3.) Next set the magnification knob to the lowest power.
- 4.) Without disturbing the focusing knob and using the left eye only, look through the left eyepiece. Turn the focusing sleeve of the left eyepiece tube counterclockwise until the object is out of focus. Still using the left eye only, turn sleeve clockwise until sharp focus is obtained.

NOTE: In performing this step, make certain that the eyepieces are seated against the eyepiece tubes.

- 5.) The microscope should now be correctly adjusted for comfortable viewing with both eyes. The operator can set the instrument at any magnification within the range of the Zoom Power Body without having to refocus.

INSTALLATION OF COAXIAL ILLUMINATOR ON 580 ZOOM POD

When purchased at the same time, the coaxial illuminator is installed and aligned on the body at the factory. When purchased separately, install as follows:

- 1.) Carefully remove the illuminator port cover plate as in Figure 8.
- 2.) Carefully slide the coaxial illuminator into the rear of the body, and fasten with the two screws as in Figure 9.

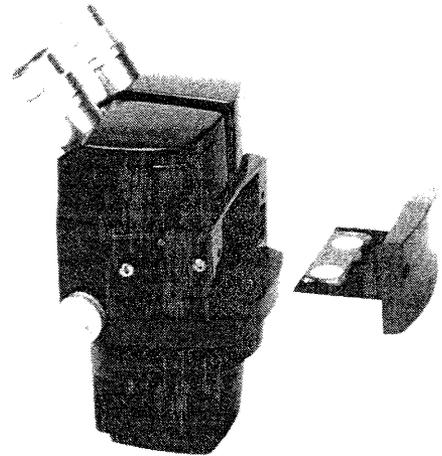


Figure 8.

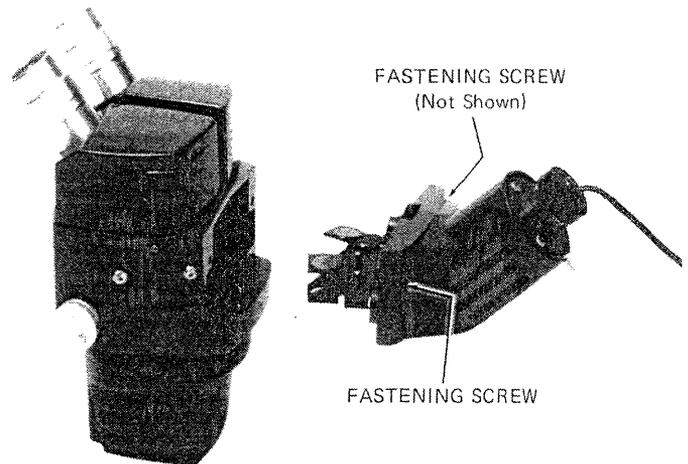


Figure 9.

NOTE: Do not touch any of the exposed glass surfaces on the illuminator. Fingerprints and dust will deteriorate the image quality and performance of the microscope.

- 3.) Plug the illuminator cord into the rear of the transformer. After making sure the transformer switch is in the "off" position, plug the transformer cord into a wall outlet.

ALIGNMENT OF THE COAXIAL ILLUMINATOR

After installing the coaxial illuminator or changing the bulb, it may be necessary to align the bulb to the microscope.

- 1.) Set the right zoom magnification knob to the 1.5 setting. Turn the transformer on.
- 2.) Draw an "X" on a plain piece of white paper and place it on the stage. Focus the microscope on the "X" using the focus knobs on the stand.
- 3.) Move the "X" out of the field of view and observe the spot of light on the white paper. If the spot of light is slightly uneven, loosen the knurled screw holding the lamp socket in place, rotating the socket slightly may provide more even illumination.
- 4.) If the spot of light is very uneven, use the Allen wrench provided with the illuminator and center the bulb by means of the (3) screws shown in Figure 10.

