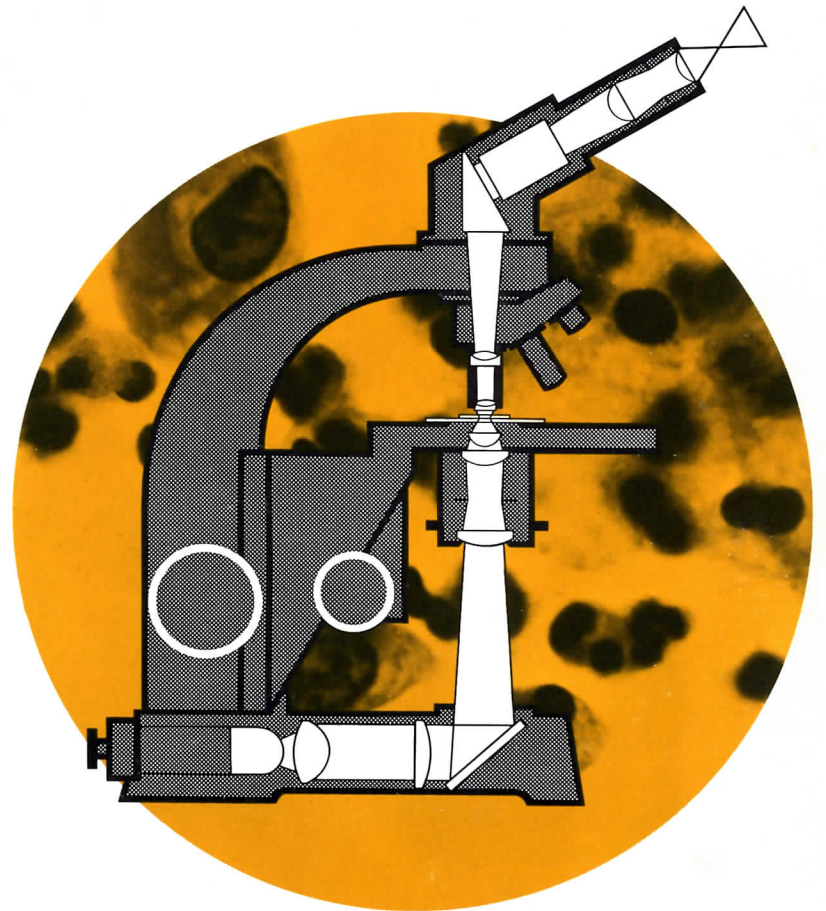


# LEITZ

**INSTRUMENTS FOR THE CLINICAL LABORATORY**



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## INTRODUCTION

### THE MICROSCOPE SM-D LUX

A modern Laboratory microscope must permit the use of the latest diagnostic techniques; it must be mechanically sturdy, even capable of taking some abuse, optically superior, and operate trouble-free eight hours a day for years to come.

Such a microscope is the New Laboratory-Microscope SM-D LUX. It was designed with modern Laboratory practices in mind, such as:

- A) The observation of hematological and pathological preparations in transmitted light
- B) For phase contrast microscopy of cytological specimen
- C) For darkfield microscopy of bacteriological and similar material
- D) For Fluorescence microscopy
- E) For microscopic drawing
- F) For diagnostic discussions by two observers with a discussion tube
- G) Photo-micrography

The instrument has a sturdy stand with built-into the base illumination, comprising a powerful light source controlled by a continuously variable transformer. The intensity of the lamp is sufficient for brightfield, darkfield, and phase contrast at all ranges of magnification. It is strong enough and has the color temperature for photo-micrography in black and white or color. For Fluorescence microscopy a special - easily attachable - lamp housing model #250 is available. A mirror reflex housing #15S permits the selective use of incandescent light and fluorescence illumination or a combination of both (phase-fluorescence) with the flip of a lever.

The observation tube - of course - is binocular and just at the correct angle to make prolonged or routine observation convenient. The tube does not change position when the microscope is focused and all controls are located for easy accessibility. This also applies to the mechanical stage with its co-axial low set drives. The selection of available stages, tubes and condensers is numerous to take care of every need.

### OPTICS:

A special word about the objectives and eyepieces recommended for this microscope. These are called PLANO-NPL Objectives ranging in magnification from 6.3x to 100x. This is a brand new series of Achromats with 18mm field of view producing a truly flat field of view from periphery to periphery without sacrificing either detail or flexibility. These lenses can be used with any set of Periplanatic eyepieces which range in magnification from 6.3x to 15x. Such variety of combinations allows for the selections of exactly the right kind of total magnification for any particular purpose. The fixed eyepiece-objective relationship with other so called flat-field microscopes has been avoided and so has the interposition of a permanent panchromatic system, which, at best, might reduce the contrast of the image produced.

The true test of this microscope is comparison of its image quality with any other make in its category; we invite such a comparison.

The following pages of this catalog are arranged to present suggested outfits recommended for Laboratory use. It also lists the available accessories for photo-micrography, darkfield, phase-contrast, fluorescence, for drawing, for demonstration and teaching.

We hope that one of these suggested combinations will suit your requirements.

### ACCESSORIES:

Modern diagnostic procedures require accessories for fluorescence microscopy. A unique lamp housing #250 with base plate and mirror reflex housing is available to meet this demand in a practical and convenient manner.

Often, two observers may wish to discuss the same microscopic field at the same time. A discussion tube with pointer is quickly installed. Similarly, a comparison tube, showing side by side the semi-circular images from two LEITZ Microscopes is also available.

Phase contrast, a more and more important diagnostic tool, is readily attachable and a wide selection of optics are listed.

If microscopic drawing is desired, the new drawing attachment with interchangeable eyepieces is the best answer.

### PHOTO-MICROGRAPHY:

A photographic record of any microscopic image is no longer a laborious procedure. Simple camera-attachments, exposure determining devices and even "picture in seconds" Polaroid camera attachments make this task practical and economical. There are various models to select from.

We also have included: The LEITZ PHOTROMETER for clinical determination and blood chemistry, Micro-Projectors, Microtomes and other suitable Laboratory equipment.

All these instruments have one thing in common: LEITZ QUALITY.





LEITZ BINOCULAR LABORATORY MICROSCOPE SM-D LUX EQUIPPED FOR: MAXIMUM FLATNESS OF FIELD UP TO 18MM  $\phi$

051 240	Modern stand, SM-D LUX, made of non-corroding alloy with dual knob, coaxial coarse and fine adjustment (1 interval = 0.002mm); identical controls on either side of the stand for the vertical displacement of the stage along precision ball races. Dovetail carrier for the interchange of condensers with rack and pinion for the vertical adjustment of the condenser -.5.-. Permanently attached in base illuminator 20 volts, 25 watts with illumination centering disc, blue and ground glass filters, spare bulb -.25 and built-in field diaphragm for Koehler illumination; including flexible plastic, protective dust cover	\$ 327.00
512 325	Quintuple revolving objective nosepiece 0.5.-, on ball bearing races	45.00
512 066	Interchangeable, inclined binocular observation tube "S" (tube factor 1.25x)	213.00
051 322	Mechanical stage #47, 135 x 135mm, with scales and verniers and low set operating knobs on one axis; traversing area 76 x 50mm	94.00
512 138	Swing-out condenser #602L with lower element, aperture diaphragm, centering mount and interchangeable achromatic top element Achr. 0.90; on interchange carrier	<u>119.00</u>
	LEITZ Binocular Laboratory Microscope SM-D LUX 0.5.5.25 S 47/602L as described above	\$ 798.00

OPTICAL EQUIPMENT

519 245	Achromatic dry plano objective, NPL 6.3x/0.20, focal length 23.6mm, free working distance 2mm	\$ 104.00
519 246	Achromatic dry plano objective, NPL 16x/0.40, focal length 10.8mm, free working distance 0.50mm	107.00
519 247	Achromatic dry plano objective, NPL 25x/0.50, focal length 6.99mm, free working distance 0.38mm, with spring loaded mount	119.00
519 248	Achromatic dry plano objective, NPL 40x/0.65, focal length 4.35mm, free working distance 0.15mm, with spring loaded mount	140.00
519 249	Achromatic oil immersion plano objective, NPL Oil 100x/1.30, focal length 1.73mm, free working distance 0.21mm, with spring loaded mount	240.00
519 148	Periplanatic high eyepoint eyepieces, paired 8x, field of view 18mm	<u>92.00</u>
	LEITZ Binocular Laboratory Microscope SM-D LUX 0.5.5.25 S 47/602L complete with NPL-PLANO Objectives for maximum flatness of field up to 18mm $\phi$	\$1,600.00
050 010	Regulating transformer with ammeter 20 volts, 1.0 amps for connection to 115 volts, 60 cycles A.C.	<u>35.00</u>
		\$1,635.00



LEITZ BINOCULAR LABORATORY PHASE MICROSCOPE SM-D LUX EQUIPPED FOR:  
 MAXIMUM FLATNESS OF FIELD UP TO 18MM  $\phi$

051 240	Modern stand, SM-D LUX, made of non-corroding alloy with dual knob, coaxial coarse and fine adjustment (1 interval = 0.002mm); identical controls on either side of the stand for the vertical displacement of the stage along precision ball races. Dovetail carrier for the interchange of condensers with rack and pinion for the vertical adjustment of the condenser -. . . 5. -. Permanently attached in base illuminator 20 volts, 25 watts with illumination centering disc, blue and ground glass filters, spare bulb -. . . . 25 and built-in field diaphragm for Koehler illumination; including flexible plastic, protective dust cover	\$ 327.00
512 325	Quintuple revolving objective nosepiece 0.5. -, on ball bearing races	45.00
512 066	Interchangeable, inclined binocular observation tube "S" (tube factor 1.25x)	213.00
051 322	Mechanical stage #47, 135 x 135mm, with scales and verniers and low set operating knobs on one axis; traversing area 76 x 50mm	94.00
513 156	Phase contrast condenser, PHACO #402aL, with lower element, aperture diaphragm, centering mount, swing-out upper element Achr. 0.90 and revolving disc with lens for bright-field, phase annular diaphragms and central stop for darkfield; on interchange carrier	207.00
	LEITZ Binocular Laboratory Phase Microscope SM-D LUX 0.5.5.25 S 47/402aL as described above	\$ 886.00

OPTICAL EQUIPMENT

519 250	Achromatic dry phase contrast plano objective, PHACO-NPL 10x/0.25, focal length 15.5mm	\$ 149.00
519 251	Achromatic dry phase contrast plano objective, PHACO-NPL 16x/0.40, focal length 10.8mm, free working distance 0.50mm	154.00
519 252	Achromatic dry phase contrast plano objective, PHACO-NPL 25x/0.50, focal length 7mm, free working distance 0.38mm, with spring loaded mount	176.00
519 253	Achromatic dry phase contrast plano objective, PHACO-NPL 40x/0.65, focal length 4.5mm, free working distance 0.15mm, with spring loaded mount	197.00
519 254	Achromatic oil immersion phase contrast plano objective, PHACO-NPL Oil 100x/1.30, focal length 1.7mm, free working distance 0.21mm, with spring loaded mount	294.00
513 123	Focusing magnifier for centering the phase ring	34.00
519 129	Periplanatic eyepieces, paired 10x <sup>0</sup> , field of view 18mm	58.00
	LEITZ Binocular Laboratory Phase Microscope SM-D LUX 0.5.5.25 S 47/402aL complete with PHACO-NPL Plano Objective for maximum flatness of field up to 18mm $\phi$	\$1,948.00
050 010	Regulating transformer with ammeter 20 volts, 1.0 amps for connection to 115 volts, 60 cycles A.C.	35.00
		\$1,983.00

LEITZ BINOCULAR LABORATORY MICROSCOPE SM-D LUX CONSISTING OF:

051 240	Modern stand, SM-D LUX, made of non-corroding alloy with dual knob, coaxial coarse and fine adjustment (1 interval = 0.002mm); identical controls on either side of the stand for the vertical displacement of the stage along precision ball races. Dovetail carrier for the interchange of condensers with rack and pinion for the vertical adjustment of the condenser -.5.-. Permanently attached in base illuminator 20 volts, 25 watts with illumination centering disc, blue and ground glass filters, spare bulb -.25 and built-in field diaphragm for Koehler illumination; including flexible plastic, protective dust cover	\$ 327.00
512 043	Quadruple revolving objective nosepiece 0.4.-, on ball bearing races	35.00
512 066	Interchangeable, inclined binocular observation tube "S" (tube factor 1.25x)	213.00
051 322	Mechanical stage #47, 135 x 135mm, with scales and verniers and low set operating knobs on one axis; traversing area 76 x 50mm	94.00
512 137	Swing-out condenser #601L, with lower element, aperture diaphragm, centering mount and interchangeable aspherical top element As 0.90; on interchange carrier	59.00
	LEITZ Binocular Laboratory Microscope SM-D LUX 0.4.5.25 S 47/601L as described above	\$ 728.00

OPTICAL EQUIPMENT

519 036	Achromatic dry objective, 3.5x/0.20, focal length 31.6mm, free working distance 23mm	\$ 32.00
519 004	Achromatic dry objective, 10x/0.25, focal length 16.3mm, free working distance 5.7mm	35.00
519 003	Achromatic dry objective, 40x/0.65, focal length 4.46mm, free working distance 0.67mm, with spring loaded mount	54.00
519 060	Achromatic oil immersion objective, Oil 100x/1.30, focal length 1.9mm, free working distance 0.13mm, with spring loaded mount	92.00
519 129	Periplanatic eyepieces, paired 10x <sup>0</sup> , field of view 18mm	58.00
	LEITZ Binocular Laboratory Microscope SM-D LUX 0.4.5.25 S 47/601L complete with optical equipment as described above	\$ 999.00
050 010	Regulating transformer with ammeter 20 volts, 1.0 amps for connection to 115 volts, 60 cycles A.C.	35.00
		\$1,034.00







