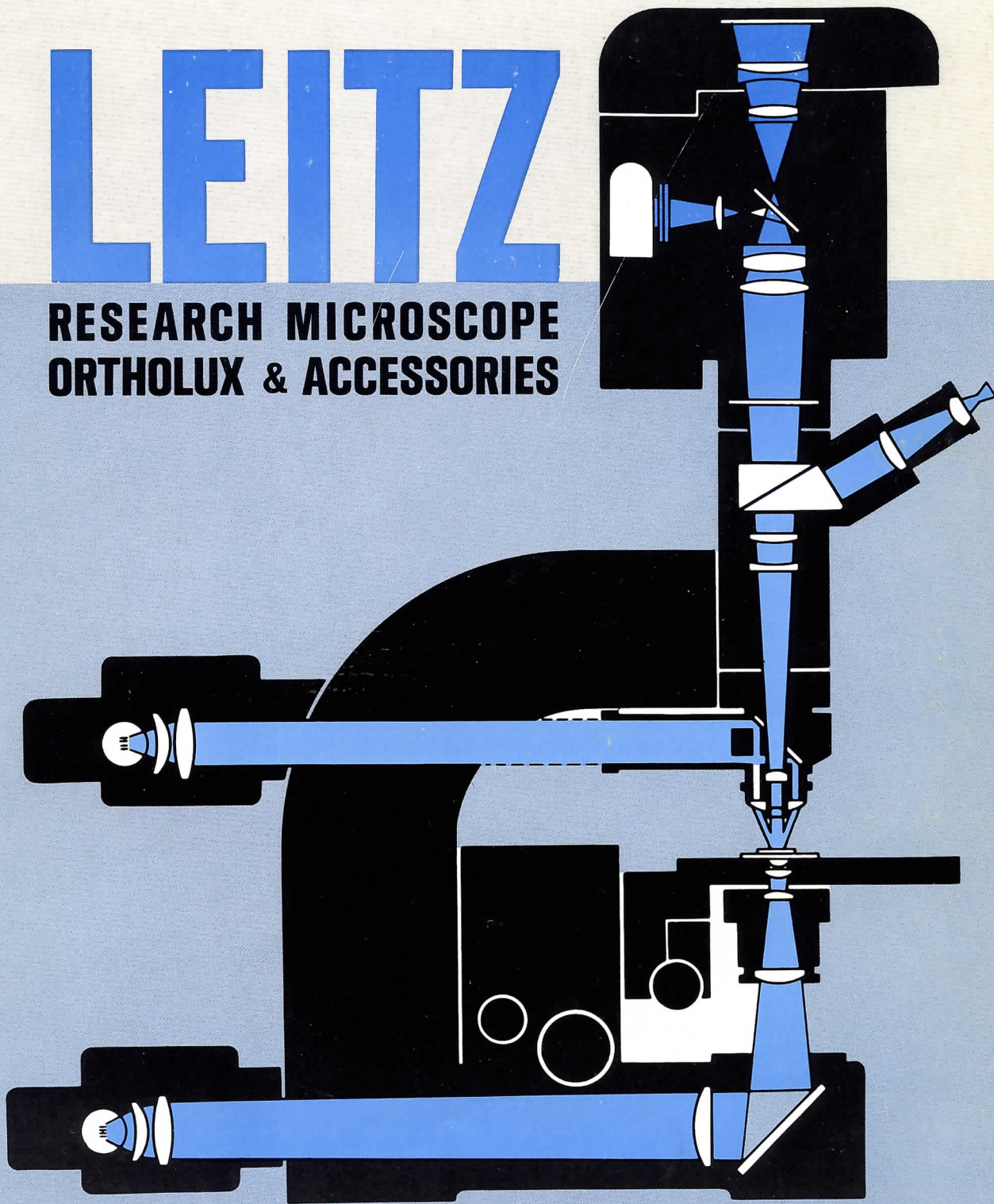


1/67

# LEITZ

## RESEARCH MICROSCOPE ORTHOLUX & ACCESSORIES



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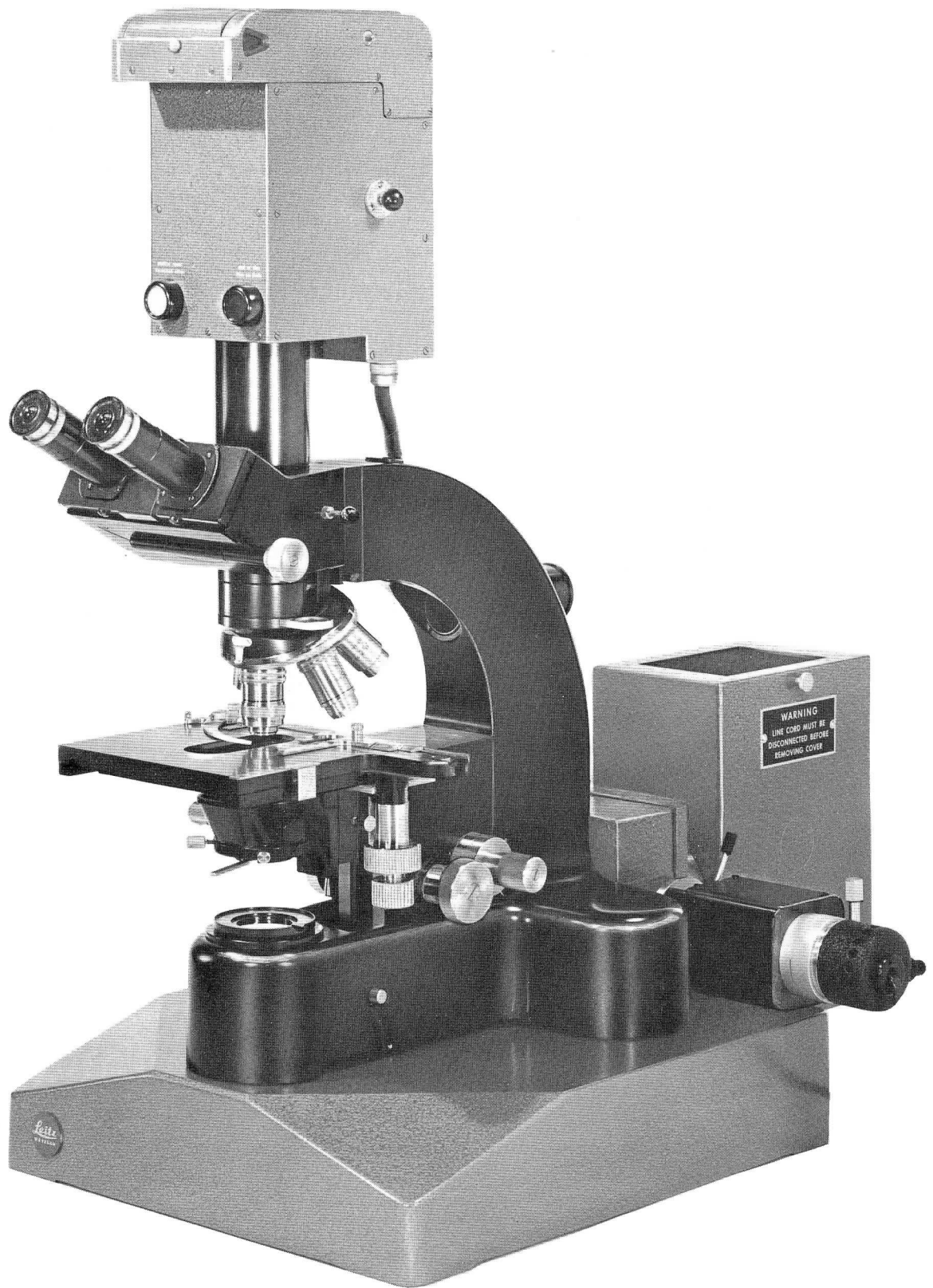
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## INTRODUCTION

The LEITZ ORTHOLUX Microscope is firmly established as one of the most advanced, as well as versatile research instruments available. Many have attempted to copy the design, but none have been able to equal it.

The many uncharted research projects in all fields, whether they are medical or industrial, require the greatest flexibility, so that each avenue of approach may be examined under all possible conditions, under each type of illumination and always with the utmost precision.

The basic integrity of design of the ORTHOLUX Microscope permits the addition of interchangeable parts, so that the one instrument will serve equally well for transmitted light, reflected light, polarized light, fluorescence microscopy, phase contrast, UV and many others.

The LEITZ ORTHOLUX has over the years established an enviable reputation for maximum performance and convenience in operation. The pages of this catalog will serve to illustrate the infinite variations which the ORTHOLUX is capable of; each interchangeable part fits perfectly to the basic stand and once attached becomes integrated to form a research microscope of unequalled quality.

Beginning with a simple outfit for transmitted light, this catalog attempts to show all the possible combinations - one of these will surely be suited to your specific research project.

### STAND

The basic stand is a precision cast aluminium/magnesium alloy, incorporating a coarse and fine focusing adjustment on double-ball bearings, counter balanced to accept microscope stages, condensers, etc. The fine adjustment travels through a depth of 3.8mm at an accuracy of 0.001mm. The arm has a dovetail slider with spring lock to accept various observation tubes and accessories.

Fittings are provided in the base of the arm to introduce light sources for transmitted, as well as reflected illumination. The base contains an iris diaphragm which is operated by a knurl and can be focused into the image plane by means of the substage condenser.

### ILLUMINATION

The ORTHOLUX Microscope is supplied with a special low voltage lamp, the intensity of which may be regulated by means of a transformer. The lamp is used for transmitted light, as well as for reflected light, or both simultaneously. If higher light intensities are required, the Universal Lamp Housing Model #250 can conveniently be attached to the ORTHOLUX stand. If required, a reflex housing permits alternate use of low voltage lamp or high power light source. The Universal Lamp Housing Model #250 accepts the xenon burner XBO 150, or the fluorescence lamp HBO 200.

### CONDENSERS

The substage of the ORTHOLUX has facilities for the interchange of condensers by means of a dovetail slider. For transmitted light brightfield, 3 highly corrected swing-out condensers are available, models 601 - 603. Phase Contrast, darkfield and other special purpose condensers are interchangeable with these.

### OPTICAL EQUIPMENT

LEITZ Manufactures for the ORTHOLUX Microscope a wide variety of lenses, Achromats, Fluorite systems, Apochromats, Plano objectives, Phase contrast objectives, ULTROPAK, and Infinity corrected objectives for covered or uncovered specimens. A special booklet, covering all of these optics is available. No other manufacturer offers a larger variety.

### EYEPIECES

LEITZ supplies suitable eyepieces for every need, in order to obtain maximum definition from these objectives. They are the Huyghens type, Periplanatic Compensating eyepieces, Widefield eyepieces, High eyepoint and Negative eyepieces.

### PHOTOMICROGRAPHIC EQUIPMENT

The ORTHOLUX accepts many types of photomicrographic accessories. In addition to simple camera attachments, such as the POLAROID or the 35mm LEICA camera, it can be supplied with the fully automatic microscope camera ORTHOMAT.

For those who wish to photograph on large formats, the LEITZ ARISTOPHOT serves as the most universal photomicrographic accessory.

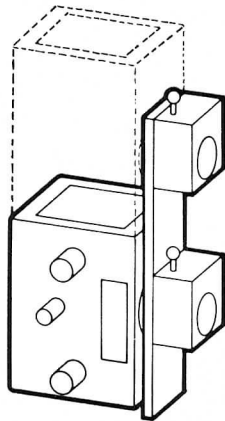
Accessories for other 8 and 16mm motion picture cameras and the required optical systems are also available.

### SERVICE

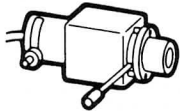
All LEITZ Microscopes are designed and manufactured under rigid supervision by highly trained and experienced craftsmen and warranted against manufacturing defects when originally purchased through authorized franchised dealers. It is the responsibility of the franchised dealer to set up, instruct the purchaser in the proper use of the instrument and render necessary service. E. LEITZ, INC., maintains repair facilities in New York; a microscope applications laboratory and technical information service, for your convenience.

All instruments shipped by E. LEITZ, INC., are supplied with registration cards which should be completed and returned to us within 30 days of delivery. Failure to register may be considered cause to void warranty.

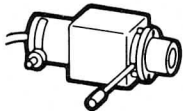
**EXPLODED VIEW**



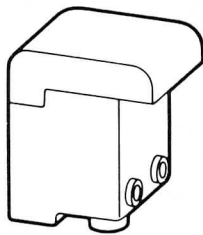
Lamp housing 250 for incident and transmitted light



6 v 30 w lamp attachment



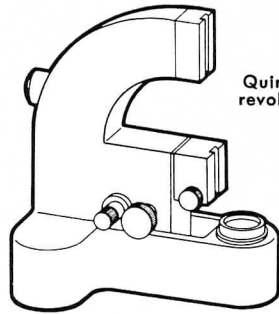
6 v 30 w lamp attachment



Fully automatic microscope camera ORTHOMAT

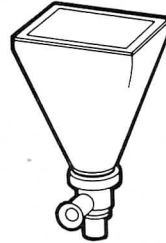


FSA photo-tube with automatic focusing compensation



ORTHOLUX stand

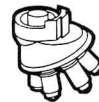
Quintuple objective revolving nosepiece with



9 x 12 cm camera attachment



FS photo-tube with inclined binocular eyepiece tubes



transmitted-light or special fluorescent-light objectives



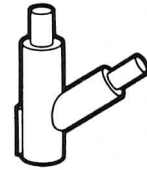
Mechanical stage No. 250 with condenser holder



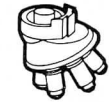
Two-diaphragm brightfield condenser No. 76



Micro-attachment for the LEICA



FP photo-tube with inclined monocular eyepiece tube



plano objectives



Centring rotating stage No. 223 with condenser holder



Three-lens oil immersion condenser in centring mount No. 72 r



Projection prism for wall projection



phase contrast objectives



Heating stage 80



Darkfield condensers No. 82 D 1.20 and No. 84 D 0.80

**PHOTOLUX COMPONENTS**



Drawing mirror  
for bench-top projection



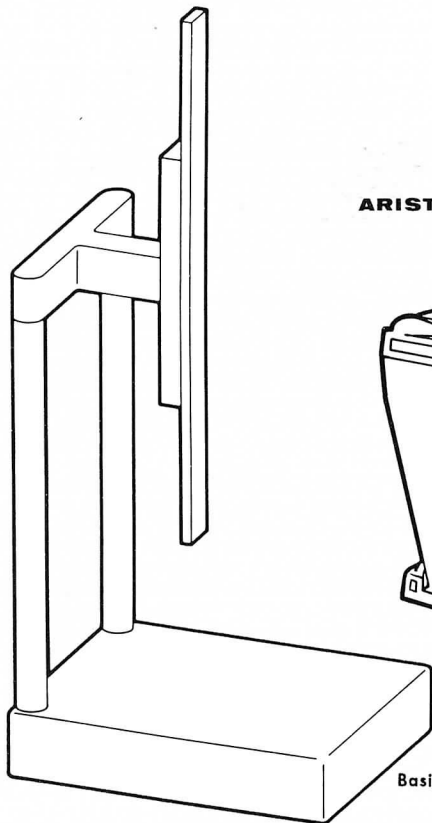
ULTROPAK



Heating stage  
350

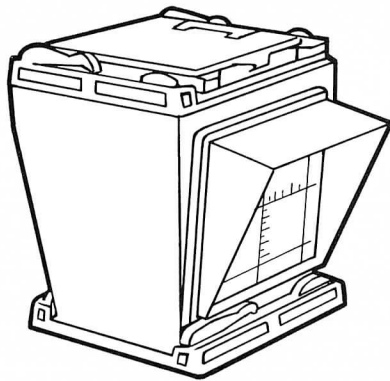


Phase contrast  
condenser  
No. 64



Basic stand

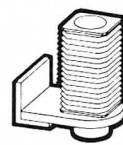
**ARISTOPHOT universal photographic outfit**



4 x 5 cm camera



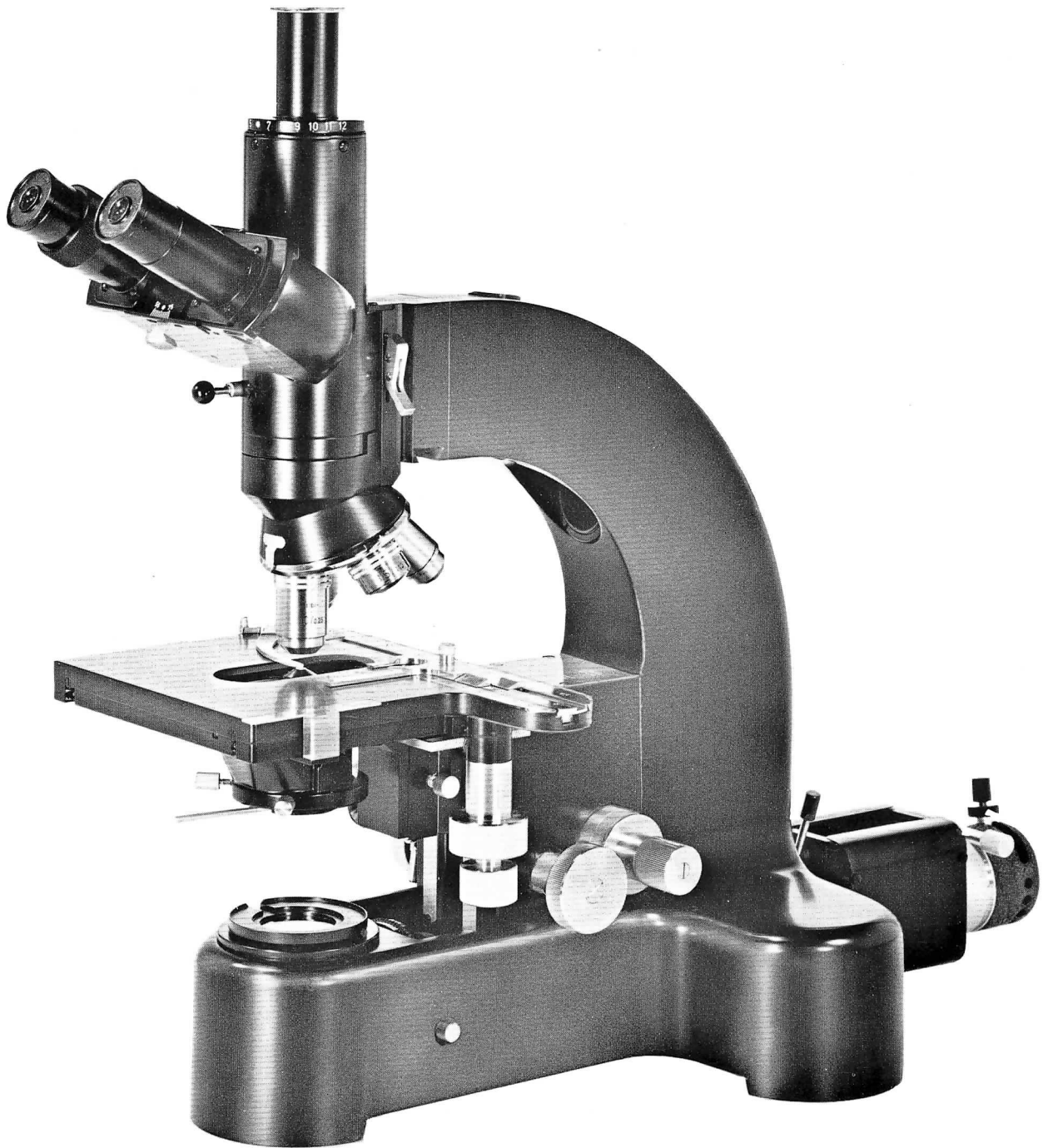
Mirror reflex attachment  
for the LEICA



LEICA bellows  
for the ARISTOPHOT



Photographic lenses  
SUMMAR MILAR



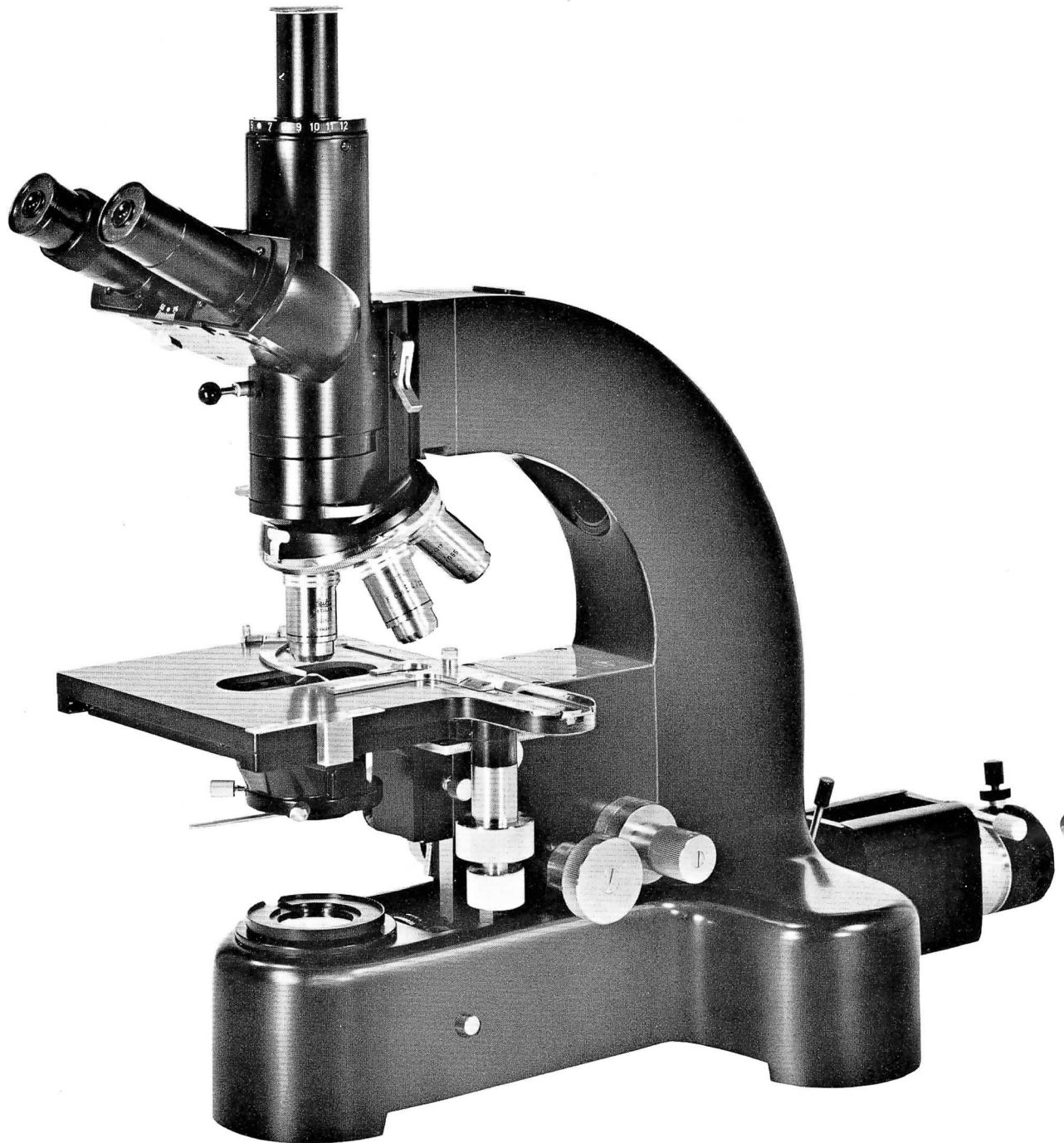


ORTHOLUX EQUIPPED FOR: BRIGHTFIELD TRANSMITTED LIGHT (ACHROMATS)