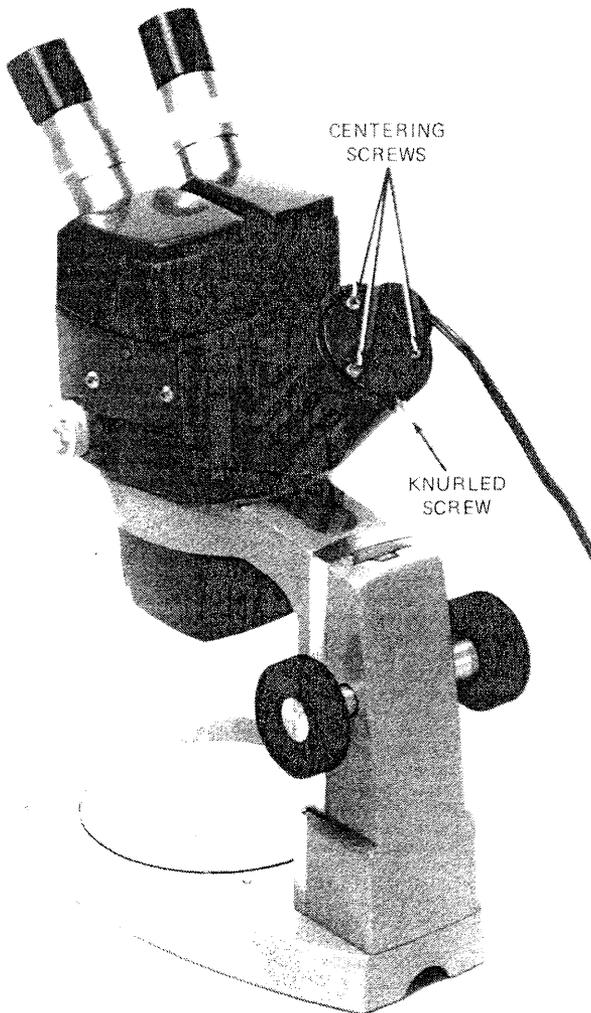


Figure 10.

NOTE: Because of the very large field of view at low magnifications, the entire field may not be evenly illuminated when viewing highly reflective specimens at magnifications below 15X (1.0-1.5 setting with 10X eyepieces).

If magnifications below 15X are desired, a 384 Fluorescent Ring Illuminator may help with illumination of some specimens.

MAGNIFICATION

With Reichert-Jung Zoom Power Bodies, magnification knobs are conveniently located on each side of the body.

Zoom magnification increments are engraved on the knob positioned on the right side. Using either knob, the operator can view the entire object at a lower power then increase magnification to concentrate on some detail of the object. As magnification is varied, the object is constantly in view and always in focus.

If more magnification is desired, 15X or 25X Eyepieces and/or Auxiliary Lenses may be used. All initial magnifications are engraved on the Auxiliary Lenses and Eyepieces and are indicated on Fixed Power Bodies. On Zoom Power Bodies, the magnification range is indicated on the righthand magnification knob. Resultant, or total, magnification is the product of the initial magnification of the Auxiliary Lens x Body x Eyepiece. As shown in the Table, as magnification increases the field of view decreases. It should also be noted that increased magnification also reduces depth of focus.

15X and 25X Eyepieces can be readily substituted for the 10X Eyepieces. As indicated in the Table, the substitution of eyepieces does not affect working

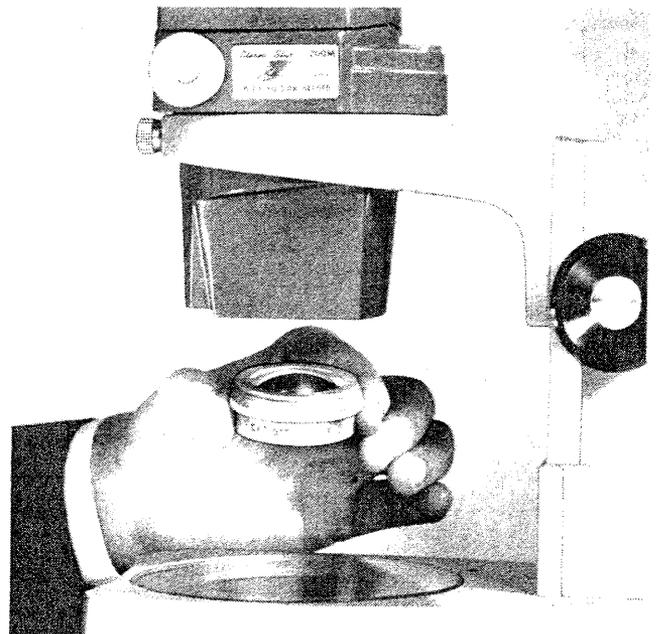


Figure 11. Auxiliary Lenses quickly attach to body.