LEITZ BINOCULAR LABORATORY PHASE MICROSCOPE SM-D LUX CONSISTING OF:

051 240	Modern stand, SM-D LUX, made of non-corroding alloy with dual knob, coaxial coarse and fine adjustment (1 interval = 0.002mm); identical controls on either side of the stand for the vertical displacement of the stage along precision ball races. Dovetail carrier for the interchange of condensers with rack and pinion for the vertical adjustment of the condenser -.5-. Permanently attached in base illuminator 20 volts, 25 watts with illumination centering disc, blue and ground glass filters, spare bulb -.25 and built-in field diaphragm for Koehler illumination; including flexible plastic, protective dust cover	\$ 327.00
512 043	Quadruple revolving objective nosepiece 0.4-, on ball bearing races	35.00
512 066	Interchangeable, inclined binocular observation tube "S" (tube factor 1.25x)	213.00
051 322	Mechanical stage #47, 135 x 135mm, with scales and verniers and low set operating knobs on one axis; traversing area 76 x 50mm	94.00
513 156	Phase contrast condenser, PHACO #402aL, with lower element, aperture diaphragm, centering mount, swing-out upper element Achr. 0.90 and revolving disc with lens for bright-field, phase annular diaphragms and central stop for darkfield; on interchange carrier	207.00
	LEITZ Binocular Laboratory Phase Microscope SM-D LUX 0.4.5.25 S 47/402aL as described above	\$ 876.00

OPTICAL EQUIPMENT

519 165	Achromatic dry phase contrast objective, PHACO 10x/0.25, focal length 16.9mm, free working distance 7.7mm	\$ 80.00
519 236	Achromatic dry phase contrast objective, PHACO 25x/0.50, focal length 7.2mm, free working distance 1.06mm, with spring loaded mount	144.00
519 166	Achromatic dry phase contrast objective, PHACO 40x/0.65, focal length 4.7mm, free working distance 0.71mm, with spring loaded mount	102.00
519 167	Achromatic oil immersion phase contrast objective, PHACO Oil 100x/1.30, focal length 1.9mm, free working distance 0.17mm, with spring loaded mount	154.00
513 123	Focusing magnifier for centering the phase ring	34.00
519 129	Periplanatic eyepieces, paired 10x <sup>0</sup> , field of view 18mm	58.00
	LEITZ Binocular Laboratory Phase Microscope SM-D LUX 0.4.5.25 S 47/402aL complete with optical equipment as described above	\$1,448.00
050 010	Regulating transformer with ammeter 20 volts, 1.0 amps for connection to 115 volts, 60 cycles A.C.	35.00
		\$1,483.00



LEITZ LABORATORY FLUORESCENCE MICROSCOPE SM-D LUX CONSISTING OF:

051 240	Modern stand, SM-D LUX, made of non-corroding alloy with dual knob, coaxial coarse and fine adjustment (1 interval = 0.002mm); identical controls on either side of the stand for the vertical displacement of the stage along precision ball races. Dovetail carrier for the interchange of condensers with rack and pinion for the vertical adjustment of the condenser -.5.-. Permanently attached in base illuminator 20 volts, 25 watts with illumination centering disc, blue and ground glass filters, spare bulb -.25 and built-in field diaphragm for Koehler illumination; including flexible plastic, protective dust cover	\$ 327.00
512 043	Quadruple revolving objective nosepiece 0.4.-, on ball bearing races	35.00
512 065	Interchangeable, inclined monocular observation tube "P"	46.00
051 322	Mechanical stage #47, 135 x 135mm, with scales and verniers and low set operating knobs on one axis; traversing area 76 x 50mm	94.00
513 109	Immersion darkfield condenser D 1.20, with centering mount #82; on interchange carrier	91.00
	LEITZ Microscope SM-D LUX 0.4.5.25 P 47/82 as described above	\$ 593.00

OPTICAL EQUIPMENT

519 004	Achromatic dry objective, 10x/0.25, focal length 16.3mm, free working distance 5.7mm	\$ 35.00
519 003	Achromatic dry objective, 40x/0.65, focal length 4.46mm, free working distance 0.67mm, with spring loaded mount	54.00
519 027	Fluorite oil immersion objective, Fl Oil 54x/0.95, focal length 3.4mm, free working distance 0.22mm, with spring loaded mount	160.00
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	154.00
519 128	Periplanatic eyepiece, single 10x <sup>0</sup> , field of view 18mm	29.00

FLUORESCENCE EQUIPMENT

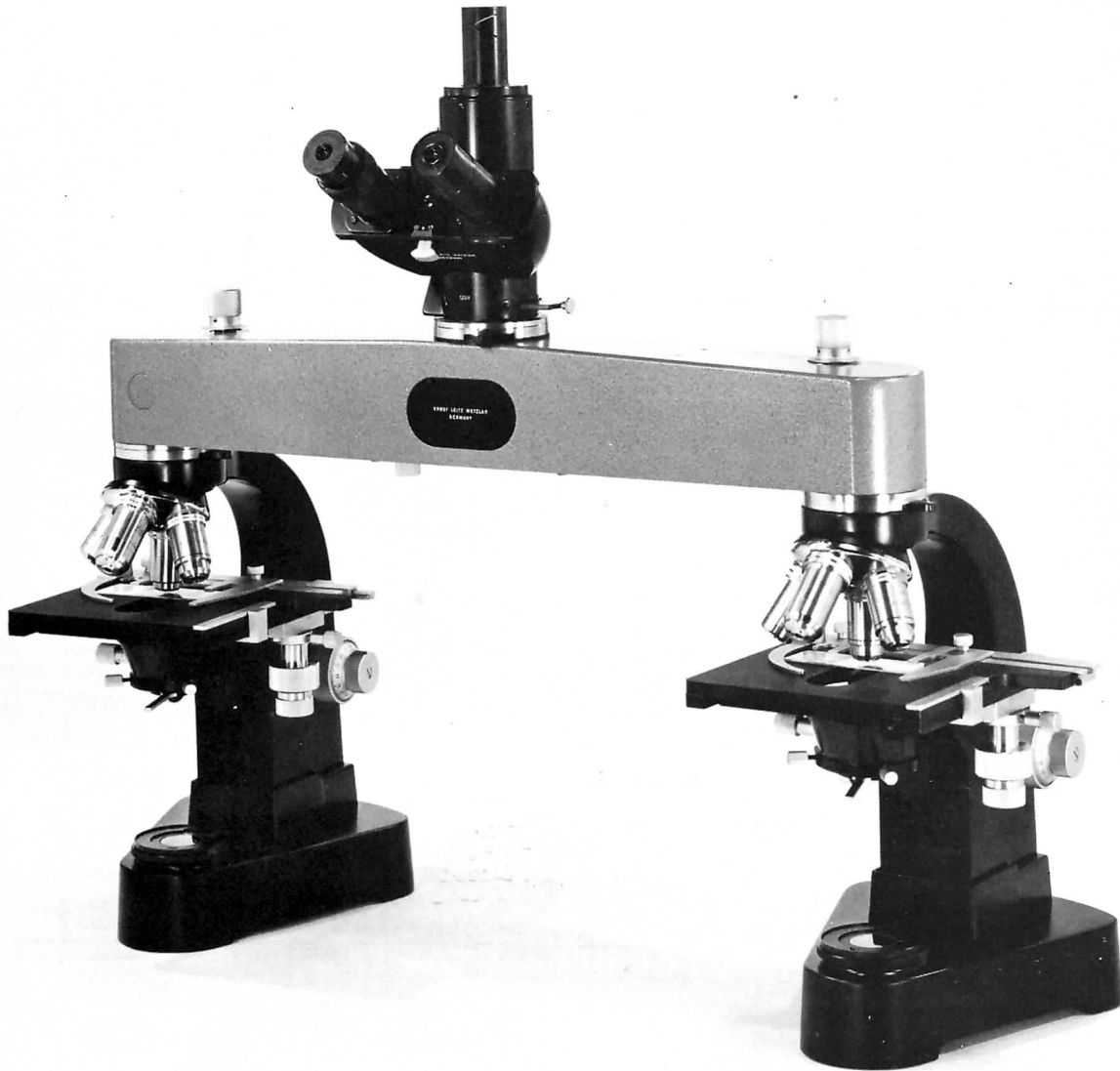
051 410	Universal lamp housing model #250 with filter changing device, reflector and two lens collector. Elevating base with carrier plate for the proper elevation of the microscope and the mirror housing. Lamp socket, high pressure mercury burner HBO 200 type L II and heat sink to prevent excessive build-up of heat in the burner and thereby prolonging its life. Pair of protective goggles for use when adjusting the burner. Mirror housing with beam splitter and swing-out deflecting mirror; for the reception of the low voltage lamp; permitting rapid change from mercury burner for fluorescence to the low voltage lamp for observation in brightfield. Flexible plastic protective dust cover for the complete microscope and lamp housing	\$ 645.00
514 027	Heat absorbing filter 2mm, KG 1, unmounted	9.00
514 033	Heat absorbing filter 4mm, BG 38, mounted	12.00
514 029	UV excitation filter 2mm, UG 1, mounted	12.00
514 032	Blue excitation filter 3mm, BG 12, mounted	10.00
514 005	Eyepiece barrier filter, blue absorbing	10.00
514 003	Eyepiece barrier filter, UV absorbing	8.00
	LEITZ Laboratory Fluorescence Microscope SM-D LUX 0.4.5.25 P 47/82 complete with Optical and Fluorescence Equipment as described above	\$1,731.00
050 010	Regulating transformer with ammeter 20 volts, 1.0 amps for connection to 115 volts, 60 cycles A.C.	35.00
050 220	Ignitor, choke and special transformer for HBO 200, 110/120 volt A.C.	214.00
		\$1,980.00



DISCUSSION TUBE

513 264 Discussion tube for the simultaneous observation by two people of the microscope image with built-in mechanical arrow pointer and two bayonet mounts to accept the standard monocular or binocular observation tubes (not included); both discussion and observation tubes independently rotatable 360° for the desired observation position

\$ 498.00



COMPARISON TUBE

513 266 Comparison tube with built-in prism system, half stops, adjustment screws to correct slight magnification differences of the two microscope objectives of equal image size and bayonet mount to accept standard microscope tube (observation tube not included)

\$ 640.00

## OBJECTIVES AND EYEPIECES FOR TRANSMITTED-LIGHT INVESTIGATION IN BRIGHT-DARKFIELD

Designation of Objectives	Magnification/Aperture	Type of eyepiece	Cover glass correction	Focal length mm	Free working distance mm	Catalog #	Price \$
ACHROMATIC DRY OBJECTIVES	2.5x/0.07	P	D O	56.8	14	519 044	Discontinued
	3.2x/0.12	H	D O	39.8	35	519 005	Discontinued
	3.5x/0.10	H	D O	31.6	23	519 036	32.00
	6x/0.18	H	D O	23.1	17	519 001	34.00
	10x/0.25	H	D O	16.3	5.7	519 004	35.00
	13x/0.40	H	D O	13.3	3.4	519 237	59.00
	25x/0.50	P	D	7.1	0.92	519 006	68.00
	40x/0.65	P	D	4.46	0.67	519 003	54.00
	63x/0.85	P	D !	2.9	0.29	519 002	77.00
	Iris 63x/0.85	P	D	2.9	0.29	519 047	111.00
ACHROMATIC IMMERSION OBJECTIVES We = WATER	Oil & We 22x/0.65	P	D O	8.1	0.32	519 059	104.00
	We 90x/1.20	P	D	2.1	0.09	519 171	154.00
	Oil 100x/1.30	P	D <sup>4</sup>	1.9	0.13	519 060	92.00
	Iris Oil 100x/1.30-1.10	P	D	1.9	0.13	519 045	154.00
FLUORITE DRY OBJECTIVES	Fl 40x/0.85	P	D 1	4.3	0.38	519 025	151.00
FLUORITE IMMERSION OBJECTIVES	Fl Oil 54x/0.95	P	D O	3.4	0.22	519 027	160.00
	Fl Oil 95x/1.32	P	D <sup>4</sup>	2.0	0.15	519 026	203.00
	Iris Fl Oil 95x/1.32	P	D	2.0	0.15	519 046	281.00
APOCHROMATIC DRY OBJECTIVES	Apo 12.5x/0.30	P	D O	13.0	2.5	519 009	110.00
	Apo 25x/0.65	P	D	7.3	0.85	519 007	188.00
	Apo 40x/0.95	P	D ! <sup>2</sup>	4.4	0.12	519 038	273.00
	Apo 63x/0.95	P	D ! <sup>2</sup>	3.0	0.12	519 039	281.00
APOCHROMATIC IMMERSION OBJECTIVES	Apo Oil 90x/1.32	P	D	2.0	0.12	519 008	352.00
	Apo Oil 90x/1.40	P	D	2.0	0.06	519 010	414.00
FLUORESCENCE OBJECTIVES (for use without cover glass)	Apo 25x/0.65	P	O	7.3	0.86	519 040	217.00
	Fl 40x/0.85	P	O	4.3	0.36	519 011	188.00
	Fl Oil 95x/1.32	P	O	1.9	0.11	519 012	231.00
PLANO ACHROMATIC OBJECTIVES (NPL) FOR FIELD OF VIEW UP TO 18MM $\phi$	NPL 6.3x/0.20	P	D O	23.6	2.0	519 245	104.00
	NPL 16x/0.40	P	D	10.8	0.50	519 246	107.00
	NPL 25x/0.50	P	D	6.99	0.38	519 247	119.00
	NPL 40x/0.65	P	D	4.53	0.15	519 248	140.00
	NPL Oil 100x/1.30	P	D	1.73	0.21	519 249	240.00



