Microscope illustrated on front cover:

LEITZ® DIALUX 20/ORTHOMAT W Photomicroscope
Light path of SM-LUX Microscope
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PART I

MICROSCOPES DESIGNED FOR 170mm MECHANICAL TUBE LENGTH
HM-LUX

IS A MICROSCOPE FOR STUDENTS' USE AS WELL AS A TEACHING AND MEDICAL LABORATORY TOOL WITH EXCELLENT OPTICAL QUALITY. IT HAS A COMPACT, RIGID DESIGN, WITH SMOOTH, EASY-TO-CLEAN SURFACES AND READILY ACCESSIBLE CONTROLS.
LEITZ Monocular Medical and Teaching Microscope, HM-LUX, consisting of:

- Modern and compact microscope stand HM-LUX, made of corrosion resistant alloy, with three knobs combined coarse and fine adjustment with vertical travel of 33 mm to an accuracy of 2 µm for focusing the object stage. Precision bayonet tube changing device to accept either monocular or binocular observation tubes.

- Permanently attached quadruple revolving objective nosepiece on ball bearing races with precision internal click stops 0.4 µm.

- Diawell carrier for the interchange of condensers, with rack and pinion for the adjustment in the height of the condenser. 0.5 µm.

- Built-in illumination system TL, with frosted collector, lamp socket with two 6 volt, 10 watt filament bulbs and regulating transformer for connection up to 110 volts, 60 cycles A.C.

- Interchangeable, inclined monocular observation tube P, rotatable through 360 degrees.

- Permanently attached object stage 130 x 125 mm with attachable mechanical stage with low set coaxial control knobs, traversing an area 75 x 50 mm, No. 16.

- Brightfield condenser No. 301, with aperture diaphragm and swinging top element A1, 0.50, on interchange carrier.

- Flexible plastic protective dust cover.

**Optical Equipment A 51x Mono**

- Achromatic dry objective, 4/0.12, free working distance 24 mm.

- Achromatic dry objective, 10/0.25, free working distance 6.7 mm.

- Achromatic oil immersion objective, 40/0.65, free working distance 0.42 mm, with spring loaded mount.

- Achromatic oil immersion objective, 100/1.25, free working distance 0.10 mm, with spring loaded mount.

- Immersion oil, PCB free, negligible fluorescence Na 23, λ 1.518, 10 ml bottle.

**PERPLAN Widefield Eyepiece**, single NF, 10x, field of view 18 mm.

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051 598 LEITZ Monocular Medical and Teaching Microscope HM-LUX 0.45-46 P 16/301 complete with optical equipment A 51x Mono for brightfield transmitted light

051 609 LEITZ Monocular Medical and Teaching Microscope HM-LUX 0.45-46 P 16/301 complete with optical equipment as described above, however, without 4/0.12 objective.
LEITZ Binocular Medical and Teaching Microscope, HM-LUX, consisting of:

Modern and compact microscope stand HM-LUX, made of corrosion resistant alloy, with simple knoll combined coarse and fine adjustment with verticaal screw of 2.5mm to an accuracy of 0.1 mm for focusing the object stage. Precision bayernet tube changing device to adapt either monocular or binocular observation tubes

Permanently attached quadrupli revolving objective nosepiece on ball bearing race with precision internal click stops 0.4°.

Screwall carrier for the interchange of condensers, with rack and pinion for the adjust- ment in the height of the condenser. — — — 5

Built-in illumination system TL, with frosted collector, lamp socket with two 6 volt, 10 watt filament bulbs and regulating transformers for connection to 110 volts, 50 cycles A.C. — — — 46

Interchangeable, inclined binocular observation tube S, rotatable through 360 degrees, adjustable interpupillary distance from 55 to 75mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube.

Permanently attached object stage 130 x 125mm with attachable mechanical stage with low set coaxial control knobs, traversing an area 75 x 50mm, No. 15.

Brightfield condenser No. 301, with aperture diaphragm and swing-out top element A., 0.90; on interchange carrier

Flexible plastic protective dust cover

Optical Equipment A at Bino

Achromatic dry objective, 4/0.12, free working distance 24 mm

Achromatic dry objective, 10/0.25, free working distance 6.7mm

Achromatic dry objective, 40/0.65, free working distance 0.42mm, with spring loaded mount

Achromatic oil immersion objective, 100/1.25, free working distance 0.10mm, with spring loaded mount

Immersion oil, PCB free, negligible fluorescence NL 35 1.518, 10ml bottle

PERIPLAN widefield eyepieces, paired NF 10x, field of view 18mm

051 984 LEITZ Binocular Medical and Teaching Microscope HM-LUX 0.45-4.6x 16/301 complete with optical equipment A at Bino for brightfield transmitted light

051 608 LEITZ Binocular Medical and Teaching Microscope HM-LUX 0.45-4.6x 16/301 complete with optical equipment as described under catalog number 051 984, however, without 0/0.12 objective
LEITZ Binocular Medical and Laboratory Microscope, HM-LUX, consisting of:

Modern and compact microscope stand HM-LUX, made of corrosion resistant alloy, with single knob combined coarse and fine adjustment with vertical travel of 35mm to an accuracy of 2 um for focusing the object stage. Precision bayonet tube changing devise to accept either monocular or binocular observation tubes

Permanently attached quadrants revolving objective nosepiece on full bearing rails with precision internal click stops 0.4—

Dovetail carrier for the interchange of condensers, with rack and pinion for the adjustment in the height of the condenser — —- S

Built-on illumination system TL, with frosted collector, lamp socket with two 6 volt, 12 watt filament bulbs and regulating transformer for connection to 110 volts, 60 cycles A.C. ———— A6

Interchangeable, inclined binocular observation tube S, rotatable through 360 degrees, adjustable interpupillary distance from 35 to 75mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube.

Permanently attached, built-in mechanical stage No. EK7, 160 x 130mm, with scales and verniers, low set coaxial control knobs traversing an area 75 x 50mm.

Brightfield condenser No. 301, with aperture diaphragm and swing-out step element As. 0.90, on interchange carrier

Flexible plastic protective dust cover

Optical Equipment A Sta Bine

Achromatic dry objective, 4/0.12, free working distance 24mm

Achromatic dry objective, 10/0.25, free working distance 6.7mm

Achromatic dry objective, 40/0.65, free working distance 0.42mm, with spring loaded mount

Achromatic oil immersion objective, 100/1.25, free working distance 0.10mm, with spring loaded mount

Immersion oil, PCB free, negligible fluorescence μm 23 1.518, 10ml bottle

PERIPLAN widefield eyepieces, paired NF 10x, field of view 18mm

061 615 LEITZ Binocular Medical and Laboratory Microscope HM-LUX 0.4 5.46 S EK7/307 complete with optical equipment A Sta Bine for brightfield transmitted light ————
LEITZ Binocular Phase Microscope, H.M-LUX, consisting of:

Modern and compact microscope stand HM-LUX, made of corrosion resistant alloy, with single knob combined coarset and fine adjustment with vertical travel of 30mm to an accuracy of 2 μm for focusing the object stage. Precision bayonet tube changing device to accept either monocular or binocular observation tubes.

Permanently attached quadratical resolving objective nosepiece on ball bearing rails with precision internal click stops 0.4μm.

Dovetail carrier for the interchange of condensers, with rack and pinion for the adjustment in the height of the condenser –– 5

Built-on illumination system TL with frosted collector, lamp socket with two 6 volt, 10 watt filament bulbs and regulating transformer for connection to 110 volts, 60 cycle, A.C. –– 46

Interchangeable, inclined binocular observation tube Ø, rotatable through 360 degrees, adjustable interpupillary distance from 55 to 75mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube.

Permanently attached, built-in mechanical stage No. EK 7, 160 x 130mm, with scales and indicators, low set coaxial control knobs traversing an area 75 x 50mm.

Phase contrast condenser, PHACO No. 402x, with aperture diaphragm, centering mount, swing out stop element Achr. 0.90 and revolving Iris with lens for brightfield, central stop for darkfield and phase annular diaphragms for PHACO 10/0.25, 40/0.65 and 100/1.25 oil immersion objectives; on interchange carrier.

Flexible plastic protective dust cover.

Technical Equipment

Achromatic dry phase contrast objective, PHACO 10/0.25, free working distance 0.7mm

Achromatic dry phase contrast objective, PHACO 40/0.65, free working distance 0.42mm, with spring loaded mount

Achromatic oil immersion phase contrast objective, PHACO 100/1.25 oil, free working distance 0.10mm, with spring loaded mount

Immersion oil, PCB free, negligible fluorescence N4, 23 1.516, 10ml bottle

PERIPLAN widefield eyepieces, paired GF 10x, field of view 18mm

LEITZ Binocular Phase Contrast Microscope HM-LUX 0.4–5.46 EK 7/402x complete with optical equipment as described above. .......................... Required

Focusing magnifier for centering the phase ring. ..........................
LEITZ Binocular Medical and Teaching Microscope, HM-LUX, equipped for the Examination of Urine Sediment and Blood Smear Specimens, consisting of:

Modern and compact microscope stand HM-LUX, made of corrosion resistant alloy, with single knob combined coarse and fine adjustment with vertical travel of 33mm to an accuracy of 2 μm for focusing the object stage. Precision bayonet tube changer device to accept either monocular or binocular observation tubes.

Permanently attached quadruple revolving objective nosepiece on ball bearing races with precision internal click stops 0.4—5

Devetail carrier for the interchange of condensers, with rack and pinion for the adjustment in the height of the condenser —.—5

Built-in illumination system TL, with frosted collecting lamp socket with two 6 volt, 10 watt filament bulbs and regulating transformer for connection to 110 volts, 60 cycles A.C. —.—46

Interchangeable, inclined binocular observation tube S, rotatable through 360 degrees, adjustable interpupillary distance from 55 to 74mm and x1 magnification factor. The tube length can be individually adjusted on each eyepiece tube.

Permanently attached object stage 130 x 125mm with attachable mechanical stage with low set coarsel control knobs, traveling in area 46 x 50mm, No. 16

Brightfield condenser No. 301, with aperture diaphragm and sliding-up top element As. 0.90; on interchange carrier

Push-in diaphragm for simple phase contrast (25:1 and 40:1 phase objectives) and darkfield (10:1, 25:1, and 40:1 objectives)

Flexible plastic protective dust cover

Optical Equipment

Achromatic dry objective, 10/0.25, free working distance 6.7mm

Achromatic dry phase contrast objective, PHACO 40/0.65, free working distance 0.52mm, with spring loaded mount

Achromatic oil immersion objective, 100/1.25, free working distance 10mm, with spring loaded mount

Immersion oil, PCB free, negligible fluorescence Np. 23 : 518, 10ml bottles

PERIPLAN widefield eyepieces, paired NF 10x, field of view 18mm

LEITZ Binocular Medical and Teaching Microscope HM-LUX 0.45-46 S 16/301 complete with optical equipment for the examination of urine sediment and blood smear specimens

LEITZ Binocular Medical and Teaching Microscope HM-LUX 0.45-46 S 16/301 complete with optical equipment as described above, however, without 100/1.25 oil immersion objective and bottle of oil.
LEITZ Binocular Medical and Laboratory Phase Microscope, HM-LUX, consisting of:

Modern and compact microscope stand HM-LUX, made of corrosion resistant alloy, with single knurled combination coarse and fine adjustment with vertical travel of 33mm to an accuracy of 2 um for focusing the object stage. Precision barometric tube changing device to accept either monocular or binocular observation tubes

Permanently attached quadruple revolving objective nosepiece on ball bearing races with precision internal click stops 0.4...

Dowel pin carrier for the interchange of condensers, with rack and pinion for the adjustment in the height of the condenser —— 5

Built-in illumination system TL, with frosted collector, lamp socket with two 6 volt, 10 watt filament bulbs and regulating transformer for connection to 110 volts, 60 cycles A.C. ——- 46

Interchangeable, inclined binocular observation tube S, rotatable through 360 degrees, adjustable interpupillary distance from 55 to 75mm and its magnification factor. The tube length can be individually adjusted on each eyepiece tube.

Permanently attached object stage 130 x 125mm with attachable mechanical stage with low set coaxial control knobs, traversing an area 76 x 50mm, No. 16

Phase contrast condenser, PHACO No. 402a, with aperture diaphragm, centering mount, swing out top element Adjust 0.40 and revolving disc with lens for brightfield, central stop for darkfield and phase annular diaphragms for PHACO 10/0.25, 40/0.65 and 100/1.25 oil immersion objectives. An interchange carrier

Flexible plastic protective dust cover

Optical Equipment

Achromatic dry phase contrast objective, PHACO 10/0.25, free working distance 6.7mm

Achromatic dry phase contrast objective, PHACO 40/0.65, free working distance 0.42mm, with spring loaded mount

Achromatic oil immersion phase contrast objective, PHACO 100/1.25, free working distance 0.10mm, with spring loaded mount

Immersion oil, PCB free, negligible fluorescence N223 51518, 10ml bottle

PERPLAN wide field eyepieces, paired GF 10a. field of view 18mm

051 000 LEITZ Binocular Phase Contrast Microscope HM-LUX 0.45-5.46 S 16/002a. complete with optical equipment as described above

Required

Focusing magnifier for centering the phase ring
LEITZ Dual Viewing Medical and Teaching Microscope, HM-LUX, consisting of:

Modern and compact microscope stand HM-LUX, made of corrosion resistant alloy, with single knob combined coarse and fine adjustment with vertical travel of 33mm to an accuracy of 0.2 mm for focusing the object stage. Precision bayonet tube changing device to accept either monocular or binocular observation tubes

Permanently attached quadruple revolving objective nosepiece on ball bearing races with precision internal click stops 0.4 -

Dovetail carrier for the interchange of condensers, with rack and pinion for the adjustment in the height of the condenser --- 5

Built-on illumination system TL, with frosted collector, lamp socket with two 6 volt, 10 watt filament bulbs and regulating transformer for connection to 110 volts, 60-cycles A.C. --- 46

Interchangeable, inclined binocular observation tube S, rotatable through 360 degrees, adjustable interpupillary distance from 55 to 75mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube.

Interchangeable, dual viewing tube SDV, rotatable through 360 degrees, with inclined binocular observation tube with adjustment for interpupillary distance and bayonet mount to accept a second observation tube.

Permanently attached object stage 130 x 125mm with attachable mechanical stage with low set coaxial control knobs, traversing an area 70 x 50mm, No. 16

Brightfield condenser No. 301, with aperture diaphragm and swing out top element A5 0.66, on interchange carrier

Flexible plastic protective dust cover

Optical Equipment

Achromatic dry objective, 40/0.12, free working distance 24mm
Achromatic dry objective, 100/2.5, free working distance 6.7mm
Achromatic dry objective, 40/0.65, free working distance 0.42mm, with spring loaded mount

PERIPLAN widefield eyepieces, paired NF 10x, field of view 18mm

PERIPLAN widefield eyepieces, paired NF 10x50, one with adjustable oculars, field of view 18mm

051 605 LEITZ Dual Viewing Medical and Teaching Microscope HM-LUX 0.45-1.46 SDV 16/361 complete with optical equipment for brightfield transmitted light ...........
LEITZ Binocular Medical and Laboratory Microscope SM-LUX, consisting of:

Modern fixed-base microscope stand SM-LUX, made of corrosion-free cast aluminum, with single knob combined coarse and fine focusing adjustment with vertical travel of 33mm at an accuracy of 2 µm. Precision tube changing device to accept either binocular or monocular tubes and flexible plastic protective dust cover

Quartet optical revolving objective nosepiece on ball bearings 0.5—

Divider carrier for the interchange of condensers, with rack and pinion for the adjustment in the height of the condenser ——5—

Built-in the base illuminating and condensing system, as well as built into the base transformer and continuously variable rheostat, on-off switch, with two precentered 6 volt, 10 watt low voltage lamps (1 spare), full diaphragm for Koehler illumination, blue and ground glass filters; for connection up 110 volts, 60 cycles A.C. ——32

Permanently attached, built-in mechanical stage No. 76, 160 x 138mm, with scales and verniers, low set coaxial control knobs traversing an area 75 x 50mm

510 051 LEITZ Microscope SM-LUX 0.5x.5.32—76— as described above

512 348 Interchangeable, inclined binocular observation tube S, rotatable through 360 degrees, adjustable interpupillary distances from 55 to 75mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube

512 137 Swing-out condenser No. 601 K1 with lower element K1, aperture diaphragm, centering mount and interchangeable top element As 0.90; on interchange carrier...

512 137 LEITZ Binocular Medical and Laboratory Microscope SM-LUX 0.5x.5.32 $76/601 K1 as described above

Optical Equipment NJ 1 Bino

519 292 Achromatic dry objective, 40x.0.12, free working distance 24mm

519 293 Achromatic dry objective, 100x.25, free working distance 0.2mm

519 419 Achromatic dry objective, 40x.0.65, free working distance 0.42mm, with spring loaded mount

519 565 Achromatic oil immersion objective, 100x.1.25, free working distance 0.10mm, with spring loaded mount

513 449 Immersion oil, PBB, free, negligible fluorescence No.71 1.516, 10ml bottle

519 318 PERPLAN widefield eyepieces, paired NF 10x, field of view 18mm

501 791 LEITZ Binocular Medical and Laboratory Microscope SM-LUX 0.5x.5.32 $76/601 K1 complete with Optical Equipment NJ 1 Bino as described above

501 790 LEITZ Binocular Medical and Laboratory Microscope SM-LUX 0.5x.5.32 $76/601 K1 complete with Optical Equipment as described above, however, without 40/0.12 objective
LEITZ Binocular Medical and Laboratory Microscope, SM-LUX, equipped for the Examination of Urine Sediment, consisting of:

- Modern bench microscope model SM-LUX, made of corrosion-free cast aluminum, with single knob combined coarse and fine focusing adjustment with vertical travel of 33mm to an accuracy of 0.1 mm. Precision tube changing mirror to accept either binocular or monocular tubes and flexible plastic protective tube cover.

- Quattroplus revolving objective nosepiece on ball bearings 0.5.

- Vertically adjustable helical fine focusing condenser mount (permanently attached to the object stage) —...

- Built-in the base illuminating and condensing system, as well as built into the base transformer and continuously variable rheostat, small switch with two preselected 6 volt, 10 watt low voltage lamps (1 spare), field diaphragm for Köhler illumination, plus and ground glass filters, for connection to 110 volts, 60 cycles A.C. —...

- Permanently mounted object stage, 130 x 125mm, with attachable mechanical stage No. 22R with low set coaxial control knobs, traversing an area 76 x 50mm, and condenser base A 0.25 with aperture diaphragm, concentric mount and interchangeable two-part condenser top vault slit As 0.90, No. 16a/001

510 011 LEITZ Microscope SM-LUX 0.5.14.32—16a/001 as described above

512 348 Interchangeable, inclined binocular observation tubes 5, rotatable through 360 degrees, adjustable interpupillary distances from 55 to 75mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube.

LEITZ Binocular Medical and Laboratory Microscope SM-LUX 0.5.14.32 S 16a/001, as described above

Optical Equipment

519 293 Achromatic dry objective, 10/0.25, free working distance 6.7mm

519 420 Achromatic dry phase objective, PHAEC 40/0.65, free working distance 0.42mm

513 324 Phase in diaphragm for simple phase contrast (25:1 and 40:1 phase objectives) and darkfield (30:1, 25:1, and 40:1 objectives)

519 318 PERPLANE widefield eyepieces, paid NF 10x, field of view 18mm

512 027 Dust cap for vacuum nosepiece threads, 2 required

051 082 LEITZ Binocular Medical and Laboratory Microscope SM-LUX 0.5.14.32 S 16a/001 complete with Optical Equipment for the Examination of Urine Sediment

For the observation of blood smear specimens, we recommend the following additional objectives:

519 565 Achromatic oil immersion objective, 100/1.25, free working distance 0.18mm, with spring loaded mount

513 449 Immersion oil, POB free, negligible fluorescence As 23 1.518, 10ml bottle
LEITZ Binocular Medical and Laboratory Phase Microscope, SM-LUX, consisting of:

Modern brand name microscope stand SM-LUX, made of corrosion free cast aluminium, with single knotted combined coarse and fine focusing adjustment with vertical travel of 33mm to an accuracy of 2 um. Precision tube changing device to accept either binocular or monocular tubes and flexible plastic protective dust cover.

Quintuple revolving objective nosepiece on ball bearings 0.5.——

Dovetail carrier for the interchange of condensers, with rack and pinion for the adjustment in the height of the condenser ———5.—

Built into the base illuminating and condensing system, as well as built into the base transformer and continuously variable rheostat, on-off switch; with two preadjusted 0 volt, 10 watt low voltage lamps (1 spare), field diaphragm for Kohler illumination, blue and ground glass filters, for connection to 110 volts, 60 cycles A.C. ————.32

Permanently attached, built in mechanical stage No. 76, 160 x 138mm, with scales and verniers, low set coaxial control knobs traversing an area 75 x 50mm.

510 051 LEITZ Microscope SM-LUX 0.5.5.32—76—— as described above ————

512 348 Interchangeable, inclined binocular observation tube 5, rotateable through 360 degrees, adjustable interpupillary distances from 55 to 75mm and 1X magnification factor. The tube length can be individually adjusted on each eye-piece tube.