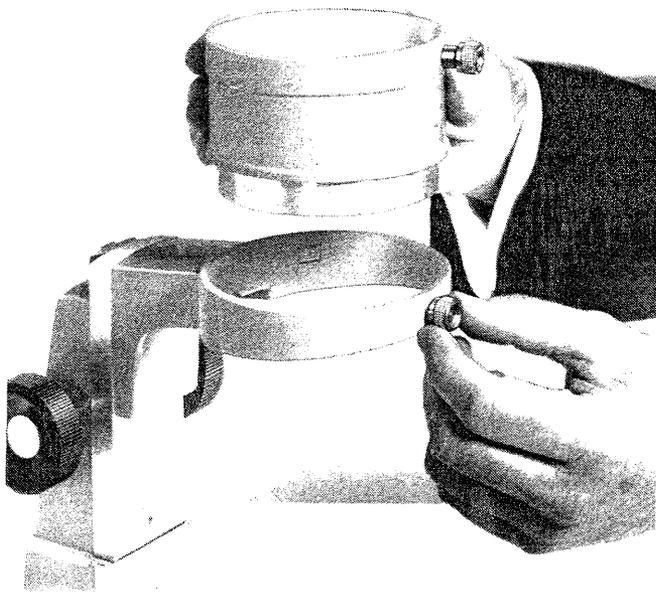


Figure 12. No. 556 2" Extension Sleeve

distance. ("Working distance" is defined as the distance between the lower lens in the Power Body and the specimen object when the latter is in focus.)

Eyeshields are available which slip over the top of the Wide Field Eyepieces to reduce stray light. The Eyeshields should not be used if wearing glasses.

The 1.25X, 1.50X and 2.0X Auxiliary Lenses provide a preferred method of increasing magnification. As shown in Figure 11, the lens in its threaded cell can be quickly screwed to the underside of the body. While the use of Auxiliary Lenses reduces working distance (see Table), these lenses increase resolution as well as magnification. As indicated in the Table, Auxiliary Lenses are available for Zoom Power Bodies only.

Should the operator require maximum magnification, both an Auxiliary Lens and either the 15X or 25X Eyepieces can be used.

When the application of the microscope is such that more working distance is required, use of the 0.5X Auxiliary Lens is suggested. As shown in the Table, the use of this lens will increase working distance from 4" to 5.7".

If very thick specimens are being used that exhaust all or most of the focusing travel of the rack and pinion, a 2" extension sleeve is available. Inserted between the arm and power body as shown in Figure 12, the No. 556 2" Extension Sleeve will provide an additional 2" of working space for thick specimens.

ILLUMINATION

Only general rules can be given for illumination; the best methods are often found by trial. The nature of

the specimen object and, in particular, its surface characteristics govern the choice of illuminator used.

Opaque specimens require top lighting, either oblique or vertical. While the specimen may be set on the glass stage plate, often either the black or white stage plate is used to provide a contrasting background. Again the nature of the specimen object governs the choice of either the black or white stage plate for best contrast.

For transparent or semi-transparent specimens, the transilluminating base with an appropriate illuminator is recommended. On occasion, best illumination may be obtained through the use of both top and in-base illumination, particularly in the case of semi-transparent specimen objects.

To acquaint the operator with the selection, and positioning versatility, of Reichert-Jung illuminators, each is described separately.

A. STARLITE ILLUMINATOR

The No. 363H STARLITE Illuminator is supplied with three-link adjustable arm and Variable Transformer, 115V, 60C.

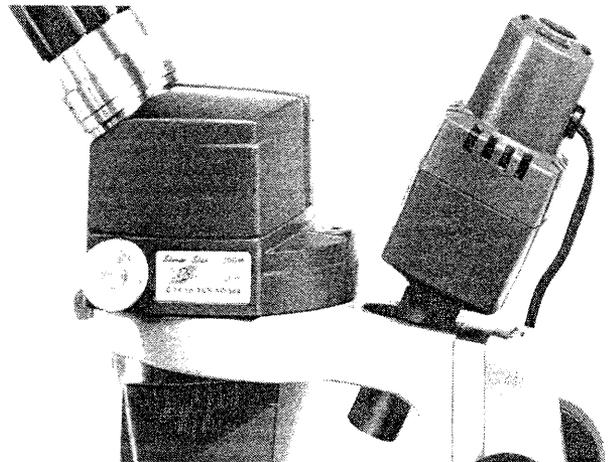


Figure 13. STARLITE Illuminator positioned in rear port.