OBJECTIVES TRANSMITTED LIGHT, PHASE CONTRAST

Designation of Objectives	Magnification/Aperture	Type of eyepiece	Cover glass correction	Contrast	Free working distance mm	Catalog #	Price \$
PHASE CONTRAST, PHACO WITH ZERNIKE CONDENSER	PHACO 10x/0.25	P	D O	Normal	7.7	519 165	80.00
	PHACO 25x/0.50	P	D	Normal	1.06	519 236	144.00
	PHACO 40x/0.65	P	D	Normal	0.71	519 166	102.00
	PHACO Oil 100x/1.30	P	D	Normal	0.17	519 167	154.00
PLANO-PHASE CONTRAST, PHACO-NPL WITH ZERNIKE CONDENSER	PHACO-NPL 10x/0.25	P	D O	Normal		519 250	149.00
	PHACO-NPL 16x/0.40	P	D O	Normal	0.50	519 251	154.00
	PHACO-NPL 25x/0.50	P	D	Normal	0.38	519 252	176.00
	PHACO-NPL 40x/0.65	P	D	Normal	0.15	519 253	197.00
	PHACO-NPL Oil 100x/1.30	P	D	Normal	0.21	519 254	294.00

- 1) D: with cover glass D = 0.17 (coverglass thickness should be observed to within  $\pm 0.05$ mm)  
 O: without coverglass  
 DO: can be used with or without coverglass  
 D: coverglass thickness 0.17mm should be observed accurately to within  $\pm 0.01$ mm, or should be accurately set with the correction mount where it varies from this values.
- 2) These objectives have a correction mount. Its adjustment has hardly any effect on image sharpness. Ideal method of focusing when the thickness of the coverglass is unknown.

- 3) H = use Huygens eyepiece P = use PERIPLAN or widefield eyepieces  
 4) These oil immersion objectives may also be used for uncovered subjects (smear preparations without coverglass); the negligible reduction of image quality can be ignored.

All objectives from 3.5/0.10 are parfocal on the nose-piece.

EYEPIECES

HUYGENS EYEPIECES 23.2mm $\phi$						PERIPLANATIC WIDEFIELD EYEPIECES 23.2mm $\phi$					
Magnification	Field of view mm	CATALOG NUMBER				Magnification	Field of view mm	CATALOG NUMBER			
		Single	Price	Pair	Price			Single	Price	Pair	Price
* 6x	19	519 034	11.00			GF 10x	18	519 137	39.00	519 142	78.00
* 6x	17			519 030	22.00	GF 10xM	18	519 126	50.00	519 127	89.00
H 6.3x	18	519 180	16.00	519 181	32.00	GF 12.5x	18	519 051	49.00	519 053	98.00
H 6.3xM	18	519 182	24.00	519 183	40.00	GF 12.5xM	18	519 055	56.00	519 056	105.00
H 10x	14	519 221	12.00	519 222	24.00	GF 16x	15	519 138	46.00	519 143	92.00
						GF 25x	10	519 140	50.00	519 144	100.00
						GF 25xM	10	519 141	58.00	519 130	108.00
PERIPLANATIC EYEPIECES 23.2mm $\phi$						PERIPLANATIC HIGH EYEPOINT EYEPIECES 23.2mm $\phi$					
Magnification	Field of view mm	CATALOG NUMBER				Magnification	Field of view mm	CATALOG NUMBER			
		Single	Price	Pair	Price			Single	Price	Pair	Price
6.3x	18	519 185	33.00	519 186	66.00	8x	18	519 147	46.00	519 148	92.00
6.3xM	18	519 188	41.00	519 187	74.00	10x	15	519 135	48.00	519 136	96.00
8x	16	519 139	24.00	519 028	48.00	10xM	15	519 134	62.00	519 125	110.00
10x <sup>O</sup>	18	519 128	29.00	519 129	58.00						
10xM	14.6	519 170	44.00	519 035	88.00						
* 12x	13	519 219	23.00	051 980	46.00						
12.5xMM	12	569 059	67.00	569 058	134.00						
15x	12.5	051 982	23.00	051 983	46.00						

\*Discontinued, limited supply still available

OPTIONAL ACCESSORIES AND COMPONENTS

MICROSCOPE TUBES

512 064	Interchangeable, straight monocular photographic tube "O"	\$ 25.00
512 065	Interchangeable, inclined monocular observation tube "P"	46.00
512 066	Interchangeable, inclined binocular observation tube "S" (tube factor 1.25x)	213.00
512 072	Interchangeable, combination inclined binocular observation and straight monocular photographic tube "FS" (tube factor 1.25x)	308.00

MICROSCOPE STAGES

512 028	Plain object stage 130 x 125mm with one pair of slide clips #19	\$ 14.00
051 321	Attachable mechanical stage SK1, traversing area 75 x 26mm	39.00
513 155	Attachable mechanical stage #21R for right hand operation, with low set coaxial control knobs, traversing area 75 x 26mm	67.00
513 268	Attachable mechanical stage #21L for left hand operation, with low set coaxial control knobs, traversing area 75 x 26mm	75.00
051 322	Mechanical stage #47, 135 x 135mm, with scales and verniers and low set operating knobs on one axis; traversing area 76 x 50mm	\$ 94.00

MICROSCOPE CONDENSERS

A) BRIGHTFIELD

512 081	Condenser base with aperture diaphragm and centering mount #600; on interchange carrier	\$ 42.00
512 082	Interchangeable aspherical top element As 0.90, #001	9.00
512 083	Interchangeable achromatic top element Achr. 0.90, #002	69.00
512 084	Interchangeable aplanatic top element Apl Oil 1.25, #003	102.00
513 183	Interchangeable achromatic top element Achr. 0.70/L4, #005	72.00
513 184	Interchangeable top element 0.60/L11, #006	84.00
513 185	Interchangeable top element 0.45/L20, #007	91.00
512 140	Lower condenser element in mount L	8.00
512 137	Swing-out condenser #601L with lower element, aperture diaphragm, centering mount and interchangeable aspherical top element As 0.90; on interchange carrier	\$ 59.00
512 138	Swing-out condenser #602L with lower element, aperture diaphragm, centering mount and interchangeable achromatic top element Achr. 0.90; on interchange carrier	119.00
512 165	Swing-out condenser #603L with lower element, aperture diaphragm, centering mount and interchangeable aplanatic top element, Apl Oil 1.25; on interchange carrier	152.00
512 314	Swing-out condenser #605L with lower element, aperture diaphragm, centering mount and interchangeable achromatic top element Achr. 0.70/L4; on interchange carrier	122.00
512 315	Swing-out condenser #606L with lower element, aperture diaphragm, centering mount and interchangeable top element 0.60/L11; on interchange carrier	134.00
512 316	Swing-out condenser #607L with lower element, aperture diaphragm, centering mount and interchangeable top element 0.45/L20; on interchange carrier	141.00

B) DARKFIELD

513 109	Immersion darkfield condenser D 1.20, with centering mount #82; on interchange carrier	\$ 91.00
513 111	Dry darkfield condenser D 0.80, with centering mount #84; on interchange carrier	120.00

C) PHASE CONTRAST, ZERNIKE SYSTEM

513 156	Phase contrast condenser, PHACO #402aL, with lower element, aperture diaphragm, centering mount, swing-out upper element Achr. 0.90 and revolving disc with lens for brightfield, phase annular diaphragms and central stop for darkfield; on interchange carrier	\$ 207.00
513 195	Phase contrast condenser, PHACO #403cL, with lower element, aperture diaphragm, centering mount, swing-out upper element. Apl Oil 1.25 and revolving disc with lens for brightfield, phase annular diaphragms and central stop for darkfield; on interchange carrier	218.00
513 187	Phase contrast condenser, PHACO #405eL, with lower element, aperture diaphragm, centering mount, swing-out upper element Achr. 0.70/L4 and revolving disc with lens for brightfield and phase annular diaphragms; on interchange carrier	202.00
513 197	Phase contrast condenser, PHACO #406fL, with lower element, aperture diaphragm, centering mount, swing-out upper element 0.60/L11 and revolving disc with lens for brightfield and phase annular diaphragms; on interchange carrier	199.00
513 199	Phase contrast condenser, PHACO #407gL, with lower element, aperture diaphragm, centering mount, swing-out upper element 0.45/L20 and revolving disc with lens for brightfield and phase annular diaphragms; on interchange carrier	206.00
513 157	Phase contrast-fluorescence condenser, PHACO #402aaL, with lower element, aperture diaphragm, centering mount, swing-out upper element Achr. 0.90 and revolving disc with six settings; H-brightfield, 1-normal phase contrast with PHACO 10x/0.25 objective, 2-phase contrast and UV fluorescence with PHACO 25x/0.50 and 40x/0.65 objectives, 3-phase contrast and blue fluorescence with PHACO 25x/0.50 and 40x/0.65 objectives, 4-phase contrast and UV fluorescence with PHACO Oil 100x/1.30 objective and 5-phase contrast and blue fluorescence with PHACO Oil 100x/1.30 objective; on interchange carrier	\$ 291.00
513 142	Orange contrast filter OG 2 (Phase Fluorescence)	12.00

SIMPLE POLARIZING ACCESSORIES FOR SERIES 400 AND 600 CONDENSERS

513 173	Filter polarizer	\$ 55.00
513 088	Holder for polarizer with slot to accept compensators	27.00
513 071	Filter analyser	37.00
513 200	Simple pol attachment for series 400 and 600 condensers	\$ 119.00
512 014	Simple rotating stage, attachable to #47 stage	\$ 27.00
513 089	Gypsum plate	37.00
513 090	Mica plate	34.00

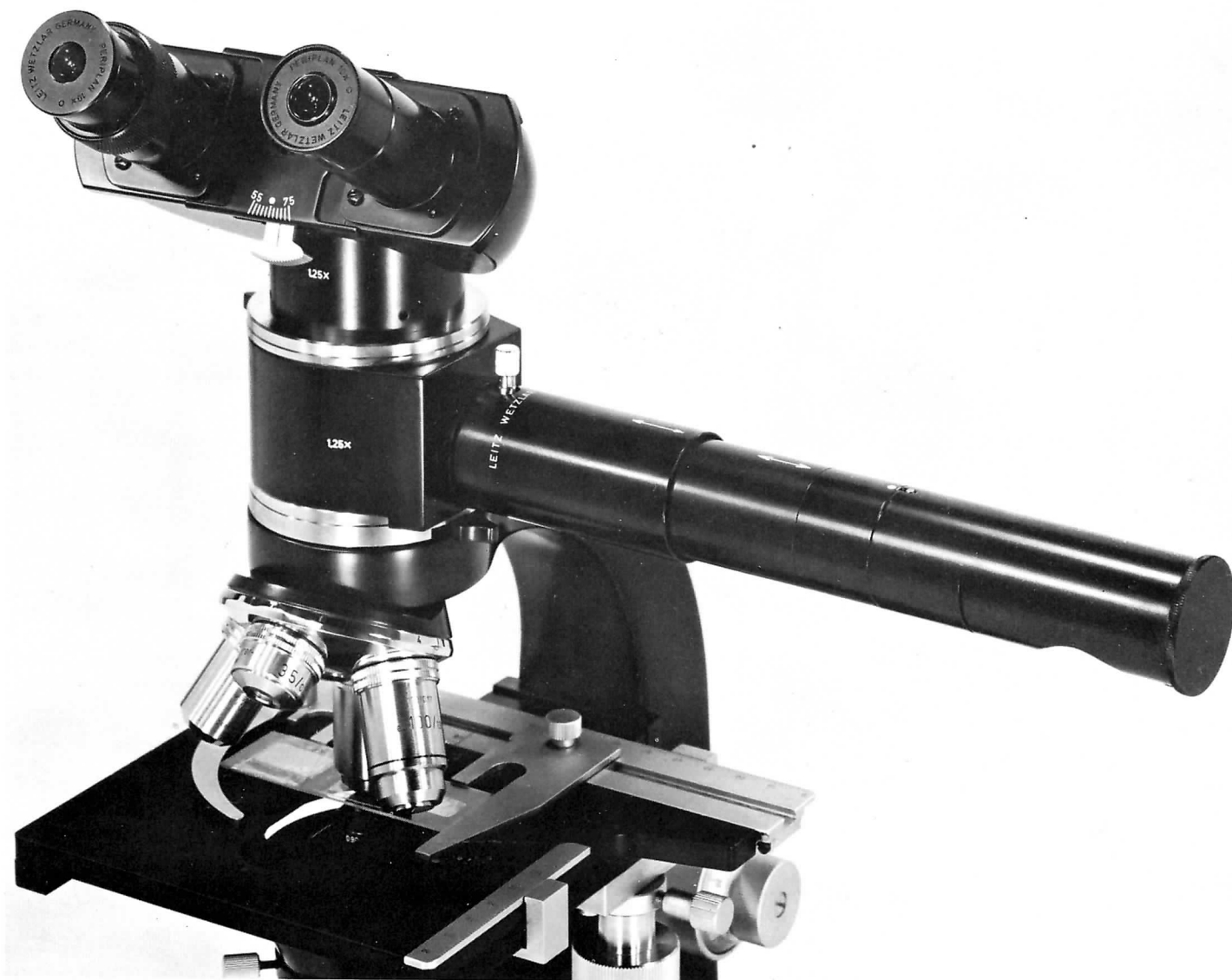
STAGE MICROMETERS

513 106	Stage micrometer on glass 2mm = 200 divisions with photographic scale	\$ 25.00
513 107	Stage micrometer of glass with scale ruled on glass 1mm = 100 divisions	33.00