513 156 Phase contrast condenser, PHACO No. 402 k X with lower elements, aperture diaphragm, centering mount, spring-out tip element Ach, 0.90 and resolving disc with lens for brightfield, central stop for darkfield and phase annular diaphragms for PHACO objectives 10 through 100 oil; on interchangeable carrier.

LEITZ Binocular Medical and Laboratory Phase Microscope SM-LUX 0.5.5.32 16/402 k X as described above ————

Optical Equipment C 11 Buq

519 165 Achromatic dry phase contrast objective, PHACO 10/0.25, free working distance 0.7mm.

519 236 Achromatic dry phase contrast objective, PHACO 25/0.50, free working distance 0.44mm, with spring loaded mount.

519 684 Achromatic dry phase contrast objective, PHACO 40/0.65, free working distance 0.50mm, with spring loaded mount.

519 566 Achromatic oil immersion phase contrast objective, PHACO 100/1.25, free working distance 0.10mm, with spring loaded mount.

513 449 Immersion oil, PCB free, negligible fluorescence N 623 1 518, 10ml bottle.

519 142 PERIFLARE wide-field eyepieces, pair 19 GF 10x, field of view 18mm.

513 468 Focusing magnifier for centering the phase ring.

799 474 Green filter to enhance contrast, VG 9 mounted, 32mm diameter.

051 702 LEITZ Binocular Medical and Laboratory Phase Microscope SM-LUX 0.5.5.32 16/402 k X complete with Optical Equipment C 11 Buq as described above ————
LEITZ Binocular Medical and Laboratory Microscope, SM-EPI, equipped for Incident Light FITC Fluorescence (PLOEMOPAK 2.3) with the 50 Watt Mercury Lamp and Special Oil Immersion Objectives for Maximum Image Brightness

Modern broad-base microscope stand, SM-EPI, made of corrosion free cast aluminium, with single knob combined coarse and fine focussing adjustment with vertical travel of 33mm to an accuracy of 2 um. Precision tube changing device to accept either oil immersion tubes or incident light illuminators.

Quintuple revolving objective receptacles on ball bearing 0.5.--

Permanently attached, built-in mechanical stage No. 76, 100 x 138mm, with scales and verniers, low arco coaxial control knobs traversing an area 75 x 50mm.

510 058 LEITZ Microscope SM-EPI 0.5.--.76/-- as described above.

513 516 PLOEMOPAK 2.3 fluorescence vertical illuminator with tube factor 1.2x, with built-in turret to accept up to three filter systems according to choice with rapid switching device to facilitate quick change over between adjacent settings for multiple fluorochromes giving a firm click stop in every position; centred field iris diaphragm and slits to block the exciter light to prevent unnecessary bleaching of the specimen.

513 417 Filter system H for wide band blue excitation recommended for FITC Excitation and other immunological stains as well as conventional blue light excitation with specimens exhibiting no or moderate autofluorescence. Also recommended in conjunction with Tetracycline, Quinacrine Mustard and Acridin Orange.

512 348 Interchangeable, inclined biconvex observation tubes 5, rotatable through 360 degrees, adjustable interpupillary distances from 55 to 75mm and 5x magnification factor. The tube length can be individually adjusted on each eyepiece tube.

512 357 Flexible plastic protective dust cover.

LEITZ Binocular Laboratory and Medical Microscope SM-EPI 0.5.--.7.5.76/--- as described above.

Optical Equipment

519 433 Achromatic oil immersion objective, 10/0.45, free working distance 0.38mm, with spring loaded mount.

519 646 Achromatic oil immersion objective, 25/0.75, free working distance 0.36mm, with spring loaded mount.

519 474 Achromatic oil immersion objective, 63/1.30, free working distance 0.14mm, with spring loaded mount.

519 565 Achromatic oil immersion objective, 100/1.25, free working distance 0.10mm, with spring loaded mount.

513 523 Plastic bottle of immersion oil, PCB free according to DIN 58884, with extremely low autofluorescence, 10ml.

519 186 PERIPLAN eyepieces, paired 6.3x, field of view 18mm.

Illumination System

514 236 Lamp housing model No. 1002, with bayonet mounting device, filter holder, reflector and adjustable spherical condenser, centred lamp socket with mercury burner HBO 50 watts and heat absorbing filter.

514 566 Carrier plates for lamp housing Nos. 100 and 100Z.

510 246 Power supply for Hg 50 watt bulb.

LEITZ Binocular Medical and Laboratory Microscope SM-EPI 0.5.--.7.5.76/--- complete with Special Optical Equipment for Incident Light FITC Fluorescence (PLOEM) with Hg 50 Watt Lamp for Maximum Image Brightness.

23
DIAVERT
Inverted microscope system for all methods of investigation.
Transmitted light
LEITZ Universal Inverted Research Microscope, DIAVERT, equipped for Brightfield Transmitted Light

520 445 Modern design, DIAVERT, large broad base research microscope stand, inverted system, with planataroy gear and dual knob coaxial coarse and fine focusing adjustment; vertical travel of 60mm resulting to 0.001mm accuracy. Facilities for interchanging observation tubes, objects stages and objective carriers.

512 409 Oversize revolving objective nosepiece with 1x tube lens, on interchange carrier 35.5mm

520 377 Holder with lamp housing

520 388 Low voltage lamp 6 volt, 15 watt, with daylight conversion filter CR 16.5, ground glass and green filter — .— 37

520 266 Illumination centering disc

512 356 Interchangeable, combination inclined binocular observation tube with adjustable interpupillary distance 55 to 75mm and straight monocular photographie tube F.S.A., automatic focusing compensation for the adjustment of the interpupillary distance. Prism 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.

520 384 Object stage N 16 x 160mm, on interchange carrier No. 918

520 279 Large field condenser No. 91 (working distance 62mm)

512 424 Flexible plastic protective dust cover

LEITZ Universal Inverted Research Microscope, DIAVERT 35.5— 37 FSA 918/91 as described above

050 250 Regulating transformer with voltmeter for 6 volt, 15 watt lamp, for connection to 110 volts, 60 cycles A.C. (U.L. approved)

Optical Equipment

519 049 Achromatic dry plano objective, Pf 2.5/0.08, free working distance 11.4mm

519 292 Achromatic dry objective, 4/0.12, free working distance 24mm

519 534 Special long working distance achromatic dry objective, L 20/0.32, free working distance 6.8mm

519 536 Special long working distance achromatic dry objective, L 32/0.40, free working distance 6.8mm

519 127 PER/PLINH waterfield eyepieces, paired GF 10x/10, one with adjustable eyepiece and mount for reticles, field of view 18mm

051 715 LEITZ Universal Inverted Research Microscope, DIAVERT 35.5— 37 FSA 918/91 complete with Optical Equipment for Brightfield Transmitted Light
LEITZ Universal Inverted Research Microscope, DIAVERT, equipped for Phase Contrast Transmitted Light

520 445 Modern design, DIAVERT, large broad base research microscope stand, inverted system, with platenary gear and dual knobs coaxial coarse and fine focusing adjustment; vertical travel of 40mm reading to 0.001mm accuracy. Facilities for interchanging observation tubes, object stages and objective carriers.

512 405 Quinqueple revolving objective nosepiece with 1x tube lens; on interchangeable carrier 35.5.

520 377 Holder with lamp housing

520 389 Low voltage lamp 6 volt, 15 watt lamp with daylight conversion filter CB 16.5, ground glass and green filter -- 37.

520 366 Illumination centering disc

512 355 Interchangeable, combination inclined binocular observation tube with adjustable interpupillary distance 55 to 72mm and straight monocular photographic tube TA6, automatic focusing compensation for the adjustment of the interpupillary distance. Prism on prism 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.

520 384 Object stage 164 x 168mm on interchangeable carrier No. 918

520 379 Large field condenser No. 91 (working distance 62mm)

512 424 Flexible plastic protective dust cover.

LEITZ Universal Inverted Research Microscope, DIAVERT 35.5--37 FSA 918/91 as described above

050 250 Regulating transformer with voltmeter for 6 volt, 15 watt lamp, for connection to 110 volts, 60 cycles A.C. (U.L. approved)

Optical Equipment

519 165 Achromatic dry phase contrast objective, PHACOQ 10/0.25, free working distance 6.4mm.

519 537 Special long working distance achromatic dry phase contrast objective, PHACOQ L 10/0.32, free working distance 6.73mm.

519 538 Special long working distance achromatic dry phase contrast objective, PHACOQ L 30/0.45, free working distance 6.45mm.

520 381 Phase annulus No. 1, in mount.

513 468 Focusing magnifier for centering the phase ring.

519 127 PERIPLAN widefield eyepieces, paired GF 10xM, one with adjustable eyecups and mount for reticule, field of view 18mm.

051 716 LEITZ Universal Inverted Research Microscope, DIAVERT 35.5--37 FSA 918/91 complete with Optical Equipment for Phase Contrast Transmitted Light

Optional Accessories

520 387 Phase annulus No. 2 in mount.

520 385 Attachable mechanical stage for stages.

520 398 Attachable mechanical stage (X-axys) for micro cuvette holder, accepts tissue culture plate with 96 wells, width 82mm.

520 389 Holder for round flask, not adjustable.

520 396 Attachable mechanical stage with provisions to accept the following holders.

520 363 Holder for test tube (single hole, 8mm diameter).

520 364 Holder for 2 test tubes in horizontal position (opening 10mm x 50mm).

520 365 Holder for Plankton chambers (41mm).

520 387 Holder for Petri dish (54mm diameter, with included insert 38mm).

520 388 Holder for test plate (56mm x 82mm).

520 421 Holder for slides 1" x 3".

27
LEITZ Universal Inverted Research Microscope, DIAVERT, equipped for Incident Light Fluorescence with the Ploem Illuminator PLOEMOPAK 2.2

520 445 Modern design, DIAVERT, large broad base research microscope stand, inverted system, with planetary gear and dual knob coaxial coarse and fine focusing adjustment; vertical travel of 40mm ranging to 0.001mm accuracy. Facilities for interchanging observation tubes, object stages and objective carriers. interchangeable, combination inclined binocular observation tube with adjustable interpupillary distances from 55 to 75mm and straight monocular phototube FSA; automatic focusing compensation for the adjustment of the interpupillary distance. Prism on slider can be yielded 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.

530 470 Object stage 15.5 x 60mm, with raised bracket; on interchange carrier No. 918...

513 400 PLOEMOPAK 2.2 for ORTHOLUX 2 and DIAVERT of compact design on changing slider with quintuple nanopore on ball bearings, tube factor 1.25x, built-in easily accessible turret with four positions (No. 1, 2, 3 and 4) for four complete filter systems according to choice, removable cover plate with locking screws to facilitate alternating between two chosen filter systems, dark slide allowing masking off exciter light to preserve the specimen from unnecessary exposure to exciter light, centorable and focussable field iris diaphragm, with optics system to allow a maximum observable field of view of 14.4mm. **

513 417 Filter systems H 2 for wide band blue light excitation most recommended for FITC excitation and other immunological stains as well as conventional blue light excitation with specimens exhibiting no or moderate autofluorescence.

530 006 Flexible protective dust cover

LEITZ Trinocular Universal Inverted Research Microscope DIAVERT —— FSA 918/— as described above

Optical Equipment

519 646 Achromatic oil immersion objective, 25/0.75 oil, free working distance 0.36mm, with spring loaded mount

519 474 Achromatic oil immersion objective, 63/1.30 oil, free working distance 0.14mm, with spring loaded mount

519 565 Achromatic oil immersion objective, 100/1.25 oil, free working distance 0.10mm, with spring loaded mount

513 362 Funnel stop for oil immersion objective 100/1.25

513 449 Immersion oil, PG2 free, negligible fluorescence, N.A. 1.0/1.31100ml bottle

519 186 PERIPLAN widefield eyepieces, pared 6.3x, field of view 18mm

*The interchange carrier with raised bracket is necessary only if the microscope is also to be equipped for transmitted light. If it is not, the stage without the bracket (Cat. No. 530 364) is also available.

**For alternative or supplementary filter systems, please refer to page 34 of this price list.

Lamp Housing No. 1002

520 303 Light shielding tube

520 416 Lamp holder with bayonet mount for lamp housing No. 1002

514 237 Lamp housing model No. 1002, with bayonet mounting device, filter holder, reflector and adjustable aperture stop, centorable lamp socket with mercury burner HBO 100 watts and heat absorbing filter

500 247 Power supply for HBO 100 watt and XBO 75 watt bulbs

500 138 Mercury burner HBO 100 watt replacement

LEITZ Trinocular Universal Inverted Research Microscope DIAVERT —— FSA 918/— complete with optical equipment for Incident Light Fluorescence

29
OPTIONAL AND SUPPLEMENTARY EQUIPMENT FOR LEITZ MICROSCOPES
DESIGNED FOR 178mm MECHANICAL TUBE LENGTH

Microscope Tubes

512 355 Interchangeable, combination, inclined binocular observation tube with adjustable interpupillary distances 55 to 75mm and straight monocular photographic tube FSA; automatic focusing compensation for the adjustment of the interpupillary distance. Prism on slider can be switched in and out to direct the light at a ratio of 30% to the camera and 20% to the binocular tube. A second prism position directs 100% of the light into the binocular tube for observation.

512 456 Interchangeable, combination, inclined binocular observation tube with adjustable interpupillary distances 55 to 75mm and straight monocular photographic tube FSA; automatic focusing compensation for the adjustment of the interpupillary distance. Prism on slider can be switched in and out to direct 100% of the light into either the binocular observation or the monocular photographic tube.

512 348 Interchangeable, inclined binocular observation tube "S", rotatable through 360 degrees, adjustable interpupillary distances 55 to 75mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube.

512 347 Interchangeable inclined monocular observation tube "P"

512 358 Interchangeable straight monocular photographic tube "O"

Discussion Tubes

513 353 Discussion tube for the simultaneous observation by two people of the microsopic image with built-in mechanical arrow pointer and two bayonet mounts to accept the standard monocular or binocular tubes (not included); both discussion and observation tubes independently rotatable 360 degrees for the desired observation position.

513 441 Interchangeable, dual viewing tube SDV, rotatable through 360 degrees, with inclined binocular observation tube with adjustment for interpupillary distance and bayonet mount to accept a second observation tube.

513 443 Position device.

Select observation tubes required.
MICROSCOPE CONDENSERS

A) Brightfield Condensers

512 081 Condenser bay: A 0.25 with aperture diaphragm and centering mount No. 600, on interchange carrier

512 420 Interchangeable condenser top element As 0.90 No. 901

512 083 Interchangeable condenser top element Achr. 0.90 No. 002

512 084 Interchangeable condenser top element Apo D 1.25 No. 003

512 140 Lower condenser element in mount K1

512 085 Swing-out condenser No. 601 with aperture diaphragm, centering mount and interchangeable top element As 0.90, on interchange carrier (for DIAVERT Microscope)

512 086 Swing-out condenser No. 602 with aperture diaphragm, centering mount and interchangeable top element Achr. 0.90, on interchange carrier (for DIAVERT Microscope)

512 137 Swing-out condenser No. 601 K1 with lower element K1, aperture diaphragm, centering mount and interchangeable top element As 0.90, on interchange carrier (for SM-LUX Microscope)

512 138 Swing-out condenser No. 602 K1 with lower element K1, aperture diaphragm, centering mount and interchangeable top element Achr. 0.90, on interchange carrier (for SM-LUX Microscope)

B) Darkfield Condensers

513 355 Darkfield oil immersion condenser No. 88, D 1.20-1.40, in centering mount; on interchange condenser

513 356 Darkfield dry condenser No. 88, D 0.80-0.95, in centering mount; on interchange condenser

C) Phase Contrast Condensers

513 140 Phase contrast condenser, PHACO No. 402a, with aperture diaphragm, centering mount, swing-out top element Achr. 0.90 and revolving disc with lens for brightfield, central stop for darkfield and phase annular diaphragm for PHACO objectives 10/0.25 (through 100/1.25); on interchange carrier (for HI-M. LUX and DIAVERT Microscope)

513 156 Phase contrast condenser, PHACO No. 402a K1, with lower element K1, aperture diaphragm, centering mount, swing-out top element Achr. 0.90 and revolving disc with lens for brightfield, central stop for darkfield and phase annular diaphragm for PHACO objectives 10/0.25 through 100/1.25; on interchange carrier (for SM-LUX Microscope)

Drawing Attachment

513 330 Drawing attachment with 80/20 prism, adjustable lateral drawing tube, focusing device with built-in automatic objective, eyepiece tube for the projection eyepiece (eyepiece not included), 45 degree mirror and bayonet mount for the observation tube

Recommended Eyepieces for use with Drawing Attachment

519 462 PERIPLAN widefield eyepiece, single GF 12.5x, field of view 18mm (drawing area 14.23cm)

519 137 PERIPLAN widefield eyepiece, single GF 10x, field of view 18mm (drawing area 10.18cm)

NOTE: The microscope light source must be equipped with a regulating transformer. A 60 watt desk lamp is also required to illuminate the drawing area.
Simple Phase Kit for the HM-LUX and SM-LUX Microscopes

513 684 Apochromatic dry phase contrast objective, PHACO 40/0.65, free working distance 0.50mm, with spring loaded mount.

513 324 Push in diaphragm for simple phase contrast (25:1 and 40:1 phase objectives) and darkfield (10:1, 2b:1 and 40:1 objectives).

061 735 Simple Phase Kit for the HM-LUX and SM-LUX Microscopes.

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Phase Contrast Kit, Zernike System, with NPL Fluorite Phase Contrast Objectives for the SM-LUX Microscope

513 140 Phase contrast condenser, PHACO No. 402a, with aperture diaphragm, centering mount, swing-out top element. Aerr. 0.90 and revolving diaphragm with lens for brightfield, central stop for darkfield and phase annular diaphragms for PHACO objectives 100/2.5 through 100/1.25, on interchangeable carrier.

519 564 Fluorite dry phase contrast plane objective, PHACO 1 NPL F1 100/0.30, free working distance 0.73mm, with spring loaded mount.

519 505 Fluorite dry phase contrast plane objective, PHACO 1 NPL F1 100/0.45, free working distance 0.56mm, with spring loaded mount.

519 506 Fluorite dry phase contrast plane objective, PHACO 2 NPL F1 250/0.55, free working distance 0.40mm, with spring loaded mount.

518 507 Fluorite dry phase contrast plane objective, PHACO 2 NPL F1 400/0.79, free working distance 0.24mm, with spring loaded mount.

519 608 Fluorite oil immersion phase contrast plane objective, PHACO 3 NPL F1 100/1.32, free working distance 0.16mm, with spring loaded mount.

513 449 Immersion oil, PCB free, negligible fluorescence Nf23 1.518, 10ml bottle.

513 448 Focusing magnifier for centering the phase ring.

051 712 Phase Contrast Kit, Zernike System, with NPL Fluorite Phase Contrast Objectives for Maximum Flatness of Field for the SM-LUX Microscope.

Also Required for SM LUX Microscope.

512 140 Lower condenser element in mount K1.