512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw fine adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 035	Flexible plastic protective cover (I S C I C)	4.00
512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter; including one spare bulb -.-.-1 (EYMZE)	83.00
512 088	Combination inclined binocular observation and straight monocular photographic tube "FS" (O I Y E E)	279.00
512 016	Large mechanical stage #250, with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm, on interchange carrier (I D K I T)	247.00
512 118	Dovetail carrier -.-.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condenser (O Z A R B)	52.00
512 085	Swing out condenser with aperture diaphragm, centering mount and interchangeable aspherical top element AS 0.90, #601; on dovetail carrier (O H C E V)	51.00
512 094	Quintuple revolving objective nosepiece on carrier 14.5. -.-, with tube lens 1.25x and blank horizontal slider (O M A R C)	130.00
512 002	Polished mahogany accessory case with fittings (E E V I B)	59.00
	LEITZ Microscope ORTHOLUX 14.5.8.1 FS 250/601 as described above	<u>\$1,750.00</u>

OPTICAL EQUIPMENT A2n

519 036	Achromatic dry objective, 3.5x/0.10, focal length 31.6mm, free working distance 23mm (O A N E E)	\$ 31.00
519 004	Achromatic dry objective, 10x/0.25, focal length 16.3mm, free working distance 5.7mm (A C O R A)	32.00
519 003	Achromatic dry objective, 40x/0.65, focal length 4.46mm, free working distance 0.67mm, with spring loaded mount (A C M A T)	50.00
519 060	Achromatic oil immersion objective, Oil 100x/1.30, focal length 1.9mm, free working distance 0.13mm, with spring loaded mount (O I L I M)	88.00
519 129	Periplanatic eyepiece, paired 10x <sup>0</sup> , field of view 18mm (P E L E K)	<u>52.00</u>
	LEITZ Research Microscope ORTHOLUX 14.5.8.1 FS 250/601 with optical equipment A2n as described above	\$2,003.00
500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (R E D Y X)	<u>77.00</u>
		\$2,080.00

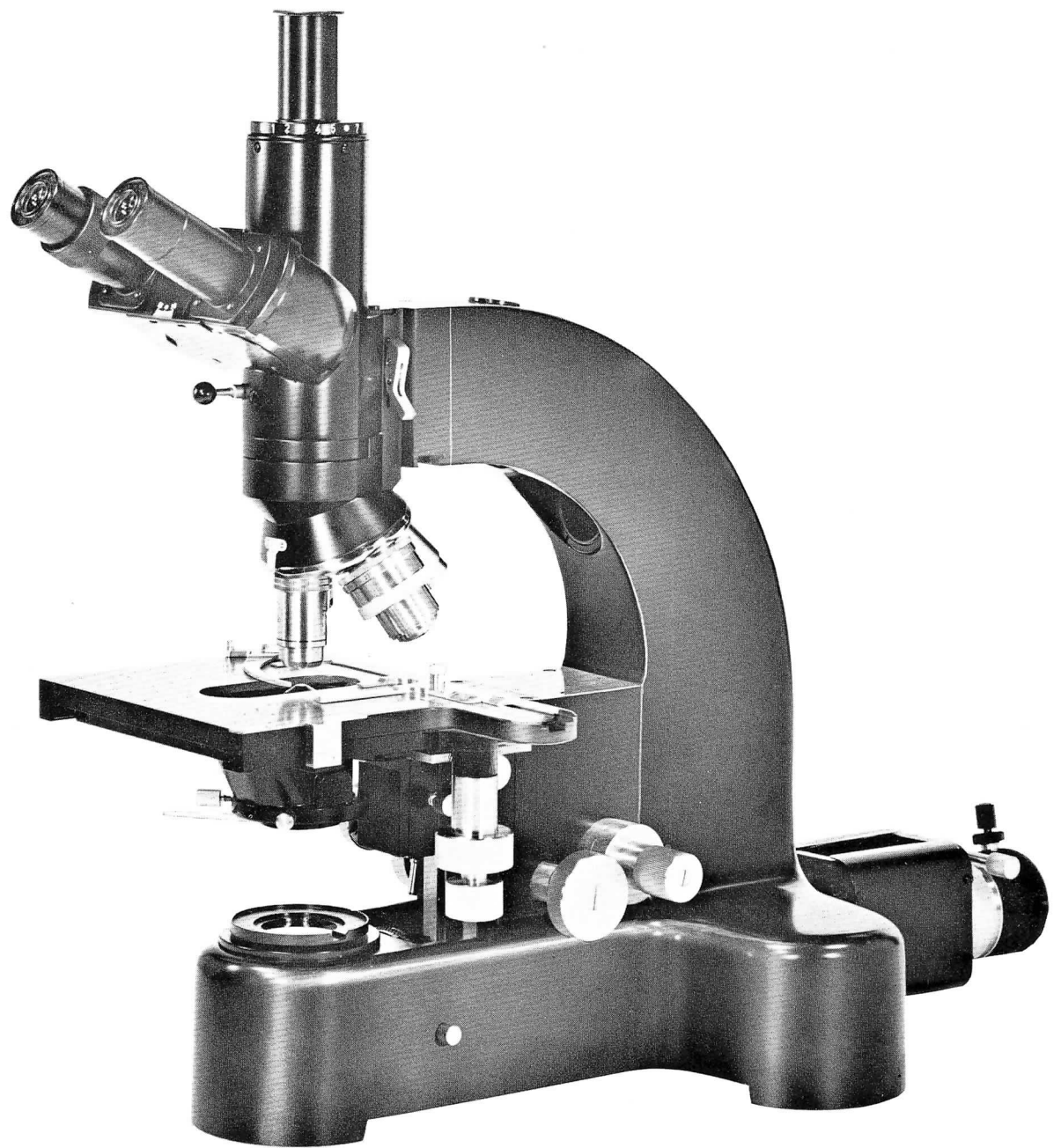


ORTHOLUX EQUIPPED FOR: BRIGHTFIELD TRANSMITTED LIGHT (ACHROMATS AND FLUORITES)

512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw fine adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 035	Flexible plastic protective cover (I S C I C)	4.00
512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter; including one spare bulb -.-.-.1 (EYMZE)	83.00
512 088	Combination inclined binocular observation and straight monocular photographic tube "FS" (O I Y E E)	279.00
512 016	Large mechanical stage #250, with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm, on interchange carrier (I D K I T)	247.00
512 118	Dovetail carrier -.-.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condenser (O Z A R B)	52.00
512 086	Swing out condenser with aperture diaphragm, centering mount and interchangeable achromatic top element Achr 0.90, #602; on dovetail carrier (O H C O X)	111.00
512 094	Quintuple revolving objective nosepiece on carrier 14.5.-.-, with tube lens 1.25x and blank horizontal slider (O M A R C)	130.00
512 002	Polished mahogany accessory case with fittings (E E V I B)	59.00
512 098	LEITZ Microscope ORTHOLUX 14.5.8.1 FS 250/602 as described above	<u>\$1,810.00</u>

OPTICAL EQUIPMENT

519 036	Achromatic dry objective, 3.5x/0.10, focal length 31.6mm, free working distance 23mm (O A N E E)	\$ 31.00
519 004	Achromatic dry objective, 10x/0.25, focal length 16.3mm, free working distance 5.7mm (A C O R A)	32.00
519 025	Fluorite dry objective, Fl 40x/0.85, focal length 4.3mm, free working distance 0.38mm, with spring loaded mount (F L U C A)	131.00
519 027	Fluorite oil immersion objective, Fl Oil 54x/0.95, focal length 3.4mm, free working distance 0.22mm, with spring loaded mount (F L U I M)	145.00
519 026	Fluorite oil immersion objective, Fl Oil 95x/1.32, focal length 1.9mm, free working distance 0.14mm, with spring loaded mount (F L U E S)	184.00
519 129	Periplanatic eyepieces, paired 10x <sup>0</sup> , field of view 18mm (P E L E K)	<u>52.00</u>
	LEITZ Research Microscope ORTHOLUX 14.5.8.1 FS 250/602 with optical equipment as described above	\$2,385.00
500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (R E D Y X)	<u>77.00</u>
		<u>\$2,462.00</u>

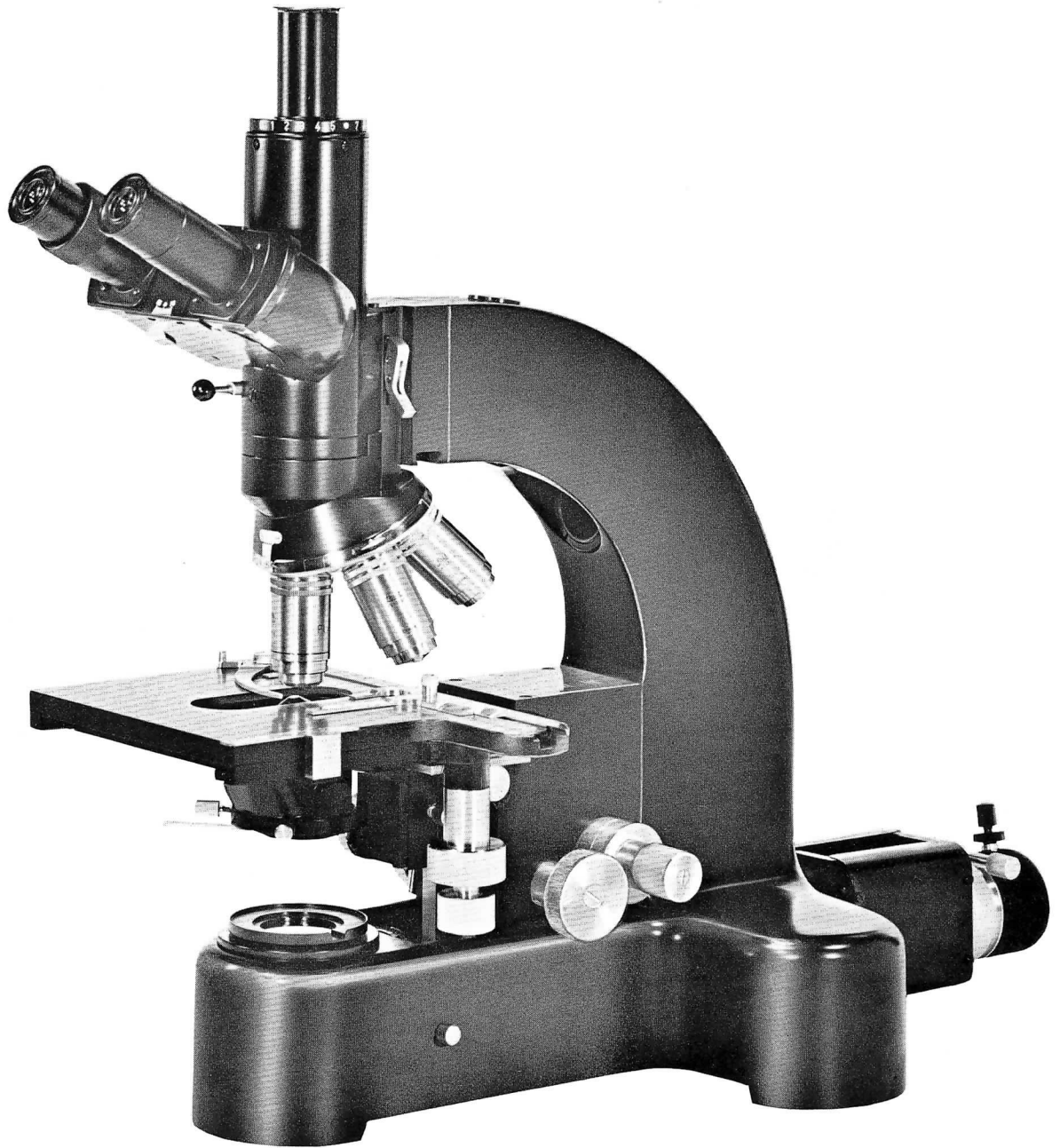


ORTHOLUX EQUIPPED FOR: BRIGHTFIELD TRANSMITTED LIGHT (APOCHROMATS)

512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw fine adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 035	Flexible plastic protective cover (I S C I C)	4.00
512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter; including one spare bulb -.-.1 (EYMZE)	83.00
512 088	Combination inclined binocular observation and straight monocular photographic tube "FS" (O I Y E E)	279.00
512 016	Large mechanical stage #250, with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm, on interchange carrier (I D K I T)	247.00
512 118	Dovetail carrier -.-.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condenser (O Z A R B)	52.00
512 086	Swing out condenser with aperture diaphragm, centering mount and interchangeable achromatic top element Achr 0.90, #602; on dovetail carrier (O H C O X)	111.00
512 094	Quintuple revolving objective nosepiece on carrier 14.5.-.-, with tube lens 1.25x and blank horizontal slider (O M A R C)	130.00
512 002	Polished mahogany accessory case with fittings (E E V I B)	59.00
512 098	LEITZ Microscope ORTHOLUX 14.5.8.1 FS 250/602 as described above	\$1,810.00

OPTICAL EQUIPMENT

519 009	Apochromatic dry objective, Apo 12.5x/0.30, focal length 13.0mm, free working distance 2.5mm (A P O S A)	\$ 104.00
519 007	Apochromatic dry objective, Apo 25x/0.65, focal length 7.4mm, free working distance 0.8mm, with spring loaded mount (A P O C T)	177.00
519 038	Apochromatic dry objective, Apo 40x/0.95, focal length 4.4mm, free working distance 0.12mm, with spring loaded mount (O B P A M)	261.00
519 008	Apochromatic oil immersion objective, Apo Oil 90x/1.32, focal length 2.0mm, free working distance 0.13mm, with spring loaded mount (A P O I M)	333.00
519 142	Periplanatic widefield eyepieces, paired GF 10x, field of view 18mm (P E S I S)	70.00
	LEITZ Research Microscope ORTHOLUX 14.5.8.1 FS 250/602 with optical equipment as described above	\$2,755.00
500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (R E D Y X)	77.00
		\$2,832.00

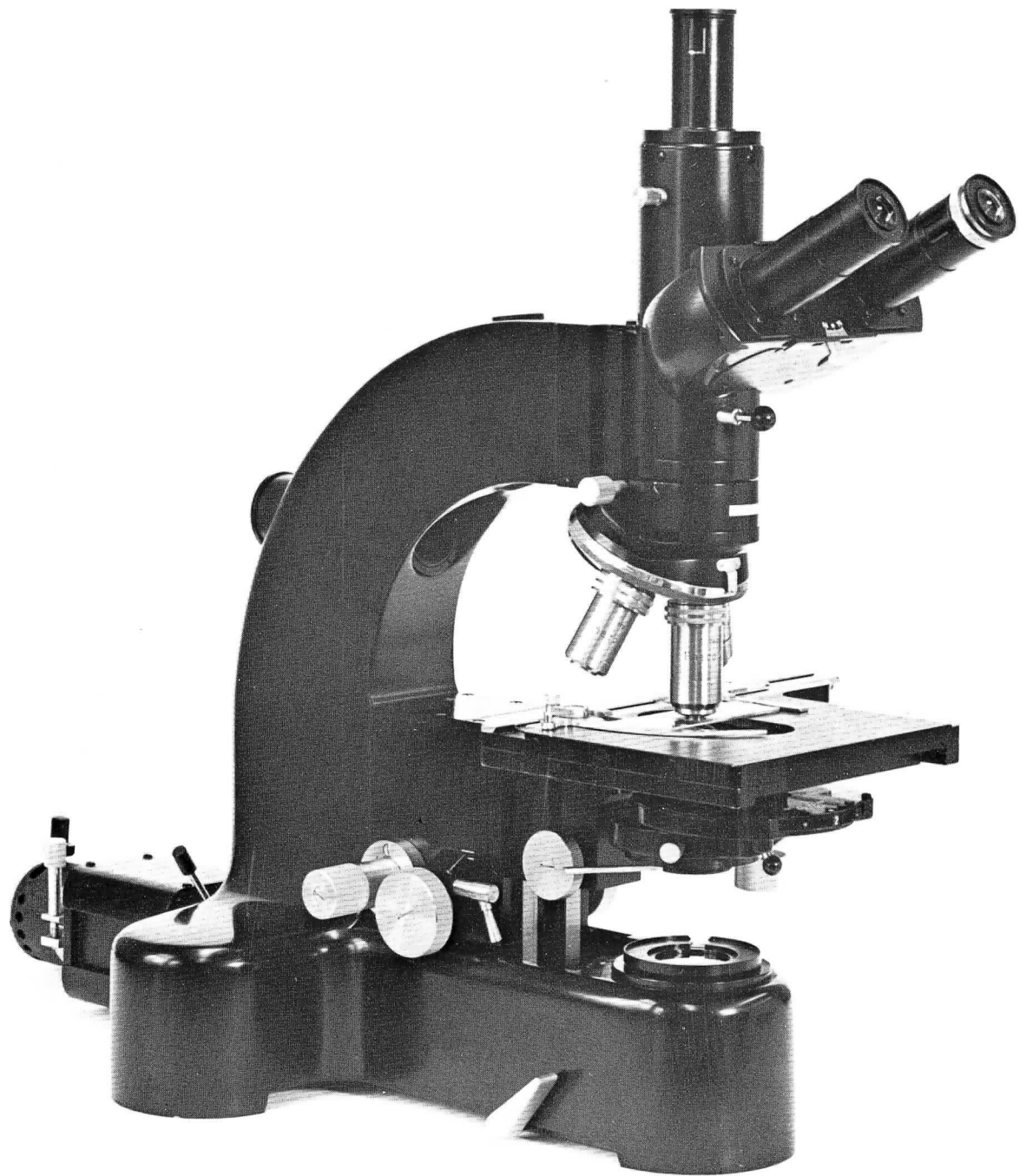


ORTHOLUX EQUIPPED FOR: BRIGHTFIELD TRANSMITTED LIGHT WITH PLANO OBJECTIVES FOR MAXIMUM FLATNESS OF FIELD AND HIGHEST RESOLUTION

512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw fine adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 035	Flexible plastic protective cover (I S C I C)	4.00
512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter; including one spare bulb -.-.-.1 (EYMZE)	83.00
512 088	Combination inclined binocular observation and straight monocular photographic tube "FS" (O I Y E E)	279.00
512 017	Large mechanical stage #255 with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm, on interchange carrier (I D K U W)	247.00
512 118	Dovetail carrier -.-.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condenser (O Z A R B)	52.00
512 086	Swing out condenser with aperture diaphragm, centering mount and interchangeable achromatic top element Achr 0.90, #602; on dovetail carrier (O H C O X)	111.00
512 094	Quintuple revolving objective nosepiece on carrier 14.5.-.-, with tube lens 1.25x and blank horizontal slider (O M A R C)	130.00
512 002	Polished mahogany accessory case with fittings (E E V I B)	59.00
512 099	LEITZ Microscope ORTHOLUX 14.5.8.1 FS 255/602 as described above	<u>\$1,810.00</u>

OPTICAL EQUIPMENT A9

519 176	Fluorite dry plano objective, Pl Fl 4x/0.14, focal length 39.7mm, free working distance 14.4mm (P L E T S)	\$ 136.00
519 175	Fluorite dry plano objective, Pl Fl 10x/0.30, focal length 17.8mm, free working distance 7.05mm (P L E R P)	180.00
519 163	Achromatic dry plano objective, Pl 25x/0.50, focal length 7.6mm, free working distance 0.9mm, with spring loaded mount (P L A W T)	182.00
519 161	Fluorite dry plano objective, Pl Fl 40x/0.65, focal length 4.6mm, free working distance 0.58mm, with spring loaded mount (P L A S P)	208.00
516 160	Apochromatic oil immersion objective, Pl Apo Oil 100x/1.32, focal length 2.4mm, free working distance 0.27mm, with spring loaded mount (P L A R N)	450.00
519 142	Periplanatic widefield eyepieces, paired GF 10x, field of view 18mm (P E S I S)	<u>70.00</u>
	LEITZ Research Microscope ORTHOLUX 14.5.8.1 FS 255/602 with optical equipment A9 as described above	\$3,036.00
500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (R E D Y X)	<u>77.00</u>
		<u>\$3,113.00</u>



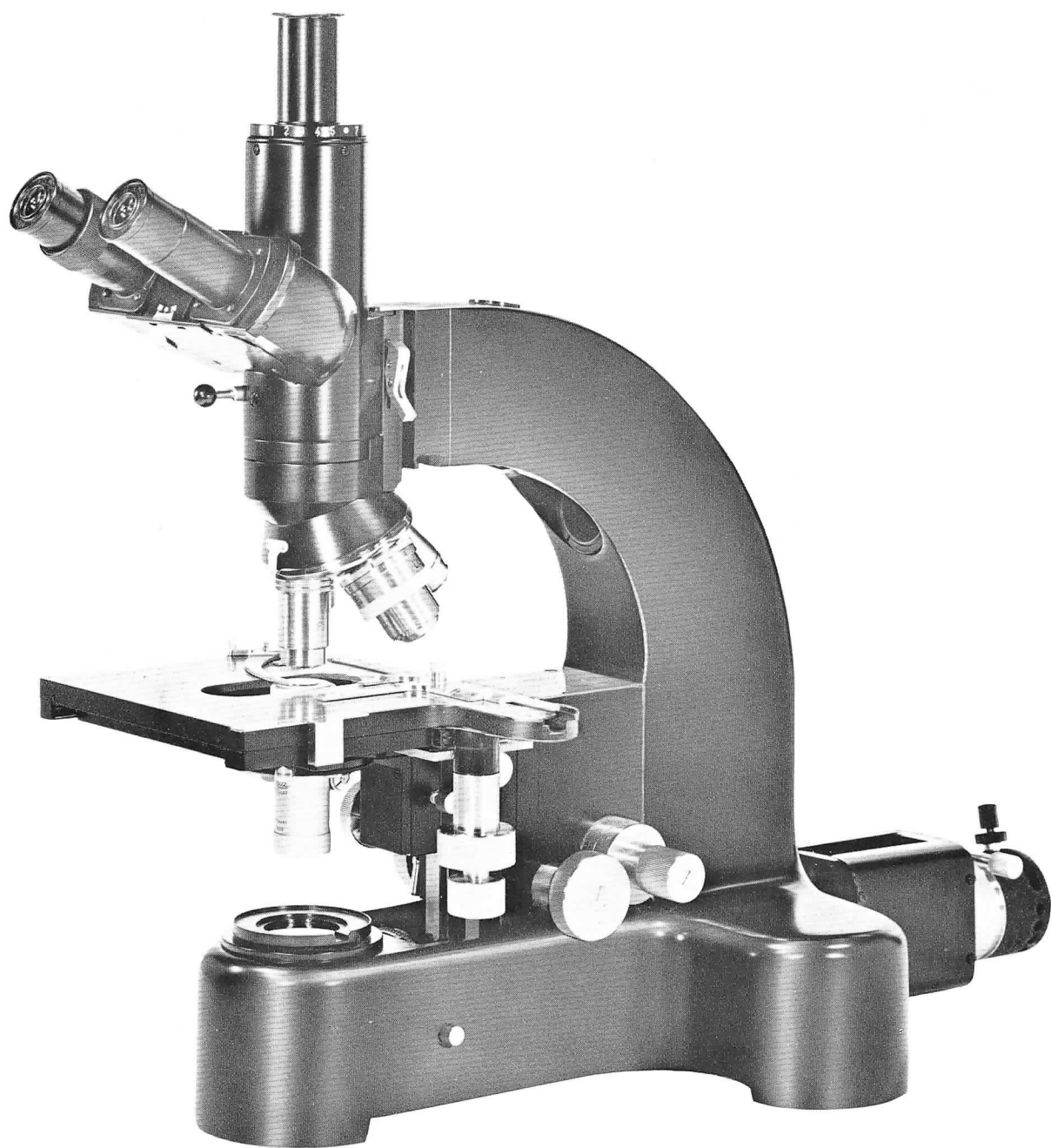


ORTHOLUX EQUIPPED FOR: TRANSMITTED LIGHT - PHASE CONTRAST, ZERNIKE TYPE

512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw fine adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 035	Flexible plastic protective cover (ISCI C)	4.00
512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter, including one spare bulb -.-.-.1 (EYMZE)	83.00
512 088	Combination inclined binocular observation and straight monocular photographic tube "FS" (OIYEE)	279.00
512 016	Large mechanical stage #250, with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm, on interchange carrier (IDKIT)	247.00
512 118	Dovetail carrier -.-.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condenser (OZARB)	52.00
513 140	Phase contrast condenser, PHACO #402a, with aperture diaphragm, swing out upper element Achr 0.90 and revolving disc containing three annular diaphragms and two bright-field positions; in dovetail mount (RABAR)	155.00
512 094	Quintuple revolving objective nosepiece on carrier 14.5.-.-, with tube lens 1.25x and blank horizontal slider (OMARC)	130.00
	LEITZ Microscope ORTHOLUX 14.5.8.1 FS 250/402a as described above	<u>\$1,795.00</u>