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

519 906	Eyepiece micrometer, 5mm = 100 divisions, unmounted	\$ 19.00
519 905	Eyepiece micrometer, 10mm = 100 divisions, unmounted	19.00
519 907	Eyepiece micrometer, 10mm = 200 divisions, unmounted	19.00
519 903	Eyepiece net micrometer, 5 x 5mm divided into squares 0.5mm, unmounted	19.00
519 912	Eyepiece net micrometer, 10 x 10mm divided into squares 0.075mm, unmounted	19.00
519 900	Eyepiece net micrometer, 10 x 10mm divided into squares 0.5mm, unmounted	19.00
519 914	Eyepiece net micrometer, 10 x 10mm divided into squares 0.2mm, unmounted	19.00
519 901	Eyepiece net micrometer, 10 x 10mm divided into squares 1.0mm, unmounted	19.00
519 902	Eyepiece net micrometer, 10 x 10mm divided into squares 2.0mm, unmounted	19.00

<u>IMMERSION OIL</u>		
513 035	Bottle, 10 grams	\$ 1.00
513 059	Bottle, 50 grams	2.00
513 060	Bottle, 100 grams	3.00
513 061	Bottle, 250 grams	6.60
513 062	Bottle, 500 grams	12.00
513 063	Bottle, 1000 grams	20.00
<u>IMMERSION OIL, FREE OF FLUORESCENCE</u>		
513 036	Bottle, 10 grams	\$ 1.40
513 064	Bottle, 50 grams	2.60
513 065	Bottle, 100 grams	3.80
513 066	Bottle, 250 grams	7.60
513 067	Bottle, 500 grams	13.00
513 068	Bottle, 1000 grams	24.00
<u>MISCELLANEOUS ACCESSORIES AND SPARE PARTS</u>		
512 119	Mipolam pad	\$ 3.00
051 305	Leatherette carrying case, horizontal	52.00
512 037	Flexible plastic protective dust cover	2.00
050 540	Bulb 20 volts, 25 watts	3.00
513 176	Illumination centering disc	1.00
500 016	Mercury burner HBO 200W, type L 11	47.00
513 093	Diamond object marker	\$ 42.00
513 030	Cover glass thickness gauge with graduation (1 interval = 1/100mm)	31.00
513 211	Funnel stop for achromatic objective 63x/0.85	\$ 2.00
513 069	Funnel stop for achromatic objective 100x/1.30 and fluorite 95x/1.32	2.00
513 212	Funnel stop for fluorite 54x/0.95	2.00
513 213	Funnel stop for apochromatic objective 40x/0.95	2.00
513 214	Funnel stop for apochromatic objective 63x/0.95	2.00
513 215	Funnel stop for apochromatic objective 90x/1.32	2.00



NEW DRAWING ATTACHMENT

513 261 Drawing attachment with 80/20 prism, adjustable lateral drawing tube, focusing device with built-in achromatic objective, eyepiece tube for the projection eyepiece (eyepiece not included), 45° mirror and bayonet mount for observation tubes; for SM and LABOLUX microscopes \$ 301.00

RECOMMENDED EYEPIECES

519 051 Periplanatic widefield eyepiece, single GF 12.5x, field of view 18mm (drawing area 14 - 23cm) \$ 49.00  
 519 128 Periplanatic eyepiece, single 10x<sup>0</sup>, field of view 18mm (drawing area 10 - 18cm) 29.00  
 519 180 Huygens eyepiece, single H 6.3x, field of view 18mm (drawing area 7 - 11cm) 16.00



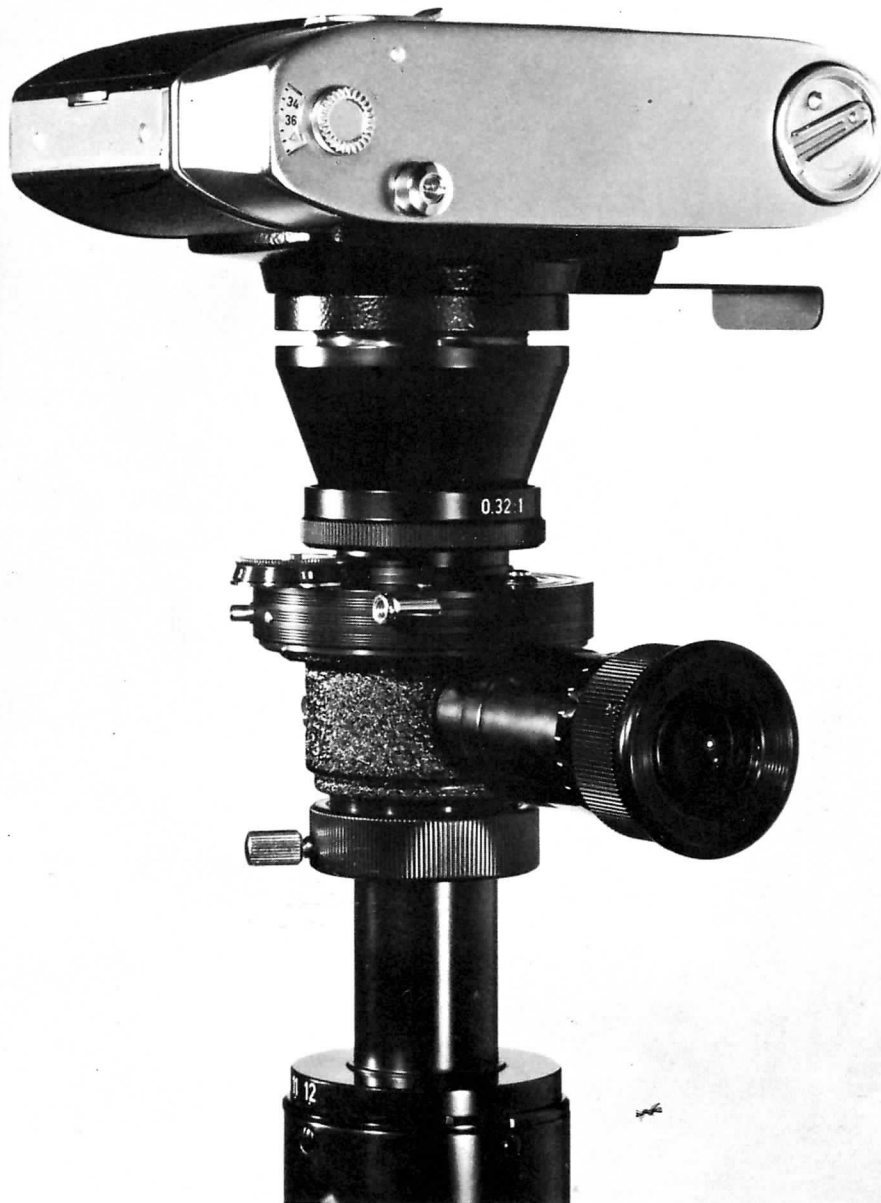
35MM PHOTOMICROGRAPHIC EQUIPMENT WITH THE LEICA CAMERA

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	\$ 257.00
519 137	Periplanatic widefield eyepiece, single GF 10x, field of view 18mm	39.00
543 058	MICROSIX-L exposure meter with a viewing angle of 30° of measuring eye	173.00
10,103	LEICA Camera body MDa with focal plane shutter, speeds of one to 1/1000th second and time, automatic flash synchronization, fast position loading, canted rewind-crank, built-in exposure counter automatically resets itself to zero on reloading camera, bayonet lens mount and provision to attach a special film marking device base plate	210.00
543 037	Cable release, 50cm length for bayonet mount LEICA Camera	3.60
		<u>\$ 682.60</u>

OPTIONAL

14,142	Special film marking device base plate with 10 marking tapes; for LEICA MDa Camera body	\$ 21.00
14,132	Package of 100 marking tapes	8.50

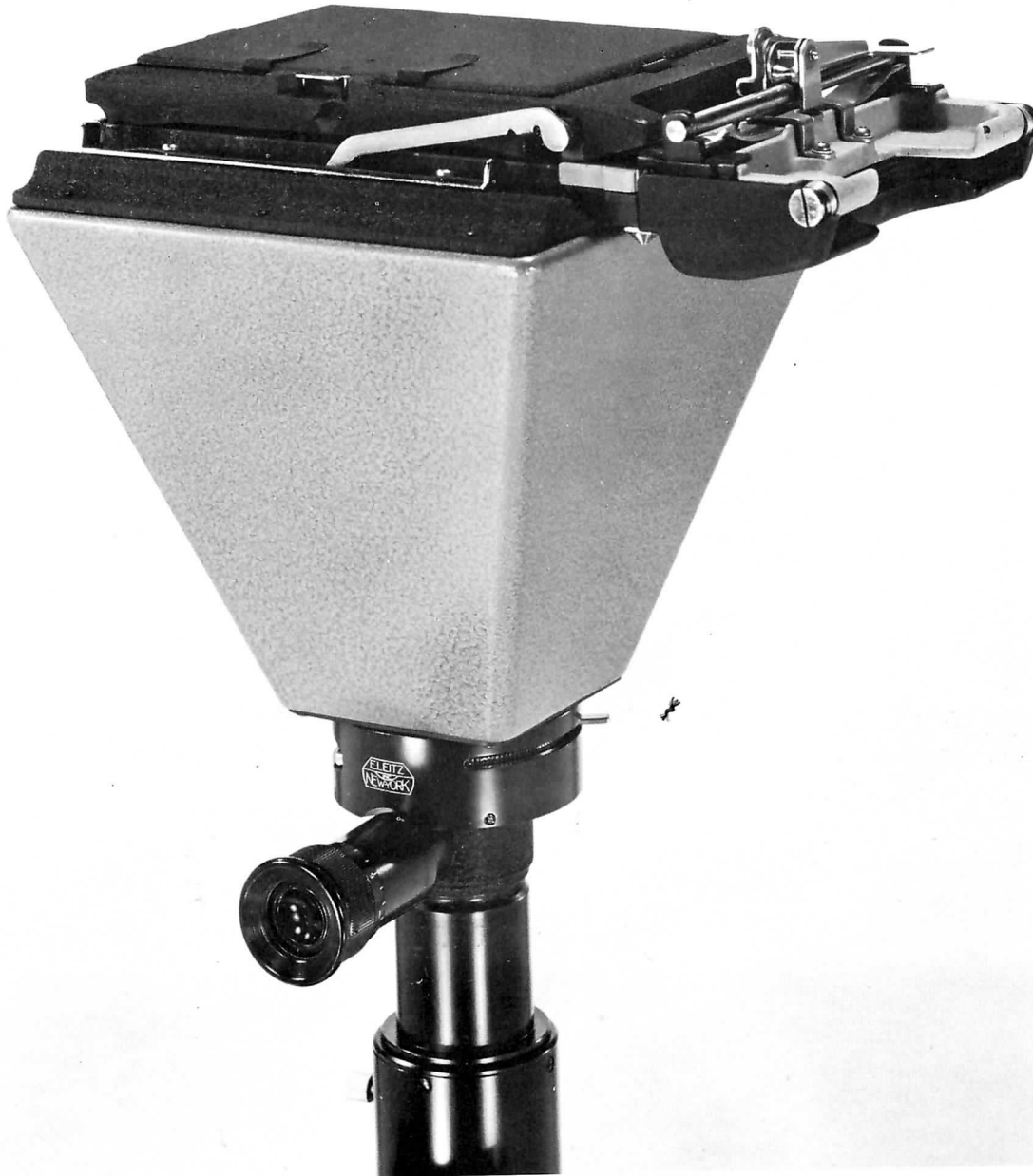




35MM PHOTOMICROGRAPHIC EQUIPMENT WITH SIMPLE FILM TRANSPORT HOUSING

054 320 Focusing arrangement with lateral telescope, self winding shutter for time and instantaneous exposures, two cable releases, periplanatic widefield eyepiece GF 10x, intermediate adapter 0.32:1 and film transport housing with light screening sleeve, film advance lever, film counter and rewind knob