32
Phase Contrast Kit, Zernike System, with Standard Phase Contrast Achromatic Objectives for HM-LUX and SM-LUX Microscopes

513 140 Phase contrast condenser, PHACO No. 402a, with aperture diaphragm, centering mount, swingout top element Achr. 0.90 and revolving disc with lens for brightfield, central stop for darkfield and phase annular diaphragms for PHACO objectives 10/0.25 through 100/1.25 on interchangeable carrier

519 165 Achromatic dry phase contrast objective, PHACO 10/0.75, free working distance 0.7 mm

519 236 Achromatic dry phase contrast objective, PHACO 25/0.90, free working distance 0.44 mm, with spring loaded mount

519 684 Achromatic dry phase contrast objective, PHACO 40/0.65, free working distance 0.50 mm, with spring loaded mount

519 566 Achromatic oil immersion phase contrast objective, PHACO 100/1.35, free working distance 0.10 mm, with spring loaded mount

513 449 Immersion oil, PC14 free, negligible fluorescence No. 021 1.518, 10 ml bottle

513 488 Focusing magnifier for centering the phase ring

513 713 Phase Contrast Kit, Zernike System, with Standard Phase Contrast Achromatic Objectives for HM-LUX and SM-LUX Microscopes

Also Required for SM-LUX Microscope

512 140 Lower condenser element in mount K1

Polarizing Kits for LEITZ Microscopes

513 430 Polarizing Kit for HM-LUX Microscope

513 350 Filter polarizer in mount

513 727 Filter analyzer

Polarizing Kit for SM-LUX Microscope

513 727 Filter polarizer in mount

513 088 Holder for polarizer with day and night compensators

513 368 Filter analyzer

513 737 Polarizing kit for LEITZ SM-LUX Microscope

Polarizing Kit for DIAVERT Microscope

513 392 Polarizing kit for LEITZ DIAVERT Microscope

Optional Accessories for Polarizing Kit for SM-LUX and DIAVERT Microscopes

513 069 Gypsum plate

513 090 Mica plate

Projection

513 342 Adjustable projection prism

Viewing and Demonstration Screen

907 080 Viewing and demonstration screen with 8" diameter frosted screen with crossline and built-in PERIPLAN widefield eyepiece GF 10x
<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Designation</th>
<th>Excitation Characteristics</th>
<th>Application</th>
<th>Price $</th>
</tr>
</thead>
<tbody>
<tr>
<td>513 410</td>
<td>A</td>
<td>Wide band UV.</td>
<td>DANS: Nucleosomes, Bisamino-phosphoryl hexosyl (CIBA).</td>
<td></td>
</tr>
<tr>
<td>513 411</td>
<td>B</td>
<td>Wide band VIOLET.</td>
<td>Auto-fluorescing specimens such as coal, spores, minerals, etc. and specific fluorochromes.</td>
<td></td>
</tr>
<tr>
<td>513 412</td>
<td>C</td>
<td>Narrow band VIOLET peak at 405nm.</td>
<td>Biogene amines, catecholamines, noradrenalin, adrenalin, dopamine, 5-hydroxytryptamin (5HT).</td>
<td></td>
</tr>
<tr>
<td>513 413</td>
<td>D</td>
<td>Type band VIOLET.</td>
<td>L acclaim, Higher intensity, less contrast.</td>
<td></td>
</tr>
<tr>
<td>513 414</td>
<td>E 2</td>
<td>Narrow band VIOLET peak at 436nm.</td>
<td>Chromosome banding, Quinacrine mustard, p-hydroxychloride (OHQ).</td>
<td></td>
</tr>
<tr>
<td>513 416</td>
<td>G</td>
<td>Wide band BLUE.</td>
<td>Acid-mordant.</td>
<td></td>
</tr>
<tr>
<td>513 417</td>
<td>H 2</td>
<td>Wide band BLUE, high intensity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 418</td>
<td>I Z**</td>
<td>Narrow band BLUE to cut down auto-fluorescence.</td>
<td>Fluorescininiothiocyanat (FITC), Fluoresceindiacetat (FDA), Immunological stains, Conventional blue excitation, Tetraacyclin. Quinacrine mustard, Azocarmine.</td>
<td></td>
</tr>
<tr>
<td>513 419</td>
<td>K 2</td>
<td>Extremely narrow band BLUE at 495nm to eliminate auto-fluorescence.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 420</td>
<td>L 2</td>
<td>Extremely narrow band BLUE with selective barrier at 523nm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 530</td>
<td>L 2 F**</td>
<td>Extremely narrow band BLUE with selective barrier at 515-550nm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 421</td>
<td>M 2</td>
<td>Narrow band GREEN.</td>
<td>Feulgen stain (pararosanilin), Lineman-chromalin B (R 200), Methylgreen-pyronin, Tetramethylrhodaminiothiocyanat (TRITC) double staining technique.</td>
<td></td>
</tr>
<tr>
<td>513 422</td>
<td>N 2</td>
<td>Narrow band GREEN, but FITC excitation excluded.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 531</td>
<td>N 2 F**</td>
<td>Narrow band GREEN, select wider than N 2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 423</td>
<td></td>
<td>Filter module with dichromatic beam-splitter TK-490.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 424</td>
<td></td>
<td>Filter module with dichromatic beam-splitter TK-455.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 425</td>
<td></td>
<td>Filter module with dichromatic beam-splitter TK-510.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 426</td>
<td></td>
<td>Filter module with dichromatic beam-splitter TK-520.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 525</td>
<td></td>
<td>Transmitted light filter module</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Filters I 2, L 2.1 and K 2.1 are used in the FITC/Ethidium Bromide Double Fluorochrome Staining Technique. For information on this technique, please refer to Dr. Pleen's "A New Type of Two-Color Fluorescence Staining for Cytology Specimens" in the JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY, 1976.**
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<td>DANS fluorochromes. Bismithophenoxylxanthate (CIBA).</td>
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<tr>
<td>513 411</td>
<td>B</td>
<td>Wide band VIOLET</td>
<td>Auto-fluorescing specimens such as coal, spores, minerals, etc., and specific fluorochromes.</td>
<td></td>
</tr>
<tr>
<td>513 412</td>
<td>C</td>
<td>Narrow band VIOLET peak at 405nm</td>
<td>Biogenetics. Biogenic amines (tetraethylammonium, noradrenaline, adrenaline, dopamine, 5-hydroxytryptamine, etc.)</td>
<td></td>
</tr>
<tr>
<td>513 413</td>
<td>D</td>
<td>Wide band VIOLET</td>
<td>Like C, higher intensity, less contrast.</td>
<td></td>
</tr>
<tr>
<td>513 414</td>
<td>E 2</td>
<td>Narrow band VIOLET peak at 436nm</td>
<td>Chromosome banding. Quinacrine mustard, dihydroxymercuribenzoate (QMB).</td>
<td></td>
</tr>
<tr>
<td>513 416</td>
<td>G</td>
<td>Wide band BLUE</td>
<td>Acidinorange</td>
<td></td>
</tr>
<tr>
<td>513 417</td>
<td>M 2</td>
<td>Wide band BLUE, high intensity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 418</td>
<td>L 2**</td>
<td>Narrow band BLUE to cut down auto-fluorescence.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 420</td>
<td>L 2</td>
<td>Extremely narrow band BLUE with selective barrier at 525nm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 520</td>
<td>L 2.1**</td>
<td>Extremely narrow band BLUE with selective barrier at 556nm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 421</td>
<td>M 2</td>
<td>Narrow band GREEN.</td>
<td>Feulgen stain (para-aramic acid), Lissamine rhodamine B (R 206). Methylgreen pyronin. Tetramethylrhodamine isothiocyanate (TRITC) double staining technique.</td>
<td></td>
</tr>
<tr>
<td>513 422</td>
<td>N 2</td>
<td>Narrow band GREEN, but FITC excitation excluded.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 531</td>
<td>N 2.1**</td>
<td>Narrow band GREEN, but wider than N 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 423</td>
<td></td>
<td>Filter module with dichromatic beam splitter TK 400.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 424</td>
<td></td>
<td>Filter module with dichromatic beam splitter TK 455.</td>
<td></td>
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</tr>
<tr>
<td>513 425</td>
<td></td>
<td>Filter module with dichromatic beam splitter TK 510.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 426</td>
<td></td>
<td>Filter module with dichromatic beam splitter TK 580.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 525</td>
<td></td>
<td>Transmitted light filter module</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Filters 1, 2, 2.1 and N 2.1 are used in the FITC/Ethidium-Bromide Double Fluorochrome Staining Technique. For information on this technique, please refer to Dr. Ploem's "A New Type of Two-Color Fluorescence Staining for Cytology Specimens" in the JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY, 1979.**
Filters for LEITZ Microscopes

Transmitted Light Fluorescence Attatchment after Nace for DIAVER'T Microscope

This new attachment consists of an exciter turret and a slider with barrier filter. The turret has four positions, three of which store exciter filters. The fourth is empty for conventional microscopy. The barrier filter slider contains three barrier filters, matched to the exciter filters. Since more than one exciter filter can be used, it is possible to apply two-wavelength excitation with the transmitted light fluorescence microscope.

513 456 Exciter filter turret ........................................... 514 454 Filter slider with barrier filters K 430, K 515 and K 680 for DIAVER'T
513 457 Filter System A for UV excitation .................................. 513 458 Filter System B for UV and violet excitation
513 460 Filter System C for violet excitation .............................. 513 468 Filter System D for blue excitation
513 533 Filter System E for blue excitation ................................ 513 469 Filter System F for blue excitation
513 534 Filter System G for blue excitation ................................ 513 536 Filter System H for blue excitation
513 541 Filter System I for green excitation ................................ 513 497 Case for complex attachment

Barrier Filters in Slider for DIAVER'T Microscope

514 464 Slider with K 430, K 460, K 515 and K 580 barrier filters
514 465 Slider with K 430 and K 480 barrier filters
514 504 Slider with K 470 and K 490 barrier filters
514 505 Slider with K 510 and K 530 barrier filters
514 397 Slider with K 570 and K 580 barrier filters
514 398 Slider with K 590 and K 610 barrier filters

35
<table>
<thead>
<tr>
<th>Exciter Filters</th>
<th>Neutral Density Filters 90mm Diameter, Mounted</th>
</tr>
</thead>
<tbody>
<tr>
<td>514 057</td>
<td>UV exciter filter UG 1, 1mm, mounted</td>
</tr>
<tr>
<td>514 029</td>
<td>UV exciter filter UG 1, 2mm, mounted</td>
</tr>
<tr>
<td>514 050</td>
<td>Blue exciter filter BG 12, 1.5mm, mounted</td>
</tr>
<tr>
<td>514 032</td>
<td>Blue exciter filter BG 15, 3mm, mounted</td>
</tr>
<tr>
<td>514 015</td>
<td>Heat absorbing filter KV 1, 2mm, unmounted</td>
</tr>
<tr>
<td>514 037</td>
<td>Heat absorbing filter KV 1, 2mm, unmounted</td>
</tr>
<tr>
<td>514 040</td>
<td>Edge filter K 420 (3+420 nm) mounted</td>
</tr>
<tr>
<td>514 170</td>
<td>Edge filter K 480 (3+480 nm) mounted</td>
</tr>
<tr>
<td>514 189</td>
<td>Red suppression filter BG 23, mounted</td>
</tr>
<tr>
<td>514 309</td>
<td>Red suppression filter BG 23, mounted</td>
</tr>
<tr>
<td>514 042</td>
<td>Diffusion disc N</td>
</tr>
<tr>
<td>514 031</td>
<td>Filter density 0.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exciter Filters</th>
<th>Red Suppression Filters 32mm Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>514 474</td>
<td>UV exciter filter UG 1 360, mounted</td>
</tr>
<tr>
<td>514 413</td>
<td>Violet exciter filter S 400, mounted</td>
</tr>
<tr>
<td>514 350</td>
<td>FFFC exciter filter KP 490, plus, mounted</td>
</tr>
<tr>
<td>514 412</td>
<td>FFFC exciter filter KP 600, plus, mounted</td>
</tr>
<tr>
<td>514 414</td>
<td>Green exciter filter S 546</td>
</tr>
<tr>
<td>514 256</td>
<td>Wide band green exciter filter S 546, mounted</td>
</tr>
<tr>
<td>514 257</td>
<td>Red suppression filter BG 38, 4mm, mounted</td>
</tr>
<tr>
<td>514 392</td>
<td>Red suppression filter BG 23, 3mm, mounted</td>
</tr>
<tr>
<td>514 391</td>
<td>Attachable swing-out filter holder for filters 32mm (to be clamped on dust glass mount)</td>
</tr>
<tr>
<td>514 535</td>
<td>Filter K 445 for protection from UV radiation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Barrier Filters in Sliders for DIALUX</th>
<th>Neutral Density Filters 32mm Diameter, Mounted</th>
</tr>
</thead>
<tbody>
<tr>
<td>514 303</td>
<td>Slider with K 430 and K 460 barrier filters</td>
</tr>
<tr>
<td>514 304</td>
<td>Slider with K 470 and K 490 barrier filters</td>
</tr>
<tr>
<td>514 305</td>
<td>Slider with K 510 and K 530 barrier filters</td>
</tr>
<tr>
<td>514 397</td>
<td>Slider with K 570 and K 580 barrier filters</td>
</tr>
<tr>
<td>514 398</td>
<td>Slider with K 590 and K 610 barrier filters</td>
</tr>
<tr>
<td>514 368</td>
<td>Slider with interference barrier filter S 625 for FFFC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neutral Density Filters 32mm Diameter, Mounted</th>
</tr>
</thead>
<tbody>
<tr>
<td>514 036</td>
</tr>
<tr>
<td>514 035</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case for Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td>514 446</td>
</tr>
</tbody>
</table>

*Discontinued, limited supply still available.
### MISCELLANEOUS ACCESSORIES

**Dust Covers**

- 512.421 Flexible plastic protective dust cover for HM-LUX microscope.
- 512.357 Flexible plastic protective dust cover for SM-LUX microscope.
- 512.424 Flexible plastic protective dust cover for DJAVER-T microscope.

**Carrying Cases**

- 051.303 Carrying case for HM-LUX microscope.
- 512.455 Carrying case for SM-LUX microscope.

**Replacement Bulbs**

- 500.096 Low voltage bulb 6 volts, 10 watts for HM-LUX and SM-LUX microscope.
- 500.177 Low voltage bulb 6 volts, 15 watts for DJAVER-T microscope.
- 500.192 Low voltage halogen bulb 12 volts, 50 watts for lamp housing model No. 50.
- 500.974 Low voltage halogen bulb 12 volts, 100 watts for lamp housing model No. 100.
- 500.137 High pressure mercury bulb Hg 50 watt.
- 500.138 High pressure mercury bulb Hg 100 watt.
- 050.015 High pressure mercury bulb Hg 200 watt, type W/A/C.
### EYEPICES FOR BIOLOGICAL MICROSCOPES

**PERIPLAN Eyepiece 23.2mm Diameter**

<table>
<thead>
<tr>
<th>Magnification</th>
<th>Field of View (mm)</th>
<th>Catalog Number and Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Single $</td>
</tr>
<tr>
<td>6.3x</td>
<td>18</td>
<td>519 185</td>
</tr>
<tr>
<td>6.3x M</td>
<td>18</td>
<td>519 198</td>
</tr>
<tr>
<td>5x High Eyepoint</td>
<td>18</td>
<td>519 377</td>
</tr>
<tr>
<td>10x High Eyepoint</td>
<td>18</td>
<td>519 609</td>
</tr>
<tr>
<td>10xM High Eyepoint</td>
<td>18</td>
<td>*519 011</td>
</tr>
</tbody>
</table>

**PERIPLAN Wadsworth Eyepiece NF / GF 22.3mm Diameter**

<table>
<thead>
<tr>
<th>Magnification</th>
<th>Field of View (mm)</th>
<th>Catalog Number and Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Single $</td>
</tr>
<tr>
<td>NF 10x</td>
<td>18</td>
<td>519 319</td>
</tr>
<tr>
<td>NF 10xM</td>
<td>18</td>
<td>519 320</td>
</tr>
<tr>
<td>NF 10x with pointer</td>
<td>18</td>
<td>519 321</td>
</tr>
<tr>
<td>GF 10x</td>
<td>18</td>
<td>519 137</td>
</tr>
<tr>
<td>GF 10xM</td>
<td>18</td>
<td>519 126</td>
</tr>
<tr>
<td>GF 10x with pointer</td>
<td>18</td>
<td>519 126</td>
</tr>
<tr>
<td>GF 12.5x</td>
<td>18</td>
<td>519 462</td>
</tr>
<tr>
<td>GF 12.5xM</td>
<td>18</td>
<td>519 411</td>
</tr>
<tr>
<td>GF 12.5x with pointer</td>
<td>18</td>
<td>519 462</td>
</tr>
<tr>
<td>GF 16x</td>
<td>16</td>
<td>519 369</td>
</tr>
<tr>
<td>GF 25x</td>
<td>10</td>
<td>515 377</td>
</tr>
</tbody>
</table>

*M = One of the eyepieces in the pair is focussable and will accept a reticle
MM = Both of the eyepieces of the pair are focussable and will accept reticles

### EYEPICE RETICLES FOR M EYEPICES 23.2mm DIAMETER

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>519 960</td>
<td>Eyepiece micrometer, 5mm = 100 divisions</td>
</tr>
<tr>
<td>519 941</td>
<td>Eyepiece micrometer, 10mm = 100 divisions</td>
</tr>
<tr>
<td>519 932</td>
<td>Eyepiece micrometer, 0.4mm = 40 divisions</td>
</tr>
<tr>
<td>519 943</td>
<td>Crossline plate</td>
</tr>
<tr>
<td>519 942</td>
<td>Eyepiece micrometer, 10mm = 100 divisions and crosslines</td>
</tr>
<tr>
<td>519 946</td>
<td>Eyepiece micrometer, 10mm = 200 divisions and crosslines</td>
</tr>
<tr>
<td>519 903</td>
<td>Eyepiece net micrometer, 5 x 5mm divided into squares 0.5mm</td>
</tr>
<tr>
<td>519 948</td>
<td>Eyepiece net micrometer, 10 x 10mm divided into squares 0.1mm</td>
</tr>
<tr>
<td>519 949</td>
<td>Eyepiece net micrometer, 10 x 10mm divided into squares 0.5mm</td>
</tr>
<tr>
<td>519 950</td>
<td>Eyepiece net micrometer, 10 x 10mm divided into squares 1.0mm</td>
</tr>
<tr>
<td>519 951</td>
<td>Eyepiece net micrometer, 10 x 10mm divided into squares 2.0mm</td>
</tr>
</tbody>
</table>

### STAGE MICROMETERS

A). TRANSMITTED LIGHT

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>513 106</td>
<td>Stage micrometer on glass 2mm = 200 divisions with photographic scale</td>
</tr>
</tbody>
</table>

*Note: This eyepiece accepts only 19mm in diameter reticles. Please refer to page 65 for a listing of these reticles.*
<table>
<thead>
<tr>
<th>Type of Objectives</th>
<th>Magnification/Aperture</th>
<th>Free Working Distance</th>
<th>Type of Eyepiece</th>
<th>Upper Glass Correction</th>
<th>Catalog No.</th>
<th>Price $</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPL FLUOTAR</td>
<td>6.3x0.20</td>
<td>2.0</td>
<td>P</td>
<td>DO</td>
<td>519 540</td>
<td></td>
</tr>
<tr>
<td>Objective for</td>
<td>10x/0.30</td>
<td>0.73</td>
<td>P</td>
<td>DO</td>
<td>519 661</td>
<td></td>
</tr>
<tr>
<td>Maximum Flatness</td>
<td>16x/0.45</td>
<td>0.58</td>
<td>P</td>
<td>D</td>
<td>519 500</td>
<td></td>
</tr>
<tr>
<td>Of Field up to</td>
<td>25x/0.55</td>
<td>0.36</td>
<td>P</td>
<td>D</td>
<td>519 501</td>
<td></td>
</tr>
<tr>
<td>1Bmm diameter</td>
<td>40x/0.70</td>
<td>0.24</td>
<td>P</td>
<td>D</td>
<td>519 502</td>
<td></td>
</tr>
<tr>
<td>NPL FL U Oil</td>
<td>63x/0.20</td>
<td>0.11</td>
<td>P</td>
<td>O</td>
<td>519 503</td>
<td></td>
</tr>
<tr>
<td>NPL FL Oil 100/1.2</td>
<td>63x/0.90K</td>
<td>0.11</td>
<td>P</td>
<td>D</td>
<td>519 446</td>
<td></td>
</tr>
<tr>
<td>NPL FL Oil 100/3.6</td>
<td>1.17</td>
<td>P</td>
<td>D</td>
<td>D</td>
<td>519 504</td>
<td></td>
</tr>
<tr>
<td>Fluorite Objectives</td>
<td>63x/0.85</td>
<td>0.14</td>
<td>P</td>
<td>D</td>
<td>519 617</td>
<td></td>
</tr>
<tr>
<td>Fluorite Oil</td>
<td>40/1.30</td>
<td>0.21</td>
<td>P</td>
<td>D</td>
<td>519 473</td>
<td></td>
</tr>
<tr>
<td>Achromatic Oil</td>
<td>10x/0.45</td>
<td>0.39</td>
<td>P</td>
<td>D</td>
<td>519 433</td>
<td></td>
</tr>
<tr>
<td>Immersion Objectives</td>
<td>25x/0.75</td>
<td>0.36</td>
<td>P</td>
<td>D</td>
<td>519 646</td>
<td></td>
</tr>
<tr>
<td>(Fluorescence)</td>
<td>63x/1.30</td>
<td>0.14</td>
<td>P</td>
<td>D</td>
<td>519 474</td>
<td></td>
</tr>
<tr>
<td>Achromatic Water</td>
<td>25x/0.60</td>
<td>0.30</td>
<td>P</td>
<td>D</td>
<td>519 647</td>
<td></td>
</tr>
<tr>
<td>Immersion Objectives</td>
<td>50x/1.00</td>
<td>0.68</td>
<td>P</td>
<td>D</td>
<td>519 649</td>
<td></td>
</tr>
<tr>
<td>(Fluorescence)</td>
<td>100/1.20</td>
<td>0.18</td>
<td>P</td>
<td>D</td>
<td>519 649</td>
<td></td>
</tr>
<tr>
<td>Achromatic Salt</td>
<td>25x/0.60</td>
<td>1.67</td>
<td>P</td>
<td>O</td>
<td>519 381</td>
<td></td>
</tr>
<tr>
<td>Water Immersion</td>
<td>50x/1.00</td>
<td>0.75</td>
<td>P</td>
<td>O</td>
<td>519 426</td>
<td></td>
</tr>
<tr>
<td>Objectives with up</td>
<td>100/1.20</td>
<td>0.22</td>
<td>P</td>
<td>O</td>
<td>519 429</td>
<td></td>
</tr>
<tr>
<td>to 6% NACL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Long Working</td>
<td>10x/0.22 IRIS</td>
<td>16</td>
<td>P</td>
<td>DO</td>
<td>519 438</td>
<td></td>
</tr>
<tr>
<td>Distance Achromatic</td>
<td>20x/0.32 IRIS</td>
<td>6.9</td>
<td>P</td>
<td>DO</td>
<td>519 534</td>
<td></td>
</tr>
<tr>
<td>Objectives</td>
<td>25x/0.22 IRIS</td>
<td>14.8</td>
<td>P</td>
<td>DO</td>
<td>519 536</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>32x/0.40</td>
<td>6.6</td>
<td>P</td>
<td>DO</td>
<td>519 536</td>
<td></td>
</tr>
<tr>
<td>Achromatic</td>
<td>4x/0.12</td>
<td>24</td>
<td>P</td>
<td>DO</td>
<td>519 292</td>
<td></td>
</tr>
<tr>
<td>Objectives</td>
<td>10x/0.25</td>
<td>6.7</td>
<td>P</td>
<td>DO</td>
<td>519 293</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>25x/0.50</td>
<td>0.44</td>
<td>P</td>
<td>D</td>
<td>519 489</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>40x/0.65</td>
<td>0.42</td>
<td>P</td>
<td>D</td>
<td>519 419</td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td>40x/0.65</td>
<td>0.50</td>
<td>P</td>
<td>D</td>
<td>519 530</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>100/1.25</td>
<td>0.10</td>
<td>P</td>
<td>D</td>
<td>519 565</td>
<td></td>
</tr>
</tbody>
</table>

**Objective Filter Stops**

513.362 Funnel stop for achromatic objective 100/1.25 (45mm) and PHAOC objective 100/1.25 (45mm)................................. .................................