OPTICAL EQUIPMENT

519 165	Achromatic dry phase objective, PHACO 10x/0.25, free working distance 7.7mm (RABES)	\$ 74.00
519 166	Achromatic dry phase objective, PHACO 40x/0.65, free working distance 0.71mm, with spring loaded mount (RABIT)	102.00
519 167	Achromatic oil immersion phase objective, PHACO Oil 100x/1.30, free working distance 0.17mm, with spring loaded mount (RABOW)	145.00
513 123	Magnifier for focusing the phase ring (PHADS)	34.00
519 142	Periplanatic widefield eyepieces, paired GF 10x, field of view 18mm (PESIS)	<u>70.00</u>
	LEITZ Research Microscope ORTHOLUX 14.5.8.1 FS 250/402a with optical equipment as described above	\$2,220.00
500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (REDYX)	<u>77.00</u>
		<u>\$2,297.00</u>



ORTHOLUX EQUIPPED FOR: TRANSMITTED LIGHT - PHASE CONTRAST, HEINE TYPE

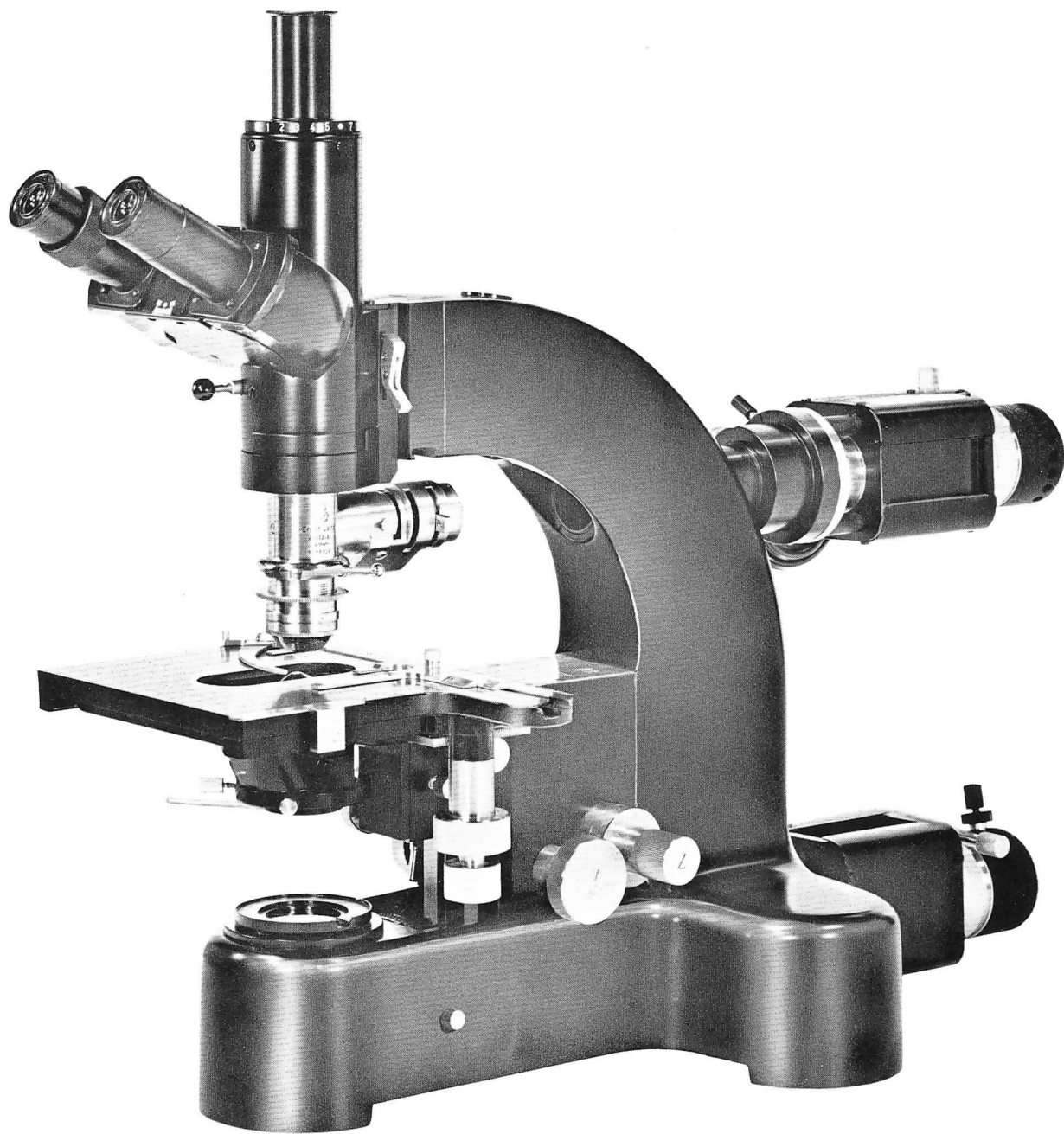
512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw line adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 035	Flexible plastic protective cover (I S C I C)	4.00
512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter, including one spare bulb -.-.-.1 (EYMZE)	83.00
512 088	Combination inclined binocular observation and straight monocular photographic tube "FS" (O I Y E E)	279.00
512 016	Large mechanical stage #250, with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm, on interchange carrier (I D K I T)	247.00
512 118	Dovetail carrier -.-.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condenser (O Z A R B)	52.00
513 125	Phase contrast condenser #64 with control knob for vertical adjustment of mirror component (N.A. 0.25 to 0.70), screw on immersion cap (N.A. 0.50 to 1.40); on dovetail carrier (P H A K Y)	173.00
512 094	Quintuple revolving objective nosepiece on carrier 14.5, with tube lens 1.25x and blank horizontal slider (O M A R C)	130.00
	LEITZ Microscope ORTHOLUX 14.5.8.1 FS 250/64 as described above	<u>\$1,813.00</u>

OPTICAL EQUIPMENT

519 149	Achromatic dry phase objective, Pv 10x/0.25 normal contrast, free working distance 5.8mm (P H A L Z)	\$ 71.00
519 153	Immersion attachment for Pv 10x objective (P H A W K)	13.00
519 150	Achromatic dry phase objective, Pv 25x/0.50 normal contrast, free working distance 0.9mm, with spring loaded mount (P H A N C)	114.00
519 151	Apochromatic dry phase objective, Pv Apo 40x/0.70 normal contrast, free working distance 0.38mm, with spring loaded mount (P H A S G)	261.00
519 154	Fluorite oil immersion phase objective, Pv Fl Oil 70x/1.15 normal contrast, free working distance 0.20mm, with spring loaded mount (P H E L B)	268.00
519 152	Apochromatic oil immersion phase objective, Pv Apo Oil 90x/1.15 normal contrast, free working distance 0.12mm, with spring loaded mount (P H A T H)	329.00
513 123	Magnifier for focusing the phase ring (P H A D S)	34.00
519 142	Periplanatic widefield eyepieces, paired GF 10x, field of view 18mm (P E S I S)	<u>70.00</u>
	LEITZ Research Microscope ORTHOLUX 14.5.8.1 FS 250/64 with optical equipment as described above	\$2,973.00
500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (R E D Y X)	<u>77.00</u>
		<u>\$3,050.00</u>

As an accessory upon request:

513 126	Case for ORTHOLUX Heine Phase Equipment (P H A M B)	\$ 16.00
513 124	Filter holder with blue and green filters (P H A F T)	9.00
519 143	Periplanatic widefield eyepieces paired GF 16x, field of view 15mm (P E S O T)	92.00



ORTHOLUX EQUIPPED FOR: ULTROPAK ILLUMINATION (DARKFIELD REFLECTED LIGHT, AS WELL AS TRANSMITTED LIGHT SIMULTANEOUSLY).

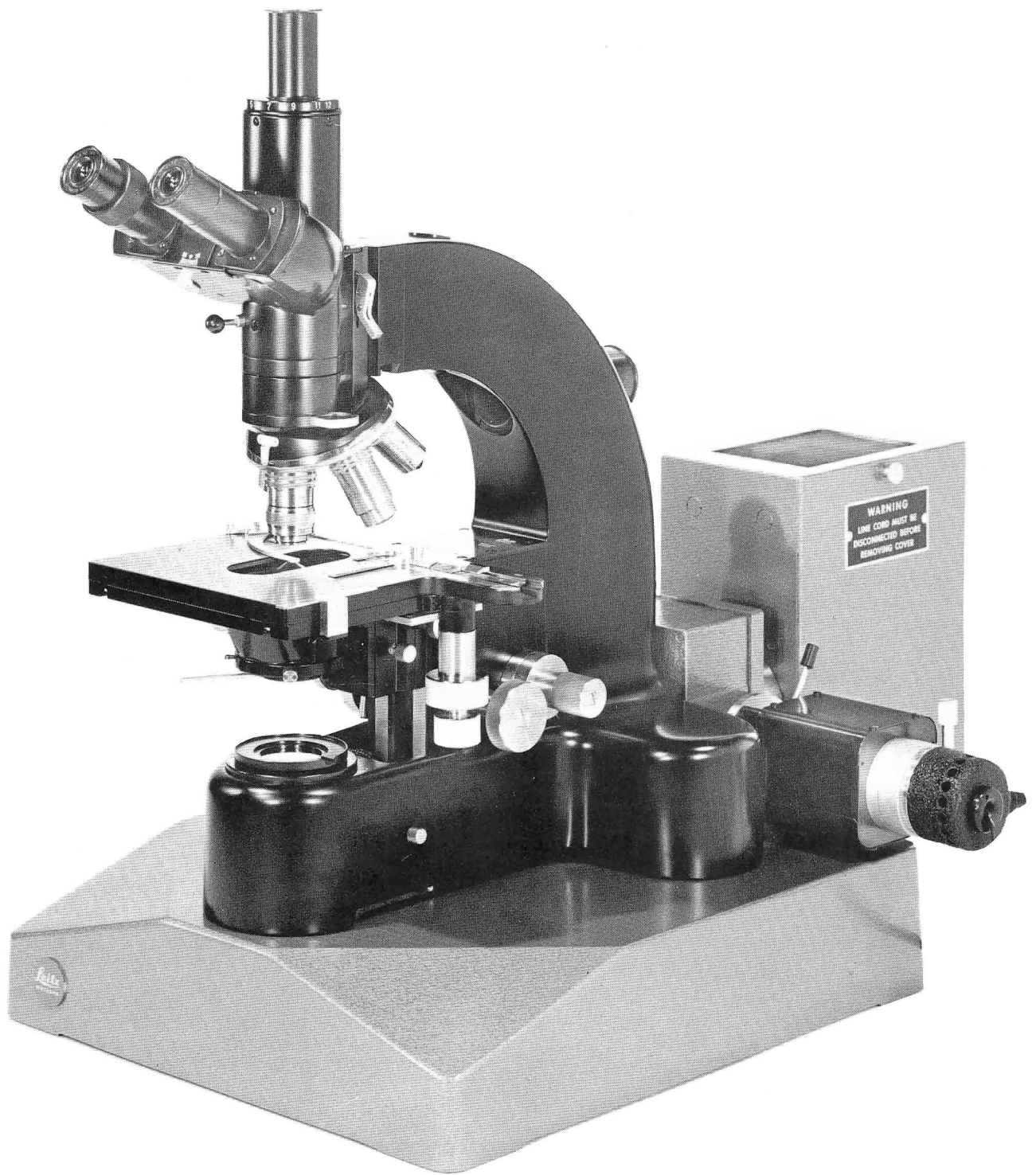
512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw fine adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 035	Flexible plastic protective cover (I S C I C)	4.00
512 091	Built-in illuminating system, for both transmitted and incident light, lower and upper lamp, 6 volts, 30 watts, with two each filter CB 12, diffusion disc N and green filters, including two spare bulbs -.-.-.11 (OKLUP)	192.00
512 088	Combination inclined binocular observation and straight monocular photographic tube "FS" (O I Y E E)	279.00
512 016	Large mechanical stage #250, with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm, on interchange carrier (I D K I T)	247.00
512 118	Dovetail carrier -.-.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condensers (O Z A R B)	52.00
512 085	Aspherical swing out condenser #601 with aperture diaphragm N.A. 0.90 (O H C E V)	51.00
513 114	ULTROPAK Illuminator with built-in, orientated mirror with central stop, lateral tube with adjustable cover and slot to accept daylight, heat absorbing, green and yellow filters, precision bayonet objective changing device, on carrier 13.16.-.- (O R U L T)	125.00
512 002	Polished mahogany accessory case with fittings (E E V I B)	59.00
	LEITZ Microscope ORTHOLUX 13.16.8.11 FS 250/601 as described above	<u>\$1,854.00</u>

OPTICAL EQUIPMENT

513 003	Achromatic dry objective, UO 3.8x/0.12 with ring condenser, free working distance 33mm (A H P E E)	\$ 57.00
513 004	Achromatic dry objective, UO 6.5x/0.18 with ring condenser, free working distance 16.2mm (A I R E E)	82.00
513 005	Achromatic dry objective, UO 11x/0.25 with ring condenser, free working distance 5.8mm (A K E E R)	99.00
513 006	Achromatic dry objective, UO 22x/0.45 with ring condenser, free working distance 2.2mm (A L V E E)	113.00
513 119	Achromatic dry objective, UO 32x/0.55 with ring condenser, free working distance 1.0mm (P A K A W)	120.00
513 007	Achromatic dry objective, UO 50x/0.65 with ring condenser, free working distance 0.7mm (A M E E P)	133.00
519 030	Huyghens eyepieces, paired 6x, field of view 17mm (G I Z R A)	22.00
519 142	Periplanatic widefield eyepieces, paired GF 10x, field of view 18mm (P E S I S)	<u>70.00</u>
	LEITZ Research Microscope ORTHOLUX 13.16.8.11 FS 250/601 with optical equipment as described above	\$2,550.00
500 045	Dual regulating transformer with two ammeters, 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (R E R A S)	<u>130.00</u>
		<u>\$2,680.00</u>

SUPPLEMENTARY EQUIPMENT, POL ACCESSORIES FOR ULTROPAK

513 136	Filter polarizer (fitting slot of light entrance tube) (P O L A K)	\$ 39.00
513 112	Filter analyser (fitting over intermediate optical system of objective carrier) (O R N A L)	37.00



ORTHOLUX EQUIPPED FOR: TRANSMITTED LIGHT FLUORESCENCE

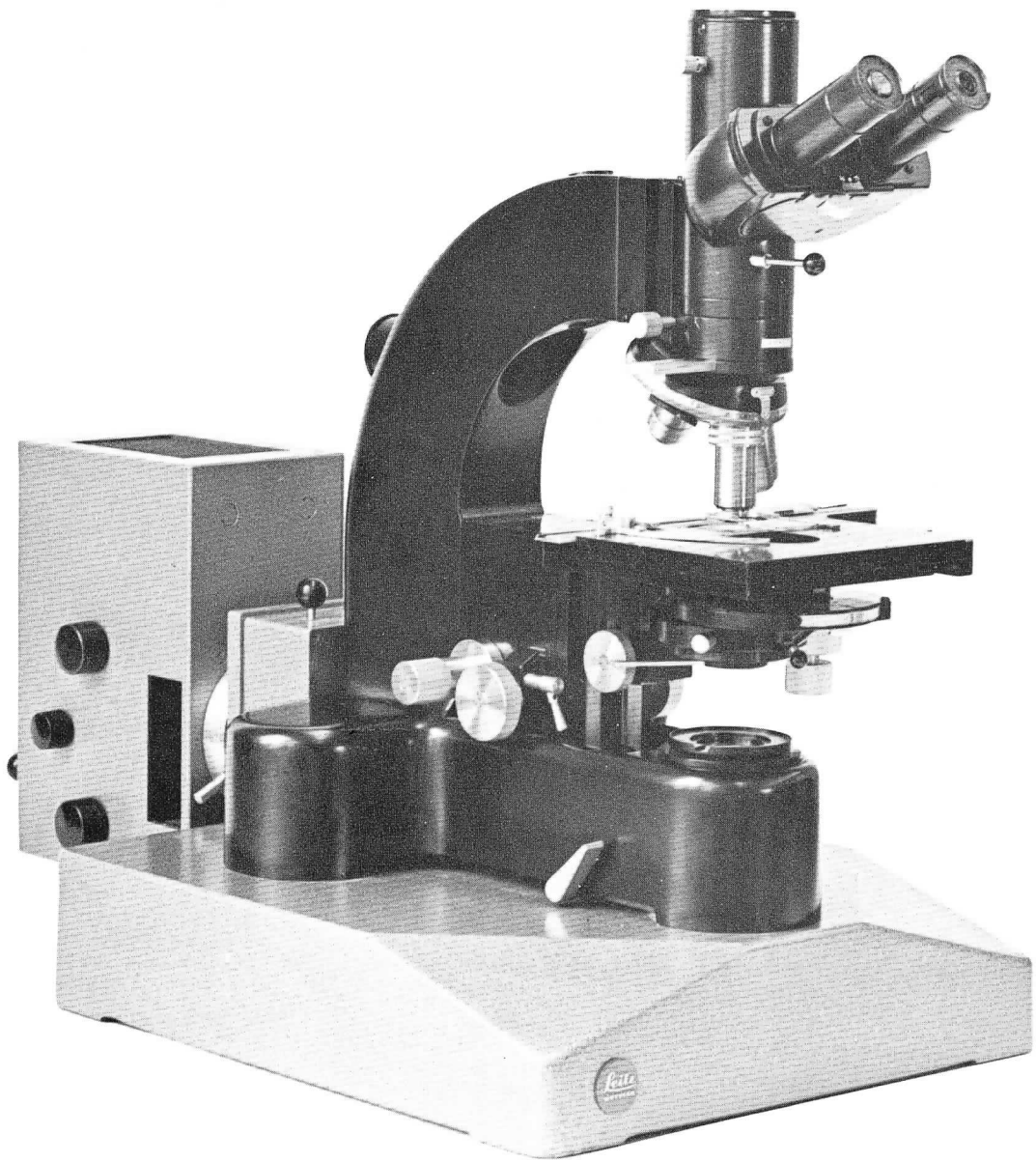
512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw fine adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter, including one spare bulb -.-.-1 (EYMZE)	83.00
512 088	Combination inclined binocular observation and straight monocular photographic tube "FS" (O I YEE)	279.00
512 016	Large mechanical stage #250, with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm, on interchange carrier (I D K I T)	247.00
512 118	Dovetail carrier -.-.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condenser (O Z A R B)	52.00
512 085	Aspherical swing-out condenser #601, with aperture diaphragm N.A. 0.90 (O H C E V)	51.00
513 109	Immersion darkfield condenser D 1.20, in centering mount #82 (O R C I X)	87.00
512 094	Quintuple revolving objective nosepiece on carrier 14.5. -.-, with tube lens 1.25x and blank horizontal slider (O M A R C)	130.00
512 002	Polished mahogany accessory case, with fittings (E E V I B)	59.00
	LEITZ Microscope ORTHOLUX 14.5.8.1 FS 250/601 + 82 as described above	\$1,833.00

OPTICAL EQUIPMENT

519 004	Achromatic dry objective, 10x/0.25, focal length 16.3mm, free working distance 5.7mm (A C O R A)	\$ 32.00
519 007	Apochromatic dry objective, Apo 25x/0.65, focal length 7.4mm, free working distance 0.85mm, with spring loaded mount (A P O C T)	177.00
519 025	Fluorite dry objective, Fl 40x/0.85, focal length 4.3mm, free working distance 0.38mm, with spring loaded mount (F L U C A)	131.00
519 027	Fluorite oil immersion objective, Fl Oil 54x/0.95, focal length 3.4mm, free working distance 0.22mm, with spring loaded mount (F L U I M)	145.00
519 046	Fluorite oil immersion objective, Fl Oil 95x/1.32-1.10 with built-in iris diaphragm, focal length 1.96mm, free working distance 0.15mm, with spring loaded mount (O B S U V)	268.00
519 029	Huyghens eyepieces, paired 10x, field of view 14mm (G I V Y R)	22.00
519 142	Periplanatic widefield eyepieces, paired GF 10x, field of view 18mm (P E S I S)	70.00

FLUORESCENCE EQUIPMENT

514 077	Universal Lamp Housing Model #250 with filter changing device, reflector and two lens collector. Base "A" with carrier plate #17, for the proper elevation of the microscope (models ORTHOLUX and LABORLUX II), and mirror housing. Lamp socket, high pressure mercury burner HBO 200 Type L II and heat sink to prevent the excessive build-up of heat in the burner and thereby prolonging its life. Pair of protective goggles for use when adjusting the burner. Mirror housing #30 with swing-out deflecting mirror, for the reception of the low voltage lamp; rapid change from mercury burner for fluorescence to the low voltage lamp for observation in brightfield; including protective dust cover for the complete microscope and lamp housing (L U K E G)	\$ 560.00
514 027	Heat filter 2mm, KG 1, unmounted (L O D E S)	7.00
514 033	Heat filter 4mm, BG 38, mounted (L O E R N)	10.00
514 029	UV filter, 2mm, UG 1, mounted (L O D O V)	10.00
514 032	Blue filter 3mm, BG 12, mounted (L O E H F)	10.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volt A.C. (81,851)	214.00
514 007	Slider with one each barrier filter K 430 and K 460 (I G G A V)	24.00
514 118	Slider with one each barrier filter K 510 and K 530 (I G K O C)	24.00
	LEITZ Research Microscope ORTHOLUX 14.5.8.1 FS 250/601 + 82 complete with optical and fluorescence equipment as described above	\$3,537.00
500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (R E D Y X)	77.00
		\$3,614.00





RESEARCH PHASE FLUORESCENCE MICROSCOPE ORTHOLUX CONSISTING OF:

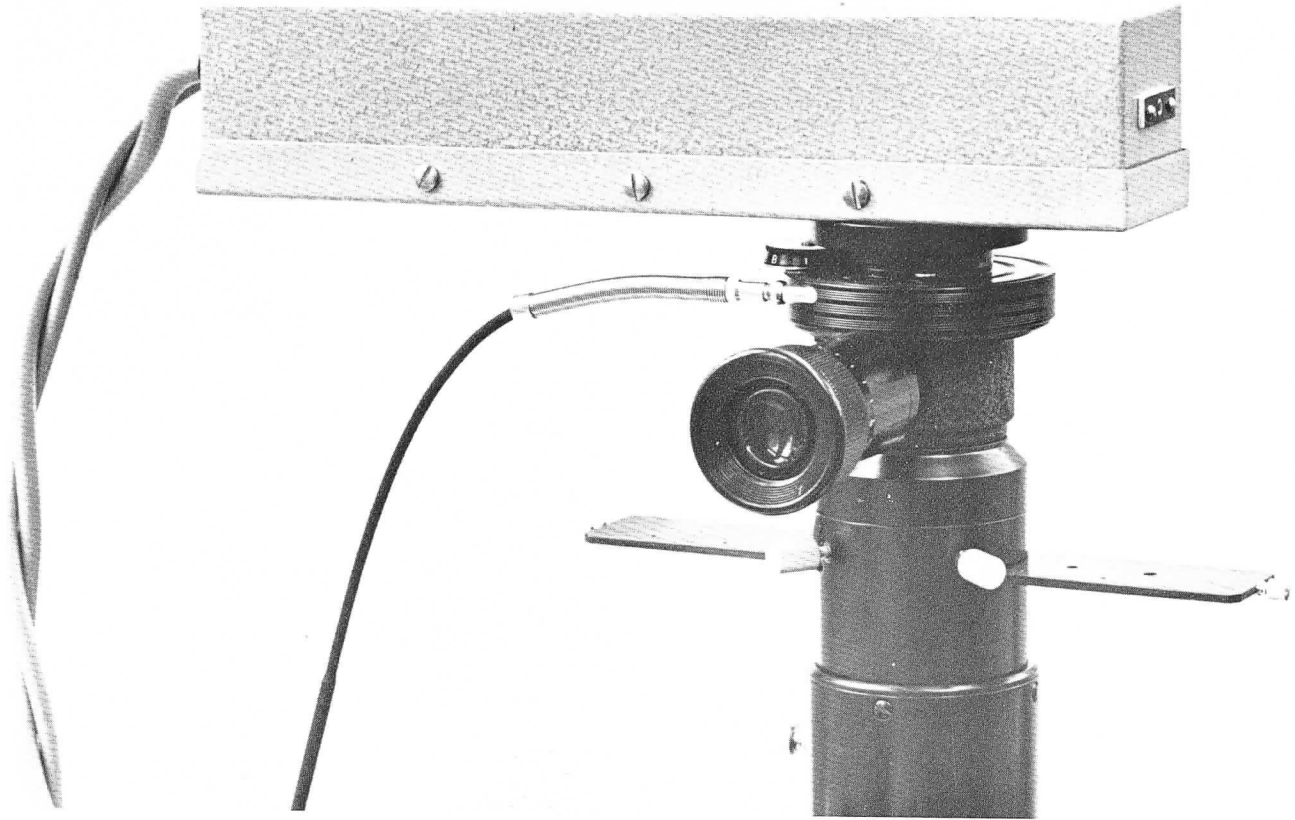
512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw fine adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter; including one spare bulb -.-.-.1 (EYMZE)	83.00
512 088	Combination inclined binocular observation and straight monocular photographic tube "FS" (OIYEE)	279.00
512 016	Large mechanical stage #250, with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm; on interchange carrier (IDKIT)	247.00
512 118	Dovetail carrier -.-.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condenser (OZARB)	52.00
513 141	Phase contrast condenser, PHACO #402b, with aperture diaphragm, swing out upper element Achr 0.90 and revolving disc containing five special annular diaphragms, in dovetail mount (RACAS)	246.00
512 094	Quintuple revolving objective nosepiece on carrier 14.5.-.-, with tube lens 1.25x and blank horizontal slider (OMARC)	130.00
512 002	Polished mahogany accessory case, with fittings (EEVIB)	59.00
	LEITZ Microscope ORTHOLUX 14.5.8.1 FS 250/402b as described above	<u>\$1,941.00</u>

OPTICAL EQUIPMENT

519 165	Achromatic dry phase objective, PHACO 10x/0.25, free working distance 7.7mm (RABES)	\$ 74.00
519 166	Achromatic dry phase objective, PHACO 40x/0.65, free working distance 0.71mm, with spring loaded mount (RABIT)	102.00
519 167	Achromatic oil immersion phase objective, PHACO Oil 100x/1.30, free working distance 0.17mm, with spring loaded mount (RABOW)	145.00
513 123	Magnifier for focusing the phase ring (PHADS)	34.00
519 142	Periplanatic widefield eyepieces, paired GF 10x, field of view 18mm (PESIS)	70.00

FLUORESCENCE EQUIPMENT

515 150	Universal Lamp Housing Model #250 with filter changing device, reflector and two lens collector. Base "A" with carrier plate #17, for the proper elevation of the microscope (models ORTHOLUX and LABORLUX II), and mirror housing. Lamp socket, high pressure mercury burner HBO 200 Type L II and heat sink to prevent the excessive build-up of heat in the burner and thereby prolonging its life. Pair of protective goggles for use when adjusting the burner. Mirror housing #30S with swing out deflecting mirror, for the reception of the low voltage lamp; rapid change from mercury burner for fluorescence to the low voltage lamp for observation in brightfield; including protective dust cover for the complete microscope and lamp housing (IGSAG)	\$ 576.00
513 142	Filter OG 2 (RACET)	12.00
514 027	Heat filter 2mm, KG 1, unmounted (LODES)	7.00
514 033	Heat filter 4mm, BG 38, mounted (LOERN)	10.00
514 029	UV filter 2mm, UG 1, mounted (LODOV)	10.00
514 032	Blue filter 3mm, BG 12, mounted (LOEHF)	10.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volt, A.C. (81,851)	214.00
514 007	Slider with one each barrier filter K 430 and K 460 (IGGAV)	24.00
514 118	Slider with one each barrier filter K 510 and K 530 (IGKOC)	24.00
	LEITZ Research Phase Fluorescence Microscope ORTHOLUX 14.5.8.1 FS 250/402b complete with optical equipment as described above	<u>\$3,253.00</u>
500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (REDYX)	77.00
		<u>\$3,330.00</u>



RESEARCH MICROSCOPE ORTHOLUX EQUIPPED FOR: MICRO FLUOROMETRY

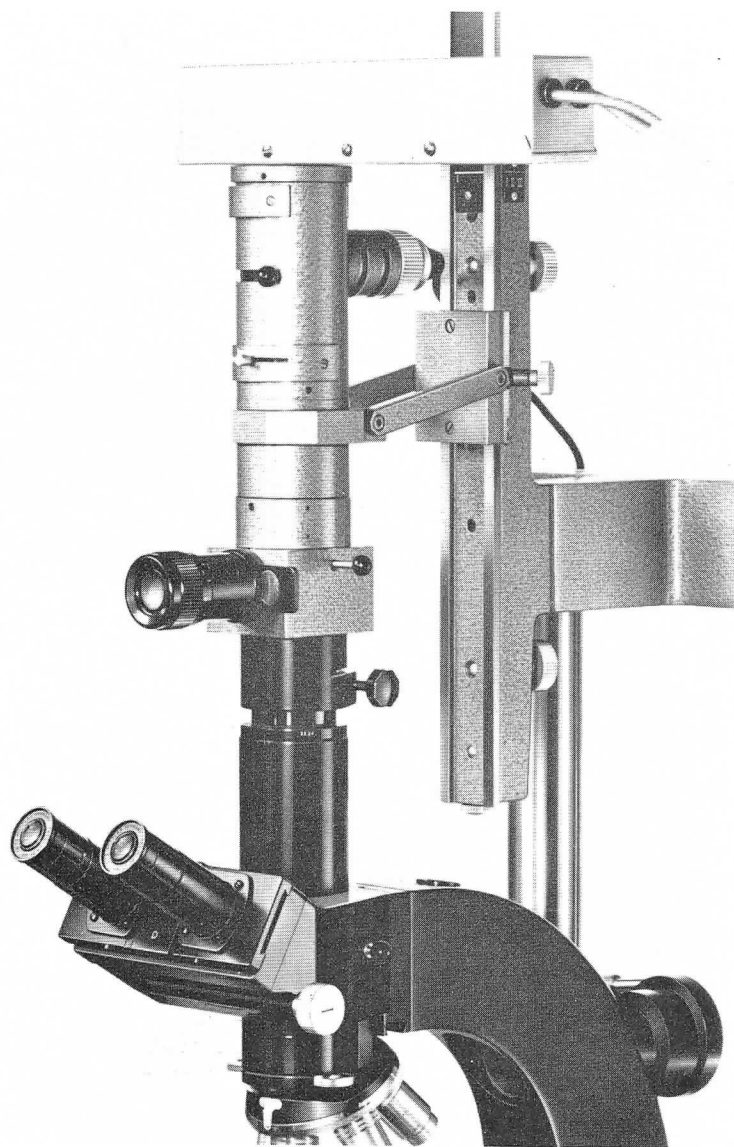
512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw fine adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 088	Combination inclined binocular observation and straight monocular photographic tube "FS" (O I Y E E)	279.00
512 016	Large mechanical stage #250, with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm, on interchange carrier (I D K I T)	247.00
512 118	Dovetail carrier -.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condenser (O Z A R B)	52.00
513 109	Immersion darkfield condenser D 1.20, in centering mount #82 (O R C I X)	87.00
512 094	Quintuple revolving objective nosepiece on carrier 14.5. --, with tube lens 1.25x and blank horizontal slider (O M A R C)	130.00
512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter, including one spare bulb -. --.1 (E Y M Z E)	83.00
	LEITZ Microscope ORTHOLUX 14.5.8.1 FS 250/82 as described above	\$1 723.00

OPTICAL EQUIPMENT

519 004	Achromatic dry objective, 10x/0.25, focal length 16.3mm, free working distance 5.7mm (A C O R A)	\$ 32.00
519 006	Achromatic dry objective, 25x/0.50, focal length 7.1mm, free working distance 0.88mm, with spring loaded mount (A C V I R)	59.00
519 027	Fluorite oil immersion objective, Fl Oil 54x/0.95, focal length 3.4mm, free working distance 0.22mm, with spring loaded mount (F L U I M)	145.00
519 045	Achromatic oil immersion objective, Oil 100x/1.30-1.10 with built-in iris diaphragm, focal length 1.9mm, free working distance 0.13mm, with spring loaded mount (O B S O T)	147.00
519 129	Periplanatic eyepiece, paired 10x <sup>0</sup> , field of view 18mm (P E L E K)	52.00

FLUOROMETRY EQUIPMENT

062 380	Small Photometer attachment for FS or O tubes with built-in Periplanatic eyepiece GF 10x, horizontal slider with centerable measuring apertures of 0.5, 0.8, 1.0, 1.5, 2.0, 2.5 and 3mm diameter. Horizontal focusing telescope, swing-out beam splitting prism, time and instantaneous shutter for speeds from 1 to 125th of a second; including two cable releases, UV absorption filter, 10x projection eyepiece and screw thread to accept the Photovolt model 520M photomultiplier (82,380)	\$ 546.00
062 355	Photometric measuring device, photomultiplier with control unit and tube, Photovolt model 520M (82,355)	695.00
514 067	Universal Lamp Housing Model #250 with filter changing device, reflector and two lens collector. Base "A" with carrier plate #17, for the proper elevation of the Microscope (Models ORTHOLUX and LABORLUX II), and the mirror housing. Lamp socket, high intensity xenon burner XBO 150W and pair of protective goggles for use when adjusting the burner. Mirror housing #30 with swing out deflecting mirror for the reception of low voltage lamp, permitting rapid change from xenon burner to the low voltage lamp. Flexible plastic dust cover (L O Y I N)	653.00
514 028	Dispersion disc R, mounted (L O D I T)	9.00
514 042	Dispersion disc N, mounted (L O I R P)	7.00
514 031	Grey filter 0.2%, mounted (L O E B Y)	10.00
514 036	Grey filter 5%, mounted (L O F I V)	10.00
514 041	Green filter 1.5mm VG9, mounted (L O I L K)	10.00
514 040	Heat filter B1/K2, unmounted (L O I H G)	19.00
514 029	UV filter 2mm, UG1, mounted (L O D O V)	10.00
514 032	Blue filter 3mm, BG12, mounted (L O E H F)	10.00
514 034	Case for filters (L O F A S)	10.00
514 007	Slider with one each filter K 430 and K 460 (I G G A V)	24.00
514 008	Slider with one each filter K 470 and K 490 (I G G E W)	24.00
514 118	Slider with one each filter K 510 and K 530 (I G K O C)	24.00
050 230	Power supply for XBO 150W xenon lamp, regulated to supply constant current, maintaining light output within + or - 1%; for connection to 100/130 volts A.C. (82,776)	440.00
	LEITZ Microscope ORTHOLUX 14.5.8.1 FS 250/82 complete with optical and fluorometer attachment as described above	\$4,659.00
500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (R E D Y X)	77.00
		\$4,736.00
562 019	Paired, neutral density eyepiece filters, NG3 (M E F I X)	\$ 14.00



ORTHOLUX RESEARCH MICROSCOPE EQUIPPED FOR: HISTO AND CYTOPHOTOMETRY

512 151	Large modern stand, ORTHOLUX, with built-in field diaphragm, dual coarse focusing controls and micrometer screw fine adjustment with graduated drum head (1 interval = 0.001mm). Made of non-corroding alloy and capable of supporting photomicrographic cameras independent of the focusing motion. Dovetail slide for the interchange of body tubes and objective carriers; including Mipolam pad and shipping container (FREHN)	\$ 845.00
512 094	Quintuple revolving objective nosepiece on carrier 14.5.-, with tube lens 1.25x and blank horizontal slider (OMARC)	130.00
512 118	Dovetail carrier --.8, for the interchange of condensers, with rack and pinion for the adjustment in the height of condenser (OZARB)	52.00
512 112	Combination, inclined binocular observation and straight monocular photographic tube "FSA" with automatic focusing compensation for the adjustment of the interpupillary distance. Prisms on slider can be switched in and out to direct the light at a ratio of 80% to the camera and 20% to the binocular observation tube. A prism position directs 100% of the light into the binocular tube for observation (ORFAX)	402.00
512 016	Large mechanical stage #250, with scales and verniers reading to an accuracy of 0.1mm in the X and Y axis, low set operating knobs on one axis, traversing area 76 x 40mm; on interchange carrier (IDKIT)	247.00
620 221	Condenser objective 20/0.33 with built-in iris diaphragm and centering mount; on interchange carrier	194.00
	LEITZ Microscope ORTHOLUX 14.5.8.- FSA 250/20/0.33 as described above	\$1,870.00

OPTICAL EQUIPMENT

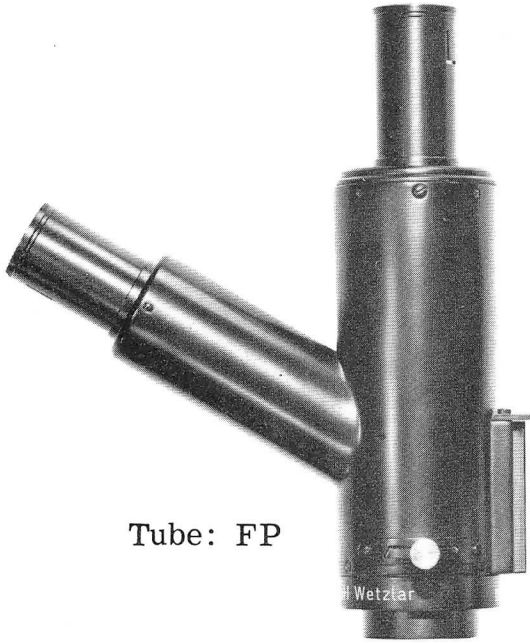
519 006	Achromatic dry objective, 25x/0.50, focal length 7.1mm, free working distance 0.92mm, with spring loaded mount (ACVIR)	\$ 59.00
519 026	Fluorite oil immersion objective, Fl Oil 95x/1.32x, focal length 2.0mm, free working distance 0.15mm, with spring loaded mount (FLUES)	184.00
519 121	Periplanatic eyepieces, paired 10xMF, with adjustable eyelens, field of view 14mm (ORTIN)	88.00
519 910	Eyepiece reticle 10mm = 100 divisions and crosslines, unmounted (OCBUH)	19.00
513 123	Focusing magnifier (PHADS)	34.00

MICROSCOPE PHOTOMETER MPV

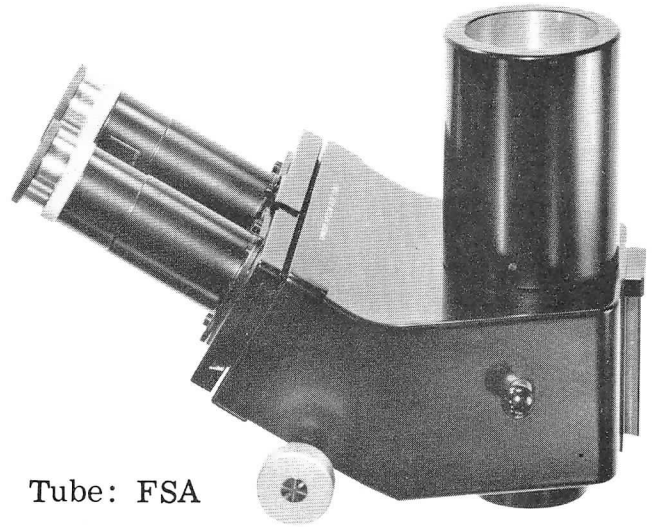
620 116	MPV-Housing with beam splitter and triple mirror, intermediate tube, diaphragm housing with low voltage lamp 4 volts, 0.3 amps. Lateral viewing telescope, horizontal slider for the reception of filters, clamping sleeve, eyepiece holder 23.2mm $\phi$ and mounting tools. Iris diaphragm, adjustable rectangular diaphragm, Periplanatic widefield eyepieces GF10x and GF25x with spacer ring	\$1,530.00
620 261	Threaded adapter to fit search unit, PHOTOVOLT model 520M, to the MPV Housing	4.00
062 255	Photometric measuring device, photomultiplier with control and search unit, PHOTOVOLT model 520M	695.00
620 190	Holder to attach MPV Housing to ARISTOPHOT	41.00
542 048	Stand ARISTOPHOT, consisting of large base plate with Mipolam pad, vertical camera carrier on twin column with adjustable prismatic bar (63cm, 25") and protective dust cover (MADAH)	208.00

ILLUMINATION SYSTEM FOR TRANSMITTED LIGHT

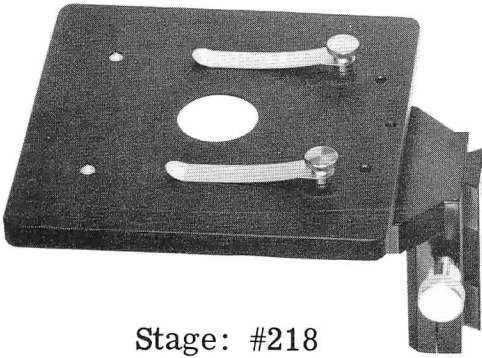
610 005	In-Line Mirror Monochromator, Littrow arrangement, with projection lens and F 2 glass prism (370 to 1100m $\mu$ ) for the visible and near infra-red range; pre-focused low voltage lamp 6 volts, 4.35 amps and specially fitted transportation and storage case (IJYUZ)	\$2,838.00
620 210	Objective changing tube with diaphragm holder, objective 6/0.18 and MILAR 50mm; for the optical adaptation of the Monochromator	170.00
620 219	Four levelling feet #60 (for Monochromator)	45.00
620 117	Lamp holder with deflecting mirror and extension plate 85	120.00
620 074	Elevating support for ARISTOPHOT Stand	42.00
620 211	Alignment bracket for ORTHOLUX on the ARISTOPHOT	50.00
620 073	Base plate with four vibration absorbers	150.00
620 187	Iris diaphragm	30.00
620 186	Adjustable rectangular diaphragm	34.00
	LEITZ Microscope ORTHOLUX 14.5.8. - FSA 250/20/0.33 complete with Optical Equipment, Microscope Photometer MPV and Illumination System	\$8,211.00
500 047	Regulating transformer 6 volts, 2.5 amps for connection to 110/120 volts, 60 cycles A.C. (RESEV)	51.00
620 165	Fixed stabilized transformer for connection to 110 volts, 60 cycles A.C.	372.00
		<u>\$8,634.00</u>



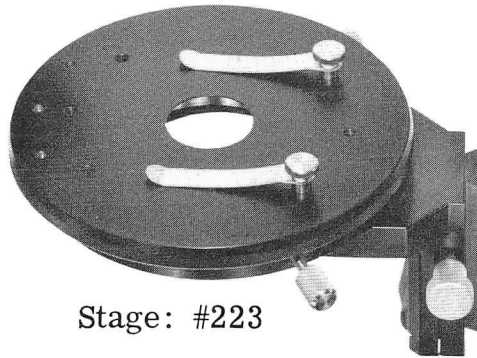
Tube: FP



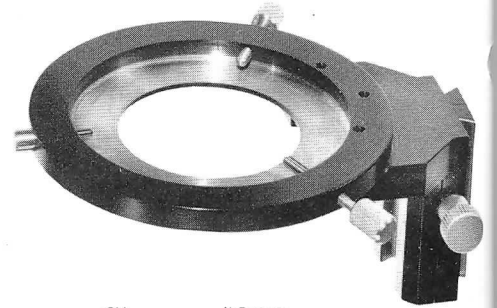
Tube: FSA



Stage: #218



Stage: #223



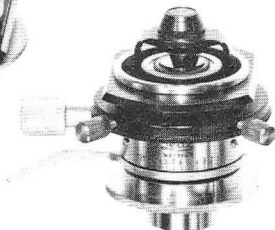
Stage: #233



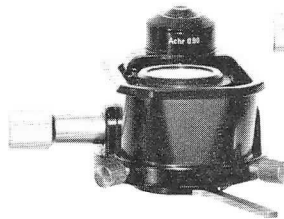
#85



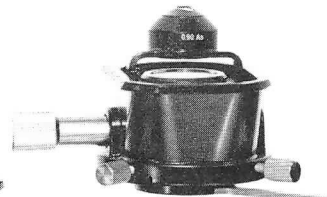
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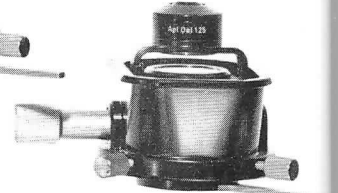
#76



#601



#602



#603

ACCESSORIES (INTERCHANGEABLE) AVAILABLE UPON REQUEST

MICROSCOPE TUBES

512 117	Combination, inclined monocular observation and straight monocular photographic tube "FP" (O Y E E D)	\$ 104.00
512 088	Combination, inclined binocular observation and straight monocular photographic tube "FS" (O I Y E E)	279.00
512 112	Combination, inclined binocular observation and straight monocular photographic tube "FSA" with automatic focusing compensation for the adjustment of the interpupillary distance. Prisms on slider can be switched in and out to direct the light at a ratio of 80% to the camera and 20% to the binocular tube. A second prism position directs 100% of the light into the binocular tube, for observation (O R F A X)	402.00
051 312	Photo tube adapter accepting 23.2mm $\phi$ eyepieces (included with "FP", "FS" and "FSA" tubes listed above) (81, 233)	16.00