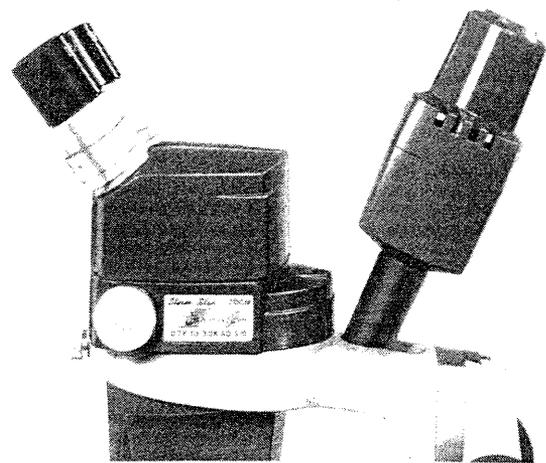


Figure 14. STARLITE Illuminator positioned in front port for use with an Auxiliary Lens.

TABLE OF RESULTANT MAGNIFICATIONS, FIELD OF VIEW AND WORKING DISTANCE

ZOOM BODY	AUXILIARY LENS ATTACHMENT	WIDE FIELD EYEPIECES						WORKING DISTANCE
		#1134 10X		#1184 15X		#1186 25X		
		MAGNIFICATION	FIELD OF VIEW	MAGNIFICATION	FIELD OF VIEW	MAGNIFICATION	FIELD OF VIEW	
#569"B" 0.7X—3X	none	7X—30X	1.12—.26"	10.5X—45X	.97—.23"	17.5X—75X	.51—.12"	4"
	#575 0.5X	3.5X—15X	2.25—.53"	5.3X—22.5X	1.93—.45"	8.8X—37.5X	1.01—.24"	5.7"
	#567 2.0X	14X—60X	.56—.13"	20.6X—90X	.48—.11"	35X—150X	.25—.06"	1.4"
	#576 1.25X	8.8X—37.5X	.90—.22"	13.1X—56.3X	.77—.20"	21.9X—93.8X	.41—.11"	2.8"
	#574 1.5X	10.5X—45X	.75—.20"	15.8X—67.5X	.65—.15"	26.3X—112.5X	.34—.09"	2.4"
#574"D" Fixed Power 1X	none	10X	.79"	15X	.68"	25X	.36"	4"
#572"E" Fixed Power 2X	none	20X	.39"	30X	.34"	50X	.18"	4"
#570"C" 0.7X—4.2X	none	#1145 10X		10.5X—63X	.97—.16"	17.5X—105X	.15—.09"	4"
	#575 0.5X	7X—42X	1.13—.19"	5.3X—31.5X	1.93—.32"	8.8X—52.5X	1.02—.17"	5.7"
	#576 1.25X	3.5X—21X	2.25—.38"	13.1X—78.8X	.77—.13"	21.9X—131X	.41—.07"	2.8"
	#574 1.5X	8.8X—52.5X	.90—.15"	15.8X—94.5X	.65—.11"	26.3X—157.5X	.34—.06"	2.4"
	#577 2.0X	10.5X—63X	.75—.13"	21X—126X	.48—.08"	35X—210X	.25—.04"	1.3"
	#574 1.5X	14X—84X	.56—.09"					
#580"T" 1X—6X	none	10X—60X	.79—.13"	15X—90X	.68—.12"	25—150X	.36—.06"	4"
	#575 .5X	5X—30X	1.58—.26"	7.5X—45X	1.35—.23"	12.5X—75X	.71—.12"	5.7"
	#576 1.25X	12.5X—75X	.63—.11"	18.8X—112.5X	.54—.09"	31.3X—187.5X	.28—.05"	2.8"
	#574 1.5X	15X—90X	.52—.09"	22.5X—135X	.45—.08"	37.5X—225X	.24—.04"	2.4"
	#577 2.0X	20X—120X	.39—.07"	30X—180X	.34—.06"	50X—300X	.18—.03"	1.3"

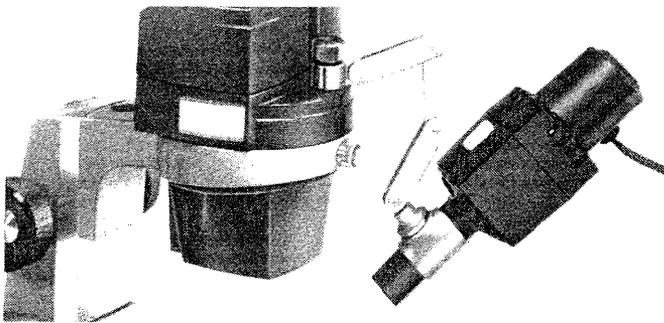


Figure 15. Where it is desirable to vary incidence of illumination, the STARLITE Illuminator can be mounted on the power body.