513.432 Funnel stop for Fl 93x/0.85 (45mm), D 0.80 darkfield condenser................................. .................................

**Immersion Oil**

513.533 Plastic bottle of immersion oil, PCB free according to DIN 58894, with extremely low autofluorescence, 10ml

513.522 Plastic bottle of immersion oil, PCB free according to DIN 58894, with extremely low autofluorescence, 100ml

513.449 Immersion oil, PCB free, negligible fluorescence, N\textsubscript{2} \textsuperscript{3} 1.518, 10ml bottle

513.446 Immersion oil, PCB free, negligible fluorescence, N\textsubscript{2} \textsuperscript{3} 1.518, 100ml bottle

513.447 Immersion oil, PCB free, negligible fluorescence, N\textsubscript{2} \textsuperscript{3} 1.518, 500ml bottle

513.448 Immersion oil, PCB free, negligible fluorescence, N\textsubscript{2} \textsuperscript{3} 1.518, 1000ml bottle

**Miscellaneous**

513.108 Combination bottle for immersion oil and XYLOX

513.442 Diamond object marker

512.027 Dust cap for vacant nosepiece threads
<table>
<thead>
<tr>
<th>Type of Objectives</th>
<th>Magnifications/Aperture</th>
<th>Focus Working Distance</th>
<th>Type of Eyepiece</th>
<th>Cover Glass</th>
<th>Catalog Number</th>
<th>Price S</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPL Fluorite Phase Objectives for Maximum Flairness of Field up to 18mm diameter</td>
<td>NPL FI 20/0.30 PHACO 1</td>
<td>0.73</td>
<td>P</td>
<td>DO</td>
<td>519 554</td>
<td></td>
</tr>
<tr>
<td>NPL FI 16/0.45 PHACO 1</td>
<td>0.56</td>
<td>P</td>
<td>D</td>
<td>519 505</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPL FI 25/0.95 PHACO 2</td>
<td>0.40</td>
<td>P</td>
<td>D</td>
<td>519 506</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPL FI 40/0.70 PHACO 2</td>
<td>0.24</td>
<td>P</td>
<td>D</td>
<td>519 507</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPL FI 63/0.90K PHACO 4</td>
<td>0.11</td>
<td>P</td>
<td>D</td>
<td>519 447</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPL FI Ols 100/1.32 PHACO 3</td>
<td>0.16</td>
<td>P</td>
<td>D</td>
<td>519 508</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluorite Phase Oil Immersion Objective</td>
<td>FI Oil 40/1.30 PHACO 3</td>
<td>0.21</td>
<td>P</td>
<td>D</td>
<td>519 552</td>
<td></td>
</tr>
<tr>
<td>Special Achromatic Oil Immersion Phase Objectives</td>
<td>Oil 10/0.45 PHACO 2</td>
<td>0.39</td>
<td>P</td>
<td>D</td>
<td>519 431</td>
<td></td>
</tr>
<tr>
<td>Oil 25/0.75 PHACO 2</td>
<td>0.37</td>
<td>P</td>
<td>D</td>
<td>519 432</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil 63/1.30 PHACO 3</td>
<td>0.19</td>
<td>P</td>
<td>D</td>
<td>519 553</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achromatic Water Immersion Phase Objectives</td>
<td>W 100/1.20 PHACO 3</td>
<td>0.18</td>
<td>P</td>
<td>D</td>
<td>519 427</td>
<td></td>
</tr>
<tr>
<td>Achromatic Salt Water Immersion Phase Objective with up to 8% NaCl</td>
<td>SW 100/1.20 PHACO 3</td>
<td>0.22</td>
<td>P</td>
<td>D</td>
<td>519 428</td>
<td></td>
</tr>
<tr>
<td>Special Long Working Distance Achromatic Phase Objectives</td>
<td>L 20/0.32 PHACO 1</td>
<td>6.73</td>
<td>P</td>
<td>DO</td>
<td>519 537</td>
<td></td>
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<tr>
<td>L 32/0.40 PHACO 1</td>
<td>6.45</td>
<td>P</td>
<td>DO</td>
<td>519 538</td>
<td></td>
<td></td>
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<tr>
<td>Achromatic Phase Objectives</td>
<td>Ols 10/0.25 PHACO 2</td>
<td>0.44</td>
<td>P</td>
<td>D</td>
<td>519 165</td>
<td></td>
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<tr>
<td>25/0.50 PHACO 2</td>
<td>0.42</td>
<td>P</td>
<td>D</td>
<td>519 236</td>
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<tr>
<td>40/0.65 PHACO 2</td>
<td>0.50</td>
<td>P</td>
<td>D</td>
<td>519 420</td>
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<td></td>
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<tr>
<td>40/0.65 PHACO 2</td>
<td>0.50</td>
<td>P</td>
<td>D</td>
<td>519 684</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil 100/1.25 PHACO 3</td>
<td>0.19</td>
<td>P</td>
<td>D</td>
<td>519 566</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D = For use with specimens with cover glass
DO = For use with specimens with or without cover glass
DF = The use of a cover glass is essential
K = With correction collar for deviation of cover glass thickness of 0.17mm
O = For use with specimen without cover glass
P = Use PERIPLAN eyepieces
W = Water immersion objective
SW = Salt water immersion objective
PHACO = Phase contrast objectives
LEITZ PHOTOMICROGRAPHIC CAMERA KITS

ORTHOMAT I, Fully Automatic 35mm Microscope Camera

543 225 ORTHOMAT I, automatic photomicrographic camera, with built-in zoom system adjustable through the magnification range 0.3x to 10x with click stops at 0.3x, 0.8x and 10x; including photomultiplier tube, electromagnetic, vibration free shutter; automatic motor driven film advance and interchangeable film chamber for 35mm cassettes. Detail exposure measurement at 1% of field of view; integral measurement over entire field. Fully transistorized control unit for automatic exposures from 1/1000th of a second to 1 ½ hour or more, with timer-speed settings for color or black and white; capable of solving the most complicated photographic tasks.

519 458 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepoint and one with reticle with concentric focusing rings and x/y scale markings, circumferencing the photographic image area, field of view 18mm.

951 720 LEITZ ORTHOMAT I, Fully Automatic 35mm Microscope Camera

Optional and Supplementary Equipment

543 073 Interchangeable film chamber

543 043 Base plate 600 x 450mm with four vibration absorbers

513 468 Focusing telescope for low power photomicrography

543 353 Swing out filter holder for focusing telescope

543 306 MICROSK-L exposure meter
COMBIPHOT, Automatic Exposure Microscope Camera

1. 35mm Format with the Film Transport Housing

543 395 COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - until 1/125th of a second; built-in beam splitter deflecting 50% of the light to the camera and 50% to the measuring eye (measuring area approximately 3.5% of the field) and electronic control unit with connecting cable for automatic exposure times.

543 370 Film transport housing with light screening sleeve, film advance lever, exposure counter and rewind knob.

543 376 Intermediate adapter with optical system 0.32:1.

543 352 Clamping collar.

519 610 PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm.

543 212 Cable release, 50cm length.

519 456 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepiece and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm.

051 721 COMBIPHOT, Automatic Exposure Microscope Camera for 35mm Film Format with the Film Transport Housing.

2. 35mm Format with the LEICA MD 2 Camera Body

543 395 COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - until 1/125th of a second; built-in beam splitter deflecting 50% of the light to the camera and 50% to the measuring eye (measuring area approximately 3.5% of the field) and electronic control unit with connecting cable for automatic exposure times.

10.105 LEICA camera body, model MD-2, with focal plane shutter, speeds of 1 to 1/1000th second and times; automatic flash synchronization, fast position loading, rapid winding lever with double exposure lock for shutter wind and film transport, rewind crank, automatic frame counter, bayonet lens mount and provision to accept film marking device base plate.

543 269 Intermediate adapter with optical system 0.32:1.

543 352 Clamping collar.

519 610 PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm.

543 214 Double cable release, 50cm length.

519 456 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepieces and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm.

051 722 COMBIPHOT, Automatic Exposure Microscope Camera for 35mm Film Format with the LEICA Camera Body model MD-2.

Optional

14,142 Film marking device base plate with ten marking strips.

14,170 Package of 100 marking saps.

31. 3/4 x 4½” Format with the POLAROID Camera Back CB 181.

543 385 COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - until 1/125th of a second; built-in beam splitter deflecting 50% of the light to the camera and 50% to the measuring eye (measuring area approximately 3.5% of the field) and electronic control unit with connecting cable for automatic exposure times.

543 387 Camera housing with intermediate optical system 0.8x and POLAROID camera back CB 101 for film size 3/4 x 4½” with provisions for half-format size of 3/4 x 2½”.

543 352 Clamping collar.

519 610 PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm.

543 212 Cable release, 50cm length.

519 456 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepieces and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm.

COMBIPHOT, Automatic Exposure Microscope Camera for 3/4 x 4½” or 3/4 x 2½” Film Format with the POLAROID Camera Back CB 101.
4. 6 x 5" Format with the POLAROID Camera Back 545

543 395 COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - up to 1/125th of a second; built-in beam splitter deflecting 50% of the light to the camera and 50% to the measuring eye (measuring area approximately 3.5% of the field) and electronic control unit with connecting cable for automatic exposure times.

543 336 POLAROID film holder, model No. 545, for 4 x 5" single sheet film.

543 234 Camera housing with international back to accept 4 x 5" film holder.

543 273 Intermediate optical system 1x.

543 237 International back with ground glass focusing screen and spring clamp assembly.

543 392 Clamping collar.

519 610 PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm.

543 212 Cable release, 50cm length.

519 456 PERIPLAN widefield eyepieces, paired GF 12.5x MF, with adjustable eyepins and one with article with concentric focusing rings and area markings circumnavigating the photographic image area, field of view 18mm.

COMBIPHOT, Automatic Exposure Microscope Camera for 4 x 5" Film Format with the POLAROID Film Holder Model 545.

Optional and Supplementary Equipment

543 043 Base plate 600 x 450mm with four vibration absorbers.

543 466 Focusing telescope for low power photomicrography.

543 353 Swing out filter holder for focusing telescope.

543 306 MICROsix-L exposure control.
SYstem camera

1. 35mm Format with the Film Transport Housing

543 397 SYSTEM CAMERA, central shutter unit, anti-vibration mounted, with shutter speeds from 1/125th to 1 second and time; provision to accept measuring eye of MICROGIXL exposure meter (not included) with lever to direct the central beam of light to the measuring eye

543 370 Film transport housing with light screening sleeve, film advance lever, exposure counter and rewind knob

543 376 Intermediate adapter with optical system 0.32:1

543 352 Clamping collar

519 720 PERIPLAN high eye-point photographic eyepiece 10x, field of view 18mm

543 212 Cable release, 50cm length

519 456 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepieces and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm

SYSTEM camera for 35mm Film Format with the Film Transport Housing . . . . . .

2. 35mm Format with the LEICA MD-2 Camera Body

543 397 SYSTEM CAMERA, central shutter unit, anti-vibration mounted, with shutter speeds from 1/125th to 1 second and time; provision to accept measuring eye of MICROGIXL exposure meter (not included) with lever to direct the central beam of light to the measuring eye

10 105 LEICA camera body, model MD-2, with focal plane shutter, speeds of 1 to 1/1000th second and time; automatic flash synchronization; fast focus leading, rapid winding lever with double exposure lock for shutter wind and film transport; rewind crank, automatic frame counter, bayonet lens mount and provision to accept film marking device base plate

543 269 Intermediate adapter with optical system 0.32:1

543 352 Clamping collar

519 720 PERIPLAN high eye-point photographic eyepiece 10x, field of view 18mm

542 214 Double cable release, 50cm length

519 456 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepieces and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm

SYSTEM camera for 35mm Film Format with the LEICA Camera Body, Model MD-2 . . .

Optional

14 142 Film marking device base plate with ten marking strips

14 170 Package of 100 marking tapes

3. 3½ x 4½” Format with the POLAROID Camera Back CB 101

543 397 SYSTEM CAMERA, central shutter unit, anti-vibration mounted, with shutter speeds from 1/125th to 1 second and time; provision to accept measuring eye of MICROGIXL exposure meter (not included) with lever to direct the central beam of light to the measuring eye

543 387 Camera housing with intermediate optical system 0.8x and POLAROID camera back CB 101 for film size 3½ x 4½” with provisions for half-format size of 3 x 3½”

543 352 Clamping collar

519 720 PERIPLAN high eye-point photographic eyepiece 10x, field of view 18mm

543 212 Cable release, 90cm length

519 456 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepieces and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm

SYSTEM camera for 3½ x 4½” or 3 x 3½” Film Format with the POLAROID Camera Back CB 101 . . .
40. 4 x 5" Format with the POLAROID Camera Back 545

543.397 SYSTEM CAMERA, integral shutter unit, anti-vibration mounted, with shutter speeds from 1/125th to 1 second and tiny, provision to adjust measuring eye of MICROSOX-L exposure meter (not included) with lever to direct the central beam of light to the measuring eye.

544.318 POLAROID film holder, model No. 546, for 4 x 5" single sheet film.

545.232 Camera housing with International back to accept 4 x 5" film holder.

544.273 Intermediate optical system 1x.

544.257 Sliding collar.

549.720 PERIFLATE high eyepoint photographic eyepiece 10x, field of view 18mm.

543.212 Cable release, 50cm length.

519.456 PERIFLATE wide-field eyepieces, paired GF 12.5xMF, with adjustable eyepiece and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm.

SYSTEM CAMERA for 4 x 5" Film Format with the POLAROID Film Holder Model 545.

Optional and Supplementary Equipment

543.043 Base plate 600 x 450mm with four vibration absorbers.

513.466 Focusing telescope for low power photomicrography.

943.353 Swing-out film holder for focusing photomicrography.

543.306 MICROSOX-L exposure meter.
WILD MPS 50 PHOTOAUTOMAT Camera System

1. 35mm Format with Automatic Film Transport

375 898 MPS 51 camera body with electronically controlled shutter and an element for center-weighted integral measurement
319 501 MPS 56 control unit and cables
373 460 Motor adapter
370 759 Objective 0.32:1 and screwdriver
543 396 Film cassette
376 110 Eyepiece adapter
519 610 PERIPLAN high eyepoint eyepiece 10x
519 456 PERIPLAN eyepieces, paired GF 12.5x SY 2

MPS 50 PHOTOAUTOMAT for 35mm Film Format with Automatic Film Transport

2. 35mm Format with the LEICA MD 2 Camera Body

375 898 MPS 51 camera body with electronically controlled shutter and an element for center-weighted integral measurement
319 501 MPS 56 control unit and cables
376 110 Eyepiece adapter
519 610 PERIPLAN high eyepoint eyepiece 10x
543 269 Adapter with optical system 0.32:1
10,105 LEICA MD-2 camera body

MPS 50 PHOTOAUTOMAT for 35mm Film Format with the LEICA MD-2 Camera Body

Optional
14,142 Film marking base plate
14,170 Package of 100 marking tapes

3. 3½ x 4½" Format with the POLAROID Camera Back CB 101

375 898 MPS 51 camera body with electronically controlled shutter and an element for center-weighted integral measurement
319 501 MPS 56 control unit and cables
376 110 Eyepiece adapter
519 610 PERIPLAN high eyepoint eyepiece 10x
543 387 Camera attachment with POLAROID CB 101 for 3½ x 4½"
519 456 PERIPLAN eyepieces, paired GF 12.5x SY 2

MPS 50 PHOTOAUTOMAT for 3½ x 4½" Film Format with the POLAROID Camera Back CB 101

4. 4 x 5" Format with the POLAROID Camera Back S45

375 898 MPS 51 camera body with electronically controlled shutter and an element for center-weighted integral measurement
319 501 MPS 56 control unit and cables
376 110 Eyepiece adapter
519 610 PERIPLAN high eyepoint eyepiece 10x
543 273 Intermediate optical system 1x
543 234 Camera housing for 4 x 5" film size
543 237 Interchangeable back with focusing screen
519 456 PERIPLAN eyepieces, paired GF 12.5x SY 2
094 398 POLAROID film holder No. S45

MPS 50 PHOTOAUTOMAT for 4 x 5" Film Format with the POLAROID Film Holder Model S45

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PART II

MICROSCOPES DESIGNED FOR 160mm MECHANICAL TUBE LENGTH
DIALUX 20
A MICROSCOPE WITH OUTSTANDING OPTICAL PERFORMANCE, THE RELIABILITY OF PRECISION ENGINEERING, EMINENTLY PRACTICAL FACILITIES OF EXTENSION, AND UP-TO-DATE OPERATING CONVENIENCE.
LEITZ Binocular Laboratory and Research Microscope, DIALUX 20 EB, equipped for Brightfield Transmitted Light with Maximum Flatness of Field

Modern broad base microscope stand DIALUX 20 EB D with coaxial dual knob coarse and fine focusing adjustment; vertical travel at 35mm and scale units of 0.002mm. Precision tube-changing device for interchangeable tubes rotatable through 360 degrees.

Centerable eyepiece carrier for the interchange of condensers with zack and pinion for condenser focusing — — .15— .

Built into the base transformer and 6 volt, 20 watt illumination system with centerable field diaphragm, base completely enclosed for dual protection — — .47

Built-in mechanical stage No. 78, 200 x 140mm with scales and verniers and low set coaxial control; 76 x 50mm trinocular area.

512 539 LEITZ Laboratory and Research Microscope DIALUX 20 EB D — — .15.47 —76— .47 as described above

512 581 Interchangeable quintuple revolving nosepiece with internal click stops B.S. — .

512 562 Interchangeable binocular observation tube § rotateable through 360 degree, adjust able interpupillary distance 51mm to 76mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube . . .

513 470 Standard condenser 5K Achrom. .05 S.1.1 for Koehler illumination with all objectives drawn to 1.61. Top element Achrom. .05mm interchangebale with special dunkfield top elements . . .

500 295 Tungsten halogen bulb, 6 volts, 20 watts (replacement) .

500 099 Compensating cable .

512 594 Flexible protective dust cover .

LEITZ Binocular Laboratory and Research Microscope DIALUX 20 EB D .8.5.15.47 S 78/SK 0.90 as described above

Optical Equipment

519 493 Fluorite dry plano objective, NPL Fluctar 6.3/0.20, free working distance 2.30mm, color coded orange .

519 500 Fluorite dry plano objective, NPL Fluctar 16/0.45, free working distance 0.58mm, color coded light green .

519 501 Fluorite dry plano objective, NPL Fluctar 25/0.55, free working distance 0.48mm, with spring-loaded mount, color coded dark green .

519 502 Fluorite dry plano objective, NPL Fluctar 40/0.70, free working distance 0.24mm, color coded light blue .

519 604 Fluorite oil immersion plano objective, NPL Fluctar 100/1.22 oil, free working distance 0.16mm, with spring-loaded mount, color coded white/black .

513 449 Immersion oil, PCB free, naptololipid fluorochromes, N.23 1.518, 10ml bottle .

514 316 Daylight conversion filter CB 12, 32mm in diameter, mounted .

519 622 PERIFLAK® widefield eyepieces, number 10x, field of view 18mm .

LEITZ Binocular Laboratory and Research Microscope DIALUX 20 EB D .8.5.15.47 S 76/SK 0.90 S.1.1 Complete with Optical Equipment for Brightfield Transmitted Light and Maximum Flatness of Field . . .
LEITZ Binocular Laboratory and Research Microscope, DIALUX 20 EB, equipped for Transmitted Light Phase Contrast with Maximum Flatness of Field

Modern broad base microscope stand DIALUX 20 EB D with coaxial dual knob coarse and fine focusing adjustment, vertical travel of 35mm and scale units of 0.005mm. Precision tube-changer device for interchangeable tubes, rotatable through 360 degrees.