MICROSCOPE STAGES

512 010	Plain square object stage #218, 140 x 140mm; on interchange carrier (I D I N C)	\$ 53.00
512 129	Circular revolving and centering object stage #223, 130mm $\phi$ ; on interchange carrier (I D I R F)	89.00
512 012	Centering stage assembly #233; on interchange carrier (for Model 80 <sup>0</sup> heating stage) (I D J A P)	63.00
512 011	Gliding stage #249, 110 x 120mm, traversing area 35 x 40mm; on interchange carrier (I D I T H)	178.00
512 016	Large mechanical stage #250, with scales and verniers, with low set operating knobs on one axis, traversing area 76 x 40mm; on interchange carrier (I D K I T)	247.00
512 106	Mechanical stage #251, 140 x 130mm, with scales and verniers, low set operating knobs on one axis and traversing an area 76 x 40mm. Micrometer dials reading to an accuracy of 0.01mm for measuring the displacement of the specimen in the X and Y axis and observation mirror to read in the dials in a observation position; on interchange carrier (O P A L F)	636.00
512 017	Mechanical stage #255, 140 x 130mm, with scales and verniers, low set operating knobs on one axis, special object clips for use with plano objectives, traversing area 76 x 40mm; on interchange carrier (I D K U W)	247.00
512 018	Mechanical stage #257, 370 x 250mm, with scales and verniers, low set operating knobs, traversing area 150 x 100mm; on interchange carrier (I D L E T)	884.00
512 080	Object stage clips, pair (as replacement for #223 and #249 stages) (O B J I J)	\$ 3.00
512 006	Adjustable, object stage clip (as replacement for #250 and #251 stages) (I D D E L)	22.00
512 005	Fixed, object stage clip (as replacement for #250 and #251 stages) (I D D A K)	21.00
512 009	Adjustable, object stage clip (as replacement for #255 stage) (I D D U P)	22.00
512 008	Fixed, object stage clip (as replacement for #255 stage) (I D D O N)	21.00

MICROSCOPE CONDENSERS

A) BRIGHTFIELD

512 081	Condenser base with aperture diaphragm and centering mount #600 (O H B I V)	\$ 42.00
512 082	Aspherical top element AS 0.90, #001, in interchange mount (O H B O W)	9.00
512 085	Swing out condenser with aperture diaphragm, centering mount and interchangeable aspherical top element AS 0.90, #601; on dovetail carrier (O H C E V)	\$ 51.00
512 081	Condenser base with aperture diaphragm and centering mount #600 (O H B I V)	\$ 42.00
512 083	Achromatic top element Achr 0.90, #002, in interchange mount (O H B U X)	69.00
512 086	Swing out condenser with aperture diaphragm, centering mount and interchangeable achromatic top element Achr 0.90, #602; on dovetail carrier (O H C O X)	\$ 111.00

512 081	Condenser base with aperture diaphragm and centering mount #600 (OHBI V)	\$ 42.00
512 084	Aplanatic top element Apl Oil 1.25, #003, in interchange mount (OHCA T)	102.00
512 087	Swing out condenser with aperture diaphragm, centering mount and interchangeable aplanatic top element Apl Oil 1.25, #603; on dovetail carrier (OHC UY)	\$ 144.00
512 111	Two diaphragm brightfield condenser #76 with swing out top lens, N.A. 0.95, with field of view and aperture diaphragm and centering mount; on dovetail carrier (ORBER)	\$ 172.00
512 109	Condenser top element N.A. 1.40 (ORAPU)	25.00
512 116	Condenser top element N.A. 0.65 (ORZEL)	25.00
512 108	Large field condenser #90; on dovetail carrier (OPWUP)	\$ 27.00
<u>B) DARKFIELD</u>		
513 109	Immersion darkfield condenser in centering mount D 1.20, #82; on dovetail carrier (ORCI X)	\$ 87.00
513 111	Dry darkfield condenser in centering mount D 0.80, #84; on dovetail carrier (OREBK)	120.00
<u>C) PHASE CONTRAST, HEINE SYSTEM</u>		
513 125	Phase contrast condenser #64 with control knob for vertical adjustment of mirror component (N.A. 0.25 to 0.70), screw on immersion cap (N.A. 0.50 to 1.40); on dovetail carrier (PHAKY)	\$ 173.00
<u>D) PHASE CONTRAST, ZERNIKE SYSTEM</u>		
513 140	Phase contrast condenser, PHACO #402a, with aperture diaphragm, centering mount, swing out upper element Achr 0.90 and revolving disc containing three annular diaphragms, one darkfield and two brightfield position; on dovetail carrier (RABAR)	\$ 155.00
<u>E) PHASE FLUORESCENCE, ZERNIKE SYSTEM</u>		
513 141	Phase contrast condenser, PHACO #402b, with aperture diaphragm, swing out upper element Achr 0.90 and revolving disc containing five special annular diaphragms, in dovetail mount (RACAS)	\$ 246.00
<u>OBJECTIVE CARRIERS</u>		
512 094	Quintuple revolving objective nosepiece on carrier 14.5. - . -, with tube lens 1.25x and blank horizontal slider (OMARC)	\$ 130.00
051 354	Tube lens corrected for 170/223mm, 1.25x (81,450)	\$ 26.00
051 355	Tube lens corrected for $\infty$ , 0.8x (81,453)	42.00
051 356	Tube lens corrected for $\infty$ , 1x (81,456)	42.00
513 114	ULTROPAK Illuminator with built-in orientated ring mirror and central stop, lateral tube with adjustable cover and slot to accept polarizer, two adjustable sector diaphragms and bayonet objective changing device; on interchange carrier 13.16.- (ORULT)	\$ 125.00
513 136	Filter polarizer (fitting slot of light entrance tube) (POLAK)	39.00
513 112	Filter analyser (fitting over intermediate optical system of objective carrier) (ORNAL)	37.00
513 115	ULTROPAK-POL Illuminator, complete as described above 13.17.- (ORUPO)	\$ 201.00



VISIBLE LIGHT, ILLUMINATING SYSTEM

512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter and one spare bulb -.-.-.1, for transmitted light (EYMZE)	\$ 83.00
512 089	Reducing adapter with collector lens (OKLIM)	26.00
512 090	Low voltage lamp 6 volts, 30 watts -.-.-.5, for reflected light (OKLON)	\$ 109.00

TRANSFORMERS

500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (REDYX)	\$ 77.00
500 045	Dual regulating transformer with two ammeters 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A.C. (RERAS)	130.00

SIMPLE POLARIZING ACCESSORIES FOR SERIES 400 AND 600 CONDENSERS

513 173	Filter polarizer (KEBOM)	\$ 55.00
513 088	Holder for polarizer with slot to accept compensators (KEBIL)	27.00
513 074	Filter analyser (fitting the filter slider) (KANON)	40.00
513 091	Simple pol attachment for series 400 and 600 condensers, complete as described above (KEDIN)	\$ 122.00
513 110	Simple rotating stage (for #250 and #255 mechanical stages) (ORDRE)	\$ 27.00
513 089	Gypsum plate (KEBUN)	37.00
513 090	Mica plate (KACAK)	34.00

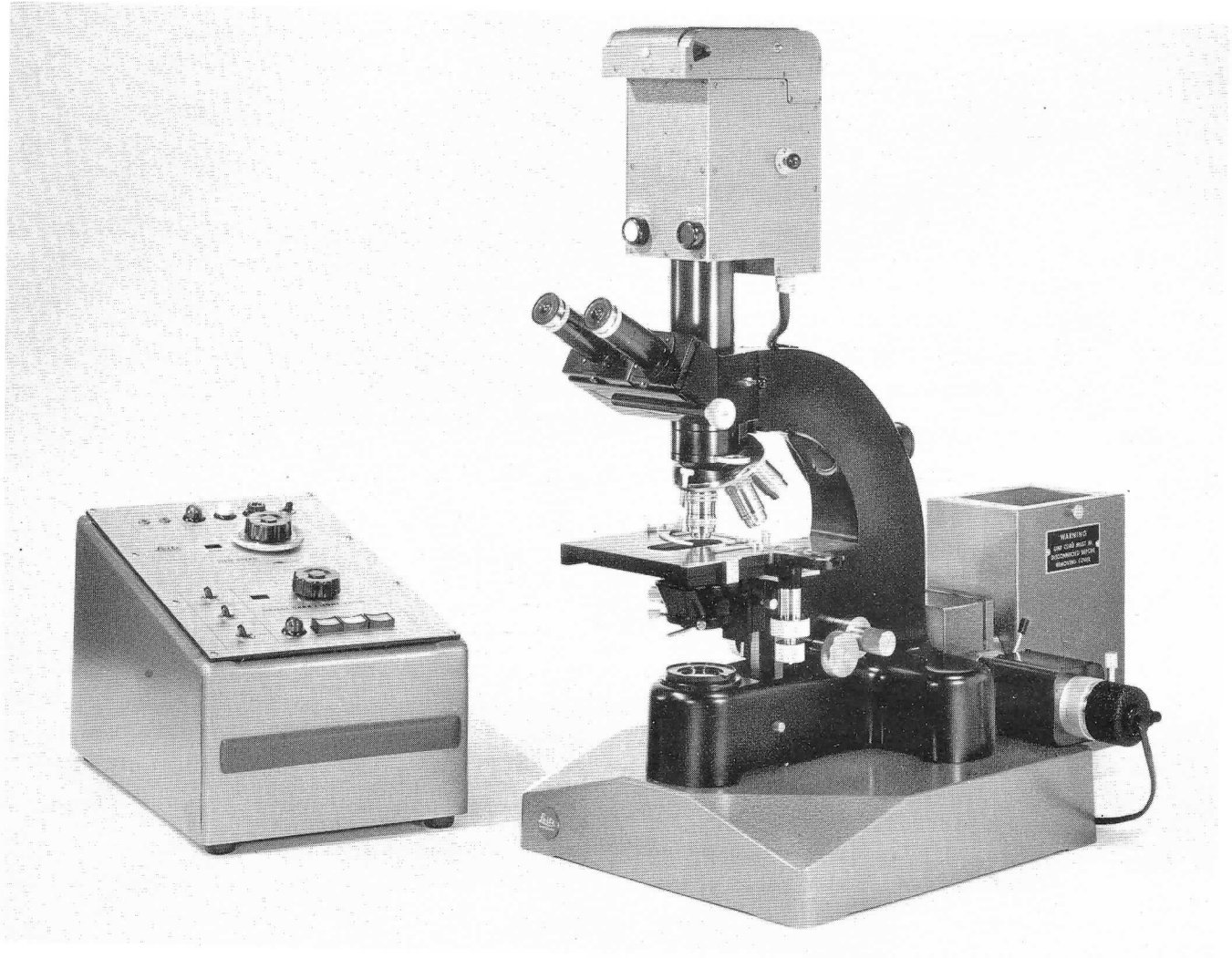
NOTE:

If the microscope is not equipped with a slot for the filter slider, we recommend the following in place of the analyser #513 074 listed above:

513 112	Filter analyser (fitting over the intermediate optical system of objective carrier) (ORNAL)	\$ 37.00
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MISCELLANEOUS ACCESSORIES AND REPLACEMENT PARTS

051 380	Filter holder 2 x 2" (fitting over dust cover in base of stand) (81,170)	\$ 10.00
512 035	Flexible plastic dust cover (ISCI C)	\$ 4.00
512 110	Rigid plastic cover (ORAST)	73.00
512 125	Conversion filter CB 12 (WXYEE)	\$ 4.00
512 105	Diffusion disc N (ONDO S)	3.00
512 114	Green filter (ORFIL)	4.00
512 093	Lamp socket with connecting cable (OKOYG)	\$ 22.00
500 011	Bulb 6 volts, 30 watts, screw base (LINID)	3.00



## PHOTOMICROGRAPHIC EQUIPMENT

### FULLY AUTOMATIC, EXPOSURE PRE-DETERMINING, 35MM CAMERA ORTHOMAT

543 060	ORTHOMAT, automatic photomicrographic camera, including photomultiplier tube; electro-magnetic, vibration-free shutter; automatic motor driven film advance, interchangeable film chamber for 35mm cassettes. Detail exposure measurement of 1% of field of view; or integral measurement of entire field. Electronic power control unit, for automatic exposures from 1/100th of a second to 1/2 hour or more, with film speed setting for color or black and white, capable of solving the most complicated photographic task (ORMA F)	\$2.620.00
512 112	Combination, inclined binocular observation and straight monocular photographic tube "FSA" with automatic focusing compensation for the adjustment of the interpupillary distance. Prisms on slider can be switched in and out to direct the light at a ratio of 80% to the camera and 20% to the binocular tube. A second prism position directs 100% of the light into the binocular tube, for observation. Interchangeable for ORTHOLUX, METALLUX, PANPHOT and LABORLUX II Microscopes (OR FAX)	\$ 402.00

### RECOMMENDED EYEPIECES

519 227	Periplanatic eyepieces, paired 10xMF, with adjustable eyelens and reticle with concentric focusing rings and area markings circumscribing the photographic image area; field of view 14mm	\$ 107.00
519 226	Periplanatic eyepiece, single 10xMF, with adjustable eyelens and reticle with concentric focusing rings and area markings circumscribing the photographic image area; field of view 14mm	63.00
519 229	Periplanatic widefield eyepieces, paired GF 12.5xMF, with adjustable eyelens and reticle with concentric focusing rings and area markings circumscribing the photographic image area; field of view 18mm	131.00
519 228	Periplanatic widefield eyepiece, single GF 12.5xMF, with adjustable eyelens and reticle with concentric focusing rings and area markings circumscribing the photographic image area; field of view 18mm	75.00
519 231	Periplanatic high eyepoint eyepieces, paired 10xMF, with adjustable eyelens and reticle with concentric focusing rings and area markings circumscribing the photographic image area; field of view 15mm	131.00
519 230	Periplanatic high eyepoint eyepiece, single 10xMF, with adjustable eyelens and reticle with concentric focusing rings and area markings circumscribing the photographic image area; field of view 15mm	83.00

### OPTIONAL ACCESSORIES

543 069	Low power focusing telescope (OR PUM)	\$ 83.00
543 073	Interchangeable film chamber (ORWE P)	72.00
543 043	Base plate 600 x 450mm with four vibration absorbers (KAXE V)	63.00
543 103	Neutral density filter 6.3% with holder (OR LOH)	9.00
543 104	Neutral density filter 25% with holder (OR L I G)	9.00
543 039	Protective dust cover for ORTHOMAT control unit (I S P U S)	2.00

#### NOTE:

When using the ORTHOMAT on standard "FS" tubes without compensation for the interpupillary adjustment the following accessories are required:

543 066	Focusing attachment with ground glass screen (OR NOK)	\$ 12.00
543 059	Focusing magnifier (NAG BA)	29.00

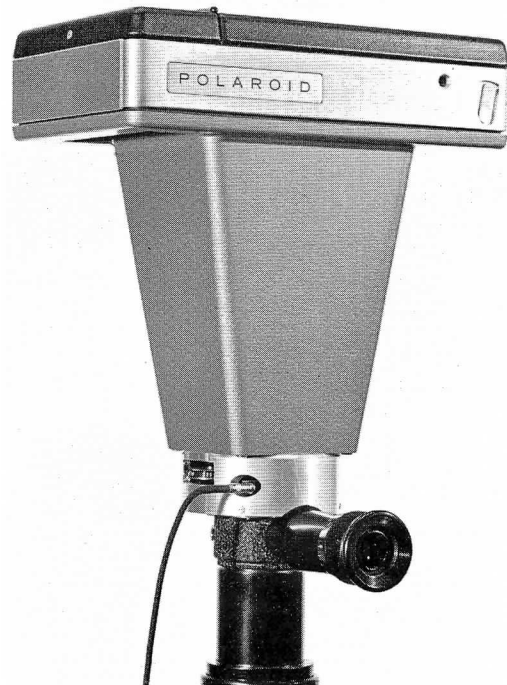
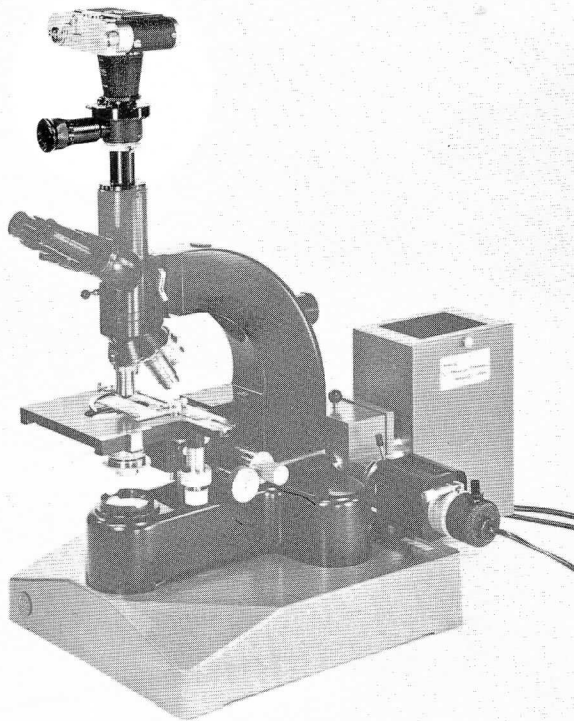


35MM PHOTOMICROGRAPHIC EQUIPMENT WITH THE LEICA CAMERA

543 040	Microphotographic attachment for series M, LEICA camera bodies with bayonet mount. Camera mount set in anti-vibration device. Built-in focusing telescope with concentric focusing ring and area markings circumscribing the photographic image area of a GF 10x eyepiece, however not included eyepiece. Beam splitting device allowing 25% of the light to enter the focusing telescope and 75% to the camera. Lateral tube with built-in lens, viewing angle of 30°, accepting the measuring eye of the MICROSIX exposure meter, permitting detail measurements and deflecting prism with swing-in lever. Tube clamp with eyepiece adapter for standard diameter (23.2mm) eyepieces (KAVAR)	\$ 241.00
519 137	Periplanatic widefield eyepiece, single GF 10x, field of view 18mm (PERIR)	35.00
543 058	MICROSIX-L exposure meter with a viewing angle 30° of measuring eye (MITIX)	167.00
10,101	LEICA Camera body MD with focal plane shutter speeds of one to 1/1000 second and time, automatic flash synchronization, bayonet lens mount and provision to attach a special film marking device base plate	186.00
543 037	Cable release, 50cm length for bayonet mount LEICA Camera (IFOZT)	2.60
		\$ 631.60

OPTIONAL

14,131	Special film marking device base plate (including 10 marking tapes)	\$ 19.00
14,132	Package of 100 marking tapes	8.50



MICRO-CAMERA ATTACHMENT "MICRO-IBSO", FOR 35MM ONLY

543 057	Micro Camera attachment with lateral observation and focusing telescope, swing-in swing-out prism 75%/25%, time and instantaneous shutter, two cable releases, periplanatic eyepiece 10x and interchangeable 1/3x conical tube with bayonet mount to accept series M LEICA Camera bodies (M I K A S-M)	\$ 175.00
10,101	LEICA Camera body MD with focal plane shutter speeds of one to 1/1000 second and time, automatic flash synchronization, bayonet lens mount and provision to attach a special film marking device base plate	186.00
14,067	Cable release with fixing screw for LEICA shutter	1.65
543 003	Double cable release coupler (operating the deflecting prism and shutter) (C A L O S)	16.00
		\$ 378.65
054 310	Micro Camera attachment as described under #543 057, however equipped with a total reflecting prism (M I K A S-MT)	\$ 175.00

OPTIONAL

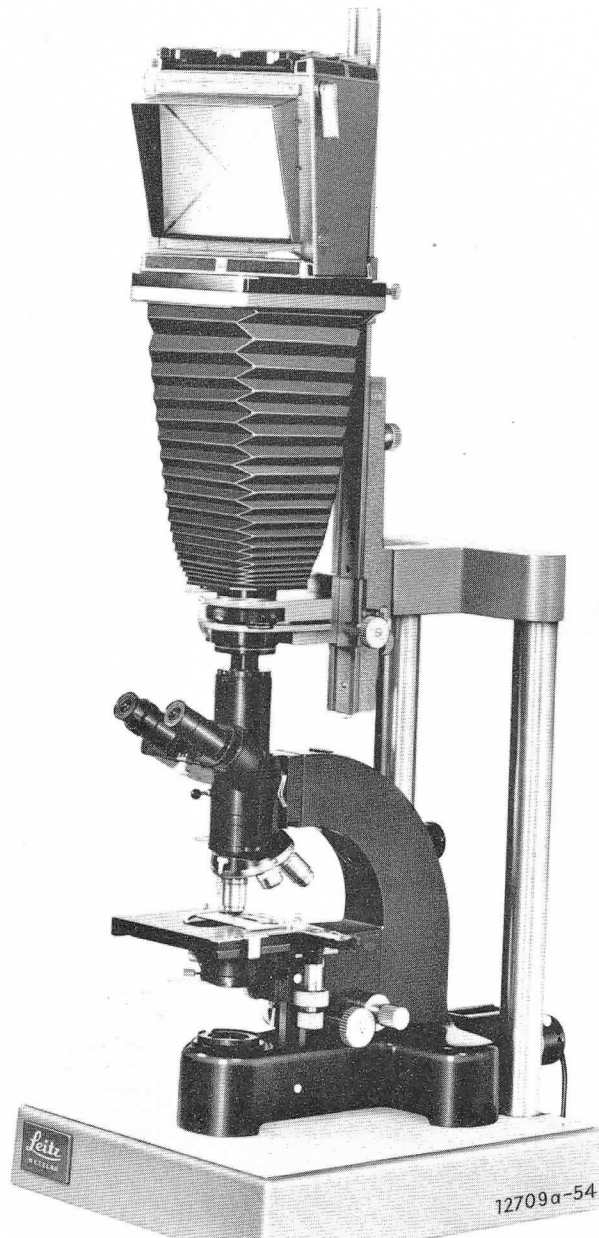
14,131	Special film marking device base plate (including 10 marking tapes)	\$ 19.00
14,132	Package of 100 marking tapes	8.50

ALTERNATE LEICA CAMERA BODY

10,300	LEICA Camera body M2x with focal plane shutter, speeds of one to 1/1000th second; automatic flash synchronization, built-in range finder, viewfinder and bayonet flange for attaching a LEICA lens or micro attachment	\$ 214.00
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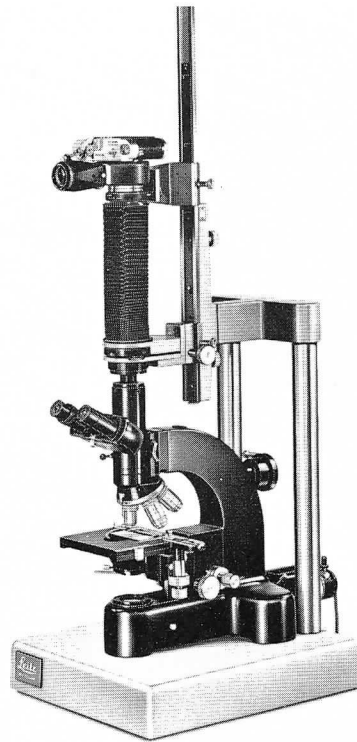
MICROPHOTOGRAPHY WITH THE POLAROID LAND CAMERA

054 022	Micro camera attachment with lateral observation and focusing telescope, swing-in swing-out prism, anti-vibration mounted shutter with speeds of 1 to 1/125 second and time, two cable releases, Periplanatic eyepiece 10x and Polaroid camera back model CB 100 for 3 1/4 x 4 1/4" black and white or color film pack (84,022)	\$ 300.00
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UNIVERSAL PHOTO-MICROGRAPHIC APPARATUS "ARISTOPHOT" FOR FILMS & PLATES UP TO 4 x 5", INCLUDING POLAROID

542 048	Stand "ARISTOPHOT" consisting of large base plate with Mipolam pad, vertical camera carrier on twin columns with adjustable prismatic bar (63cm, 25" long) and protective dust cover (MADAH)	\$ 208.00
542 051	Camera bellows 4 x 5", extensible up to 60cm, with two double film holders Graflex #1284, ground glass screen and focusing magnifier; bayonet locking device for light tight connection to the bellows support and shutter (MAJUS)	362.00
542 075	Lower bellows support on rack and pinion carrier, vibration free mounting, time and instantaneous shutter with strobe contact, cable release and tape measure; upper and lower light excluding collars (ORHAL)	120.00
542 052	Mirror reflex housing, rotatable, with frame to accept 4 x 5" film holders or Polaroid 500 film holder and swing-out mirror for focusing the image on the ground glass screen (MAKEP)	247.00
542 054	Photomicrographic apparatus ARISTOPHOT complete for 4 x 5" (MALER)	\$ 937.00
 <u>OPTIONAL</u>		
38 543 052	Polaroid land film holder #500 for 4 x 5" single sheet film (MARAV)	\$ 40.00