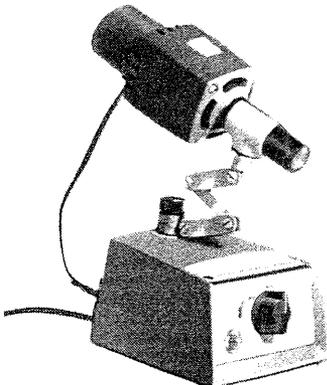


Figure 16. STARLITE Illuminator mounted on Variable Transformer.

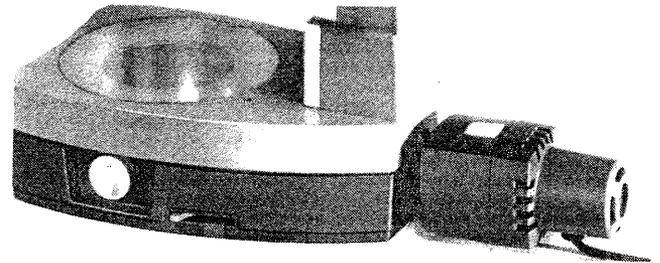


Figure 17. For transmitted light, the STARLITE Illuminator is inserted into 561S Base.

For top, oblique, spotlight-type illumination, the illuminator can be positioned in the twin-port of the microscope arm (see Figures 13 and 14) or mounted on the power body, as shown in Figure 15. Both methods of mounting keep the illumination centered regardless of specimen thickness. The STARLITE Illuminator can also be mounted on its own transformer base when it is desirable to have a movable light source, as shown in Figure 16.

For transmitted light, insert the illuminator into the circular opening at the back of the 561S Base as shown in Figure 17. With the illuminator in this position, use of the diffusing reflector side of the mirror assembly is

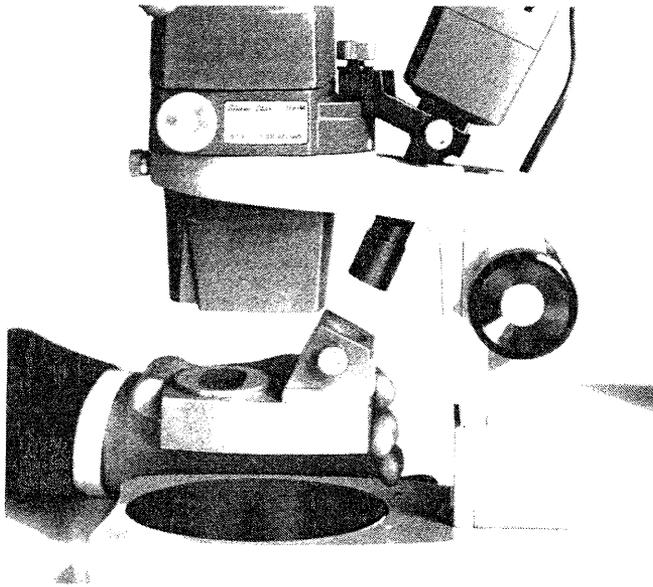


Figure 18. Attaching reflecting unit to body and front of illuminator.

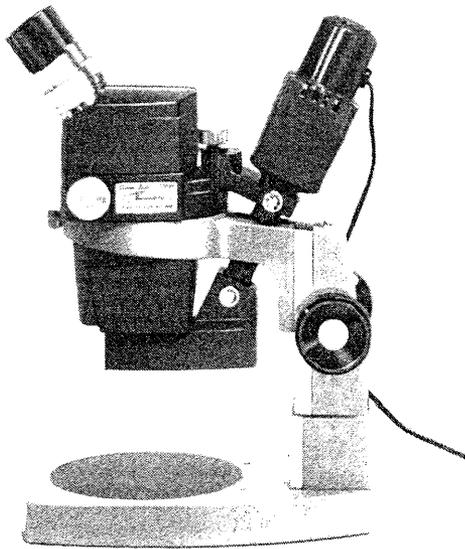


Figure 19. The Vertical Illuminator is designed for use without Auxiliary Lenses.

recommended. At lower magnifications, it may be desirable to use the swing-in/out lens to evenly illuminate larger fields of view.

B. VERTICAL ILLUMINATOR

The No. 579 Vertical Illuminator with variable transformer provides straight top lighting for the examination of deep or narrow orifices which are difficult or impossible to examine with oblique illumination.