Centerable dovetail carrier for the interchange of condensers with rack and pinion for condenser focusing ————. 15.——

Built-in the base transformer and 6 volt, 20 watts illumination system with centerable field diaphragm, base completely enclosed for dust protection ————. 47

Built-in mechanical stage No. 78, 200 x 100mm with scales and verniers and low tc coaxial control, 70 x 50mm traversing area.

512 591
LEITZ Laboratory and Research Microscope DIALUX 20 EB D ————. 15.47 ————. 78/ as described above ————. 

512 584
Interchangeable eyepiece revolving nosepiece with internal click stops 8,5.———.

512 582
Interchangeable binocular observation tube 3 variable through 360 degrees, adjustable interpupillary distance 55mm to 75mm and 3x magnification factor. The tube length can be individually adjusted on each eyepiece tube.

512 477
Universal condenser UK Ph. 0.90 S1.1 top phase contrast, with interchangeable light ring turret with annular diaphragms for PHACO objectives 0.1 through 100 / 0 oil, central stop for darkfield and Köhler illumination with all objectives down to 0.6 oil, top element Abbe: 0.45 S1.1 interchangeable with special darkfield top elements.

500 245
Tungsten halogen lamps, 6 volts, 20 watts (replacement)

500 999
Connecting cable.

512 934
Pair of protective dust covers.

512 934
LEITZ Binocular Laboratory and Research Microscope DIALUX 20 EB D 8,5.15.47 S 78/UK Ph. 0.90 S1.1 as described above ————.

Optical Equipment

519 497
Fluorescent dye phase contrast plate objective NPL Fluctar 1/0.30 PHACO 1, free working distance 0.17mm, color coded yellow.

519 505
Fluorescent dye phase contrast plate objective NPL Fluctar 1/0.45 PHACO 1, free working distance 0.58mm, color coded light green.

519 506
Fluorescent dye phase contrast plate objective NPL Fluctar 2/0.55 PHACO 2, free working distance 0.40mm, with spring-loaded mount, color coded dark green.

519 507
Fluorescent dye phase contrast plate objective NPL Fluctar 4/0.70 PHACO 2, free working distance 0.24mm, with spring-loaded mount, color coded light blue.

519 508
Fluorescent dye immersion phase contrast plate objective NPL Fluctar 100/1.32 oil PHACO 3, free working distance 0.15mm, with spring loaded mount, color coded dark pink.

513 449
Illumination oil, PSN free, negligible fluorescence, N° 23.150, 10ml bottle.

516 316
Daylight conversion filter CB 12, 33mm in diameter, mounted.

519 622
PERIPLAN water-filled eyepieces, paired of 10x, field of view 18mm.

513 468
Focusing magnifier for centering the phake ring.

LEITZ Binocular Laboratory and Research Microscope DIALUX 20 EB D 8,5.15.47 S 78/UK Ph. 0.90 S1.1 Complete with Optical Equipment for Transmitted Light Phase Contrast with Maximum Flatness of Field.

51
LEITZ Binocular Laboratory and Research Microscope, DIALUX 28, equipped for Transmitted Light FITC Fluorescence (50 Watt Mercury Lamp)

Modern broad-base microscopes stand DIALUX 20 with coaxial dual knob coarse and fine focusing adjustment, vertical travel of 35mm and scale units of 0.002mm. Pinpoint tube changing device for interchangeable tubes rotatable through 360 degrees.

Centrable dovetail carrier for the interchange of condensers with rack and pinion for condenser focussing. — 15. —

Centrable field diaphragm, base completely enclosed for dust protection, with provision for interchangeable light sources, built-in mechanical stage No. 78, 200 x 140mm with scales and verniers and low set coaxial controls, 78 x 92mm traversing area.

512 581 LEITZ Laboratory and Research Microscope DIALUX 20 D: — 15. — 78/ as described above

512 584 Interchangeable quintuple revolving nosepiece with internal click stops 8.5. —

512 582 Interchangeable bimicroscopic observation tube 5 rotatable through 360 degrees, adjust- able interpupillary distances 55mm to 75mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube.

513 474 Standard condenser base 5K.

513 486 Darkfield condenser top element 0. 1.19-1.44

514 569 Alignment mirror

512 585 Flexible protective dust cover

514 579 Lamp housing model No. 1022 with basement mounting device, filter holder, center- able and focussable reflector, adjustable aspheric collector, centerable lamp pocket with mercury burner HBO 50 watts and heat absorbing filter.

LEITZ Binocular Laboratory and Research Microscope DIALUX 20 D #5.15.1022 § 78/5/K 0.1.19-1.44 as described above.

050 246 Power supply for HBO 50 watt bulb.

Optical Equipment

519 496 Fluorite dry plano objective, NPL Fluorat 10/0.30, free working distance 0.75mm, color coded yellow.

519 501 Fluorite dry plano objective, NPL Fluorat 20/0.55, free working distance 0.40mm, with spring loaded mount, color coded dark green.

519 502 Fluorite dry plano objective, NPL Fluorat 40/0.70, free working distance 0.24mm, with spring loaded mount, color coded light blue.

519 652 Fluorite oil immersion objective, NPL Fluorat 100/1.22 0.60 oil, with built-in ir diaphragm, free working distance 0.16mm, with spring loaded mount, color coded white/black.

513 523 Plastic bottle of immersion oil, PCB-free according to DIN 58884, with extremely low autofluorescence, 10ml.

519 627 PERIFLPLAN eyepieces, paired 0.3x, field of view 18mm.

514 075 UV excitation filter 2mm, UG 1, mounted.

514 076 Blue excitation filter 3mm, BG 3, mounted.

514 072 Blue excitation filter 3mm, BG 12, mounted.

514 033 Hot absorbing filter 4mm, BG 38, mounted.

514 570 Filter slide with barrier filters K 430 and K 460.

514 571 Filter slide with barrier filters K 470 and K 490.

514 572 Filter slide with barrier filters K 510 and K 530.

514 573 Filter slide with barrier filters K 570 and K 580.

LEITZ Binocular Laboratory and Research Microscope DIALUX 20 D #5.15.1022 § 78/5/K 0.1.19-1.44 Completes with Optical Equipment for Transmitted Light Darkfield Fluorescence.
LEITZ Binocular Laboratory and Research Microscope, DIALUX 20, equipped for Incident Light Fluorescence with Ploem Illuminator PLOEMOPAK 2.4

Modern broad base microscope stand DIALUX 20 with coaxial dual knob coarse and fine focusing adjustment, vertical travel of 35mm and scale units of 0.002mm. Precision tube-charging device for interchangeable tubes rotatable through 360 degrees.

Centerable dovetail carrier for the interchange of condensers with rack and pinion for condenser focusing ........ 15

Centerable field diaphragm, fully encased for dust protection, with provision for interchangeable light sources, built-in mechanical stage No. 78, 200 x 140mm with scales and verniers and low set coaxial controls, 76 x 50mfn traversing area.

517 581 LEITZ Laboratory and Research Microscope DIALUX 20 D ................. 15. 78/ as described above

517 581 Interchangeable right-angle revolving nosepiece with internal click stops 8.5 ................

517 582 Interchangeable binocular ocularisation tube 5 rotatable through 360 degrees, adjust-

able interpupillary distances 55mm to 76mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube .......... 517 506 Flexible protective dust cover ......................................

513 403 PLOEMOPAK 2.4 for DIALUX 20, to be locked between the stand and the tube, centerable and focusable field diaphragm charging device for 3 filter blocks, dark slide for specimen protection and lamp holder ......................

513 417 Light shield for incident light excitation and other immunological stains as well as conventional blue light excitation with specimens exhibiting no or moderate autofluorescence .... 514 570 Lamp housing model No. 1022 with bayonet mountin device, filter holder, center-

able and focusable reflector, adjustable apheric collector, centerable lamp socket with mercury burner HBO 50 watts and heat absorbing filter ..

513 508 Light shield ........................................................

517 508 LEITZ Binocular Laboratory and Research Microscope DIALUX 20 D 8.5 15.1022

578/ as described above ........................................

050 246 Power supply for HBO 50 watt bulbs ....................................

Optical Equipment

519 496 Fluorite dry plano objective, NPL Fluotar 100/0.30, free working distance 0.75mm, color coded yellow ........................................

519 501 Fluorite dry plano objective, NPL Fluotar 250/0.59, free working distance 0.40mm, with spring loaded mount, color coded dark green ................

519 502 Fluorite dry plano objective, NPL Fluotar 400/0.70, free working distance 0.24mm, with spring loaded mount, color coded light blue ...........

519 504 Fluorite oil immersion plano objective, NPL Fluotar 100/1.32 oil, free working distance 0.16mm, with spring loaded mount, color coded white/black ........................................

513 523 Plastic bottle of immersion oil, PCE free according to DIN 58984, with extremely low auto fluorescence, 10ml ........................

519 627 PEPLAN eyepieces, coated 6.3x, field 18mm ........................

514 031 Gray filter 0.2, mounted ...........................................

LEITZ Binocular Laboratory and Research Microscope DIALUX 20 D 8.5 15.1022

578/ Complete with Optical Equipment for Incident Light Fluorescence ................}

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Optional and Supplementary Equipment for the DIALUX 20 and DIALUX 20 EB Microscopes

Observation Tubes

512 562 Interchangeable binocular observation tube S, rotatable through 360 degrees, adjustable interpupillary distances 55mm to 75mm and 1x magnification factor. The tube length can be individually adjusted on each eyepiece tube.

512 563 Interchangeable, combination inclined binocular observation tube with adjustable interpupillary distances 55mm to 75mm and straight monocular photographic tube PDA, automatic focusing compensation for the adjustment of the interpupillary distance. Slide with three different beam splitters, 100%, 50% or 10% of the light to the observer.

512 592 Interchangeable inclined monocular observation tube P.

512 593 Interchangeable straight monocular photographic tube O.

Stages

512 585 Built-in mechanical stage No. 78, 200 x 140mm with scales and verniers and low set coaxial controls, 76 x 50mm traversing area.

512 586 Circular rotating and centering mechanical stage No. 31, 150mm in diameter, with graduations and verniers permitting the reading of the object position to 0.1mm; 76 x 25mm, scanning area. Rotation and y movement can be clamped in any position and the object guide can be removed for the investigation of large specimen plates. This stage is permanently fixed to the stand in the factory which must be borne in mind when ordering.

512 607 Circular rotating and centering object stage No. 23.

512 608 Rotating stage substage No. 33.

Filter Polarizing Device

513 173 Filter polarizer in mount.

513 511 Holder for polarizer with slot to accept compensators (attached to the focus of the microscope).

513 510 Filter analyzer.

513 512 Filter Polarizing Device, Complete as described above.

513 089 Gypsum plate in mount.

513 090 Mica plate in mount.
A). Brightfield Standard Condensers SK

513 474 Standard condenser base SK

513 475 Condenser top element Achr. 0.90 S1.1

513 470 Standard Condenser SK Achr. 0.90 S1.1 for Koehler illumination with all objectives down to 1.6.1. Top element Achr. 0.90 interchangeable with darkfield top elements. Complete as described above.

513 474 Standard condenser base SK

513 476 Condenser top element 1.32 oil S1.1

513 471 Standard Condenser SK 1.32 oil S1.1 for Koehler illumination. Top element 1.32 oil S1.1 interchangeable with special darkfield top elements. Complete as described above.

B). Darkfield Standard Condensers SK

513 474 Standard condenser base SK

513 465 Dry darkfield condenser top element D 0.80-0.95

513 472 Standard Condenser SK D 0.80-0.95. Top element D 0.80-0.95 interchangeable with brightfield top elements. Complete as described above.

513 474 Standard condenser base SK

513 466 Darkfield condenser top element D 1.19-1.44 oil

513 473 Standard Condenser SK D 1.19-1.44. Oil darkfield top element D 1.19-1.44 interchangeable with brightfield top elements.

C). Brightfield Universal Condensers UK

513 487 Universal condenser base UK

513 475 Condenser top element Achr. 0.90 S1.1

513 492 Universal Condenser UK 0.90 S1.1 for Koehler illumination with all objectives down to 1.6.1. Top element Achr. 0.90 interchangeable with darkfield top elements with provision for interchangeable light rings turret. Complete as described above.

513 487 Universal condenser base UK

513 476 Condenser top element 1.32 oil S1.1

513 494 Universal Condenser UK 1.32 oil S1.1 for Koehler illumination. Top element 1.32 oil S1.1 interchangeable with darkfield top elements, with provision for interchangeable light ring turret. Complete as described above.

D). Darkfield Universal Condensers UK

513 487 Universal condenser base UK

513 465 Dry darkfield condenser top element D 0.80-0.95

513 495 Universal Condenser UK D 0.80-0.95. Top element D 0.80-0.95 interchangeable with brightfield top elements, with provision for interchangeable light ring turret. Complete as described above.

513 487 Universal condenser base UK

513 496 Universal Condenser UK D 1.19-1.44. Top element D 1.19-1.44 oil interchangeable with brightfield top elements, with provision for interchangeable light ring turret. Complete as described above.
E. Phase Contrast Universal Condenser UK

613 467 Universal condenser base UK
613 475 Condenser top element Acta. 0.90 S1.1
613 504 Interchangeable light ring turret S1.1 complete with light rings 1, 2, 3, 4 and darkfield light ring

613 477 Universal Condenser UK Ph. 0.90 S1.1 for phase contrast with interchangeabe light ring turret with annular diaphragm for PMACO objectives 10:1 through 100:1 oil. Central stop for darkfield and Köhler illumination with all objectives down to 1:50. Top element Acta. 0.90 S1.1 interchangeable with special darkfield top elements. Complete as described above.

Accessories for Both the Standard Condensers and Universal Condensers

613 501 Condenser top element 0.70 S6
613 502 Condenser top element 0.85 S15
613 503 Condenser top element 0.30 S35

Accessories for the Universal Condensers

NOTE: "S" stands for free working distance (mm). The "S" number of the light ring turret must match the "S" number of the condenser top element for optimum performance.

613 478 Light ring turret
613 479 Light ring 1 S1.1
613 480 Light ring 2 S1.1
613 481 Light ring 3 S1.1
613 482 Light ring 4 S1.1
613 483 Darkfield light ring DF S1.1
613 504 Interchangeable light ring turret S1.1 with light rings 1, 2, 3, 4 and darkfield light ring, complete as described above

613 478 Light ring turret
613 484 Light ring 1 S4
613 485 Light ring 2 S4
613 486 Light ring 3 S4
613 487 Light ring 4 S4

613 506 Interchangeable light ring turret S8 with light rings 1, 2, 3 and 4, complete as described above

613 478 Light ring turret
613 488 Light ring 1 S15
613 489 Light ring 2 S15
613 490 Light ring 3 S15

613 506 Interchangeable light ring turret S15 with light rings 1, 2 and 4, complete as described above

613 478 Light ring turret
613 491 Light ring 1 S25
613 492 Light ring 2 S25

613 507 Interchangeable light ring turret S35 with light rings 1 and 2, complete as described above
<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Designation</th>
<th>Excitation Characteristics</th>
<th>Application</th>
<th>Price</th>
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<tbody>
<tr>
<td>513 410</td>
<td>A</td>
<td>Wide band UV.</td>
<td>DANS fluorochromes,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bisminothiophenylzolato (CIBA).</td>
<td></td>
</tr>
<tr>
<td>513 411</td>
<td>B</td>
<td>Wide band VIOLET.</td>
<td>Auto-fluorescing specimens such as coal,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>spots, minerals, etc. and specific fluorochromes,</td>
<td></td>
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<tr>
<td>513 412</td>
<td>C</td>
<td>Narrow band VIOLET peak at 405nm.</td>
<td>Biogenetics,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Biogene amines (catecholamines, noradrenaline,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>adrenaline, dopamine, 5-hydroxytryptamine, etc.)</td>
<td></td>
</tr>
<tr>
<td>513 413</td>
<td>D</td>
<td>Wide band VIOLET.</td>
<td>Like C, higher intensity, less contrast.</td>
<td></td>
</tr>
<tr>
<td>513 414</td>
<td>E 2</td>
<td>Narrow band VIOLET peak at 430nm.</td>
<td>Chromosome banding, Quinacrine mustard</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>dihydrochloride (QM).</td>
<td></td>
</tr>
<tr>
<td>513 416</td>
<td>G</td>
<td>Wide band BLUE.</td>
<td>Acridine orange</td>
<td></td>
</tr>
<tr>
<td>513 417</td>
<td>H 2</td>
<td>Wide band BLUE, high intensity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 418</td>
<td>I 2**</td>
<td>Narrow band BLUE to cut down auto-fluorescence</td>
<td></td>
<td></td>
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<tr>
<td>513 419</td>
<td>K 2</td>
<td>Extremely narrow band BLUE at 405nm to eliminate auto-fluorescence</td>
<td>Fluorescein tetraethiopcarbazol (FITC), Fluorescein isothiocyanate (FITC): Immunological stains, Conventional blue excitation. Tetraethyl, Quinacrine mustard, Acidine orange.</td>
<td></td>
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<tr>
<td>513 420</td>
<td>L 2</td>
<td>Extremely narrow band BLUE with selective barrier at 525nm.</td>
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<td></td>
</tr>
<tr>
<td>513 530</td>
<td>L 2.1**</td>
<td>Extremely narrow band BLUE with selective barrier at 515-560nm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 421</td>
<td>M 2</td>
<td>Narrow band GREEN.</td>
<td>Feulgen stain (parasansuline), Lissamine</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>rhodamine B (RB 200), Methylgreen-eminin, Tetraethylrhodamine isothiocyanate (TRITC) double staining technique.</td>
<td></td>
</tr>
<tr>
<td>513 422</td>
<td>N 2</td>
<td>Narrow band GREEN, but FITC excitation excluded.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 531</td>
<td>N 2.1**</td>
<td>Narrow band GREEN, but wider than N 2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 423</td>
<td></td>
<td>Filter module with dichromatic beam splitter TK 400.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>513 424</td>
<td></td>
<td>Filter module with dichromatic beam splitter TK 455.</td>
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<tr>
<td>513 425</td>
<td></td>
<td>Filter module with dichromatic beam splitter TK 510.</td>
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<td></td>
</tr>
<tr>
<td>513 426</td>
<td></td>
<td>Filter module with dichromatic beam splitter TK 580.</td>
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<tr>
<td>513 525</td>
<td></td>
<td>Transmitted light filter module</td>
<td></td>
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</tbody>
</table>

** Filters I 2, L 2.1 and N 2.1 are used in the FITC/Ethidium-Bromide Double Fluorochrome Staining Technique. For information on this technique, please refer to Dr. Plom's "A New Type of Two-Color Fluorescence Staining for Cytology Specimen" in the JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY, 1976.