UNIVERSAL PHOTO-MICROGRAPHIC APPARATUS "ARISTOPHOT" FOR 35MM FILM SIZE WITH THE LEICA

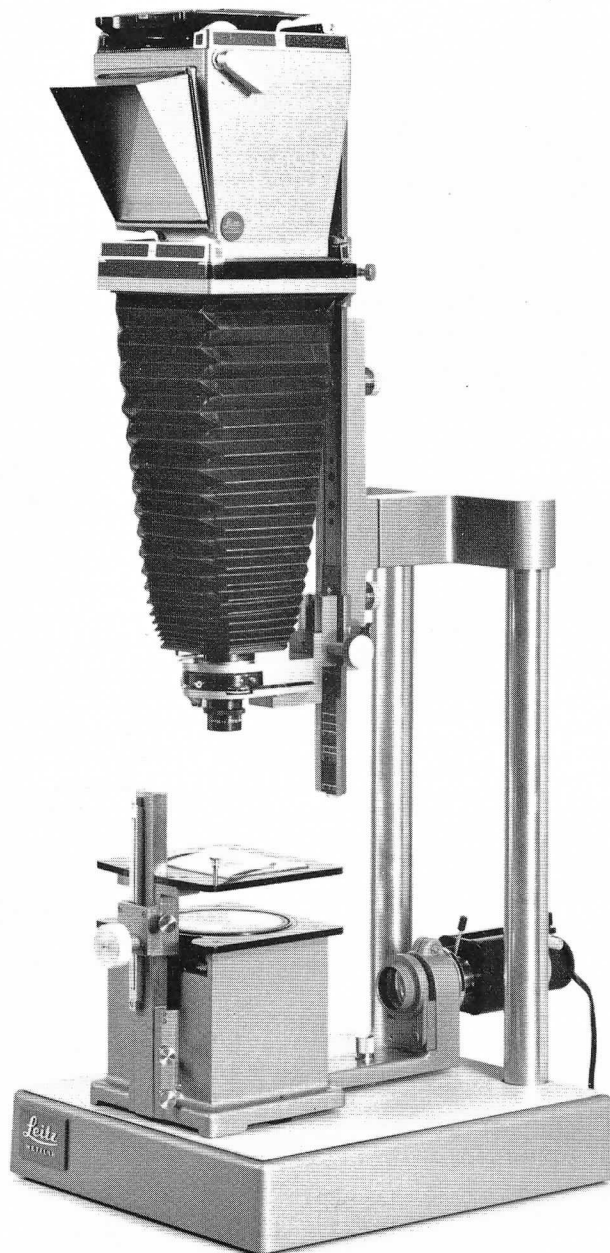
542 048	Stand "ARISTOPHOT" consisting of large base plate with Mipolam pad, vertical camera carrier on twin columns with adjustable prismatic bar (63cm, 25" long) and protective dust cover (MADAH)	\$ 208.00
543 097	Micro mirror reflex housing with swing-out mirror, focusing magnifier 5x, interchangeable clear and ground glass focusing screens, cable release, intermediate adapter and mounting bracket (IFPEB)	286.00
543 075	Intermediate adapter 1/3x (mounted between reflex housing and telescope) (ZOIIL)	26.00
543 074	Focusing telescope with central time and instantaneous shutter, strobe contact, synchronized swing-out deflecting prism and two cable releases; upper and lower light excluding collars (ZOCII)	170.00
542 109	Photomicrographic Apparatus "ARISTOPHOT" complete for 35mm, however, without LEICA Camera body	\$ 690.00
10,101	LEICA Camera body MD with focal plane shutter speeds of one to 1/1000 second and time, automatic flash synchronization, bayonet lens mount and provision to attach a special film marking device base plate	186.00
14,067	Cable release with locking screw for LEICA shutter	1.65
		\$ 877.65
14,131	Special film marking device base plate (including 10 marking tapes)	\$ 19.00
14,132	Package of 100 marking tapes	8.50

OPTIONAL

543 076	Intermediate adapter 1/2x (ZPEII)	\$ 27.00
542 024	LEICA bellows, 50cm (20") (EEXSN)	34.00
542 026	Short LEICA bellows, 12cm (5") (ETXBE)	19.00
542 075	Lower bellows support on rack and pinion carrier, vibration free mounting, time and instantaneous shutter with strobe contact, cable release and tape measure; upper and lower light excluding collars (ORHAL)	120.00
542 046	Intermediate adapter ring (MACOK)	3.00
542 045	Upper and lower light excluding collars (MABIH)	8.00

SUPPLEMENTARY EQUIPMENT FOR PHOTOMICROGRAPHY

543 085	Micro flash "MECABLITZ III" with mirror housing #30S, carrier plate and five neutral density filters 70%, 50%, 25%, 6.3% and 0.4% (MICE F)	\$ 286.00
543 058	MICROSIX-L exposure meter with a viewing angle 30° of measuring eye (MITIX)	167.00
543 043	Base plate 600 x 450mm with four vibration absorbers (KAXEV)	63.00



MACROPHOTOGRAPHY

542 025	Macro-dia apparatus with adjustable object stage, inset with 45mm aperture, condenser holder and sliding sleeve for the low voltage lamp (EEZYX)	\$ 329.00
512 003	Built-in illuminating system, lower lamp 6 volts, 30 watts with filter CB 12, diffusion disc N and green filter; including one spare bulb (EYMZE)	83.00
500 050	Regulating transformer with ammeter 6 volts, 5 amps for connection to 110/120 volts, 60 cycles A. C. (REDYX)	77.00
		<hr/> \$ 489.00



MACRO OBJECTIVES AND ACCESSORIES FOR MACROPHOTOGRAPHY

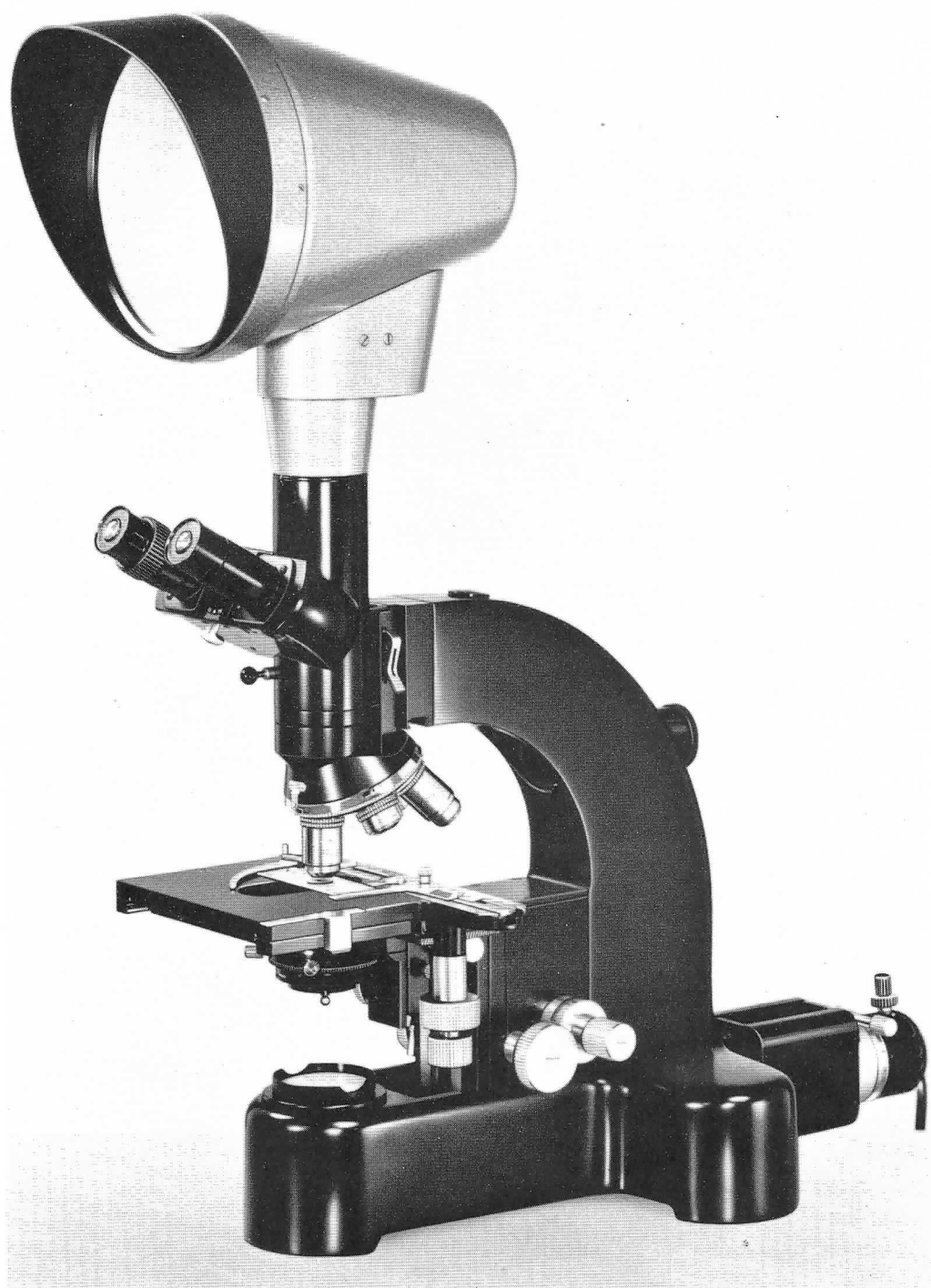
549 001	Macro objective, SUMMARON 28mm f/5.6, with iris diaphragm and adapter ring to use on bellows support #542 075 (P I A J N-R I I N G)	\$ 94.00
549 010	Macro objective, SUMMAR 24mm f/4.5, with iris diaphragm (SUMAN)	\$ 82.00
549 011	Macro objective, SUMMAR 35mm f/4.5, with iris diaphragm (SUMEX)	82.00
549 012	Macro objective, SUMMAR 42mm f/4.5, with iris diaphragm (SUMIT)	82.00
549 013	Macro objective, SUMMAR 80mm f/4.5, with iris diaphragm (SUMUR)	118.00
549 014	Macro objective, SUMMAR 120mm f/4.5, with iris diaphragm (SUMZO)	143.00
549 007	Macro objective, MILAR 50mm f/4.5, with iris diaphragm (PUZII)	\$ 64.00
549 006	Macro objective, MILAR 65mm f/4.5, with iris diaphragm (PRTII)	64.00
549 005	Macro objective, MILAR 100mm f/4.5, with iris diaphragm (PQRII)	64.00
549 008	Macro objective, PHOTAR 180mm f/6.3, with iris diaphragm (QSIIIO)	\$ 102.00
543 111	Adapter ring with screw thread to use 24mm, 35mm, 42mm and 50mm macro objectives on bellows support #542 075 (84,280)	\$ 2.00
543 110	Adapter ring with screw thread to use 65mm macro objective on bellows support #542 075 (84,291)	2.00
543 109	Adapter ring with screw thread to use 80mm macro objective on bellows support #542 075 (84,295)	2.00
543 108	Adapter ring with screw thread to use 100mm macro objective on bellows support #542 075 (84,292)	2.00
543 107	Adapter ring with screw thread to use 120mm macro objective on bellows support #542 075 (84,286)	2.00
543 106	Adapter ring with screw thread to use 180mm macro objective on bellows support #542 075 (84,284)	2.00

CONDENSER LENSES

542 007	Condenser lens 24 (E EW I Z)	\$ 11.00
542 008	Condenser lens 35 (E EW K X)	12.00
542 006	Condenser lens 42 - 50 (E EW I V)	13.00
542 005	Condenser lens 65 (E EW H T)	20.00
542 004	Condenser lens 80 (E EW G R)	24.00
542 003	Condenser lens 100 (E EW F P)	26.00
542 002	Condenser lens 120 (E EW D L)	27.00

STAGE INSETS

542 023	Stage inset, aperture 7mm (E E X K W)	\$ 1.60
542 022	Stage inset, aperture 8mm (E E X H S)	1.60
542 021	Stage inset, aperture 10mm (E E X C Q)	1.60
542 020	Stage inset, aperture 12mm (E E X D K)	1.60
542 019	Stage inset, aperture 15mm (E E X C H)	1.60
542 018	Stage inset, aperture 20mm (E E X B F)	1.60
542 017	Stage inset, aperture 25mm (E EW Z C)	1.60
542 016	Stage inset, aperture 30mm (E EW X Y)	1.60
542 015	Stage inset, aperture 35mm (E EW V U)	1.60
542 014	Stage inset, aperture 40mm (E EW T Q)	1.60
542 012	Stage inset, aperture 50mm (E EW Q K)	3.25
542 011	Stage inset, aperture 60mm (E EW P H)	3.25
542 010	Stage inset, aperture 70mm (E EW N D)	3.25
542 009	Stage inset, aperture 80mm (E EW M B)	3.25
542 047	Set of 14 stage insets with apertures 7mm to 80mm (MA C U L)	\$ 29.00
542 013	Stage inset, aperture 45mm, as supplied with macro-dia apparatus (E E W R M)	\$ 3.00
542 027	Case to accept seven photographic objectives, six condenser lenses and fourteen stage insets (E X S N E)	\$ 40.00



VIEWING AND DEMONSTRATION SCREEN

513 138	Viewing and demonstration screen 155mm $\phi$ with ground glass, fresnel lens, image erecting prism and built-in periplanatic widefield eyepiece GF 10xM (PRUF S)	\$ 353.00
513 139	Viewing and demonstration screen as described above, however with reticle for grain size measurements (PRUL Y)	374.00
051 386	Viewing and demonstration screen with ground glass 150mm $\phi$ (requires GF 10x eyepiece) (81, 986)	\$ 180.00
519 137	Periplanatic widefield eyepiece GF 10x (PER IR)	35.00



LEITZ-FEMCO STAGE DRIVE ASSEMBLY FOR AUTOMATIC SCANNING OF MICROSCOPE SLIDES

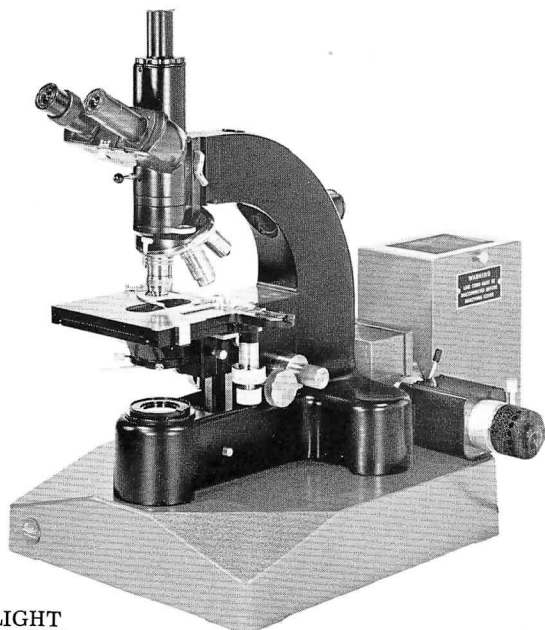
051 325

LEITZ-FEMCO automatic scanning stage drive with speed selection in three steps; 100m $\mu$ , 200m $\mu$  and 400m $\mu$  per second. Scan travel adjustment in millimeters and to cover maximum of 40mm in the "Y" axis and 72mm in the "X" axis; preset counter for number of scans desired and stop switch for instant halting of movement. Two large attachable sleeves with V grooves to attach to coaxial control knobs of mechanical stages, complete with two belts; for connection to 117 volts, 60 cycles A.C. (81,240)

\$2,200.00

SPECIAL HIGH INTENSITY LIGHT SOURCES

High Intensity Light Sources, model #250, are recommended for motion picture photomicrography, time-lapse studies, micro projection and photomicrography of living specimens where short exposures are essential. Alternate illumination between high intensity and normal visible light ORTHOLUX lamp 6 volts, 30 watts is provided by means of the mirror reflex housing model 30 or 30S.



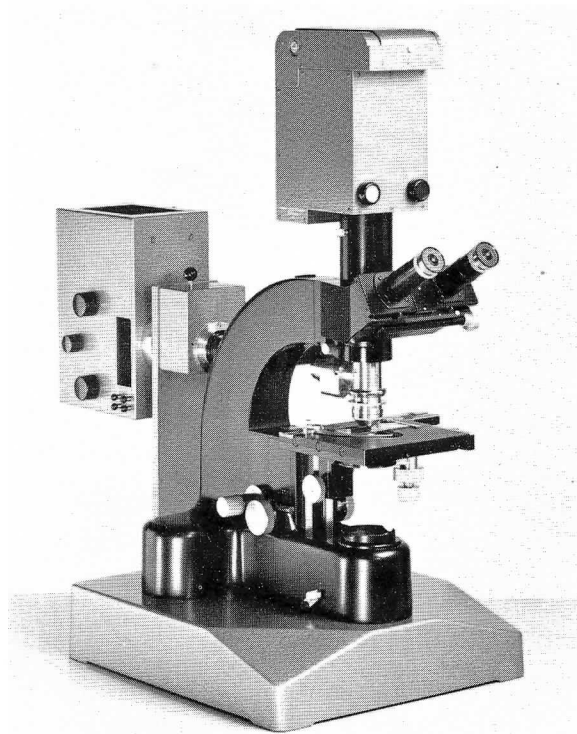
1) FOR TRANSMITTED LIGHT

XENON LAMP XBO 150

514 067	Universal Lamp Housing Model #250 with filter changing device, reflector and two lens collector. Base "A" with carrier plate #17, for the proper elevation of the Microscope (Models ORTHOLUX and LABORLUX II), and the mirror housing. Lamp socket, high intensity xenon burner XBO 150W and pair of protective goggles for use when adjusting the burner. Mirror housing #30 with swing out deflecting mirror for the reception of low voltage lamp, permitting rapid change from xenon burner to the low voltage lamp. Flexible plastic dust cover (LOYIN)	\$ 653.00
514 040	Heat absorbing filter B1/K2, unmounted (LOIHG)	19.00
514 031	Grey filter 0.2%, mounted (LOEY)	10.00
514 036	Grey filter 5%, mounted (LOFIV)	10.00
514 041	Green filter 1.5mm, VG 9, mounted (LOILK)	10.00
514 028	Dispersion disc R, mounted (LODIT)	9.00
514 042	Dispersion disc N, mounted (LOIRP)	7.00
514 034	Case for filters (LOFAS)	10.00
050 230	Power supply for XBO 150W xenon lamp, regulated to supply constant current, maintaining light output + or - 1%; for connection to 100/130 volts A.C. (82,776)	440.00
		\$1,168.00
562 019	Paired, neutral density eyepiece filters, NG 3 (MEFIX)	\$ 14.00

MERCURY LAMP HBO 200

514 077	Universal Lamp Housing Model #250, as above, however equipped with socket to accept and including HBO 200 burner type L II, and heat sink to prevent the excessive build-up of heat in the burner and thereby prolonging the life (LUKEG)	\$ 560.00
514 027	Heat absorbing filter 2mm, KG 1, unmounted (LODES)	7.00
514 033	Heat absorbing filter 4mm, BG 38, mounted (LOERN)	10.00
514 029	UV filter 2mm, UG 1, mounted (LODOV)	10.00
514 032	Blue filter 3mm, BG 12, mounted (LOEHF)	10.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volts A.C. (81,851)	214.00
		\$ 811.00



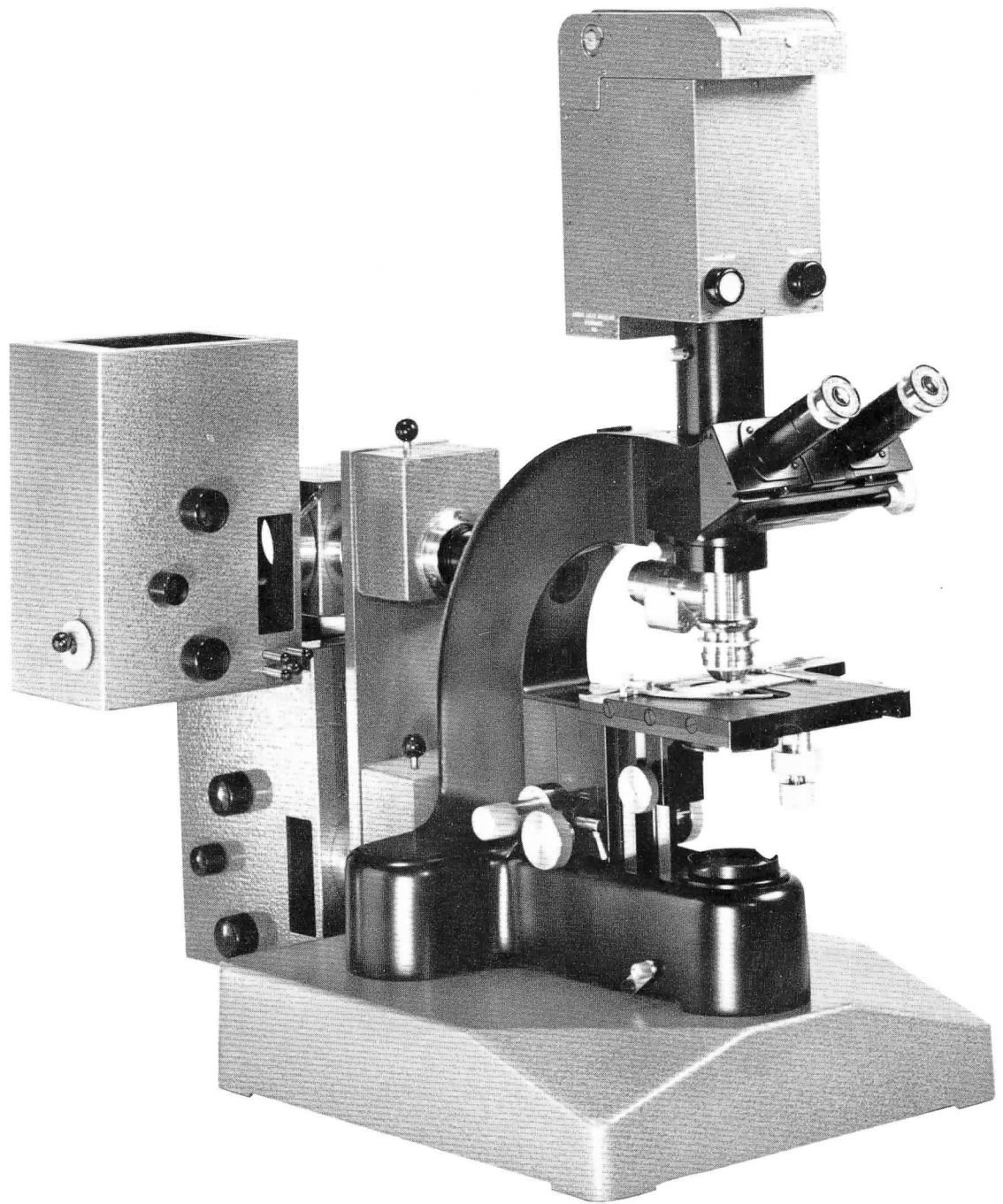
2) FOR REFLECTED LIGHT

XENON LAMP XBO 150

514 070	Universal Lamp Housing Model #250 with filter changing device, reflector and two lens collector. Base "A" with carrier plate #37a, for the proper elevation of the Microscope (Models ORTHOLUX and METALLUX), and the mirror housing. Lamp socket, high intensity xenon burner XBO 150W and pair of protective goggles for use when adjusting the burner. Mirror housing #30 with swing out deflecting mirror for the reception of low voltage lamp, permitting rapid change from xenon burner to the low voltage lamp. Flexible plastic dust cover (LOZIP)	\$ 667.00
514 040	Heat absorbing filter B1/K2, unmounted (LOIHG)	19.00
514 031	Grey filter 0.2%, mounted (LOEBY)	10.00
514 036	Grey filter 5%, mounted (LOFIV)	10.00
514 041	Green filter 1.5mm, VG 9, mounted (LOILK)	10.00
514 028	Dispersion disc R, mounted (LODIT)	9.00
514 042	Dispersion disc N, mounted (LOIRP)	7.00
514 034	Case for filters (LOFAS)	10.00
050 230	Power supply for XBO 150W xenon lamp, regulated to supply constant current, maintaining light output within + or - 1%; for connection to 100/130 volts A.C. (82,776)	440.00
		<u>\$1,182.00</u>
562 019	Paired, neutral density eyepiece filters, NG 3 (MEFIX)	\$ 14.00