The illuminator includes a separate vertical reflecting unit, as shown in Figure 18, which is positioned

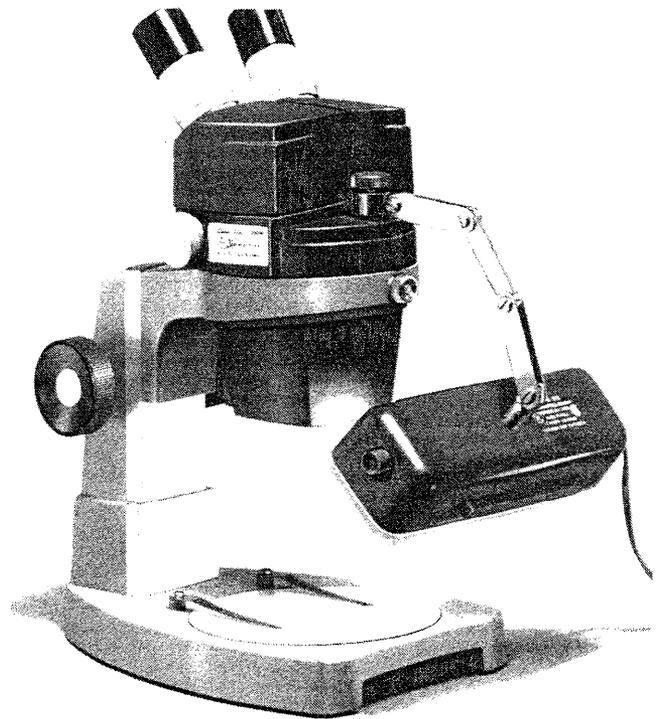


Figure 20. For top lighting, the Fluorescence Illuminator can be attached to the power body.

beneath the power body and is secured to the end of the illuminator.

C. FLUORESCENCE ILLUMINATOR

The No. 578 Fluorescence Illuminator (115V, 60C), supplied complete with three-link adjustable arm and base, can be used for either oblique or transmitted illumination. The two daylight fluorescent tubes provide a flat, diffused, cool light that floods over the gross specimen to evenly

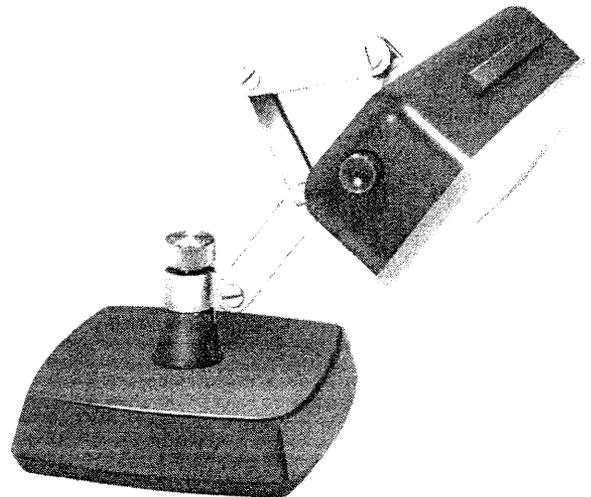


Figure 21. Fluorescence Illuminator mounted on its own base.

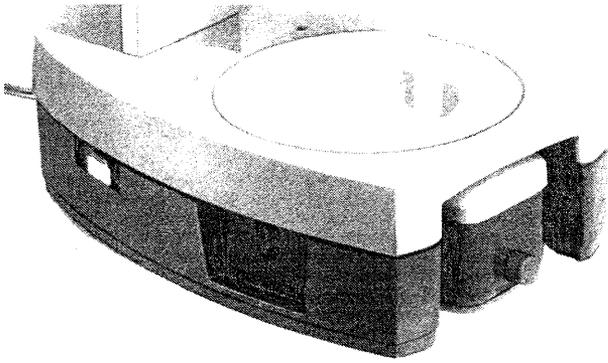


Figure 22. For transmitted light, the Fluorescence Illuminator is positioned in 561S Base.

illuminate surface detail regardless of specimen thickness variations.

For top lighting, the Fluorescence Illuminator can be attached directly to the power body in the same manner as the STARLITE Illuminator (see Figure 20) or can be used on its own base as shown in Figure 21.

For transmitted light, the illuminator is positioned in the Transilluminating Base as shown in Figure 22. To insert illuminator, the mirror assembly must be removed. Slide back the two retaining clips (#4, Figure 3) and lift out mirror assembly. The two side "ribs" on the illuminator (see Figure 23) fit above the slideway clips in the base. Insert in such a manner that the push button switch faces outward.