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### Individual Filters for Fluorescence Microscopy

#### 58mm Diameter

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>514 507</td>
<td>UV exciter filter GU 1, 1mm, mounted</td>
</tr>
<tr>
<td>514 509</td>
<td>UV exciter filter GU 1, 2mm, mounted</td>
</tr>
<tr>
<td>514 504</td>
<td>Blue exciter filter BG 12, 1.5mm, mounted</td>
</tr>
<tr>
<td>514 502</td>
<td>Blue exciter filter BG 17, 3mm, mounted</td>
</tr>
<tr>
<td>514 505</td>
<td>Wide exciter filter KB 05, 5mm, mounted</td>
</tr>
<tr>
<td>514 527</td>
<td>Heat absorbing filter KG 1, 2mm, unmounted for 150 volt, HBO 50 watt and</td>
</tr>
<tr>
<td></td>
<td>HgD 100 watt Sylvania tubes</td>
</tr>
<tr>
<td>514 540</td>
<td>Heat absorbing filter BG 3/4, unmounted for all XBO Xenon tubes</td>
</tr>
<tr>
<td>514 530</td>
<td>Edge filter K 430 (K-420nm), mounted</td>
</tr>
<tr>
<td>514 533</td>
<td>Red suppression filter BG 38, 4mm, mounted</td>
</tr>
<tr>
<td>514 548</td>
<td>Band absorption filter BG 36, 2mm, mounted (Feulgen and TRITC)</td>
</tr>
<tr>
<td>514 407</td>
<td>Diffusion dye N</td>
</tr>
</tbody>
</table>

#### 37mm Diameter

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>514 524</td>
<td>UV exciter filter GU 1 S 390, mounted</td>
</tr>
<tr>
<td>514 412</td>
<td>Violet exciter filter S-460, mounted</td>
</tr>
<tr>
<td>514 570</td>
<td>FITC exciter filter KP-400, blue, mounted</td>
</tr>
<tr>
<td>514 413</td>
<td>FITC exciter filter KP-500, blue, mounted</td>
</tr>
<tr>
<td>514 546</td>
<td>Green exciter filter S-546, mounted</td>
</tr>
<tr>
<td>514 526</td>
<td>Wide band green exciter filter S-546, mounted in conjunction with 514 427, 514 433 and 514 508, see above (using)</td>
</tr>
<tr>
<td>514 547</td>
<td>Red suppression filter BG 38, 4mm, mounted</td>
</tr>
<tr>
<td>514 538</td>
<td>Red suppression filter BG 33, 3mm, mounted</td>
</tr>
<tr>
<td>514 555</td>
<td>Filter K-445 for reduction of UV radiation</td>
</tr>
</tbody>
</table>

#### Barrier Filters in Slides

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>514 570</td>
<td>Filter slider with barrier filters K-430 and K-430</td>
</tr>
<tr>
<td>514 571</td>
<td>Filter slider with barrier filters K-430 and K-430</td>
</tr>
<tr>
<td>514 572</td>
<td>Filter slider with barrier filters K-510 and K-510</td>
</tr>
<tr>
<td>514 573</td>
<td>Filter slider with barrier filters K-570 and K-580</td>
</tr>
</tbody>
</table>

#### Neutral Density Filters, 58mm Diameter, Bumpeted

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>514 539</td>
<td>5% transmission</td>
</tr>
<tr>
<td>514 532</td>
<td>0.3% transmission</td>
</tr>
</tbody>
</table>

#### Neutral Density Filters, 37mm Diameter, Mounted

<table>
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<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>543 006</td>
<td>70% transmission</td>
</tr>
<tr>
<td>543 092</td>
<td>50% transmission</td>
</tr>
<tr>
<td>543 093</td>
<td>25% transmission</td>
</tr>
<tr>
<td>543 184</td>
<td>0.5% transmission</td>
</tr>
<tr>
<td>543 185</td>
<td>0.4% transmission</td>
</tr>
</tbody>
</table>

*Discontinued, limited supply only available.
Interference Contrast Device T

513 524 Analyzer on slide
512 810 Diaphragm revolving nosepiece
553 358 Polymer
513 467 Universal condenser base UK
527 254 Condenser top-element Ache, 0.90 50:1 P
556 187 Fluorite dry plano interference contrast objective, NPL Fluotar 16/0.45 ICT
559 188 Fluorite dry plano interference contrast objective, NPL Fluotar 40/0.70 ICT
569 189 Fluorite oil immersion plano interference contrast objective, NPL Fluotar 100/1.32 oil ICT
513 449 Immersion oil, PCB free, negligible fluorescence, N 1.510, 10ml bottle
553 351 Centering key
553 351 Centering key
553 354 ICT turret for the universal condenser UK
553 356 Wallaston prism for objective NPL Fluotar 16/0.45 ICT
553 356 Wallaston prism for objective NPL Fluotar 40/0.70 ICT
553 357 Wallaston prism for objective NPL Fluotar 100/1.32 oil ICT
553 353 ICT Turret, complete as described immediately above
553 352 Interference Contrast Device T for the DIALUX 20, complete as described above

Supplementary Equipment

559 190 Fluorite dry plano interference contrast objective, NPL Fluotar 25/0.55 ICT
553 359 Wallaston prism for objective NPL Fluotar 25/0.55 ICT

For Phase Contrast

513 479 Light ring 1 St. 1
513 480 Light ring 2 St. 1
513 481 Light ring 3 St. 1
513 482 Light ring 4 St. 1
513 486 Focusing magnifier for centering the phase ring
513 483 Darkfield light ring DF St. 1
Lamp Housing Model No. 1022 for DIALUX 20 Microscope

Halogen Filament Lamp 12 Volt, 100 Watt

514 577 Lamp housing model No. 1022 with bayonet mounting device, filter holder, centerable and focussable reflector, adjustable aspheric collector, and heat absorbing filter ...
514 588 Socket for halogen filament lamp 12 volt, 100 watt
500 974 Halogen filament lamp 12 volt, 100 watt, 2 required

514 578 Lamp Housing Model No. 1022 with Halogen Filament Lamp 12 Volt, 100 Watt, complete as described above

050 260 Regulating transformer with voltmeter 12 volts, 50-100 watts; for connection to 110 volts, 60 cycles A.C., U.L. approved

High Pressure Mercury Lamp HBO 50 Watt

514 577 Lamp housing model No. 1022 with bayonet mounting device, filter holder, centerable and focussable reflector, adjustable aspheric collector and heat absorbing filter ...
514 550 Socket for high pressure mercury lamp HBO 50 watt
500 137 High pressure mercury lamp HBO 50 watt
514 579 Lamp Housing Model No. 1022 with High Pressure Mercury Lamp HBO 50 Watt, complete as described above

050 246 Power supply for HBO 50 watt lamp

High Pressure Mercury Lamp HBO 100 Watt

514 577 Lamp housing model No. 1022 with bayonet mounting device, filter holder, centerable and focussable reflector, adjustable aspheric collector and heat absorbing filter ...
514 562 Socket for high pressure mercury lamp, HBO 100 watt
500 138 High pressure mercury lamp HBO 100 watt
551 438 Heat sink

514 580 Lamp Housing Model No. 1022 with High Pressure Mercury Lamp HBO 100 Watt, complete as described above

050 247 Power supply for HBO 100 watt lamp

High Pressure Xenon Lamp XBO 75 Watt

514 577 Lamp housing model No. 1022 with bayonet mounting device, filter holder, centerable and focussable reflector, adjustable aspheric collector and heat absorbing filter ...
514 563 Socket for high pressure xenon lamp XBO 75 watt
500 139 High pressure xenon lamp 75 watt
514 039 Protective goggles

514 581 Lamp Housing Model No. 1022 with High Pressure Xenon Lamp XBO 75 Watt, complete as described above

050 247 Power supply for high pressure xenon lamp XBO 75 watt

514 576 Heat absorbing filter (included in 514 577)
**OBJECTIVES**

Corrected for 160mm mechanical tube length. Adjustment length = 45mm

P = Use PERIPLAN eyepiece
D = Cover glass required
O = Cover glass not required
DO = Can be used with or without cover glass
Corr. = Cover glass thickness from 0.11 to 0.25mm can be used

<table>
<thead>
<tr>
<th>Type of Objective</th>
<th>MAGNIFICATION/APERATURE</th>
<th>Working Distance (MM)</th>
<th>Eyepiece</th>
<th>Cover Glass</th>
<th>Color Code For Magnification/Immersion</th>
<th>Catalog Number</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>Achromatic</td>
<td>4/0.12</td>
<td>2.4</td>
<td>P</td>
<td>DO</td>
<td>Red</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>10/0.25</td>
<td>6.8</td>
<td>P</td>
<td>DO</td>
<td>Yellow</td>
<td>$519 615</td>
<td></td>
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<tr>
<td></td>
<td>25/0.50</td>
<td>0.44</td>
<td>P</td>
<td>D</td>
<td>Green</td>
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<td>40/0.65</td>
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<td>D</td>
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<td>$519 655</td>
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<td></td>
<td>F163/0.85</td>
<td>0.15</td>
<td>P</td>
<td>D</td>
<td>Dark</td>
<td>$519 617</td>
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<tr>
<td></td>
<td>100/1.25 oil</td>
<td>0.09</td>
<td>P</td>
<td>D</td>
<td>Blue</td>
<td>$519 618</td>
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<tr>
<td>NPL Fluorad</td>
<td>NPL Fluorad 6.3/0.20</td>
<td>2.30</td>
<td>P</td>
<td>DO</td>
<td>Orange</td>
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<td>Plano</td>
<td>NPL Fluorad 10/0.30</td>
<td>0.75</td>
<td>P</td>
<td>DO</td>
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<td>NPL Fluorad 16/0.45</td>
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<tr>
<td></td>
<td>NPL Fluorad 40/0.70</td>
<td>0.24</td>
<td>P</td>
<td>D</td>
<td>Light</td>
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<tr>
<td></td>
<td>NPL Fluorad 50/1.00 oil</td>
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<td>D</td>
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<tr>
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<td>D</td>
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<td>NPL Fluorad 63/0.90</td>
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<td>P</td>
<td>D</td>
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<td>7.2</td>
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<td>Grey</td>
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<td>PI 2.5/0.08</td>
<td>11.8</td>
<td>P</td>
<td>DO</td>
<td>Brown</td>
<td>$519 495</td>
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63
<table>
<thead>
<tr>
<th>Type of Objective</th>
<th>MAGNIFICATION/</th>
<th>APERTURE</th>
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<th>Color Code</th>
<th>For Magnification/Immersion</th>
<th>Catalog Number</th>
<th>Price</th>
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<tbody>
<tr>
<td>Achromatic</td>
<td>10/0.75 PHACO 3</td>
<td>0.8</td>
<td>P</td>
<td>D</td>
<td>Yellow</td>
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<td>25/0.59 PHACO 2</td>
<td>0.44</td>
<td>P</td>
<td>D</td>
<td>Dark</td>
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<td></td>
<td>40/0.66 PHACO 2</td>
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<td>100/1.25 oil PHACO 3</td>
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<td>NPL Fluorar</td>
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<td>D</td>
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<td>NPL Fluorar 16/0.45 PHACO 1</td>
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<td>P</td>
<td>D</td>
<td>Light</td>
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<td>NPL Fluorar 25/0.65 PHACO 2</td>
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<td>P</td>
<td>D</td>
<td>Light Blue</td>
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<td>NPL Fluorar 63/0.90 PHACO 4</td>
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<td>P</td>
<td>D</td>
<td>Dark Blue</td>
<td>519 447</td>
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<tr>
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<td>NPL Fluorar 100/1.32 oil PHACO 3</td>
<td>0.16</td>
<td>P</td>
<td>D</td>
<td>White/Black</td>
<td>519 508</td>
<td></td>
</tr>
<tr>
<td>Special</td>
<td>10/0.45 oil Fluorescence</td>
<td>0.39</td>
<td>P</td>
<td>D</td>
<td>Yellow</td>
<td>519 645</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25/0.75 oil Fluorescence</td>
<td>0.36</td>
<td>P</td>
<td>D</td>
<td>Dark</td>
<td>519 646</td>
<td></td>
</tr>
<tr>
<td></td>
<td>63/1.30 oil Fluorescence</td>
<td>0.21</td>
<td>P</td>
<td>D</td>
<td>Light Blue</td>
<td>519 413</td>
<td></td>
</tr>
<tr>
<td>Microscopy</td>
<td>25/0.60 W Fluorescence</td>
<td>0.14</td>
<td>P</td>
<td>D</td>
<td>Dark</td>
<td>519 474</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50/1.90 W Fluorescence</td>
<td>0.30</td>
<td>P</td>
<td>D</td>
<td>Light</td>
<td>519 467</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100/1.20 W Fluorescence</td>
<td>0.88</td>
<td>P</td>
<td>D</td>
<td>Light Blue</td>
<td>519 648</td>
<td></td>
</tr>
<tr>
<td>Immersion Oil</td>
<td>513 449</td>
<td></td>
<td></td>
<td></td>
<td>Immersion oil, PCE free, negligible fluorescence, N₂[23], 1.518, 10ml bottle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immersion Oil</td>
<td>513 445</td>
<td></td>
<td></td>
<td></td>
<td>Immersion oil, PCE free, negligible fluorescence, N₂[23], 1.518, 100ml bottle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immersion Oil</td>
<td>513 447</td>
<td></td>
<td></td>
<td></td>
<td>Immersion oil, PCE free, negligible fluorescence, N₂[23], 1.518, 200ml bottle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immersion Oil</td>
<td>513 448</td>
<td></td>
<td></td>
<td></td>
<td>Immersion oil, PCE free, negligible fluorescence, N₂[23], 1.518, 1,000ml bottle</td>
<td></td>
<td></td>
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<tr>
<td>Immersion Oil</td>
<td>513 106</td>
<td></td>
<td></td>
<td></td>
<td>Compound immersion bottle for immersion oil and xylene</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Immersion Oil for Fluorescence Microscopy

513 523 Plastic bottle of immersion oil, PCE free according to DIN 56884, with extremely low autofluorescence, 10ml
513 522 Glass bottle of immersion oil, PCE free according to DIN 56884, with extremely low autofluorescence, 100ml

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### EYEPICES**

Corrected for 160mm tube length

- **M** = Focusing eyepiece
- **ME** = Both eyepieces focusing

#### PERIPLAN Eyepieces, 23.2mm Diameter

<table>
<thead>
<tr>
<th>MAGNIFICATION</th>
<th>FIELD OF VIEW (MM)</th>
<th>SINGLE PRICE $</th>
<th>SINGLE FOR PAIR PRICE $</th>
<th>PAIR PRICE $</th>
<th>PAIR PRICE $</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.3x</td>
<td>18</td>
<td>519 626</td>
<td>519 625</td>
<td>519 627</td>
<td>519 627</td>
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<tr>
<td>6.3xM</td>
<td>18</td>
<td>519 626</td>
<td>519 625</td>
<td>519 626</td>
<td>519 626</td>
</tr>
<tr>
<td>10x high eyepoint</td>
<td>18</td>
<td>519 613</td>
<td>519 613</td>
<td>519 629</td>
<td>519 629</td>
</tr>
<tr>
<td>10x high eyepoint</td>
<td>18</td>
<td>519 613</td>
<td>519 613</td>
<td>519 629</td>
<td>519 629</td>
</tr>
<tr>
<td>10x high eyepoint with red dot for photomicrography with the Systems or Combiophot Cameras</td>
<td>18</td>
<td>519 640</td>
<td>519 640</td>
<td>519 643</td>
<td></td>
</tr>
<tr>
<td>10x high eyepoint with pointer</td>
<td>18</td>
<td>519 639</td>
<td>519 639</td>
<td>519 643</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>519 641</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

#### PERIPLAN Widefield GF Eyepieces, 23.2mm Diameter

<table>
<thead>
<tr>
<th>MAGNIFICATION</th>
<th>FIELD OF VIEW (MM)</th>
<th>SINGLE PRICE $</th>
<th>SINGLE FOR PAIR PRICE $</th>
<th>PAIR PRICE $</th>
<th>PAIR PRICE $</th>
</tr>
</thead>
<tbody>
<tr>
<td>GF 10x</td>
<td>18</td>
<td>519 620</td>
<td>519 620</td>
<td>519 627</td>
<td>519 627</td>
</tr>
<tr>
<td>GF 10x high eyepoint</td>
<td>18</td>
<td>519 621</td>
<td>519 621</td>
<td>519 623</td>
<td>519 623</td>
</tr>
<tr>
<td>GF 10xM</td>
<td>18</td>
<td>519 621</td>
<td>519 621</td>
<td>519 624</td>
<td>519 624</td>
</tr>
<tr>
<td>GF 12xM</td>
<td>18</td>
<td>519 630</td>
<td>519 630</td>
<td>519 634</td>
<td>519 634</td>
</tr>
<tr>
<td>GF 12x5MM</td>
<td>18</td>
<td>519 631</td>
<td>519 631</td>
<td>519 636</td>
<td>519 636</td>
</tr>
<tr>
<td>GF 12.5xMF with SY2 reticle for photomicrography with the Systems and Combiophot Camera</td>
<td>18</td>
<td>519 632</td>
<td>519 631</td>
<td>519 637</td>
<td></td>
</tr>
<tr>
<td>GF 12.5xMF with OM2 reticle for photomicrography with the Orthomat W Camera</td>
<td>18</td>
<td>519 633</td>
<td>519 631</td>
<td>519 638</td>
<td></td>
</tr>
</tbody>
</table>

**In order to use eyepieces designed for 170mm mechanical tube length on the DIALUX 20, the following must be purchased:**

- **519 653** Distance ring (TL 160)

**In order to use eyepieces designed for 160mm mechanical tube length on the ORTHOPLAN, the following must be purchased:**

- **513 526** Pair of intermediate adapters

#### Eyepiece Reticles for M Eyepieces (19mm in Diameter)

- **519 969** Eyepiece micrometer, 10mm - 100 divisions
- **519 965** Eyepiece reticle micrometer, 10 x 10mm divided into squares 1.0mm
- **519 966** Eyepiece reticle micrometer, 10 x 10mm divided into squares 1.0mm
- **519 967** Crossline plate
- **519 968** Eyepiece multiometer, 10mm = 100 divisions and crosslines
Photomicrographic Outfits
LEITZ ORTHOMAT-W Automatic 35mm Camera

543.225 ORTHOMAT W, automatic photomicrographic camera, with built-in zoom system adjustable through the magnification range 6.3x to 10x with click stops at 6.3x, 8x and 10x; including photomultiplier tube; electromagnetically vibration free shutter; automatic motor driven film advance and interchangeable film chamber for 35mm cassettes. Detail exposure measurement of 1% of field of view, or integral measurement of entire field. Fully transistorized control unit for automatic exposures from 1/200th 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 photometric task.

Recommended Tube

512.581 Interchangeable combination inclined binocular observation tube with adjustable interpupillary distance 55mm to 75mm and straight monocular photographic tube FSA, automatic focusing compensation for the adjustment of the interpupillary distance. Slide with three different beam splitters, 100%, 50% or 10% of the light to the observer.

Recommended Eyepieces

519.633 PERIPLAN widefield eyepiece, single GF 12.5xMFD with adjustable eyepiece and reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm.

519.638 PERIPLAN widefield eyepieces, paired GF 12.5xMFD with adjustable eyepieces, are with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm.
COMBIPHOT, Automatic Exposure Microscope Camera

1. 35mm Format with the Film Transport Housing

543 395 COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - up to 1/125th of a second; built-in beam splitter deflecting 50% of the light to the field and electronic control unit with connecting cable for automatic exposure times.

543 310 Film transport housing with light screening slide, film advance lever, exposure counter and rewind knob.

543 376 Intermediate adapter with optical system 0.32:1.

543 762 Clamping collar.

519 727 PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm.

543 212 Cable release, 50cm length.

519 637 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepieces and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm.

COMBIPHOT, Automatic Exposure Microscope Camera for 35mm Film Format with the Film Transport Housing.

2. 35mm Format with the LEICA MD 2 Camera Body

543 395 COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - up to 1/125th of a second; built-in beam splitter deflecting 50% of the light to the camera and 50% to the measuring eye (measuring area approximately 3.5% of the field) and electronic control unit with connecting cable for automatic exposure times.

10, 105 LEICA camera body, model MD 2, with focal plane shutter, speeds of 1 to 1/1000th second and times; automatic flash synchronization, fast shutter speeds, rapid winding lever with double exposure lock for shutter wind and film transport, revolved crank, automatic frame counter, bayonet lens mount and provision to accept film marking device type plate.

543 269 Intermediate adapter with optical system 0.32:1.

543 352 Clamping collar.

519 727 PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm.

543 214 Double cable release, 50cm length.

519 637 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepieces and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm.

COMBIPHOT, Automatic Exposure Microscope Camera for 35mm Film Format with the LEICA Camera Body model MD 2.

Optional

14, 142 Film marking device base plate with ten marking strips.

14, 170 Package of 100 marking tapes.

3. 3% x 4% Format with the POLAROID Camera Back CB 101

543 395 COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - up to 1/125th of a second; built-in beam splitter deflecting 50% of the light to the camera and 50% to the measuring eye (measuring area approximately 3.5% of the field) and electronic control unit with connecting cable for automatic exposure times.

543 367 Camera housing with intermediate optical system 0.8x and POLAROID camera back CB 101 for film size 3% x 4% with provisions for half-format size of 3% x 2%.

543 352 Clamping collar.

519 727 PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm.

543 212 Cable release, 50cm length.

519 637 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepieces and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm.

COMBIPHOT, Automatic Exposure Microscope Camera for 3% x 4% or 3% x 2% Film Format with the POLAROID Camera Back CB 101.
COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - up to 1/125th of a second, built-in beam splitter deflecting 50% of the light to the camera and 50% to the monitoring eye (measuring unit approximately 3.5% of the full light). Additional control unit with connecting cable for automatic exposure times.

POLAROID film holder, model No. 645, for 4 x 5" single sheet film.

Camera housing with interchangeable back to accept 4 x 5" film holders.

Intermediate optical system 1x.

Intermediate back with ground glass focusing screen and spring clamp assembly.

Clamping collar.

PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm.

Cable release, 50cm length.

PERIPLAN widefield eyepieces, paired GF 12.5x/MP, with adjustable eyepiece and one with reticle with concentric focusing rings and area markings circumventing the photographic image area, field of view 18mm.

COMBIPHOT, Automatic Exposure Microscope Camera for 4 x 5" Film Format with the POLAROID Film Holder Model 645.

Optional and Supplementary Equipment

Base plate 800 x 450mm with four vibration absorbers.

Focusing telescope for low power photomicrography.

Swing-out filter holder for focusing telescope.