MERCURY LAMP HBO 200

514 076	Universal Lamp Housing Model #250, as above, however equipped with socket to accept and including HBO 200 burner type L II, and heat sink to prevent the excessive build-up of heat in the burner and thereby prolonging the life (LUKAF)	\$ 574.00
514 027	Heat absorbing filter 2mm, KG 1, unmounted (LODES)	7.00
514 033	Heat absorbing filter 4mm, BG 38, mounted (LOERN)	10.00
514 029	UV filter 2mm, UG 1, mounted (LODOV)	10.00
514 032	Blue filter 3mm, BG 12, mounted (LOEHF)	10.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volts A.C. (81,851)	214.00
		<u>\$ 825.00</u>



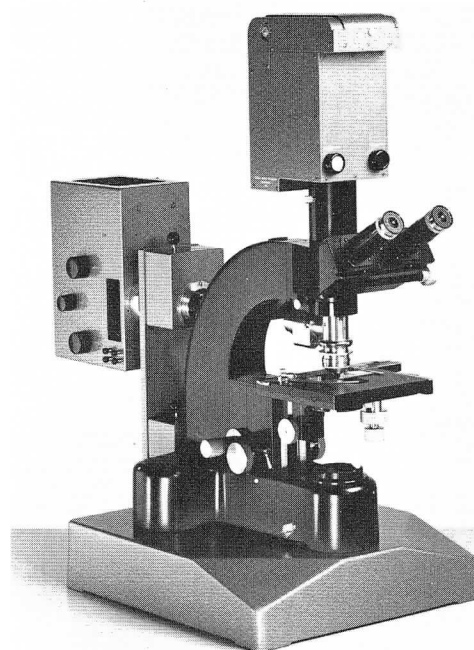
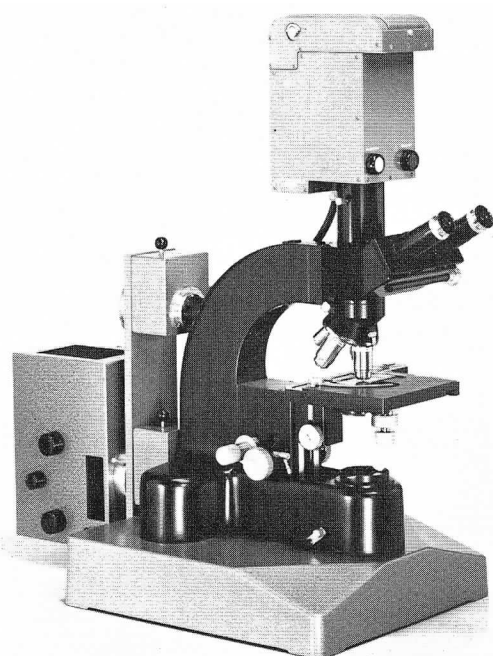
### 3) FOR TRANSMITTED AND REFLECTED LIGHT

#### XENON LAMP XBO 150

514 069	Two Universal Lamp Housings Model #250 with filter changing device, reflector and two lens collector. Base "A" with carrier plate #37, for the proper elevation of the microscope (model ORTHOLUX) and the mirror housing. Deflecting mirror for positioning the upper #250 lamp housing at a 90° angle to the microscope. Two each lamp sockets, high intensity xenon burners XBO 150W and one pair of protective goggles for use when adjusting the burner. Two mirror housings #30 with swing out deflecting mirror for the reception of low voltage lamp, permitting rapid change from xenon burner to the low voltage lamp (LOYUR)	\$1,327.00
514 040	Heat absorbing filter B1/K2, unmounted (LOIHG)	19.00
514 031	Grey filter 0.2%, mounted (LOEBY)	10.00
514 036	Grey filter 5%, mounted (LOFIV)	10.00
514 041	Green filter 1.5mm, VG9, mounted (LOILK)	10.00
514 028	Dispersion disc R, mounted (LODIT)	9.00
514 042	Dispersion disc N, mounted (LOIRP)	7.00
514 034	Case for filters (LOFAS)	10.00
050 230	Power supply for XBO 150W xenon lamp, regulated to supply constant current, maintaining light output within + or - 1%; for connection to 100/130 volts A.C. (82,776)	440.00
514 040	Heat absorbing filter B1/K2, unmounted (LOIHG)	19.00
514 031	Grey filter 0.2%, mounted (LOEBY)	10.00
514 036	Grey filter 5%, mounted (LOFIV)	10.00
514 041	Green filter 1.5mm, VG9, mounted (LOILK)	10.00
514 028	Dispersion disc R, mounted (LODIT)	9.00
514 042	Dispersion disc N, mounted (LOIRP)	7.00
514 034	Case for filters (LOFAS)	10.00
050 230	Power supply for XBO 150W xenon lamp, regulated to supply constant current, maintaining light output within + or - 1%; for connection to 100/130 volts A.C. (82,776)	440.00
		<u>\$2,357.00</u>
562 019	Paired, neutral density eyepiece filters, NG 3 (MEFIX)	\$ 14.00

#### MERCURY LAMP HBO 200

514 074	Two Universal Lamp Housing Model #250, as above, however equipped with socket to accept and including HBO 200 burner type L II and heat sinks to prevent excessive build-up of heat in the burner and thereby prolonging the life (LUJOH)	\$1,141.00
514 027	Heat absorbing filter 2mm, KG1, unmounted (LODES)	7.00
514 033	Heat absorbing filter 4mm, BG38, mounted (LOERN)	10.00
514 029	UV filter 2mm, UG1, mounted (LODOV)	10.00
514 032	Blue filter 3mm, BG12, mounted (LOEHF)	10.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volts A.C. (81,851)	214.00
514 027	Heat absorbing filter 2mm, KG1, unmounted (LODES)	7.00
514 033	Heat absorbing filter 4mm, BG38, mounted (LOERN)	10.00
514 029	UV filter 2mm, UG1, mounted (LODOV)	10.00
514 032	Blue filter 3mm, BG12, mounted (LOEHF)	10.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volts A.C. (81,851)	214.00
		<u>\$1,643.00</u>



4) FOR TRANSMITTED OR REFLECTED LIGHT

XENON LAMP XBO 150

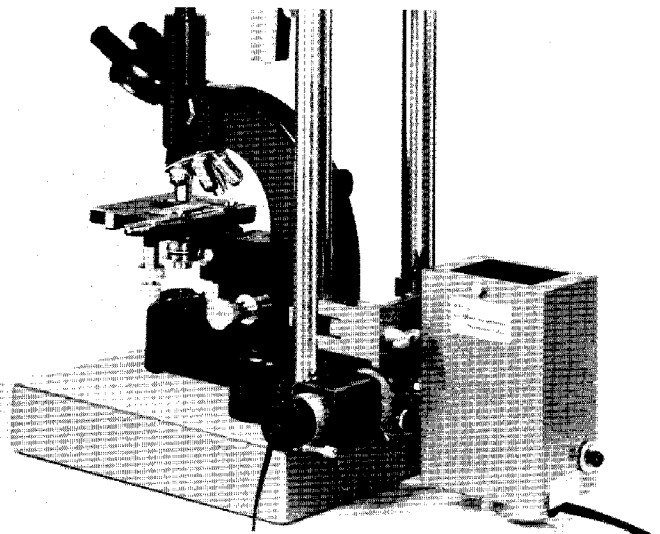
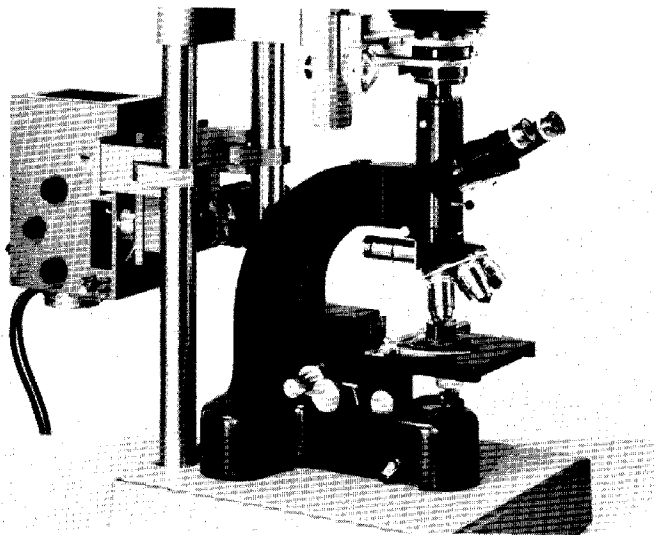
514 068	Universal Lamp Housing Model #250 with filter changing device, reflector and two lens collector. Base "A" with carrier plate #37, for the proper elevation of the microscope (model ORTHOLUX) and the mirror housing. Lamp socket, high intensity xenon burner XBO 150W and pair of protective goggles for use when adjusting the burner. Two mirror housings #30 with swing out deflecting mirror for the reception of low voltage lamp, permitting rapid change from xenon burner to the low voltage lamp. Flexible plastic dust cover (LOYOP)	\$ 731.00
514 040	Heat absorbing filter B1/K 2, unmounted (L O I H G)	19.00
514 031	Grey filter 0.2%, mounted (L O E B Y)	10.00
514 036	Grey filter 5%, mounted (L O F I V)	10.00
514 041	Green filter 1.5mm, VG9, mounted (L O I L K)	10.00
514 028	Dispersion disc R, mounted (L O D I T)	9.00
514 042	Dispersion disc N, mounted (L O I R P)	7.00
514 034	Case for filters (L O F A S)	10.00
050 230	Power supply for XBO 150W xenon lamp, regulated to supply constant current, maintaining light output within + or - 1%; for connection to 100/130 volts A. C. (82,776)	440.00
		\$1,246.00

562 019	Paired, neutral density eyepiece filters, NG 3 (M E F I X)	\$ 14.00
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MERCURY LAMP HBO 200

514 075	Universal Lamp Housing Model #250, as above, however equipped with socket to accept and including HBO 200 burner type L II, and heat sink to prevent the excessive build-up of heat in the burner and thereby prolonging the life (L U J U J)	\$ 638.00
514 027	Heat absorbing filter 2mm, KG 1, unmounted (L O D E S)	7.00
514 033	Heat absorbing filter 4mm, BG 38, mounted (L O E R N)	10.00
514 029	UV filter 2mm, UG1, mounted (L O D O V)	10.00
514 032	Blue filter 3mm, BG12, mounted (L O E H F)	10.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volts A. C. (81,851)	214.00
		\$ 889.00





HIGH INTENSITY LIGHT SOURCES FOR PHOTOMICROGRAPHY WITH THE ARISTOPHOT

A) FOR TRANSMITTED OR REFLECTED LIGHT

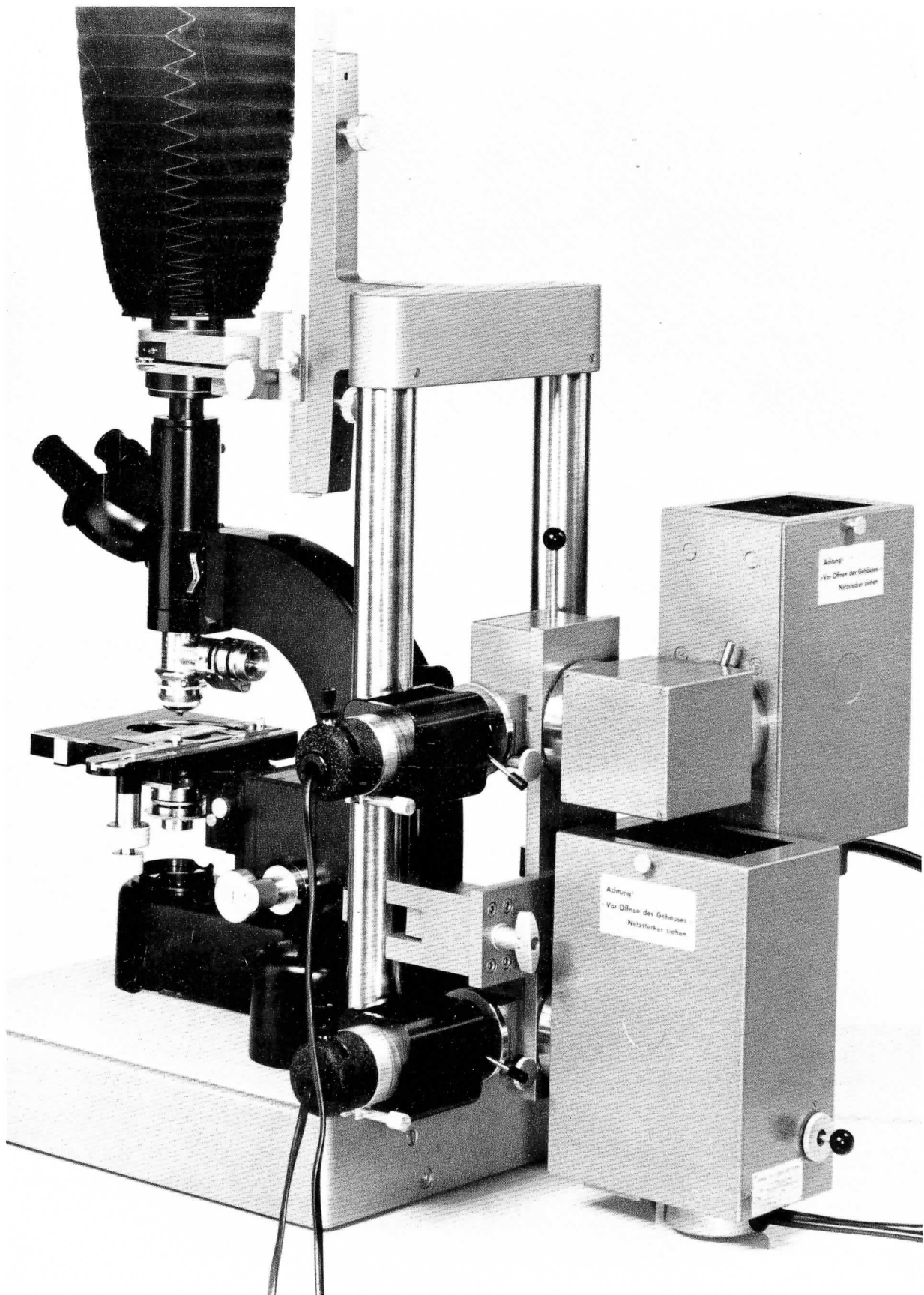
XENON LAMP XBO 150

514 081	Universal Lamp Housing Model #250 with filter changing device, reflector and two lens collector. Lamp socket, high intensity xenon burner XBO 150W and pair of protective goggles for use when adjusting the burner. Lamp holder with mirror housing #30, swing out deflecting mirror for the reception of low voltage lamp, permitting rapid change from xenon burner to the low voltage lamp; clamping brackets fitting the twin columns of the ARISTOPHOT stand and light tight extension tubes for the proper alignment of the lamp housing to the ORTHOLUX Microscope for transmitted or reflected light (MAUHL)	\$ 669.00
514 040	Heat absorbing filter B1/K2, unmounted (L O I H G)	19.00
514 031	Grey filter 0.2%, mounted (L O E B Y)	10.00
514 036	Grey filter 5%, mounted (L O F I V)	10.00
514 041	Green filter 1.5mm, VG9, mounted (L O I L K)	10.00
514 028	Dispersion disc R, mounted (L O D I T)	9.00
514 042	Dispersion disc N, mounted (L O I R P)	7.00
514 034	Case for filters (L O F A S)	10.00
050 230	Power supply for XBO 150W xenon lamp, regulated to supply constant current, maintaining light output within + or - 1%; for connection to 100/130 volts A.C. (82,776)	440.00
		\$1,184.00

562 019	Paired, neutral density eyepiece filters, NG 3 (M E F I X)	\$ 14.00
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MERCURY LAMP HBO 200

514 085	Universal Lamp Housing Model #250, as above, however equipped with socket to accept and including HBO 200 burner type L II, and heat sink to prevent the excessive build-up of heat in the burner and thereby prolonging the life (M A V E Z)	\$ 576.00
514 027	Heat absorbing filter 2mm, KG1, unmounted (L O D E S)	7.00
514 033	Heat absorbing filter 4mm, BG 38, mounted (L O E R N)	10.00
514 029	UV filter 2mm, UG 1, mounted (L O D O V)	10.00
514 032	Blue filter 3mm, BG 12, mounted (L O E H F)	10.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volts A.C. (81,851)	214.00
		\$ 827.00



B) FOR TRANSMITTED AND REFLECTED LIGHT

XENON LAMP XBO 150

514 082	Two Universal Lamp Housings Model #250, with filter changing device, reflector and two lens collector. Two each lamp sockets, high intensity xenon burners XBO 150 and one pair of protective goggles for use when adjusting the burner. Lamp holder with two mirror housings #30; swing out deflecting mirror for the reception of low voltage lamp, permitting rapid change from xenon lamp to the low voltage lamp. Clamping bracket with carrier plate for two lamp housings fitting the twin columns of the ARISTOPHOT stand and light tight extension tubes for the proper alignment of the lamp housing to the ORTHOLUX Microscope for transmitted and incident light. Deflecting mirror for positioning the upper #250 lamp housing at a 90 <sup>o</sup> angle to the microscope (MAUJM)	\$1,346.00
514 040	Heat absorbing filter B1/K2, unmounted (LOIHG)	19.00
514 031	Grey filter 0.2%, mounted (LOEBY)	10.00
514 036	Grey filter 5%, mounted (LOFIV)	10.00
514 041	Green filter 1.5mm, VG9, mounted (LOILK)	10.00
514 028	Dispersion disc R, mounted (LODIT)	9.00
514 042	Dispersion disc N, mounted (LOIRP)	7.00
514 034	Case for filters (LOFAS)	10.00
050 230	Power supply for XBO 150W xenon lamp, regulated to supply constant current, maintaining light output within + or - 1%; for connection to 100/130 volts A.C. (82,776)	440.00
514 040	Heat absorbing filter B1/K2, unmounted (LOIHG)	19.00
514 031	Grey filter 0.2%, mounted (LOEBY)	10.00
514 036	Grey filter 5%, mounted (LOFIV)	10.00
514 041	Green filter 1.5mm, VG9, mounted (LOILK)	10.00
514 028	Dispersion disc R, mounted (LODIT)	9.00
514 042	Dispersion disc N, mounted (LOIRP)	7.00
514 034	Case for filters (LOFAS)	10.00
050 230	Power supply for XBO 150W xenon lamp, regulated to supply constant current, maintaining light output within + or - 1%; for connection to 100/130 volts A.C. (82,776)	440.00
		<u>\$2,376.00</u>
562 019	Paired, neutral density eyepiece filters, NG3 (MEFIX)	\$ 14.00

MERCURY LAMP HBO 200

514 084	Two Universal Lamp Housing Model #250, as above, however equipped with sockets to accept and including HBO 200 burner type L II and heat sinks to prevent excessive build-up of heat in the burner and thereby prolonging the life (MAVIB)	\$1,160.00
514 027	Heat absorbing filter 2mm, KG 1, unmounted (LODES)	7.00
514 033	Heat absorbing filter 4mm, BG 38, mounted (LOERN)	10.00
514 029	UV filter 2mm, UG 1, mounted (LODOV)	10.00
514 032	Blue filter 3mm, BG 12, mounted (LOEHF)	10.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volts A.C. (81,851)	214.00
514 027	Heat absorbing filter 2mm, KG 1, unmounted (LODES)	7.00
514 033	Heat absorbing filter 4mm, BG 38, mounted (LOERN)	10.00
514 029	UV filter 2mm, UG 1, mounted (LODOV)	10.00
514 032	Blue filter 3mm, BG 12, mounted (LOEHF)	10.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volts A.C. (81,851)	214.00
		<u>\$1,662.00</u>

REPLACEMENT PARTS AND FILTERS FOR HIGH INTENSITY LIGHT SOURCES

A) MERCURY BURNER, HBO 200

500 016	Mercury burner HBO 200, type L II (89,194)	\$ 47.00
514 073	Heat sink (LUAHG)	11.00
514 039	Pair of protective goggles (LOHUZ)	3.00
514 065	Lamp socket for HBO 200 (LOULM)	63.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volts A.C. (81,851)	214.00
514 027	Heat filter 2mm, KG 1, unmounted (LODES)	\$ 7.00
514 033	Heat filter 4mm, BG 38, mounted (LOERN)	10.00
514 029	UV filter 2mm, UG 1, mounted (LODOV)	10.00
514 032	Blue filter 3mm, BG 12, mounted (LOEHF)	10.00
514 057	UV filter 1mm, UG 1, mounted (LOSOJ)	\$ 10.00
514 058	UV filter 1mm, UG 5, mounted (LOSUK)	13.00
051 484	UV filter 2mm, UG 2, unmounted (89,384)	8.00
051 488	UV filter 2mm, UG 5, unmounted (89,388)	8.00
514 035	UV filter 3mm, UG 5, mounted (LOFET)	18.00
514 059	Blue filter 1.5mm, BG 12, mounted (LOTAG)	10.00
051 480	Blue filter 2mm, BG 12, unmounted (89,380)	8.00
514 030	Blue filter 5mm, BG 12, mounted (LODUW)	10.00
514 015	Blue filter 3mm, BG 3, mounted (IGKAY)	11.00
051 486	Filter 2mm, GG 9, unmounted (89,386)	8.00
051 492	Filter 2mm, #5840, unmounted (89,392)	8.00
051 490	Filter 2mm, #5970, unmounted (89,390)	8.00
514 080	UV cover glass VG 5, 18 x 18mm (LUPEL)	2.00
514 034	Case for filters (LOFAS)	10.00

B) XENON BURNER, XBO 150W

500 008	Xenon burner XBO 150W (LAZEB)	\$ 148.00
514 039	Pair of protective goggles (LOHUZ)	3.00
514 038	Lamp socket for XBO 150W (LOHEW)	66.00
050 230	Power supply for XBO 150W xenon lamp, regulated to supply constant current, maintaining light output within + or - 1%; for connection to 100/130 volts A.C. (82,776)	440.00
514 040	Heat filter B1/K2, unmounted (LOIHG)	19.00
514 031	Grey filter 0.2%, mounted (LOEBY)	10.00
514 036	Grey filter 5%, mounted (LOFIV)	10.00
514 041	Green filter 1.5mm, VG 9, mounted (LOILK)	10.00
514 028	Dispersion disc R, mounted (LODIT)	9.00
514 042	Dispersion disc N, mounted (LOIRP)	7.00
514 034	Case for filters (LOFAS)	10.00

### BARRIER FILTERS

A) For ORTHOLUX with provision for filter slider

514 007	Slider with one each filter K 430 and K 460 (I G G A V)	\$ 24.00
514 008	Slider with one each filter K 470 and K 490 (I G G E W)	24.00
514 118	Slider with one each filter K 510 and K 530 (I G K O C)	24.00