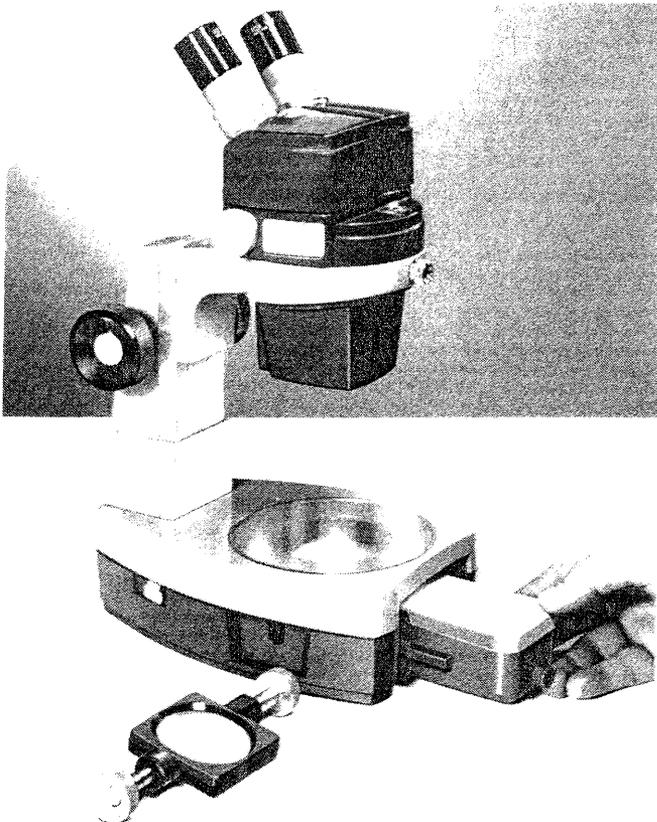


Figure 23. Slideway clips in base support "ribs" on illuminator.

LAMP REPLACEMENT

Both the Reichert-Jung STARLITE and Vertical Illuminators use the 6.5V GE1460 Lamp (Cat. No. 1033). To replace lamp, loosen the two slotted, captive screws to separate the two sections of the illuminator housing. Push lamp in and turn counterclockwise to remove. To install new lamp, properly position the lamp base plate on the three pins; push in and turn clockwise to secure. (New lamps, in most instances, can be purchased locally from your Reichert-Jung dealer.)

The Fluorescence Illuminator holds two daylight fluorescent tubes, Sylvania F4T5/D. Remove the plastic cover from the illuminator. Push tube to either side and lift out to remove; install new tube in similar manner. (Tubes are available locally.)

STAGE PLATE LEVELING AND HEIGHT ADJUSTMENTS

Four screws have been provided in the base of the microscope to permit leveling the stage plate or to change the height of the plate. Access holes to the screws are shown in Figure 26. The top of the screws are visible in Figure 2. If necessary, remove No. 561S Transilluminating Base to gain access to screw holes. Merely turn screw clockwise to raise plate; counterclockwise to lower.

TO REVERSE POWER BODY

The microscope power body can easily be reversed 180°, or rotated to face in any desired direction. Simply loosen the locking screw, as shown in Figure 24, and rotate body in the retaining ring of the microscope arm. It is not necessary to lift body out of the retaining ring.

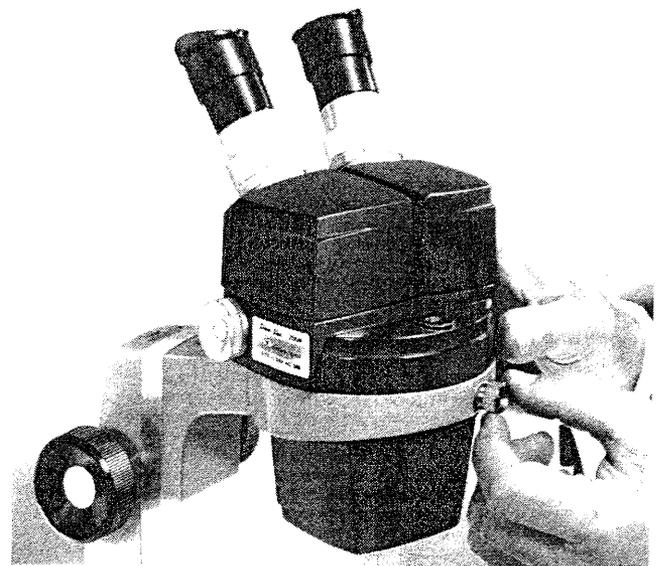


Figure 24. Loosen locking screw. Body rotatable 360°.

to reposition. Body will rotate 360° in either direction while safely "seated" within ring. When correctly positioned, tighten locking screw.