MICROSIX L exposure control.
SYSTEM CAMERA

1. 35mm Format with the Film Transport Housing

543 397 SYSTEM CAMERA, central shutter unit, anti-vibration mounted, with shutter speeds from 1/125th to 1 second and time; provision to accept measuring eye of MICRODUR L exposure meter (not included) with lever to direct the central beam of light to the measuring eye

543 370 Film transport housing with light screening sleeve, film advance lever, exposure counter and rewind knob

543 376 Intermediate adapter with optical system 0.32:1

543 352 Clamping collar

519 727 PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm

543 212 Cable release, 50cm length

519 037 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepiece and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm

SYSTEM CAMERA for 35mm Film Format with the Film Transport Housing

2. 35mm Format with the LEICA MD-2 Camera Body

543 397 SYSTEM CAMERA, central shutter unit, anti-vibration mounted, with shutter speeds from 1/125th to 1 second and time; provision to accept measuring eye of MICRODUR L exposure meter (not included) with lever to direct the central beam of light to the measuring eye

10,105 LEICA camera body, model MD 2, with focal plane shutter, speeds of 1 to 1/1000th second and time; automatic flash synchronization, fast position loading, rapid-winding lever with double exposure lock for shutter wind and film transport, rewind crank, automatic frame counter, bayonet lens mount and provision to accept film marking device base plate

543 269 Intermediate adapter with optical system 0.32:1

543 362 Clamping collar

543 374 Double cable release, 50cm length

519 637 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepiece and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm

SYSTEM CAMERA for 35mm Film Format with the LEICA Camera Body, Model MD-2

Optional

14,142 Film marking device base plate with ten marking strips

14,170 Package of 100 marking tapes

3. 3½ x 4½" Format with the POLAROID Camera Back CB 101

543 397 SYSTEM CAMERA, central shutter unit, anti-vibration mounted, with shutter speeds from 1/125th to 1 second and time; provision to accept measuring eye of MICRODUR L exposure meter (not included) with lever to direct the central beam of light to the measuring eye

543 387 Camera housing with intermediate optical system 0.8x and POLAROID camera back CB 101 for film size 3½ x 4½" with provisions for half format size of 3½ x 2½"

543 352 Clamping collar

519 727 PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm

543 212 Cable release, 50cm length

519 637 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyepiece and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm

SYSTEM CAMERA for 3½ x 4½" or 3½ x 2½" Film Format with the POLAROID Camera Back CB 101
4. 4 x 5" Format with the POLAROID Camera Back 545

543 397 SYSTEM CAMERA, central shutter unit, anti-vibration mounted, with shutter speeds from 1/10th to 1 second and time; provision to accept measuring eye of MICROSEX L exposure meter (not included) with lever to direct the central beam of light to the measuring eye.

544 338 POLAROID film holder, model No. 545, for 4 x 5" single sheet film

543 234 Camera housing with intermediate back to accept 4 x 5" film holders

543 273 Intermediate optical system I.O.

543 237 International back with ground glass focusing screen and spring clip assembly

543 232 Clamping collar

510 277 PERIPLAN high eyepoint photographic eyepiece 10x, field of view 18mm

543 212 Cable release, 50cm length

519 631 PERIPLAN widefield eyepieces, paired GF 12.5xWF, with adjustable eyepieces and one with reticle with concentric focusing rings and area markings circumscribing the photographs, image area, fast of view 18mm

SYSTEM CAMERA for 4 x 5" Film Format with the POLAROID Film Holder Model 545

Optional and Supplementary Equipment

543 013 Back plate 600 x 450mm with four vibration absorbers

513 468 Focusing telescope for low power photomicrography

543 353 Swinging filter holder for focusing telescope

543 306 MICROSEX L exposure meter
WILD MPS 50 PHOTOAUTOMAT Camera System

1). 35mm Format with Automatic Film Transport

375 888  MPS 51 camera body with electronically controlled shutter and an element for center-weighted integral measurement
319 501  MPS SS control unit and cables
373 450  Motor adapter
370 759  Objective 0.2:1 and screw driver
543 396  Film cassette
376 102  Eyepiece adapter
519 639  PERIPLAN high eyepoint eyepiece 10x
519 637  PERIPLAN eyepieces, paired GF 12 5x SY 2

MPS 50 PHOTOAUTOMAT for 35mm Film Format with Autographic Film Transport Housing

2). 35mm Format with the LEICA MD 2 Camera Body

375 898  MPS 51 camera body with electronically controlled shutter and an element for center-weighted integral measurement
319 501  MPS SS control unit and cables
376 102  Eyepiece adapter
519 639  PERIPLAN high eyepoint eyepiece 10x
543 269  Adapter with optical system 0.2:1
519 637  PERIPLAN eyepieces, paired GF 12 5x SY 2
10,105  LEICA MD 2 camera body

MPS 50 PHOTOAUTOMAT for 35mm Film Format with the LEICA MD 2 Camera Body

Optional

14,142  Film marking base plate
14,170  Package of 100 marking tapes

3). 3 x 4½" Format with the POLAROID Camera Back CB 101

375 898  MPS 51 camera body with electronically controlled shutter and an element for center-weighted integral measurement
319 501  MPS SS control unit and cables
376 102  Eyepiece adapter
519 639  PERIPLAN high eyepoint eyepiece 10x
543 387  Camera attachment with POLAROID CB 101 for 3 x 4½"
519 637  PERIPLAN eyepieces, paired GF 12 5x SY 2

MPS 56 PHOTOAUTOMAT for 3 x 4½" Film Format with the POLAROID Camera Back CB 101

4). 4 x 5" Format with the POLAROID Camera Back 645

375 898  MPS 51 camera body with electronically controlled shutter and an element for center-weighted integral measurement
319 501  MPS SS control unit and cables
376 102  Eyepiece adapter
519 639  PERIPLAN high eyepoint eyepiece 10x
543 273  Intermediate optical system 1x
543 234  Camera housing for 4 x 5" film size
543 237  International back with focusing screen
519 637  PERIPLAN eyepieces, paired GF 12 5x SY 2
054 338  POLAROID film holder No. 545

MPS 50 PHOTOAUTOMAT for 4 x 5" Film Format with the POLAROID Film Holder Model 545

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Microtomes

The assessment of microscopic images largely depends on their technical quality. This in turn is determined equally by the microscope and the quality of the object under examination. In the investigation of histological specimens insufficient attention is paid to the latter condition. The microscope is easily blamed for imperfections in the picture which in many cases should be ascribed to faults in the preparation of the microscope sections.

The optical precision of the microscope must be equaled by the mechanical precision of the microtome if the result of all technical efforts is not to depend only on subjective conditions such as skill and experience in the use of the microscope and microtome. On the other hand, full advantage of the performance of high-quality microscopes can be taken only if the conditions in which the specimen has been prepared are perfect. This applies particularly to the production of microtome sections for histological examination.

The LEITZ microtomes introduced in this brochure are the outcome of many years' experience in the design of these instruments and of careful attention to the problems of modern laboratory practice.
Corrosion-protected special micromete for the economic production of serial sections embedded in paraffin, for specimens in medicine, zoology, botany, textile research etc.

Uniformly precise section cutting, great stability, ease and reliable operation.

On request power-driven for the cutting of hard objects such as bone, plastics, etc. or to simple operation.

Unrestricted manual operation even when equipped with the motor.

Fixed knife - moving object.

By rotation of the handwheel the object is moved vertically.

For the coarse adjustment of the knife to the object.

Rotary knob for accurate height adjustment.

In steps from 1 to 25 microm with click stops.

Automatic specimen advance for section thickness with each rotation of the hand wheel or by multirotary knob, manually set steps for trimming.

On both sides by means of grip screws.

The adjustable angle of inclination is maintained even after the release of the knife.

Microtome No. 1512 with automatic specimen feed from 1 to 25 microns with section thickness setting at 1 micron intervals. Rapid advance coarse adjustment of the specimen with rotating knob positioned on the front side of the housing. Finely colored balanced wheel for ease of operation. Heavy duty knife block, adjustable knife clamp and scale for reading the inclination of the knife. Cardiac joint clamp for quick orientation of the sample, object clamp, metal stage 30 mm x 30 mm, knife guard. 50 grams of immersion oil and flexible protective dust cover. The microtome is set on a large heavy base with rubber feet and is enclosed in a protective cast metal housing.

530 385 LEITZ Rotarv Microntome No. 1512 for the Cutting of Paraffin Sections. 1 to 25 Microns, (knife not included) complete as described above.

78
**REQUIRED ACCESSORIES**

*Knives for the Rotary Microtome No. 1512*

<table>
<thead>
<tr>
<th>Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plane Concave:</strong></td>
<td>For fresh or fixed biological specimens without embedding.</td>
</tr>
<tr>
<td><strong>Wedge Shaped:</strong></td>
<td>For paraffin, frozen, wood and rubber sections.</td>
</tr>
<tr>
<td><strong>Wedge Shaped with Plane Edge:</strong></td>
<td>For hard materials and plastic embedding.</td>
</tr>
</tbody>
</table>

530 439  Microtome knife, 17cm length, 36mm width, wedge shaped, in case

530 440  Microtome knife, 17cm length, 38mm width, plane concave, in case

530 441  Microtome knife, 17cm length, 36mm width, wedge shaped with plane edge, in case

Optimal Accessories

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>630 052  Simple strap, single faced leather on wooden base, 38mm length</td>
</tr>
<tr>
<td>530 084  Plastic stopping bevel for microtome knives 17cm length</td>
</tr>
<tr>
<td>530 167  Metal stopping bevel for microtome knives 17cm length</td>
</tr>
<tr>
<td>530 039  Handle for knives with screw thread and for knives with shaft</td>
</tr>
<tr>
<td>530 053  Stropping paste</td>
</tr>
<tr>
<td>530 335  Automatic conveyer belt</td>
</tr>
<tr>
<td>530 273  Glass knife holder</td>
</tr>
<tr>
<td>530 045  Razor blade holder</td>
</tr>
<tr>
<td>530 057  Plastic object mounting block 25 x 25mm</td>
</tr>
<tr>
<td>530 055  Plastic object mounting block 30 x 30mm</td>
</tr>
<tr>
<td>530 056  Plastic object mounting block 45 x 45mm</td>
</tr>
<tr>
<td>530 221  Metal object block 30 x 30mm (as replacement)</td>
</tr>
<tr>
<td>530 101  Knife guard (as replacement)</td>
</tr>
<tr>
<td>530 200  Bottle of oil, 50 grams (as replacement)</td>
</tr>
<tr>
<td>530 336  Flexible plastic protective dust cover (as replacement)</td>
</tr>
</tbody>
</table>

77
Base Sledge Microtome 1400

Functional principle:

Cutting movement:

Coarse adjustment:

Section thickness adjustment:

Object feed (lift):

Knife clamping:

Knife inclination:

Frozen section cutting:

Very robust, universal microtome for soft to hard objects and small to large sections.

Special version for section thicknesses below 1 µm (see model 1461).

In the medical, zoological, and botanical laboratory: for paraffin, celluloid, celluloid/paraffin, gelatin, methacrylate and epoxy-resin embedding.

In the industrial laboratory: for the cutting of plastics, textiles, coal, wood, paper, leather etc.

Fixed knife - moving object.

The object is moved horizontally in a play-free, accurately moving sledge track.

Lever movement, which can be clamped in any position, for the coarse adjustment of the object to the knife. Rotary knob for accurate manual adjustment.

In steps from 1 to 40 µm with clickstops.

Automatic specimen advance for section thickness after each step or manual with rotary knob in large steps for trimming.

At both ends of the knife by means of grip with knife block adjustable parallel to the cutting plane for large sections and for the inclination of the knife.

Adjustment by means of a scale.

CO₂ freezing.

Large base sledge microtome No. 1400 with heavy duty cast iron base, dual precision guide ways for the object sledge; protective giton for the guide ways, object sledge with built-in micrometer mechanism and automatic specimen feed for sections 1 to 40 microns thick with setting at 1 micron intervals. Ball and socket clamp, two knife clamps, two clamping studs for knife clamp and pair of knife guides; including flexible plastic protective dust cover.

630 306 LEITZ Base Sledge Microtome, No. 1400 for Cutting Section Thickness of 1 to 40 Microns of Soft to Hard Materials

78
REQUIRED ACCESSORIES

Kives for the Base Slide Microtome No. 1408

Strongly Plano Concave: For celloidin sections.

Plano Concave: For fresh or fixed biological specimens without embedding.

Wedge Shaped: For paraffin, frozen, wood and rubber sections.

Wedge Shaped with Plane Edge: For hard materials and plastic embedding.

520.426 Microtome knife, 24cm length, 36mm width, strongly plano concave, in case

520.427 Microtome knife, 24cm length, 36mm width, plano concave, in case

520.425 Microtome knife, 24cm length, 36mm width, wedge shaped, in case

520.428 Microtome knife, 24cm length, 36mm width, wedge shaped with plane edge, in case

Accessories for Celloidin Sections

520.070 Alcohol dropping apparatus

520.325 Special knife clamp for positioning the knife obliquely

520.423 Microtome knife, 240mm length, 45mm width, strongly plano concave, in case

Optional Accessories

520.062 Simple stop, single faced leather on wooden base, 36mm length

520.082 Plastic stropping bevel for microtome knives 24cm length, 36mm width

520.081 Plastic stropping bevel for microtome knives 24cm length, 45mm width

520.169 Metal stropping bevel for microtome knives 24cm length far cutting plastic

520.039 Handle for knives with screw thread and for knives with shaft

520.053 Stropping paste

520.044 Razor blade holder

520.343 Cardan joint clamp

520.023 Large object stage 9 x 13cm

520.071 Circular freezing stage 90mm diameter

520.069 Large freezing stage, 9 x 13cm

520.043 Knife cooling attachment

520.325 Pair of knife extension blocks, 25mm height

520.057 Plastic object mounting block 25 x 25mm

520.056 Plastic object mounting block 30 x 30mm

520.056 Plastic object mounting block 45 x 45mm

520.056 Plastic object mounting block 60 x 50mm

520.059 Plastic object mounting block 75 x 60mm

520.072 Metal object mounting block 30 x 30mm

520.072 Metal object mounting block 45 x 45mm

520.072 Metal object mounting block 60 x 50mm

520.072 Metal object mounting block 90 x 80mm

520.072 Metal object mounting block 130 x 90mm

520.345 Knife holder (as replacement)

520.344 Ball and socket clamp (as replacement)

520.282 Object clamp (as replacement)

520.101 Knife guard (as replacement)

520.001 Bottle or oil, 50 grams (as replacement)

520.307 Flexible protective dust cover (as replacement)
Freezing Microtome 1310

Functional principle:

Cutting movement:

Coarse adjustment:

Section thickness adjustment:

Object feed (lift):

Knife clamping:

Knife inclination:

Special microtome with built-in device for CO₂ freezing for the cutting of frozen sections of tissue specimens for histopathological routine work. Easy and convenient to handle - space saving - portable.

Fixed object - moving knife. The carbon dioxide is led to the object stage and the knife through built-in distributor ducts. Freezing is controlled with the aid of two valve levers.

Knife guidance on a circular track by means of a handgrip on the knife holder, independent of the pressure of the hand.

Hand crank for the coarse adjustment of the object to the knife.

In steps from 2.5 to 50 microns.

Automatic specimen advance for section thickness or manual in larger steps for trimming.

At both ends of the knife.

Adjustment by means of a scale.

Large freezing microtome No. 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, section trough for specimen, connecting tube for CO₂ and flexible plastic protective dust cover.

LEITZ Freezing Microtome No. 1310 for the Cutting of Frozen Sections 2.5 to 50 microns (knife not included) complete as described above.
REQUIRED ACCESSORIES

Knives for the Freeting Micromotene No. 1210

Wedge Shaped:
For paraffin, frozen, wood and rubber sections.

Wedge Shaped with Plane Edge:
For hard materials and plastic embedding.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>530.455</td>
<td>Micromotene knife, 11cm length, 32mm width, wedge shaped, in case.</td>
</tr>
<tr>
<td>530.456</td>
<td>Micromotene knife, 11cm length, 32mm width, wedge shaped with plane edge, in case.</td>
</tr>
</tbody>
</table>

Optional Accessories

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>530.052</td>
<td>Simple strap, single faced leather on wooden base, 30mm length</td>
</tr>
<tr>
<td>530.080</td>
<td>Plastic stripping bevel for micromotene knives 11cm length</td>
</tr>
<tr>
<td>530.166</td>
<td>Metal stripping bevel for micromotene knives 11cm length</td>
</tr>
<tr>
<td>530.029</td>
<td>Handle for knives with screw thread and for knives with shaft</td>
</tr>
<tr>
<td>530.051</td>
<td>Stripping paste</td>
</tr>
<tr>
<td>530.046</td>
<td>Flavol blade holder</td>
</tr>
<tr>
<td>530.032</td>
<td>Special circular freezing stage, 50mm diameter</td>
</tr>
<tr>
<td>530.033</td>
<td>Tilting freezing stage, 50mm diameter</td>
</tr>
<tr>
<td>530.035</td>
<td>Tilting object clamp</td>
</tr>
<tr>
<td>530.057</td>
<td>Plastic object mounting block, 25 x 25mm</td>
</tr>
<tr>
<td>530.055</td>
<td>Plastic object mounting block, 30 x 30mm</td>
</tr>
<tr>
<td>530.056</td>
<td>Plastic object mounting block, 45 x 45mm</td>
</tr>
<tr>
<td>530.058</td>
<td>Plastic object mounting block, 60 x 50mm</td>
</tr>
<tr>
<td>530.059</td>
<td>Plastic object mounting block, 75 x 60mm</td>
</tr>
<tr>
<td>530.321</td>
<td>Metal object mounting block, 30 x 30mm</td>
</tr>
<tr>
<td>530.372</td>
<td>Metal object mounting block, 60 x 50mm</td>
</tr>
<tr>
<td>530.323</td>
<td>Metal object mounting block, 90 x 80mm</td>
</tr>
<tr>
<td>530.324</td>
<td>Metal object mounting block, 130 x 90mm</td>
</tr>
<tr>
<td>530.034</td>
<td>Circular freezing stage, 50mm diameter (as replacement)</td>
</tr>
<tr>
<td>530.185</td>
<td>Section trough for specimen (as replacement)</td>
</tr>
<tr>
<td>530.089</td>
<td>Connecting tube for CO₂ (as replacement)</td>
</tr>
<tr>
<td>530.064</td>
<td>Flexible plastic protective dust cover (as replacement)</td>
</tr>
</tbody>
</table>
## MICROTOME KNIVES IN CASES

<table>
<thead>
<tr>
<th>MICROTOME</th>
<th>LENGTH (MM)</th>
<th>WIDTH (MM)</th>
<th>THICK BACK (MM)</th>
<th>PROFILE</th>
<th>DUE IN CASE</th>
<th>PRICE $</th>
<th>TWO KNIVES IN CASE</th>
<th>PRICE $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Sledge</td>
<td>240</td>
<td>45</td>
<td>11</td>
<td>Strongly plano concave (Long) Plane concave (Long) Wedge shaped (Long) Wedge shaped for Shandon-Elliot sharpening machine</td>
<td>530 423</td>
<td>530 430</td>
<td>530 424</td>
<td>530 431</td>
</tr>
<tr>
<td>Microtome 1400</td>
<td>240</td>
<td>36</td>
<td>13</td>
<td>Strongly plano concave (Loew) Plane concave (Loew) Wedge shaped (Loew) Wedge shaped with plane edge Wedge shaped for Shandon Elliot sharpening machine Wedge shaped with plane edge for Shandon Elliot sharpening machine</td>
<td>530 426</td>
<td>530 433</td>
<td>530 427</td>
<td>530 434</td>
</tr>
<tr>
<td>Minot Rotary Microtomes 1512</td>
<td>170</td>
<td>36</td>
<td>13</td>
<td>Plane concave (Loew) Wedge shaped with plane edge Wedge shaped for Shandon Elliot sharpening machine Wedge shaped with plane edge for Shandon Elliot sharpening machine</td>
<td>530 440</td>
<td>530 443</td>
<td>530 439</td>
<td>530 442</td>
</tr>
<tr>
<td>Freezing Microtome 1310</td>
<td>110</td>
<td>32</td>
<td>7.5</td>
<td>Wedge shaped (Loew) Wedge shaped with plane edge Wedge shaped for Shandon Elliot sharpening machine</td>
<td>530 455</td>
<td>530 458</td>
<td>530 456</td>
<td>530 459</td>
</tr>
</tbody>
</table>
Micro attachments A and B

Micro-attachments A and B for PRADO UNIVERSAL Projector

Both attachments serve for the projection of microscope specimens at up to 1400x on the image screen.

By simple rotation of the revolving nosepiece, the microscopic image can be reproduced at 3 granted magnifications beginning with low power projection.

In contrast with the Micro-attachment A the Micro-attachment B is arranged vertically. It serves first and foremost for the projection of floating or upright objects. Both attachments have the same optical equipment.

<table>
<thead>
<tr>
<th>Screen image diameter (cm)</th>
<th>Objective/eye lens and reproduction ratio</th>
<th>Projection eyepiece and projection distance in cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>4/12 10/0.5 25/0.5</td>
<td>5x 4x 3.2x 2.5x 2x 1.6x 1.25x 1x</td>
</tr>
<tr>
<td>85</td>
<td>110 275 660</td>
<td>2.7 3.4 4.2 5.5 6.8</td>
</tr>
<tr>
<td>125</td>
<td>155 400 1000</td>
<td>3.0 3.9 4.8 8.6 7.8</td>
</tr>
<tr>
<td></td>
<td>230 570 1400</td>
<td>2.8 3.6 4.4 5.7 7.1 8.8</td>
</tr>
</tbody>
</table>

Example: with the 2.5x eyepiece at a projection distance of 2.7m a screen image of 180cm diameter is obtained. The magnifications that can be achieved with the above mentioned objectives will then be 110x, 275x, and 680x.
PRADO Universal Projector

37.820 Equipped for: Microprojection (Horizontal)

Large horizontal micro attachment "A" with interchange bracket, projection front with microscope carrier with focusing device, condenser system, object stage and tube; permanently attached quadruple revolving nosepiece with three achromatic dry objectives 4/0.12, 10/0.25 and 25/0.50, and 4x Huygens projection eyepiece.