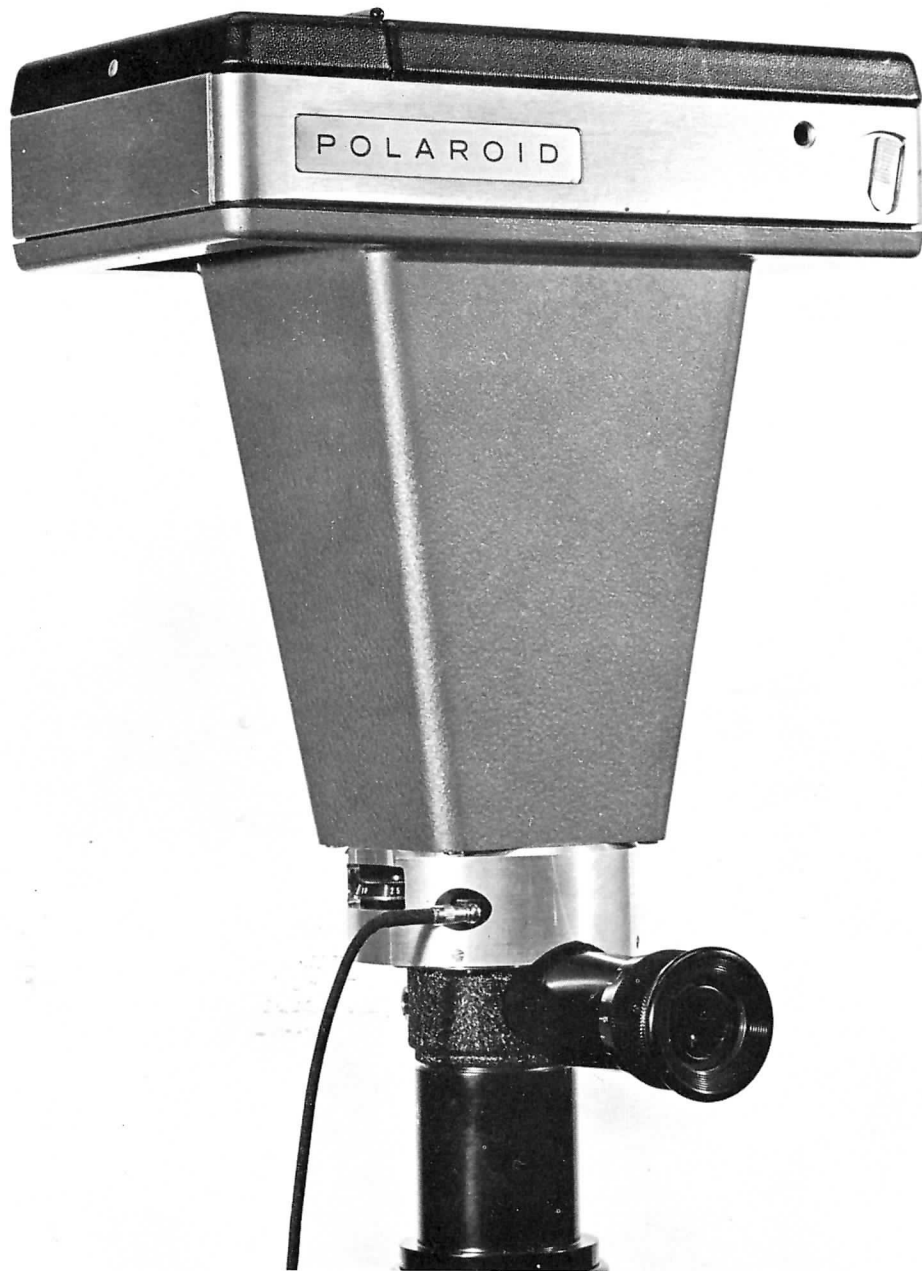
\$ 220.00



PHOTOMICROGRAPHY WITH THE POLAROID LAND CAMERA

POLAROID #500 FOR 4" X 5" SINGLE SHEET FILM

054 025	Micro camera attachment with lateral observation and focusing telescope with reticle for 4 x 5" film format, swing-in swing-out prism 75%/25%, anti-vibration mounted shutter with speeds of 1 to 1/125th seconds and time, two cable releases and periplanatic eyepiece 10x. Extension cone with frame to accept the POLAROID camera back, model #500	\$ 320.00
543 052	POLAROID land film holder, model #500, for 4 x 5" single sheet film	49.00
		\$ 369.00



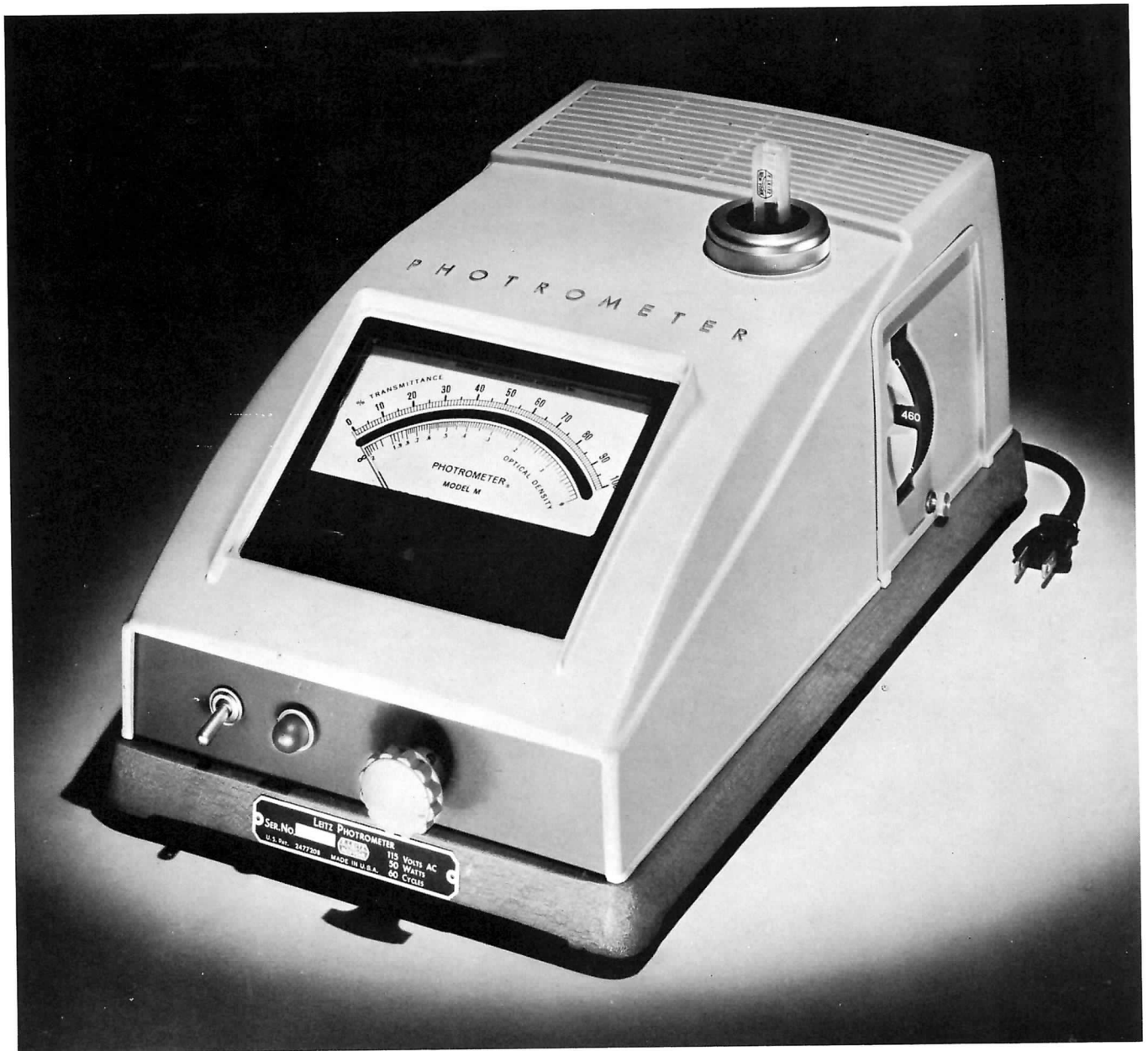
PHOTOMICROGRAPHY WITH THE POLAROID LAND CAMERA

POLAROID CB 100 FOR 3 1/4" X 4 1/4" FILM PACK

054 022

Micro camera attachment with lateral observation and focusing telescope, swing-in, swing-out prism 75%/25%, anti-vibration mounted shutter with speeds of 1 to 1/125th seconds and time, two cable releases and periplanatic eyepiece 10x. Extension cone with permanently mounted POLAROID camera back, model CB 100, for 3 1/4" x 4 1/4" black and white or color film pack

\$ 300.00



THE LEITZ PHOTROMETER MODEL "M"

The LEITZ PHOTROMETER is a classic filter photometer or photoelectric colorimeter. Its design is based upon a constant light source, narrow band, non-fading filters, and a pre-aged photocell matched to an extremely sensitive micro-ammeter. Its rugged construction and proven dependability make it well suited for the colorimetric measurements performed by physicians, hospitals, clinical laboratories etc.

LEITZ PHOTROMETER MODEL M - PRECALIBRATED for 115 volt, 60 cycles

CATALOG #

92350

PRICE

\$ 297.00

Complete in grey enameled die-cast housing with plastic dust cover; all working parts mounted on precision cast aluminum base; die-cast main mounting bracket - precision molded plastic cuvette holder - spring mounted front surfaced spherical focusing mirror - special stainless steel backed lamp socket base with 6 volt, 4.1 amp. prefocused spherical light bulb with soldered leads and male plug - built-in combination transformer - voltage stabilizer - dual mirror backed scale microammeter - built-in filter wheel with eleven narrow pass-band compound solid glass filters - on-off toggle switch and panel light - 115 volt molded line cord

Accessories included: Velvet-lined cuvette box with one sealed and four working cuvettes, all 10mm light path, six square rubber stoppers, hard cover handbook containing operating and maintenance instructions, procedures and calibration tables for the forty determinations listed below and directions for the preparation of the required reagents.

CALIBRATED FOR THE FOLLOWING DETERMINATIONS

- |                                       |  |
|---------------------------------------|--|
| 1. Acid Phosphatase                   | 21. Glucose in Blood, Micro Method             |
| 2. Acid Phosphatase, Prostatic        | 22. Glucose in Spinal Fluid                    |
| 3. Albumin in Serum                   | 23. Glucose in Urine                           |
| 4. Alkaline Phosphatase               | 24. Hemoglobin-Cyanmet                         |
| 5. Amylase in Blood                   | 25. Hemoglobin-Oxy                             |
| 6. Bilirubin                          | 26. Icterus Index                              |
| 7. Bilirubin (Semi-Micro)             | 27. Madribon in Blood                          |
| 8. Bromides in Serum                  | 28. Non-Protein Nitrogen in Blood              |
| 9. Bromsulphalein Liver Function Test | 29. Phenolsulfonphthalein Kidney Function Test |
| 10. Calcium in Serum                  | 30. Phosphorus (Inorganic Phosphate) in Serum  |
| 11. Chloride in Serum                 | 31. Protein (total) in Serum                   |
| 12. Chloride in Spinal Fluid          | 32. Protein in Spinal Fluid                    |
| 13. Chloride in Urine                 | 33. Red Blood Cell Count                       |
| 14. Cholesterol in Serum              | 34. Sulfadiazine in Blood                      |
| 15. Cholesterol Esters                | 35. Thymol Turbidity                           |
| 16. Creatinine in Blood               | 36. Urea Clearance Test                        |
| 17. Fibrinogen                        | 37. Urea Nitrogen in Blood                     |
| 18. Gantrisin in Blood                | 38. Urea Nitrogen in Urine                     |
| 19. Globulin in Serum-A/G Ratio       | 39. Uric Acid in Blood                         |
| 20. Glucose in Blood                  | 40. Zinc Turbidity                             |

LEITZ PHOTROMETER MODEL "M" - UNCALIBRATED for 115 volt, 60 cycles

CATALOG #

92340

PRICE

\$255.00

For those who prefer to use standards, and prepare their own calibration curves, or who want to use special procedures, the LEITZ PHOTROMETER is available UNCALIBRATED. The instrument is the same as the Photrometer listed above except that the instrument is UNCALIBRATED. The Handbook contains all forty procedures, but with BLANK calibration tables.

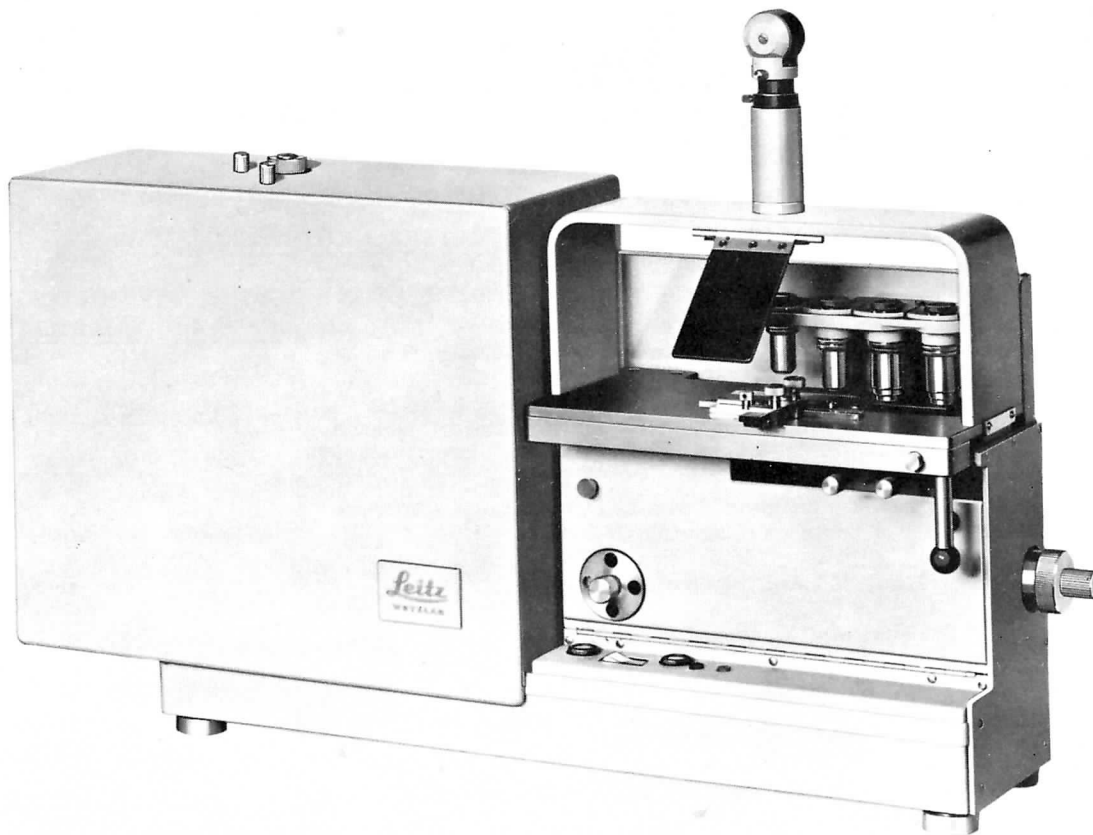
GLASSWARE AND ACCESSORIES FOR  
LEITZ PHOTROMETERS # 7000 - 27999 MODEL "M" PHOTROMETERS # 28000 AND UP