TO ADJUST FOCUSING TENSION

Tension on the focusing mechanism may be regulated to suit personal preference. To increase tension, hold one knob firmly and turn opposite knob clockwise, as shown in Figure 25. An alternate method of increasing tension is to twist both knobs simultaneously in a clockwise direction. To reduce tension, turn counterclockwise.

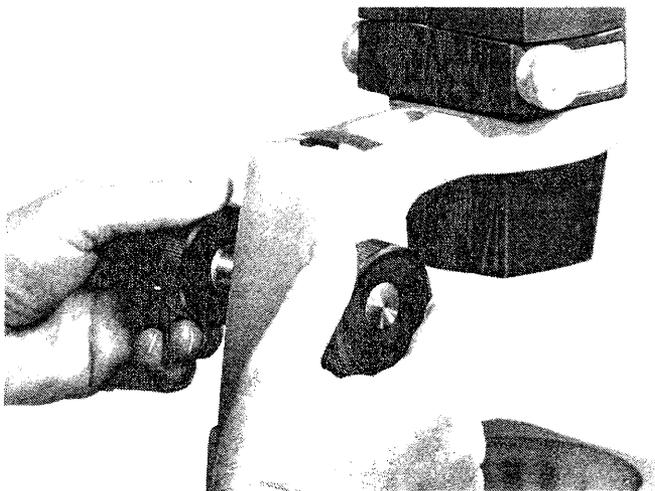


Figure 25. Focusing tension can be easily adjusted to suit individual preference.

CARE AND CLEANING

Always use the plastic dust cover provided when the microscope is not in use. Eyepieces should always be kept in the microscope to prevent dust from collecting within the eyepiece tubes of the binocular body. When cleaning, do not attempt to disassemble the power body. The lens systems within the body were carefully cleaned and aligned at the factory.

Dust on the eyepiece lenses is seen as specks which rotate when the eyepiece is turned while looking through it. If the field does not appear clear, carefully inspect the lower lenses of the power body. Subtle loss of contrast and definition due to dust or a slight smear on the lenses can be avoided with routine inspection and cleaning. If any optical surface becomes badly coated with dust or dirt, all such loose dust or dirt should be blown off with a syringe or dusted with a camel's hair brush before attempting to wipe the surface clean.

Optical surfaces should be cleaned with a lint-free, soft, linen cloth, lens paper or a Q-tip moistened with distilled water, xylene or alcohol. It is very important to avoid the use of excessive solvent. The cloth, lens tissue, or

Q-tip should be just moistened with solvent and not wet enough for the solvent to run down in around the lens with the resultant danger of loosening cement or interior surfaces. Always promptly wipe the surface dry, using a circular motion, before allowing it to air dry.

Glass surfaces should never be touched with the fingers because they will leave a greasy smear and, frequently, corrosive perspiration. Do not clean optical parts unnecessarily.

LUBRICATION

The power bodies of Reichert-Jung STEREOSTAR/ZOOM Microscopes are permanently lubricated at the factory and do not require periodic lubrication.

Occasionally, the focusing slideway should be wiped clean, using alcohol or xylene, and lightly relubricated. Do not apply lubrication to rack teeth or pinion gear. Use a small stiff brush to clean when required.

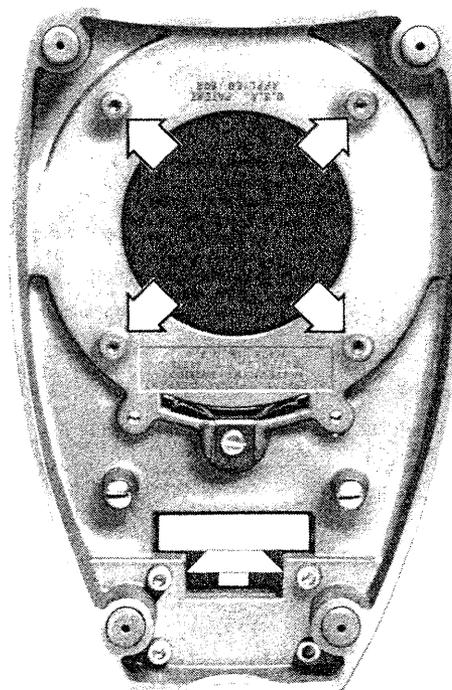


Figure 26.

PARTS MANUAL

A LISTING OF PARTS AND ILLUSTRATIONS FOR SERIES 560 MICROSCOPES IS CONTAINED IN SEPARATE PARTS MANUAL 560 PM. AVAILABLE ON REQUEST.