31.635 PRADO Universal Projector with low voltage halogen lamp 24 volt, 250 watts, two-path blower, voltage selector 100-240 volt, supply line cord, illuminating system with reflexor and aspherical condenser, heat absorption filter, without front assembly, field condenser, slide changer or projection lens.

LEITZ Horizontal PRADO Universal Microprojector complete as described above.

32.824 Mirror housing (to convert the horizontal attachment, Cat. No. 32.820, for vertical projection).

PRADO Universal Projector

32.821 Equipped for: Microprojection (Vertical)

Large vertical micro attachment "B" with interchange bracket, projection front with mirror housing, microscope carrier with focusing device, condenser system, object stage and tube; permanently attached quadruple revolving nosepiece with three achromatic dry objectives 4/0.12, 10/0.25 and 25/0.50, 4x Huygens projection eyepiece and adjustable projection prism.

31.630 PRADO Universal Projector with low voltage halogen lamp 24 volt, 250 watts, two-path blower, voltage selector 100-240 volt, supply line cord, illuminating system with reflexor and aspherical condenser, heat absorption filter, without front assembly, field condenser, slide changer or projection lens.

LEITZ Vertical PRADO Universal Microprojector complete as described above.

32.850 Front attachment with bars (to convert the vertical attachment, Cat. No. 32.821, for horizontal projection).

Optional Equipment for PRADO Universal Microprojector

37.301 Projection eyepiece, Huygens 4x (included in basic equipment, catalog numbers 32.820 and 32.821).

37.306 Projection eyepiece, PERIPLAN 2x.

513.342 Adjustable projection prism.

37.850 Culture trough, 5mm depth.

37.857 Culture trough, 2mm depth.

37.858 Culture trough, 3mm depth.

37.723 Halogen low voltage lamp 24 volt, 250 watt (as replacement).

37.656 Supply line cord (as replacement).
LEITZ Macro-attachment C

For low power projection of liquid or melting objects at magnifications of up to about 120x on the projection screen, and for the projection of physical and chemical experiments.

Suitable for the PRADO-Universal and PRADOVIT-Color. Its large field of view allows the demonstration of physical and chemical experiments on ready-mounted object stages. The 50mm projector lens permits the projection of a significantly larger image from the examining table.

A 90mm projector lens is available for longer working distances.

<table>
<thead>
<tr>
<th>Lens</th>
<th>Projection distance in m</th>
<th>Screen image size in m</th>
<th>Reproduction ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>50mm ELMARON f/2.8</td>
<td>2 m</td>
<td>1.30 m</td>
<td>40:1</td>
</tr>
<tr>
<td></td>
<td>3 m</td>
<td>2.00 m</td>
<td>60:1</td>
</tr>
<tr>
<td></td>
<td>4 m</td>
<td>2.70 m</td>
<td>80:1</td>
</tr>
<tr>
<td>34mm Object field dia.</td>
<td>6 m</td>
<td>4.00 m</td>
<td>120:1</td>
</tr>
<tr>
<td>90mm COLORPLAN f/2.5</td>
<td>2 m</td>
<td>1.00 m</td>
<td>20:1</td>
</tr>
<tr>
<td></td>
<td>3 m</td>
<td>1.55 m</td>
<td>32:1</td>
</tr>
<tr>
<td>48mm Object field dia.</td>
<td>4 m</td>
<td>2.10 m</td>
<td>45:1</td>
</tr>
<tr>
<td></td>
<td>6 m</td>
<td>3.20 m</td>
<td>65:1</td>
</tr>
</tbody>
</table>

PRADO-Universal Projector

Equipped for: Macroprojection

32.025 Vertical macro attachment "C", with interchangeable bracket, projection front with mirror housing, object stage with two clamps, condenser lens and two vertical bars with deflecting mirror and bracket to accept lens focusing mount.

31.045 PRADO-Universal Projector with low voltage halogen lamp 24 volt, 250 watts, two path blower, voltage selector 100-240 volt, supply-lower cond, illuminating system with reflector and spherical condenser, heat absorption filter, without frost assembly, field condenser, slide changer or projection lens.

LEITZ PRADO-Universal Projector and Vertical Macro Attachment as described above, however, without projection lens, focusing mount or field condenser.

Required Accessories according to Projection Distance

37.051 Projection lens, 50mm ELMARON f/2.8, without focusing mount.
37.119 Focusing mount for 50mm projection lens.
37.206 Field condenser for 50mm projection lens.
37.065 Projection lens, 90mm COLORPLAN f/2.5, without focusing mount.
37.119 Focusing mount for 90mm projection lens.
37.200 Field condenser for 90mm projection lens.
LEITZ NEO-PROMAR Projection Microscope equipped with Plane Objectives for Maximum Flatness of Field

520 477 Projection microscope, NEO-PROMAR, with vibration absorbing base plate 455 x 145mm with three adjustable leveling feet; microscope stand, made of corrosion resistant alloy, with single knob combined coarse and fine adjustment with vertical travel of 2mm. Permanently attached quadruple objective nosepiece on ball bearing races with precision internal click stops and plain object stage 130 x 125mm. Twin condensers on 190 degree revolving turret for objectives up to 6.2 x and 40:1 magnification. Lamp housing with centering socket for 250 watt tungsten halogen bulb (bulb not included), built-in transformer with lamp, economy switch and heat absorbing filter with two blowers to prevent overheating; optical condensing system and swing-in diaphragm for limiting the illuminating object field.

37 723 Tungsten-halogen bulb 24 volts, 250 watts
37 656 Connecting cable

512 593 Interchangeable straight monocular photographic tube Ø

513 523 Attachable mechanical stage No. 22L with low set coaxial control knobs, traversing area 76 x 50mm (left handed)

520 499 Flexible plastic protective dust cover

Optical Equipment

519 619 Achromatic dry plano objective, Pl. 1.6/0.05, free working distance 7.2mm

520 507 Slit for plano objective 1.6/0.05

519 493 Fluorite dry plano objective, NPL FLUOTAR 6.3/0.20, free working distance 2.30mm (color coded - orange)

520 494 Light exclusion sleeve for NPL FLUOTAR 6.3/0.20 objective

519 500 Fluorite dry plano objective, NPL FLUOTAR 16/0.45, free working distance 0.58mm, with spring loaded mount (color coded - light green)

520 494 Light exclusion sleeve for NPL FLUOTAR 16/0.45 objective

519 501 Fluorite dry plano objective, NPL FLUOTAR 25/0.55, free working distance 0.40mm, with spring loaded mount (color coded - dark green)

520 494 Light exclusion sleeve for NPL FLUOTAR 25/0.55 objective

563 031 PERIPLAN projection eyepiece P-4x

519 653 Spacer ring (TC 1600)

513 342 Adjustable projection prism

520 498 LEITZ Projection Microscope NEO-PROMAR complete with Optical Equipment as described above for Maximum Flatness of Field

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LEITZ NEO-PROMAR Projection Microscope equipped with Achromatic Objectives

520 477 Projection microscope, NEO-PROMAR, with vibration absorbing base plate 455 x 145mm with three adjustable leveling feet; microscope stand, made of corrosion resistant alloy, with single knob combined coarse and fine adjustment with vertical travel of 2mm. Permanently attached quadruple objective nosepiece on ball bearing races with precision internal click Stops and plan object stage 130 x 125mm. Twin condensers on 100 degree revolving turret for objectives up to 63:1 and 40:1 magnification. Lamp housing with covering socket for 250 watt tungsten-halogen bulb (bulb not included), built-in transformer with lamp economy switch and heat absorbing filter with two blowers to prevent over-heating, optical condensing system and swing-in diaphragm for limiting the illuminating object field.

37 723 Tungsten halogen bulb 24 volts, 250 watts
37 056 Connecting cable
512 693 Interchangeable straight monocular photographic tube 0
513 323 Attachable mechanical stage No. 27L, with low set coaxial control knobs, traversing area 70 x 50mm (left handed)
520 499 Flexible plastic protective dust cover

Optical Equipment

519 495 Achromatic dry planes objectives, Pl. 2.5/0.06, free working distance 11.8mm (color coded brown)
520 510 Light exclusion sleeve for Pl. 2.5/0.06 objective
519 614 Achromatic dry objective, 40/0.12, free working distance 24mm (color coded red)
520 511 Light exclusion sleeve for achromatic 4/0.17 objective
519 615 Achromatic dry objective, 10/0.25, free working distance 6.8mm (color coded yellow)
520 494 Light exclusion sleeve for achromatic 10/0.25 objective
519 655 Achromatic dry objective, 40/0.65, free working distance 0.5mm, with spring loaded mount (color coded light blue)
520 494 Light exclusion sleeve for achromatic 40/0.65 objective
592 031 PLEMIPLAN projection eyepiece P 4x
519 653 Spacer ring (TL 100)
513 342 Adjustable projection head

520 512 LEITZ Projection Microscope NEO-PROMAR complete with Optical Equipment as described above
LEITZ Model D Photometer - Precision Digital Abridged Spectrophotometer

Digital Readout: % Transmittance; Absorbance 0.1-999A. Concentration 0.1-999A
Stability: After 2 hour warm-up, less than 0.0004A per hour at 0.000A and 1.500A or equivalent in % Transmittance
Repeatability: * 1 1/2 digits
Absorbance: 5% Transmittance Tracking: Better than 0.5%
Spectral System 340-600nm, 3 cavity interference filters. Band width: 50:8.9nm, 10:12nm, 1:18nm, 1.5:26nm. All filters are blocked to a minimum of 10-6.
10 Filters Mounted In: Tunnel Assembly: 340, 400, 450, 480, 510, 540, 570, 600, 630 and 660nm. Additional supplementary filters are available.
Linearity 0.1-999A and 1.0 - 100 Huntington.
Detector: UV-enhanced silicon photodetector; covers range 320-1000nm.
Cuvette System: Plane-parallel cuvettes 5, 10 and 20mm light path.
Volume Requirements: 5mm light path - 0.75ml; 10mm light path - 1.5ml; and 20mm light path - 10ml.
Water-jacketed Cuvette Holder for 10 x 10mm. Cuvette for constant temperature control of sample.
Simple Flow-thru Cuvette: 10 x 10mm with funnel: evacuation by gravity or vacuum.
Round "disposable 13mm" vials can be accommodated.
Tungsten Lamp System: Twist-in flanged pre-focused lamp with life expectancy 1000 hours. No adjustment required when bulb is replaced.
Spectral characteristics of system not influenced by age of lamp.
Outputs are provided for recorder and BCD printer interface.
Voltage regulation maintained to better than 0.5%. Operation of photometer not affected by line voltage fluctuations. Photometer can be used at nominal 115V 60 Hz or 220V 50 Hz.
The use of modularized printed circuit boards permits simple and rapid servicing, if called for.
Housing: Moput blue and grey finish minimizes glare. Epoxy paint provides excellent resistant finish.
Size: 20 inches (50mm) W; 8 inches (21mm) H; 11 inches (28mm) D.
Net Weight: 27 pounds (12.3 kilograms) D. Gross weight 35 pounds (14.1 kilogram)

LEITZ Model D Photometer

02400 LEITZ Model D Photometer with dual adapter, accommodates 10 x 10mm plano-parallel cuvettes and "13mm" round vials with operating manual and spare lamp 

Optional Accessories

02329 Water-jacketed cuvette holder which permits temperature control of sample. Accommodates 10 x 10mm plano-parallel cuvettes and "13mm" round tubes. Provides temperature control of sample.
04540 Set of 5 sealed cuvettes containing colored solutions to monitor reproducibility of instrument.
02390 Recording "strip chart" recorder, 100 mv.
02349 Water Bath, constant temperature water bath and circulator.
04506 Cuvette, 10mm light path (10 x 10) 
04515 Cuvette, 10mm light path (10 x 10) sealed with distilled water.
04509 Cuvette, 5mm light path (5 x 10) 
04514 Cuvette, 5mm light path (5 x 10) sealed with distilled water.
04512 Cuvette, 20mm light path (20 x 20) 
04513 Cuvette, 20mm light path (20 x 20) sealed with distilled water.
04518 Cuvette, 10mm light path (10 x 10), glass-stopped.
04526 Combination 10 x 10 glass precision cuvette and 200mm glass stoppered flask. Borosilicate glass construction. For the determination of iod. ASTM procedure.
04527 Flow-thru cuvette, 10mm light path (10 x 10) 
04529 Light bulb 6.0 volt with soldered lead and male plug. Package of 5.
Model M Photometer

Complete in gray enamelled die-cast housing with plastic dust cover; all working parts mounted on precision cast aluminium base; die-cast main mounting bracket — precision molded plastic cuvette holder accommodating 10 x 10mm square cuvettes and 13mm round tubes — spring mounted front surfaced spherical focusing mirror — special stainless steel backed lamp base with 6 volt, prefocused spherical light bulb with soldered leads and male plug — built-in compensation meter — voltage stabilizer — dual mirror locked scale microammeter — built-in filter wheel with eleven narrow pass-band compound polychrome filters — on-off switch and panel light — molded line cord.

The LEITZ Photometer, Model M, is equipped with a dual cuvette holder, accepting either the LEITZ precision 10 x 10mm square cell or the 13mm disposable round tubes.

The Photometer contains a universal power supply designed to operate on 120 or 220 volts. In addition, the input power supply frequency can either be 50 or 60 cycles. An appropriate wiring diagram is included to modify the unit to accommodate different power conditions.

92.320 LEITZ Photometer, model M, complete with dual cuvette holder, spare bulb, standard operating handbook and protective dust cover; wired for 115 volt, 60Hz.

92.331 LEITZ Photometer, model M, as described above; however, wired for 115 volt, 50Hz.

92.332 LEITZ Photometer, model M, as described above; however, wired for 220 volt, 50Hz.

Optional Accessories and Replacement Parts

92.324 Package of 50-scan-leaf pages outlining clinical colorimetric procedures and typical calibration data.

92.330 Dual cuvette holder accepting 10 x 10mm square cuvettes or 13mm round cells (as replacement).

92.326 Cuvette holder for 5 x 10mm cuvettes.

92.327 Round cell adapter for Dow Densitometric System ("13"mm o.d.).

92.329 Standard operating handbook (as replacement).

92.329 Wave-jacketed cuvette holder which accommodates either the 10 x 10mm cuvette or "13"mm round tube.

94.528 Light bulb, 6 volts with soldered leads and male plug.

94.529 Light bulb, as above (Plug, 5B).

94.545 Protective dust cover (as replacement).
Glassware and Accessories for LEITZ Photometers

94,500  Cuvette, 9 x 10mm rectangular, 5mm light path, total capacity 4.5ml
94,506  Cuvette, 10 x 10mm square, 10mm light path, total capacity 8.0ml
94,512  Cuvette 20 x 20mm square, 20mm light path, total capacity 45ml
94,514  Cuvette, 8 x 10mm rectangular, filled with distilled water and sealed
94,515  Cuvette, 10 x 10mm square, filled with distilled water and sealed
94,513  Cuvette, 20 x 20mm square, filled with distilled water and sealed
94,518  Cuvette, 10 x 10mm square, glass stoppered
94,626  Combination 10 x 10mm glass precision cuvette and 200ml stoppered flask - Boronate glass construction for determination of fluoride - ASTM procedure
94,627  Flow thru, 10 x 10mm square
94,539  Stoppers, rubber, for 10 x 10mm square cuvette (Pkg of 6)
94,542  Yellow color standard, waisted into cuvette for checking reproducibility of instrument
94,533  Cuvette rack, stainless steel, for sixteen 8 x 10 or 10 x 10mm cuvettes
94,526  Cuvette rack, stainless steel, for four 20 x 20mm cuvettes
94,528  Light bulb, 6 volt with handle and male plug suitable for all Photometers with serial numbers 3,000 and up (also lower serial numbers if instrument was converted check before ordering)
94,529  Light bulbs, as above (Pkg of 5)
94,504  Light bulbs, 6 volt, plain flanged, for Photometers with serial numbers 7,001 to 18,999 (Pkg of 5)
94,524  Light bulbs, 6 volt, with spouts and plugs for Photometers with serial numbers 7,001 to 7,600 (Pkg of 5)
94,563  Pipette, Oxyhemoglobin, "Combination", with two graduations, for ratio of 0.025 parts blood to 5.025 parts total solution
94,560  Pipette, Carboxyhemoglobin, "Combination", with two graduations, for ratio of 0.020 parts blood to 5.020 parts total solution
94,572  Pipettes, "to contain" 0.01ml for Red Blood Cell Count (Pkg of 3)
94,568  Pipettes, "to contain" 0.025ml for Oxyhemoglobin (Pkg of 3)
94,548  Pipettes, "to contain" 0.025ml for Oxyhemoglobin (Pkg of 3)
94,576  Pipette, "to contain" 0.1ml, for Serum Chloride and/or Thyroid turbidity determinations
94,577  Pipette, Van Slyke-Neill, 0.1ml "between markings" for micro work (Red label package)
94,570  Pipette, Van Slyke-Neill, 0.3ml, "between markings" for micro work (Red label package)
94,582  Blood Sugar Tubes, Foilin Wu, graduated at 12.5ml and 25ml (Pkg of 6)
94,594  Urea Nitrogen Tubes, pyrex, graduated at 22.5ml and 25ml (Pkg of 6)

Accessories Still Available for Discontinued LEITZ Coulometers Bearing Serial Numbers Below 7,000

94,500  Cuvette, round, 11mm i.d., with distilled water, sealed
94,501  Cuvette, round, 11mm i.d., Pkg of 120
94,502  Light bulbs, 6 volt (for Coulometers with serial numbers lower than 3,408B) (Pkg of 5)
94,504  Light bulbs, 6 volt, plain flanged (for Coulometers with serial numbers 3,408 to 6,999) (Pkg of 5)

*Discontinued; limited supply still available.
**LEITZ 340/800 Photometer System**

92,392 LEITZ 340/800 Photometer System wired for 115V/60Hz  
92,393 LEITZ 340/600 Photometer System wired for 115V/50Hz  
92,394 LEITZ 340/900 Photometer System wired for 220V/50Hz

**Components**

92,390 LEITZ 340/800 Photometer, complete with dual cuvette holder, spare bulb, standard calibration handbook and protective dust cover; wired for 115V/50Hz  
92,391 LEITZ 340/900 Photometer, as described above, however, wired for 115V/50Hz  
92,392 LEITZ 340/800 Photometer, as described above, however, wired for 220V/50Hz  
92,393 Water-jacketed cuvette holder which permits temperature control of sample. Accommodates either the 10 x 10 cuvette, "13"mm or "13"mm round tube  
92,394 Constant temperature water bath circulator; wired for 115V/50-60Hz  
92,395 Recorder, 10" strip chart recorder, reads in absorbance and transmittance wired for 115V/50Hz  
92,388 Recorder, as described above, however, wired for 220V/50Hz

**Optional Accessories and Replacement Parts**

<table>
<thead>
<tr>
<th>Code</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>94,626</td>
<td>Combination 10 x 10mm glass, precision cuvette and 200mm glass stoppered flask - Borosilicate-glass construction. For the determination of faex, A27M procedure</td>
</tr>
<tr>
<td>94,516</td>
<td>Cuvette, 10mm light path (10 x 10mm)</td>
</tr>
<tr>
<td>94,509</td>
<td>Cuvette, 5mm light path (5 x 10mm)</td>
</tr>
<tr>
<td>94,512</td>
<td>Cuvette, 20mm light path (20 x 20mm)</td>
</tr>
<tr>
<td>94,515</td>
<td>Cuvette, 10mm light path (10 x 10mm), sealed with distilled water</td>
</tr>
<tr>
<td>94,514</td>
<td>Cuvette, 5mm light path (5 x 9mm), sealed with distilled water</td>
</tr>
<tr>
<td>94,513</td>
<td>Cuvette, 20mm light path (20 x 20mm), sealed with distilled water</td>
</tr>
<tr>
<td>94,516</td>
<td>Cuvette, 10mm light path (10 x 10mm), glass stoppered</td>
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<td>Cuvette, 10mm light path (10 x 10mm), glass stoppered</td>
</tr>
<tr>
<td>94,533</td>
<td>Cuvette holder for cuvettes with 10mm light path (5 x 10mm)</td>
</tr>
<tr>
<td>94,534</td>
<td>Cuvette holder for cuvettes with 10mm light path (5 x 10mm)</td>
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<tr>
<td>94,536</td>
<td>Cuvette rack, stainless steel, for four 20mm light path cuvettes</td>
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<tr>
<td>94,545</td>
<td>Cover for Photometer, transparant plexiglas</td>
</tr>
<tr>
<td>94,528</td>
<td>Light bulb 6.0 with solder leads and male plug</td>
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<tr>
<td>94,529</td>
<td>Light bulbs, same as above, package of 5</td>
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<tr>
<td>94,539</td>
<td>Stoppers, rubber square for 10mm light path cuvettes, package of 6</td>
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<tr>
<td>94,542</td>
<td>Yellow color standard, for checking reproducibility of instriments</td>
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<tr>
<td>94,526</td>
<td>Recorder paper, 10&quot;, 100&quot; long</td>
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<tr>
<td>94,520</td>
<td>Replacement recorder pen</td>
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</tbody>
</table>