	<u>CAT. #</u>	<u>QUANTITY</u>	<u>PRICE \$</u>
Cuvette, 5 x 10mm rectangular, 5mm light path, total capacity 4.5ml	94509	each	3.60
Cuvette, 10 x 10mm square, 10mm light path, total capacity 9.0ml	94506	each	3.60
Cuvette, 20 x 20mm square, 20mm light path, total capacity 45ml	94512	each	9.30
Cuvette, 5 x 10mm rectangular, filled with distilled water and sealed	94514	each	4.20
Cuvette, 10 x 10mm square, filled with distilled water and sealed	94515	each	4.20
Cuvette, 20 x 20mm square, filled with distilled water and sealed	94513	each	10.20
Cuvette, 10 x 10mm square, glass stoppered	94518	each	7.50
Flow Thru Cuvette, 10 x 10mm square	94627	each	9.00
Cuvette Holder for 5 x 10mm cuvettes, for #28000 and up	92326	each	3.60
Cuvette Holder for 10 x 10mm cuvettes, for #28000 and up	92327	each	3.60
Cuvette Holder for 10 x 10mm cuvettes, for #7000 to #27999	92056	each	6.00
Cuvette Rack stainless steel, for sixteen 5 x 10 or 10 x 10mm cuvettes	94533	each	6.90
Cuvette Rack stainless steel, for four 20 x 20mm cuvettes	94536	each	6.90
Stoppers, rubber, square for 10 x 10mm cuvette	94539	pkg. of 6	0.90
Yellow Color Standard, sealed into cuvette for checking reproducibility of instrument	94542	each	9.90
Handbook for model "M" Photrometer, with loose leaf pages, outlining 40 clinical colorimeter procedures and with blank calibration tables	92364	each	7.50
Handbook Cover, only for model "M"	92363	each	3.00
Handbook, Industrial model "M"	92325	each	7.50
Handbook for older model Photrometer (7000-27999) with loose leaf pages, outlining 22 clinical colorimetric procedures and with blank calibration tables	92033	each	5.85
Handbook, as above, but with outlines for 40 colorimetric procedures and with blank calibration tables	92034	each	7.50
Handbook Cover, only for #7000 to #27999	92057	each	3.00
Light Bulbs, 6 volts, with soldered leads and male plug, suitable for Photrometers with serial numbers 19000 and up; also lower serial numbers if instrument was converted (check before ordering)	94528	each	1.70
Light Bulbs, pkg. of 5, same as above	94529	per pkg.	7.50
Light Bulbs with wires and lugs, only for Photrometers with serial number 7001 to 7600	94524	pkg. of 5	7.50
Light Bulbs, for Photrometers with serial numbers 7601 to 18999 (plain flanged bulbs-no wires)	94504	pkg. of 5	5.50



PIPETTES AND OTHER ACCESSORIES  
TO BE USED WITH ALL LEITZ COLORIMETERS AND PHOTROMETERS

	<u>CAT. #</u>	<u>QUANTITY</u>	<u>PRICE \$</u>
Pipette, Oxyhemoglobin, "Combination", with two graduations, for ratio of 0.025 parts blood to 5.025 parts total solution	94563	each	3.45
Pipette, "Precision Combination", same as above, but with ratio tolerance within $\pm 2\%$	94566	each	5.55
Pipette, Cyanmethemoglobin, "Combination", with two graduations, for ratio of 0.020 parts blood to 5.020 parts total solution	94560	each	3.45
Pipettes, "to contain" 0.01ml, for Red Blood Cell Count	94572	pkg. of 3	5.55
Pipettes, "to contain" 0.020ml, for Cyanmethemoglobin	94556	pkg. of 3	5.55
Pipettes, "to contain" 0.025ml, for Oxyhemoglobin	94548	pkg. of 3	5.55
Pipettes, "to contain" 0.05ml, for Oxyhemoglobin	94552	pkg. of 3	5.55
Pipette, "to contain" 0.1ml, for Serum Chloride and/or Thymol Turbidity determinations	94576	each	1.65
Pipette, "to contain" 0.2ml, for Micro-Glucose	94569	each	1.65
Pipette, Van Slyke-Neill, 0.1ml "between markings", for micro work (red label package)	94577	each	2.70
Pipette, Van Slyke-Neill, 0.2ml "between markings", for micro work (blue label package)	94570	each	2.70
Blood Sugar Tubes, Folin-Wu, graduated at 25ml	94586	pkg. of 6	5.40
Blood Sugar Tubes, Folin-Wu, graduated at 12.5ml and 25ml	94582	pkg. of 6	6.00
N.P.N. Tubes, pyrex, graduated at 35ml and 50ml	94590	pkg. of 6	6.60
Urea Nitrogen Tubes, pyrex, graduated at 22.5ml and 25ml	94594	pkg. of 6	6.60
Apparatus for Plasma CO <sub>2</sub> Capacity determination	94579	per set	13.50
Glass Beads	94604	per 1/4 lb.	3.45
Filter Paper, Whatman, #40, 12.5cm	94598	per pkg.	3.00
Filter Paper, Whatman, #42, 12.5cm	94601	per pkg.	3.00
Cover, transparent pilotfilm, for all models	94545	each	1.35



MICROPROJECTOR XIc WITH HIGH INTENSITY XENON LAMP XBO 450W

A) WITH OPTICAL EQUIPMENT #1 FOR SPECIMENS WITH COVER GLASSES

35,100	Microprojector XIc with lamp socket to accept XBO 450W Xenon Lamp and light proof housing. Special projection microscope for rapid change of four ranges of magnification, coaxial coarse and fine adjustment, two each low power and high power condensers and large built-in mechanical stage. Blower, three lens collimator, calflex heat filter, cold light reflection mirror and rotating dial with neutral and green filters.  General survey objective Plano 2.5x/0.08, Plano objectives Pl 10x/0.30, Pl 25x/0.50, Pl Fl 40x/0.65 and projection prism	\$3,879.00
050 240	Rectifier 110 volts, 60 cycles A.C. with 17 and 25 amp settings	1,858.00
500 031	High pressure Xenon bulb XBO 450W	<u>185.00</u>
	Microprojector XIc with XBO 450W Xenon bulb, optical and electrical equipment complete as described above, however without projection eyepiece	\$5,922.00

B) WITH OPTICAL EQUIPMENT #2 FOR SPECIMENS WITH COVER GLASSES

35,101	Microprojector XIc with lamp socket to accept XBO 450W Xenon Lamp and light proof housing. Special projection microscope for rapid change of four ranges of magnification, coaxial coarse and fine adjustment, two each low power and high power condensers and large built-in mechanical stage. Blower, three lens collimator, calflex heat filter, cold light reflection mirror and rotating dial with neutral and green filters.  Plano objective Pl 3.2x/0.06 and Pl 16x/0.30, apochromatic objective 40x/0.95 fitted with 2x/ $\infty$ tube lens and collar, plano objective Pl Oil 160x/1.40 and projection prism	\$4,527.00
050 240	Rectifier 110 volts, 60 cycles A.C. with 17 and 25 amp settings	1,858.00
500 031	High pressure Xenon bulb XBO 450W	<u>185.00</u>
	Microprojector XIc with XBO 450W Xenon bulb, optical and electrical equipment complete as described above, however without projection eyepiece	\$6,570.00

C) WITH OPTICAL EQUIPMENT #3 FOR SPECIMENS WITHOUT COVER GLASSES

35,102	Microprojector Xic with lamp socket to accept XBO 450W Xenon Lamp and light proof housing. Special projection microscope for rapid change of four ranges of magnification, coaxial coarse and fine adjustment, two each low power and high power condensers and large built-in mechanical stage. Blower, three lens collimator, calflex heat filter, cold light reflecting mirror and rotating dial with neutral and green filters. Plano objectives Pl 3.2x/0.06, Pl 16x/0.30, Pl 80x/0.95, Pl Oii 160x/1.40 and projection prism	\$4,632.00
050 240	Rectifier 110 volts, 60 cycles A.C. with 17 and 25 amp settings	1,858.00
500 031	High pressure Xenon bulb XBO 450W	<u>185.00</u>
	Microprojector Xic with XBO 450W Xenon bulb, optical and electrical equipment complete as described above, however without projection eyepiece	\$6,675.00

D) WITH OPTICAL EQUIPMENT #4 FOR SPECIMENS WITH COVER GLASSES

35,103	Microprojector Xic with lamp socket to accept XBO 450W Xenon Lamp and light proof housing. Special projection microscope for rapid change of four ranges of magnification, coaxial coarse and fine adjustment, two each low power and high power condensers and large built-in mechanical stage. Blower, three lens collimator, calflex heat filter, cold light reflecting mirror and rotating dial with neutral and green filters. Plano objectives Pl 3.2x/0.06, Pl 16x/0.30, achromatic objective 25x/0.50 fitted with 2x/∞ tube lens and collar, apochromatic objective 40x/0.95 fitted with 2x/∞ tube lens and collar and projection prism	\$3,960.00
050 240	Rectifier 110 volts, 60 cycles A.C. with 17 and 25 amp settings	1,858.00
500 031	High pressure Xenon bulb 450W	<u>185.00</u>
	Microprojector Xic with XBO 450W Xenon bulb, optical and electrical equipment complete as described above, however without projection eyepiece	\$6,003.00

PROJECTION EYEPIECES

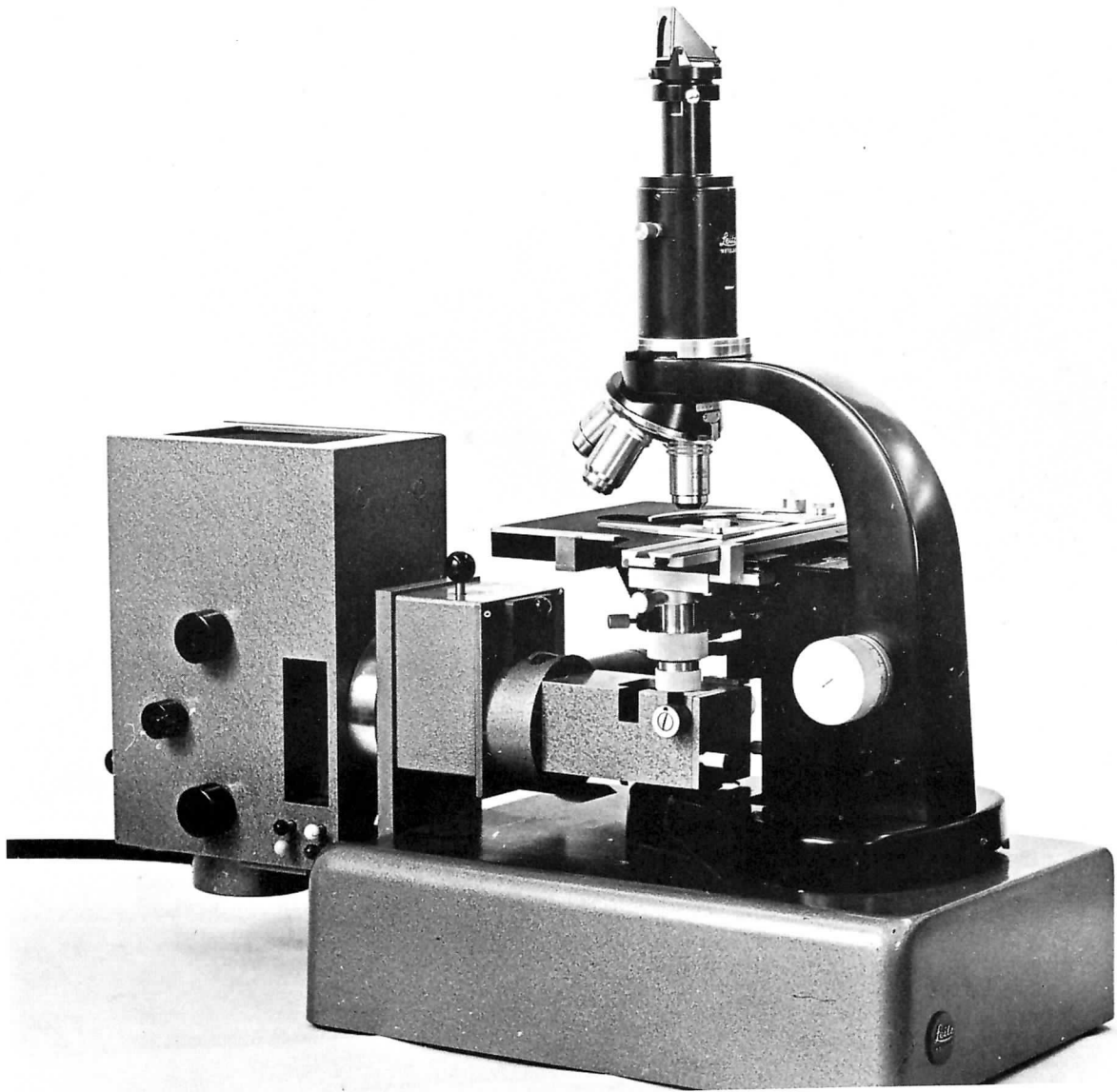
According to the required projection distances the following eyepieces may be selected:

FOR PROJECTION DISTANCES OF:

35,492	12 to 15 feet projection eyepiece periplanatic	5x	\$ 27.00
35,493	12 to 18 feet projection eyepiece periplanatic	4x	27.00
35,494	18 to 24 feet projection eyepiece periplanatic	3.2x	27.00
35,495	24 to 30 feet projection eyepiece	2.5x	51.00
37,300	30 to 36 feet projection eyepiece	2x	46.00
35,496	36 to 48 feet projection eyepiece	1.6x	54.00
35,497	48 to 60 feet projection eyepiece	1.25x	63.00
35,498	60 to 69 feet projection eyepiece	1x	54.00

OPTIONAL

35,499	Protective dust cover	\$ 4.00
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LEITZ MICROPROJECTOR SM-M EQUIPPED WITH NPL PLANO ACHROMATIC OBJECTIVES

051 235	Modern stand, SM-M, made of non-corroding alloy with single knob, combined coarse and fine focusing motion; identical controls on either side of the stand for the vertical displacement of the stage along precision ball races. Dovetail carrier - .5 for the interchange of condensers with rack and pinion for the adjustment in the height of condenser; including flexible plastic protective dust cover	\$ 120.00
512 043	Quadruple revolving objective nosepiece on ball bearing races 0.4. -	35.00
512 064	Interchangeable, straight monocular tube O	25.00
051 322	Mechanical stage #47, 135 x 135mm, with scales and verniers and low set operating knobs; traversing are 76 x 50mm	94.00
512 085	Swing-out condenser with aperture diaphragm, centering mount and interchangeable aspherical top element AS 0.90, #601; on dovetail carrier	51.00
	LEITZ Microscope SM-M 0.4.5. - O 47/601 as described above	\$ 325.00

OPTICAL EQUIPMENT

519 245	Achromatic dry plano objective, NPL 6.3x/0.20, focal length 23.6mm, free working distance 2mm	\$ 104.00
519 246	Achromatic dry plano objective, NPL 16x/0.40, focal length 10.8mm, free working distance 0.50mm	107.00
519 247	Achromatic dry plano objective, NPL 25x/0.50, focal length 6.99mm, free working distance 0.38mm, with spring loaded mount	119.00
519 248	Achromatic dry plano objective, NPL 40x/0.65, focal length 4.53mm, free working distance 0.15mm, with spring loaded mount	140.00
519 185	Periplanatic eyepiece, single 6.3x, field of view 18mm	33.00
513 137	Adjustable projection prism	34.00

ILLUMINATION SYSTEM, HALOGEN ARC LAMP 250W

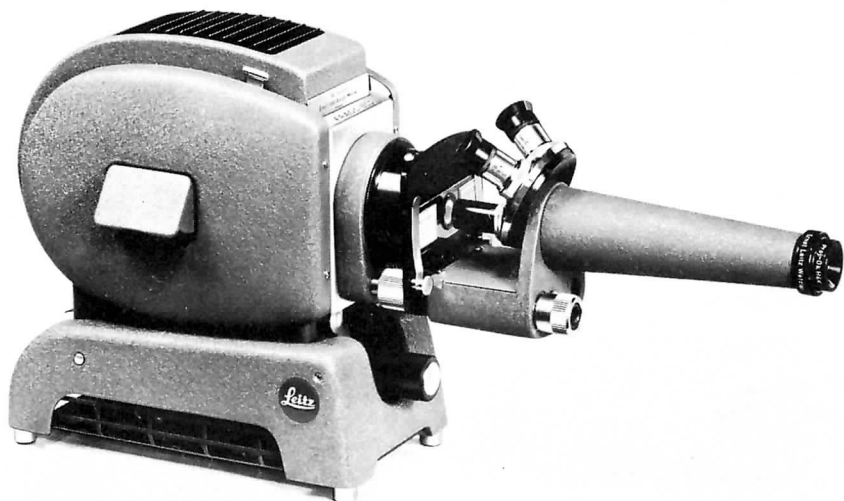
514 189	Universal lamp housing model #250 with filter changing device, reflector and two lens collector. Elevating base K, carrier plate #17 with bayonet mount to accept the model #250 lamp housing and mirror housing #15S with connecting tube, built-in field diaphragm and swing-out supplementary collector. Lamp socket P 28 S, and Halogen Arc lamp; including heat absorbing filter KG 1 unmounted, dispersion disc N mounted, grey filter 0.2% mounted, spectral filter K 380 mounted, spectral filter K 420 mounted and protective dust cover	\$ 737.00
513 176	Illumination centering disc	1.00
	LEITZ Microprojector SM-M 0.4.5. - O 47/601 complete with optical and illumination equipment as described above	\$1,600.00
500 084	Power unit for Halogen Arc lamp for connection to 110/120 volts, 60 cycles A.C.	220.00
		\$1,820.00

OPTIONAL EQUIPMENT

512 133	Low voltage lamp 6 volts, 15 watts with daylight conversion filter CB 16, ground glass, green filter and spare bulb	\$ 51.00
500 124	Regulating transformer with voltmeter for two 6 volt, 15 watt lamps, two 8 volt, 5 watt or two 6 volt, 5 watt lamps; for connection to 110 volts, 60 cycles A.C.	67.00
512 072	Interchangeable, inclined binocular observation and straight monocular photographic tube "FS"	308.00
519 129	Periplanatic eyepieces, paired 10x <sup>0</sup> , field of view 18mm	58.00

REPLACEMENT PARTS

514 156	Lamp socket P 28 S for Halogen Arc lamp	\$ 20.00
500 074	Halogen Arc lamp 250W	85.00
514 027	Heat absorption filter 2mm, KG 1, unmounted	9.00
514 042	Dispersion disc N, mounted	9.00
514 031	Grey filter 0.2%, mounted	12.00
514 169	Spectral filter K 380, mounted	13.00
514 170	Spectral filter K 420, mounted	19.00



LEITZ PRADO 500 PROJECTOR FOR MICRO OR 2 x 2" SLIDE PROJECTION

MICROPROJECTION

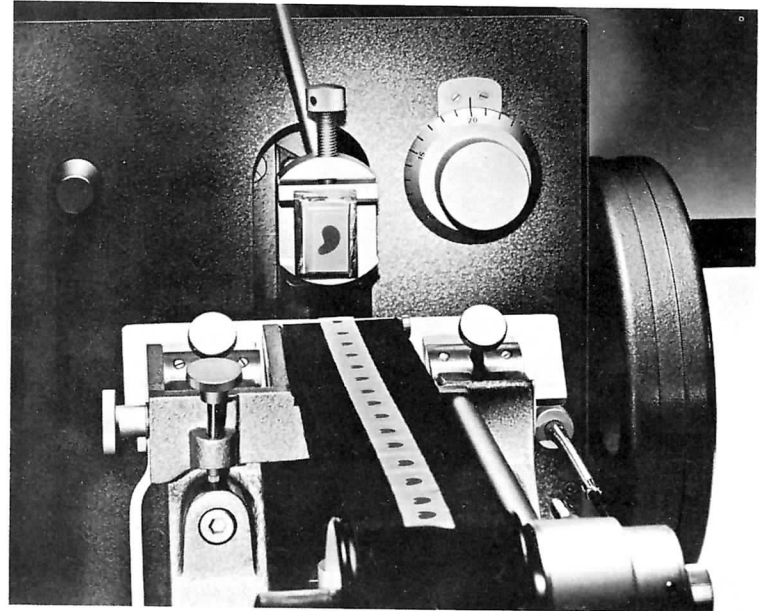
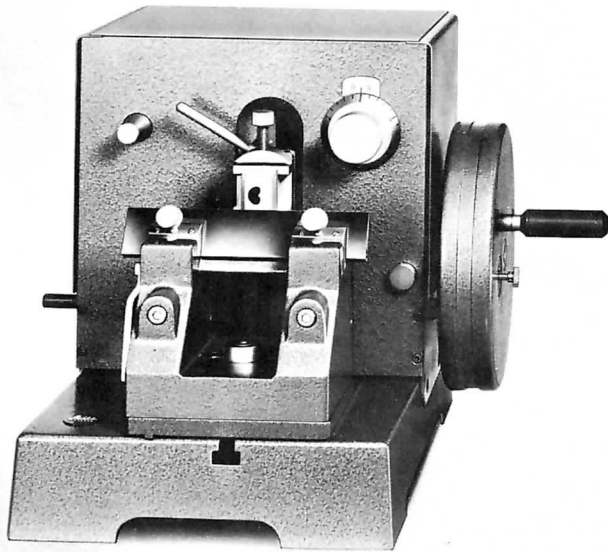
32,806	Large Horizontal Micro Attachment with interchangeable projection front with sliding bars, microscope carrier with clamping and focusing device, object stage, adjustable condenser lens and tube. Triple revolving objective nosepiece with Achromatic dry objectives 3.5x/0.10, 10x/0.25 and 25x/0.50; including Huygens 4x projection eyepiece	\$ 294.00
98,500	PRADO 500 Projector with 500 watt, 120 volt bulb, connecting cord, aspherical condenser, one heat filter and 110/120 volt A.C. motor driven blower, but without front assembly, lens or slide changer	<u>113.40</u>
	LEITZ Horizontal PRADO Microprojector complete as described above	\$ 407.40
32,807	Large Vertical Micro Attachment with interchangeable mirror housing fitting projector with two vertical bars and deflecting mirror, microscope carrier with clamping and focusing device, object stage, adjustable condenser lens and tube. Triple revolving objective nosepiece with Achromatic dry objectives 3.5x/0.10, 10x/0.25 and 25x/0.50; including Huygens 4x projection eyepiece	\$ 319.00
98,500	PRADO 500 Projector with 500 watt, 120 volt bulb, connecting cord, aspherical condenser, one heat filter and 110/120 volt A.C. motor driven blower, but without front assembly, lens or slide changer	<u>113.40</u>
	LEITZ Vertical PRADO Microprojector complete as described above	\$ 432.40

OPTIONAL EQUIPMENT

32,814	Attachable mechanical stage #43 with bracket to fit micro attachments	\$ 96.00
37,300	Projection eyepiece, Periplanatic 2x	46.00
37,301	Projection eyepiece, Huygens 4x (included in basic outfit #32,806 and #32,807)	20.00
37,820	Adjustable projection prism	34.00
37,850	Culture trough, 1mm depth	12.00
37,857	Culture trough, 2mm depth	12.00
37,858	Culture trough, 3mm depth	12.00
37,859	Culture trough, 4mm depth	12.00

SUPPLEMENTARY EQUIPMENT FOR 2 x 2" SLIDE PROJECTION

32,610	Front assembly with field condenser, 2 x 2 inch slide changer and 90mm COLORPLAN f/2.5 projection lens	\$ 78.60
32,600	Front assembly with field condenser, 2 x 2 inch slide changer and 100mm ELMARON f/2.8 projection lens	65.10
32,620	Front assembly with field condenser, 2 x 2 inch slide changer and 120mm HEKTOR f/2.5 projection lens	99.60

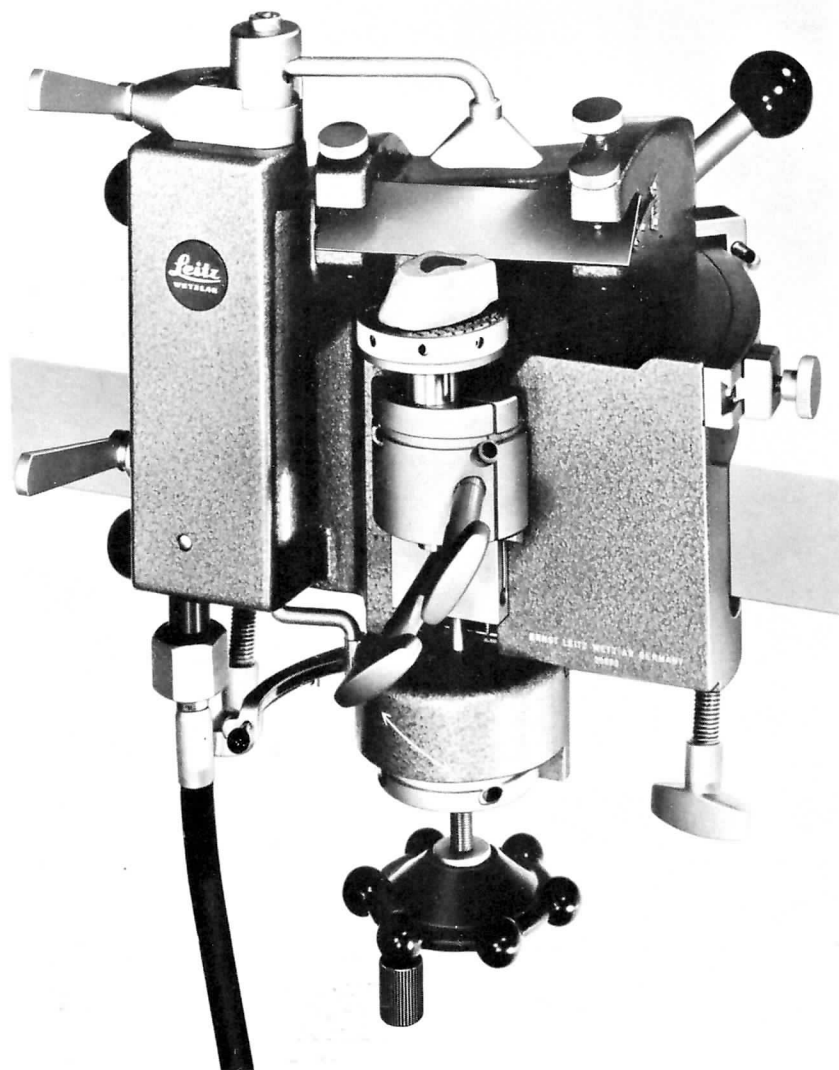


MINOT ROTARY MICROTOME #1212 (1 - 25 MICRONS)