B) For ORTHOLUX without slot for filter slider

514 055	Filter K 430 in slip-on mount (L O R E F)	\$ 12.00
514 009	Filter K 460 in slip-on mount (I G H A W)	12.00
514 010	Filter K 470 in slip-on mount (I G H E X)	12.00
514 011	Filter K 490 in slip-on mount (I G H O Z)	12.00
514 116	Filter K 510 in slip-on mount (I G K I B)	12.00
514 045	Filter K 530 in slip-on mount (L O K A X)	12.00

Fitting over the intermediate optical system of the objective carrier

C) For eyepieces (in screw-in mount)

514 005	Filter, blue absorbing (E E U Q M)	\$ 8.00
514 003	Filter, UV absorbing (D Q E E R)	7.00

### INTERCHANGEABLE COMPONENTS FOR LAMP HOUSING #250

514 025	Universal Lamp Housing Model #250 with filter changing device, reflector, two lens collector and control knobs for adjusting the bulb and collector (L O A R M)	\$ 304.00
514 049	Elevating base A (L O N A B)	52.00
514 051	Carrier plate #17 with bayonet mount (for transmitted light) (L O N O F)	19.00
514 061	Carrier plate #37A with bayonet mount (for reflected light) (L O T I J)	31.00
514 052	Carrier plate #37 with two bayonet mounts (for transmitted and/or reflected light) (L O N U G)	39.00
514 071	Connecting tube (transmitted light) (L O Z O R)	3.00
514 072	Connecting tube (reflected light) (L O Z U S)	5.00
514 064	Deflecting mirror to position upper #250 lamp housing at 90° angle to the microscope (L O U J K)	83.00
514 044	Mirror housing #30 with swing out deflecting mirror (L O J A W)	53.00
514 018	Mirror housing #30S with beam splitter and swing out deflecting mirror (required for phase fluorescence) (I G P I G)	69.00
514 054	Lamp holder with clamping brackets fitting the twin columns of the ARISTOPHOT stand and mirror housing #30 with swing out deflecting mirror; for transmitted or reflected light (L O P U H)	148.00
514 019	Lamp holder with clamping brackets fitting the twin columns of the ARISTOPHOT stand and mirror housing #30S with beam splitter and swing out deflecting mirror (required for phase fluorescence); for transmitted or reflected light (I G P O H)	164.00
514 053	Double lamp holder with clamping brackets fitting the twin columns of the ARISTOPHOT stand and two mirror housings #30 with swing out deflecting mirror; for transmitted and reflected light (L O P O G)	224.00
514 021	Double lamp holder with clamping brackets fitting the twin columns of the ARISTOPHOT stand and mirror housing #30 with swing out deflecting mirror for reflected light; a second mirror housing, #30S with beam splitter and swing out deflecting mirror for transmitted light (required for phase fluorescence) (I G R A F)	256.00
512 040	Protective dust cover (I S M E L)	5.00

## OBJECTIVES

### ACHROMATIC DRY OBJECTIVES

519 044	Achromatic dry objective, 2.5x/0.07, focal length 56.8mm, free working distance 14mm (O B S I S)	\$ 53.00
519 005	Achromatic dry objective, 3.2x/0.12, focal length 39.8mm, free working distance 35mm (A C U B E)	28.00
519 036	Achromatic dry objective, 3.5x/0.10, focal length 31.6mm, free working distance 23mm (O A N E E)	31.00
519 001	Achromatic dry objective, 6x/0.18, focal length 23.1mm, free working distance 17mm (A C E D U)	31.00
519 004	Achromatic dry objective, 10x/0.25, focal length 16.3mm, free working distance 5.7mm (A C O R A)	32.00
519 006	Achromatic dry objective, 25x/0.50, focal length 7.1mm, free working distance 0.92mm, with spring loaded mount (A C V I R)	59.00
519 003	Achromatic dry objective, 40x/0.65, focal length 4.5mm, free working distance 0.67mm, with spring loaded mount (A C M A T)	50.00
519 002	Achromatic dry objective, 63x/0.85, focal length 2.9mm, free working distance 0.29mm, with spring loaded mount (A C I S E)	65.00
519 047	Achromatic dry objective, 63x/0.85, with built-in iris diaphragm, focal length 2.9mm, free working distance 0.29mm, with spring loaded mount (O B T O V)	101.00

### ACHROMATIC IMMERSION OBJECTIVES

519 059	Achromatic water and oil immersion objective, OI+W 22x/0.65, focal length 8.1mm, free working distance 0.32mm, with spring loaded mount (O I L A T)	\$ 104.00
519 171	Achromatic water immersion objective, W 90x/1.20, focal length 2.1mm, free working distance 0.09mm, with spring loaded mount (W A T I M)	154.00
519 060	Achromatic oil immersion objective, Oil 100x/1.30, focal length 1.9mm, free working distance 0.13mm, with spring loaded mount (O I L I M - F E)	88.00
519 045	Achromatic oil immersion objective, Oil 100x/1.30-1.10 with built-in iris diaphragm, focal length 1.9mm, free working distance 0.13mm, with spring loaded mount (O B S O T)	147.00

### FLUORITE DRY OBJECTIVE

519 025	Fluorite dry objective, Fl 40x/0.85, focal length 4.3mm, free working distance 0.38mm, with spring loaded mount (F L U C A)	\$ 131.00
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### FLUORITE IMMERSION OBJECTIVES

519 027	Fluorite oil immersion objective, Fl Oil 54x/0.95, focal length 3.4mm, free working distance 0.22mm, with spring loaded mount (F L U I M)	\$ 145.00
519 026	Fluorite oil immersion objective, Fl Oil 95x/1.32, focal length 2.0mm, free working distance 0.15mm, with spring loaded mount (F L U E S)	184.00
519 046	Fluorite oil immersion objective, Fl Oil 95x/1.32-1.10 with built-in iris diaphragm, focal length 2.0mm, free working distance 0.15mm, with spring loaded mount (O B S U V)	268.00

### APOCHROMATIC DRY OBJECTIVES

519 009	Apochromatic dry objective, Apo 12.5x/0.30, focal length 13.0mm, free working distance 2.5mm (A P O S A)	\$ 104.00
519 007	Apochromatic dry objective, Apo 25x/0.65, focal length 7.3mm, free working distance 0.85mm, with spring loaded mount (A P O C T)	177.00
519 038	Apochromatic dry objective, Apo 40x/0.95, focal length 4.4mm, free working distance 0.12mm, with spring loaded mount (O B P A M)	261.00
519 039	Apochromatic dry objective, Apo 63x/0.95, focal length 3.0mm, free working distance 0.12mm, with spring loaded mount (O B P E N)	261.00

### APOCHROMATIC IMMERSION OBJECTIVES

519 008	Apochromatic oil immersion objective, Apo Oil 90x/1.32, focal length 2.0mm, free working distance 0.12mm, with spring loaded mount (A P O I M)	\$ 333.00
519 010	Apochromatic oil immersion objective, Apo Oil 90x/1.40, focal length 2.0mm, free working distance 0.06mm, with spring loaded mount (A P O X U)	411.00

PLANO OBJECTIVES (For Maximum Flatness of Field)

519 176	Fluorite dry plano objective, Pl Fl 4x/0.14, focal length 39.7mm, free working distance 14.4mm (P L E T S)	\$ 136.00
519 175	Fluorite dry plano objective, Pl Fl 10x/0.30, focal length 17.8mm, free working distance 7.05mm (P L E R P)	180.00
519 163	Achromatic dry plano objective, Pl 25x/0.50, focal length 7.6mm, free working distance 0.90mm, with spring loaded mount (P L A W T)	182.00
519 161	Fluorite dry plano objective, Pl Fl 40x/0.65, focal length 4.6mm, free working distance 0.58mm, with spring loaded mount (P L A S P)	208.00
519 160	Apochromatic oil immersion objective, Pl Apo Oil 100x/1.32, focal length 2.4mm, free working distance 0.27mm, with spring loaded mount (P L A R N)	450.00
519 164	Intermediate adapter with negative lens (P L E Z Y)	9.00

FLUORESCENCE OBJECTIVES (For Use Without Cover Glass)

519 040	Apochromatic dry objective, Apo 25x/0.65, focal length 7.3mm, free working distance 0.86mm, with spring loaded mount (O B P I B)	\$ 207.00
519 011	Fluorite dry objective, Fl 40x/0.85, focal length 4.3mm, free working distance 0.36mm, with spring loaded mount (E E V Y B)	171.00
519 012	Fluorite oil immersion objective, Fl Oil 95x/1.32, focal length 1.9mm, free working distance 0.11mm, with spring loaded mount (E E Y V U)	227.00

PHASE CONTRAST OBJECTIVES, HEINE TYPE (To Be Used Only With Heine Type Phase Condenser)

519 149	Achromatic dry phase objective, Pv 10x/0.25 normal contrast, free working distance 5.8mm (P H A L Z)	\$ 71.00
519 153	Immersion attachment for Pv 10x objective (P H A W K)	13.00
519 150	Achromatic dry phase objective, Pv 25x/0.50 normal contrast, free working distance 0.92mm, with spring loaded mount (P H A N C)	114.00
519 151	Apochromatic dry phase objective, Pv Apo 40x/0.70 normal contrast, free working distance 0.38mm, with spring loaded mount (P H A S G)	261.00
519 155	Apochromatic dry phase objective, Pv Apo 63x/0.70 normal contrast, free working distance 0.30mm, with spring loaded mount (P H E R G)	293.00
519 154	Fluorite oil immersion phase objective, Pv Fl Oil 70x/1.15 normal contrast, free working distance 0.20mm, with spring loaded mount (P H E L B)	268.00
519 152	Apochromatic oil immersion phase objective, Pv Apo Oil 90x/1.15 normal contrast, free working distance 0.12mm, with spring loaded mount (P H A T H)	329.00
519 158	Apochromatic oil immersion phase objective, Pv Apo Oil 90x/1.32 normal contrast, free working distance 0.12mm, with spring loaded mount (P H I B S)	386.00
513 123	Magnifier for focusing the phase ring (P H A D S)	34.00

PHASE CONTRAST OBJECTIVES, ZERNIKE TYPE (To Be Used Only With Phaco Type Phase Condensers)

519 165	Achromatic dry phase objective, PHACO 10x/0.25, free working distance 7.7mm (R A B E S)	\$ 74.00
519 166	Achromatic dry phase objective, PHACO 40x/0.65, free working distance 0.71mm, with spring loaded mount (R A B I T)	102.00
519 167	Achromatic oil immersion phase objective, PHACO Oil 100x/1.30, free working distance 0.17mm, with spring loaded mount (R A B O W)	145.00
513 123	Magnifier for focusing the phase ring (P H A D S)	34.00

INCIDENT LIGHT, ULTROPAK OBJECTIVES, CORRECTED FOR 185MM TUBE LENGTH

513 003	Achromatic dry objective, UO 3.8x/0.12 with ring condenser, free working distance 33mm (A H P E E)	\$ 57.00
513 004	Achromatic dry objective, UO 6.5x/0.18 with ring condenser, free working distance 16.2mm (A I R E E)	82.00
513 005	Achromatic dry objective, UO 11x/0.25 with ring condenser, free working distance 5.8mm (A K E E R)	99.00

513 006	Achromatic dry objective, UO 22x/0.45 with ring condenser, free working distance 2.2mm (ALVEE)	\$ 113.00
513 119	Achromatic dry objective, UO 32x/0.55 with ring condenser, free working distance 1.0mm (PAKAW)	120.00
513 007	Achromatic dry objective, UO 50x/0.65 with ring condenser, free working distance 0.7mm (AMEEP)	133.00

IMMERSION OBJECTIVES

513 008	Achromatic water immersion objective, UO W 55x/0.84 with ring condenser, free working distance 0.57mm (ANEEO)	\$ 175.00
513 009	Achromatic water immersion objective, UO W 75x/0.90 with ring condenser, free working distance 0.45mm (ANZEE)	215.00
513 010	Fluorite oil immersion objective, UO Fl Oil 60x/0.85 with ring condenser, free working distance 0.57mm (APDEE)	208.00
513 011	Fluorite oil immersion objective, UO Fl Oil 75x/1.0 with ring condenser, free working distance 0.51mm (APEEM)	237.00

SUPPLEMENTARY EQUIPMENT

513 013	Mirror condenser for oblique illumination (for objectives 22x to 100x) (AQFEE)	\$ 100.00
513 014	Dipping cone for UO 3.8x objective (AREEK)	28.00
513 015	Dipping cone for UO 6.5x objective (ASEEI)	25.00
513 016	Dipping cone for UO 11x objective (ASKEE)	22.00
513 017	Immersion cap EZ 23-100 with six specimen carriers, fifty cover glasses and one tube of cement (AWSEE)	23.00
513 147	Relief condenser (requires one of the following collars and funnel stops) (UBEEN)	91.00
513 146	Intermediate collar and funnel stop for UO 3.8x objective (UAGEE)	8.00
513 148	Intermediate collar and funnel stop for UO 6.5x objective (UCEEM)	8.00
513 149	Intermediate collar and funnel stop for UO 11-50x objectives (UCLEE)	8.00
513 018	Set of 6 diaphragms (AXUEE)	6.00
513 019	Object slide 76 x 26mm, made of black glass (AYEEC)	6.00
513 083	Gypsum plate (1st order red) (KARAM)	24.00
513 020	Adjustable sector diaphragm 90° to 180° (BKEET)	1.60
513 021	Adjustable sector diaphragm 180° to 360° (BKSEE)	1.60

EYEPIECES

HUYGHENS EYEPIECES

519 034	Huyghens eyepiece, single 6x, field of view 19mm (HYZWA)	\$ 11.00
519 030	Huyghens eyepieces, paired 6x, field of view 17mm (GIZRA)	22.00
519 033	Huyghens eyepiece, single 10x, field of view 14mm (HYVIR)	11.00
519 029	Huyghens eyepieces, paired 10x, field of view 14mm (GIVYR)	22.00

PERIPLANATIC EYEPIECES

519 185	Periplanatic eyepiece, single 6.3x, field of view 18mm (PEKOL)	\$ 33.00
519 186	Periplanatic eyepieces, paired 6.3x, field of view 18mm (PEKUM)	66.00
519 188	Periplanatic eyepiece, single 6.3xM, with focusing eyelens, field of view 18mm (PELIL)	41.00
519 187	Periplanatic eyepieces, paired 6.3xM, one with focusing eyelens, field of view 18mm (PAYIM)	74.00
519 139	Periplanatic eyepiece, single 8x, field of view 16mm (PEROT)	21.00
519 028	Periplanatic eyepieces, paired 8x, field of view 16mm (GIROT)	42.00
519 128	Periplanatic eyepiece, single 10x <sup>0</sup> , field of view 18mm (PELAJ)	26.00
519 129	Periplanatic eyepieces, paired 10x <sup>0</sup> , field of view 18mm (PELEK)	52.00



519 170	Periplanatic eyepiece, single 10xM, with focusing eyelens, field of view 14mm (R X I I L)	\$ 44.00
519 122	Periplanatic eyepiece, single 10xMF, with focusing eyelens, field of view 14mm (O R T O P)	44.00
519 121	Periplanatic eyepieces, paired 10xMF, with focusing eyelens, field of view 14mm (O R T I N)	88.00
519 219	Periplanatic eyepiece, single 12x, field of view 13mm (P E Z W O)	23.00
051 980	Periplanatic eyepieces, paired 12x, field of view 13mm (G I Z O V)	46.00
051 982	Periplanatic eyepiece, single 15x, field of view 12.5mm (P E Z U R)	23.00
051 983	Periplanatic eyepieces, paired 15x, field of view 12.5mm (G I Z U R)	46.00

PERIPLANATIC WIDEFIELD EYEPIECES

519 137	Periplanatic widefield eyepiece, single GF 10x, field of view 18mm (P E R I R)	\$ 35.00
519 142	Periplanatic widefield eyepieces, paired GF 10x, field of view 18mm (P E S I S)	70.00
519 126	Periplanatic widefield eyepiece, single GF 10xM, with focusing eyelens, field of view 18mm (P A T I H)	50.00
519 127	Periplanatic widefield eyepieces, paired GF 10xM, one with focusing eyelens, field of view 18mm (P A T O J)	85.00
519 051	Periplanatic widefield eyepiece, single GF 12.5x, field of view 18mm (P E N U R)	49.00
519 053	Periplanatic widefield eyepieces, paired GF 12.5x, field of view 18mm (P E T U W)	98.00
519 055	Periplanatic widefield eyepiece, single GF 12.5xM, with focusing eyelens, field of view 18mm (P A T U K)	56.00
519 056	Periplanatic widefield eyepieces, paired GF 12.5xM, one with focusing eyelens, field of view 18mm (P A U C H)	105.00
519 057	Periplanatic widefield eyepiece, single GF 12.5xMF, with focusing eyelens, field of view 18mm (P A U M S)	56.00
519 058	Periplanatic widefield eyepieces, paired GF 12.5xMF, with focusing eyelens, field of view 18mm (P A U N T)	112.00
519 138	Periplanatic widefield eyepiece, single GF 16x, field of view 15mm (P E R O S)	46.00
519 143	Periplanatic widefield eyepieces, paired GF 16x, field of view 15mm (P E S O T)	92.00
519 140	Periplanatic widefield eyepiece, single GF 25x, field of view 10mm (P E S A P)	50.00
519 144	Periplanatic widefield eyepieces, paired GF 25x, field of view 10mm (P E T A R)	100.00
519 141	Periplanatic widefield eyepiece, single GF 25xM, with focusing eyelens, field of view 10mm (P E S E R)	58.00
519 130	Periplanatic widefield eyepieces, paired GF 25xM, one with focusing eyelens, field of view 10mm (P E L O M)	108.00

PERIPLANATIC HIGH EYEPOINT EYEPIECES

519 147	Periplanatic high eyepoint eyepiece, single 8x, field of view 18mm (P E X A V)	\$ 44.00
519 148	Periplanatic high eyepoint eyepieces, paired 8x, field of view 18mm (P E X E W)	88.00
519 135	Periplanatic high eyepoint eyepiece, single 10x, field of view 15mm (P E R A N)	48.00
519 136	Periplanatic high eyepoint eyepieces, paired 10x, field of view 15mm (P E R E P)	96.00
519 134	Periplanatic high eyepoint eyepiece, single 10xM, with focusing eyelens, field of view 15mm (P E O L S)	62.00
519 125	Periplanatic high eyepoint eyepieces, paired 10xM, one with focusing eyelens, field of view 15mm (P A T A F)	110.00
519 189	Periplanatic high eyepoint eyepiece, single 10xMF, with focusing eyelens, field of view 15mm (O C S E V)	64.00
519 190	Periplanatic high eyepoint eyepieces, paired 10xMF, one with focusing eyelens, field of view 15mm (O C S O X)	112.00

SPECIAL EYEPIECES

519 061	Filar screw micrometer eyepiece 12.5x (O K N O R)	\$ 209.00
519 054	Huyghens pointer eyepiece 6.3x (O C R U X)	27.00
519 048	Huyghens double demonstration eyepiece 6x (O C D U P)	160.00

EYEPIECE MICROMETERS (unmounted, fitting all "M" eyepieces with focusing eyelens)

519 906	Eyeiece micrometer, 5mm = 100 divisions, unmounted (O C A T Z)	\$ 19.00
519 905	Eyeiece micrometer, 10mm = 100 divisions, unmounted (O C A S Y)	19.00
519 907	Eyeiece micrometer, 10mm = 200 divisions, unmounted (O C B A C)	19.00
519 903	Eyeiece net micrometer, 5 x 5mm divided into squares 0.5mm, unmounted (O C A L S)	19.00
519 912	Eyeiece net micrometer, 10 x 10mm divided into squares 0.075mm, unmounted (O C D I H)	19.00
519 900	Eyeiece net micrometer, 10 x 10mm divided into squares 0.5mm, unmounted (I C K R I)	19.00
519 914	Eyeiece net micrometer, 10 x 10mm divided into squares 0.2mm, unmounted (O C E S Z)	19.00
519 901	Eyeiece net micrometer, 10 x 10mm divided into squares 1.0mm, unmounted (I C L T I)	19.00
519 902	Eyeiece net micrometer, 10 x 10mm divided into squares 2.0mm, unmounted (I C M V I)	19.00

EYEPIECE MICROMETERS (mounted, for eyepiece with fixed eyelens)

519 924	Eyeiece micrometer, 5mm = 100 divisions, mounted (O C U F I)	\$ 21.00
519 925	Eyeiece micrometer, 10mm = 100 divisions, mounted (O C U M E)	21.00
519 926	Eyeiece micrometer, 10mm = 200 divisions, mounted (O E E F K)	21.00
519 923	Eyeiece net micrometer, 5 x 5mm divided into squares 0.5mm, mounted (O C N E T)	21.00
519 913	Eyeiece net micrometer, 10 x 10mm divided into squares 0.075mm, mounted (O C D O J)	21.00
519 916	Eyeiece net micrometer, 10 x 10mm divided into squares 0.5mm, mounted (O C F O K)	21.00
519 915	Eyeiece net micrometer, 10 x 10mm divided into squares 0.2mm, mounted (O C F A G)	21.00
519 917	Eyeiece net micrometer, 10 x 10mm divided into squares 1.0mm, mounted (O C H A J)	21.00
519 918	Eyeiece net micrometer, 10 x 10mm divided into squares 2.0mm, mounted (O C H O M)	21.00

SPECIAL EYEPIECE RETICLES (recommended for use with the ORTHOMAT)

519 919	Eyeiece reticle with concentric focusing ring and area markings circumscribing the photographic image area, unmounted (for 10x MF eyepieces) (O R M U K)	\$ 19.00
519 928	Eyeiece reticle with concentric focusing ring and area markings circumscribing the photographic image area, unmounted (for GF 12.5xMF eyepieces) (O R V I P)	19.00

STAGE MICROMETERS

513 106	Stage micrometer on glass 2mm = 200 divisions with photographic scale (O B M E T)	\$ 25.00
513 107	Stage micrometer of glass with scale ruled on glass 1mm = 100 divisions (O B T E R)	33.00

MISCELLANEOUS ACCESSORIES

513 093	Diamond object marker (M A R K I)	\$ 42.00
513 030	Cover glass thickness gauge with graduation (1 interval = 1/100mm) (D I M E S)	28.00
513 211	Funnel stop for achromatic objective 63x/0.85	\$ 1.00
513 069	Funnel stop for achromatic objective 100x/1.30 and fluorite 95x/1.32	1.00
513 212	Funnel stop for fluorite objective 54x/0.95	1.00
513 213	Funnel stop for apochromatic objective 40x/0.95	1.00
513 214	Funnel stop for apochromatic objective 63x/0.95	1.00
513 215	Funnel stop for apochromatic objective 90x/1.32	1.00

IMMERSION OIL

513 035	Bottle, 10 grams (DOLEO)	\$ 1.00
513 059	Bottle, 50 grams (IMMAV)	2.00
513 060	Bottle, 100 grams (IMMEW)	3.00
513 061	Bottle, 250 grams (IMMIX)	6.60
513 062	Bottle, 500 grams (IMMOY)	12.00
513 063	Bottle, 1000 grams (IMMUZ)	20.00

IMMERSION OIL, FREE OF FLUORESCENCE

513 036	Bottle, 10 grams (EEUCH)	\$ 1.40
513 064	Bottle, 50 grams (IMNAW)	2.60
513 065	Bottle, 100 grams (IMNEX)	3.80
513 066	Bottle, 250 grams (IMNOZ)	7.60
513 067	Bottle, 500 grams (IMNUB)	13.00
513 068	Bottle, 1000 grams (IMOB S)	24.00
513 108	Combination bottle for immersion oil and XYLOL (OLBAD)	\$ 2.00

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Prices and specifications are subject to change without notice, as we endeavor constantly to improve our products in keeping with the latest technical development.

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