530 007	Minot Rotary Microtome #1212 with automatic specimen feed and graduated drum head for adjusting the cutting thickness from 1 to 25 microns. Rapid advance coarse adjustment of the specimen with lever positioned on the left side of the housing. Finely counter balanced wheel for ease of operation. Heavy duty knife block with dual knife guards, adjustable knife clamp and scale for reading the inclination of the knife. Ball and socket object clamps for quick orientation of the sample with changing device for paraffin fiber blocks or metal paraffin stage. Microtome is set on large heavy base with rubber feet and enclosed in protective cast metal housing; including protective dust cover	\$1,286.00
530 052	Simple strop, single faced leather on wooden base, 36cm length	14.00
530 097	Minot microtome knife 17cm length, wedge shaped	41.00
530 084	Plastic stropping bevel for Minot knife, 17cm length	4.00
530 039	Knife handle with screw thread	4.00
530 008	LEITZ Minot Rotary Microtome #1212 for paraffin sections, complete as described above	\$1,349.00
530 010	Minot Rotary Microtome #1212 as described under catalog #530 007, however, equipped with a larger protective dust cover to accommodate the automatic belt conveyor	\$1,286.00
530 052	Simple strop, single faced leather on wooden base, 36cm length	14.00
530 097	Minot microtome knife 17cm length, wedge shaped	41.00
530 084	Plastic stropping bevel for Minot knife, 17cm length	4.00
530 039	Knife handle with screw thread	4.00
530 061	Automatic conveyor belt with cable release	128.00
530 012	LEITZ Minot Rotary Microtome #1212 with automatic conveyor belt, for paraffin sections, complete as described above	\$1,477.00

OPTIONAL ACCESSORIES AND SPARE PARTS

530 048	Adjustable knife block for setting the knife obliquely when cutting hard paraffin materials	\$ 95.00
530 045	Razor blade holder	32.00
530 054	Strop	9.00
530 053	Stropping paste	1.00
530 011	Special clamping device with V shaped slot for paraffin stage	24.00
530 138	Paraffin stage 25mm $\phi$	4.00
530 137	Paraffin stage 30mm $\phi$	4.00
530 003	Protective dust cover (as included with catalog #530 007)	4.00
530 006	Protective dust cover (as included with catalog #530 010)	4.00



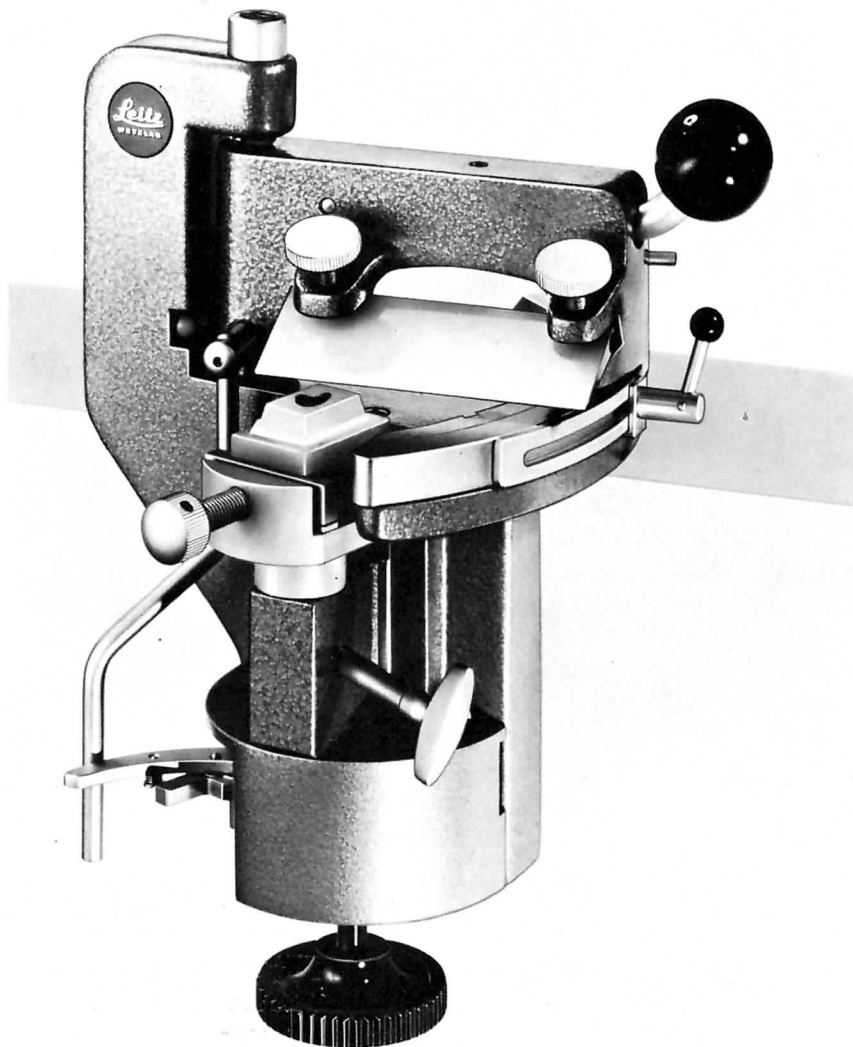
LARGE FREEZING MICROTOME #1310 (2.5 - 50 MICRONS)

530 026	Large Freezing Microtome #1310 with built-in freezing arrangement for the specimen and knife cooler; microtome mechanism for setting the cutting thickness 2.5 to 50 microns. Standard 50mm circular freezing stage for cutting sections with or without knife cooler, simple paraffin stage 35mm $\phi$ and tilting object clamp for cutting paraffin sections	\$ 758.00
530 031	Loew pattern knife 11cm length, wedge shaped	22.00
530 080	Plastic stropping bevel for Loew pattern knife, 11cm length	3.00
530 039	Knife handle with screw thread for Loew pattern knife	4.00
530 052	Simple strop, single faced leather on wooden base, 36cm length	14.00
530 030	LEITZ Large Freezing Microtome #1310 for paraffin sections, complete as described above	\$ 801.00

OPTIONAL EQUIPMENT AND SPARE PARTS

530 033	Tilting freezing stage 50mm $\phi$	\$ 57.00
530 034	Circular freezing stage 50mm $\phi$ (included in #530 026)	27.00
530 027	Circular freezing stage 35mm $\phi$	24.00
530 035	Tilting object clamp for paraffin sections	48.00
530 032	Special freezing stage 50mm $\phi$ for cutting with or without knife cooler	33.00
530 028	Simple object stage 35mm $\phi$ for paraffin sections (included in #530 026)	12.00
530 046	Razor blade holder	24.00
530 089	CO <sub>2</sub> tubes (as replacement)	\$ 29.00
530 004	Protective dust cover (included in basic equipment #530 026)	4.00



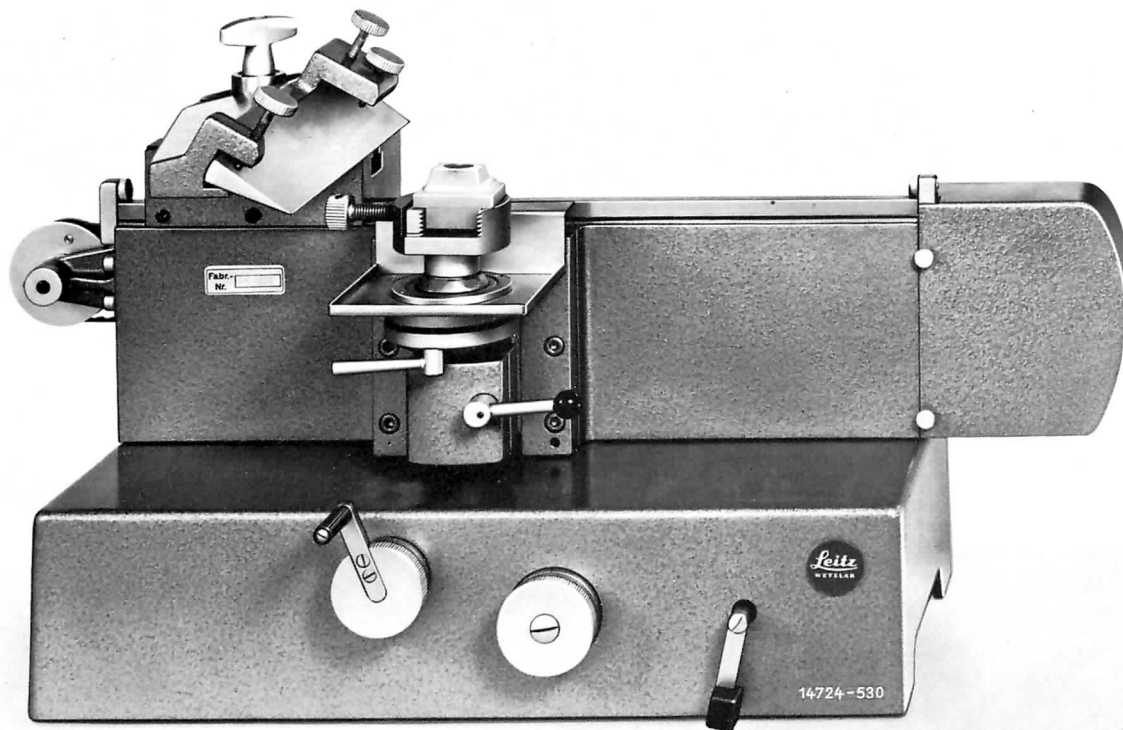


SMALL LABORATORY FREEZING MICROTOME #1213 (5 - 50 MICRONS)

530 062	Laboratory Microtome #1213 with movable knife holder on ball bearings with guide track; thickness of specimens adjustable between 5 and 50 microns. Automatic specimen feed, enclosed micrometer mechanism, paraffin stage and object clamp	\$ 296.00
530 098	Loew pattern knife 9cm length, wedge shaped	17.00
530 083	Plastic stropping bevel for Loew pattern knife, 9cm length	3.00
530 039	Knife handle with screw thread for Loew pattern knife	4.00
530 054	Zimmer strop, four faced (three leather and one hone), 20cm length	9.00
530 063	LEITZ Small Laboratory Microtome #1213 for paraffin sections, complete as described above	\$ 329.00
530 068	Carbon dioxide freezing attachment with 35mm $\phi$ freezing stage	70.00
563 064	LEITZ Small Laboratory Freezing Microtome #1213 for paraffin sections, complete as described above	\$ 399.00
530 049	Knife cooling attachment with CO <sub>2</sub> connecting tube	92.00
530 060	LEITZ Small Laboratory Freezing Microtome #1213 for paraffin sections, complete with knife cooling attachment as described above	\$ 491.00

OPTIONAL EQUIPMENT AND SPARE PARTS

530 046	Razor blade holder	\$ 24.00
530 089	CO <sub>2</sub> tubes (as replacement for #530 068)	29.00
530 088	CO <sub>2</sub> tubes (as replacement for #530 049)	29.00
530 005	Protective dust cover	5.00



SLEDGE MICROTOME (1 - 30 MICRONS)

530 106	Sledge Microtome #1207 with heavy cast iron base and precision guideway for the knife sledge; automatic object feed after return of knife sledge or manual feed by means of a transport lever. Object feed vertical to the cutting plane, adjustable between 1 $\mu$ m and 30 $\mu$ m at intervals of 1 $\mu$ m with micrometer spindle. Section thickness above 30 $\mu$ m adjustable by hand lever of the coarse adjustment. Ball and socket object clamp, section trough, single knife clamp and protective dust cover	\$ 799.00
530 113	Loew pattern knife 20cm length, wedge shaped	39.00
530 101	Pair of knife guards	6.00
530 126	Plastic stropping bevel for Loew pattern knife, 20cm length	4.00
530 039	Knife handle with screw thread for Loew pattern knife	4.00
530 052	Simple strop, single faced leather on wooden base, 36cm length	14.00
530 104	LEITZ Sledge Microtome #1207 for paraffin sections, complete as described above	\$ 866.00
530 109	Crank drive for the knife sledge	153.00
530 110	Special knife clamp	42.00
530 114	Loew pattern knife 20cm length, strongly plano-concave	39.00
530 105	LEITZ Sledge Microtome #1207 for paraffin and celloidin sections, complete as described above	\$1,100.00

OPTIONAL ACCESSORIES AND SPARE PARTS

530 108	Knife clamp	\$ 21.00
530 111	Ball and socket clamp	59.00
530 112	Object clamp	24.00
530 117	Loew pattern knife 20cm length, plano-concave	39.00
530 059	Object block 75 x 60mm	\$ 3.00
530 058	Object block 60 x 60mm	2.60
530 056	Object block 45 x 40mm	2.60
530 055	Object block 30 x 30mm	2.40
530 057	Object block 25 x 25mm	1.40
530 053	Stropping paste	1.00
530 129	Protective dust cover	4.00



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

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