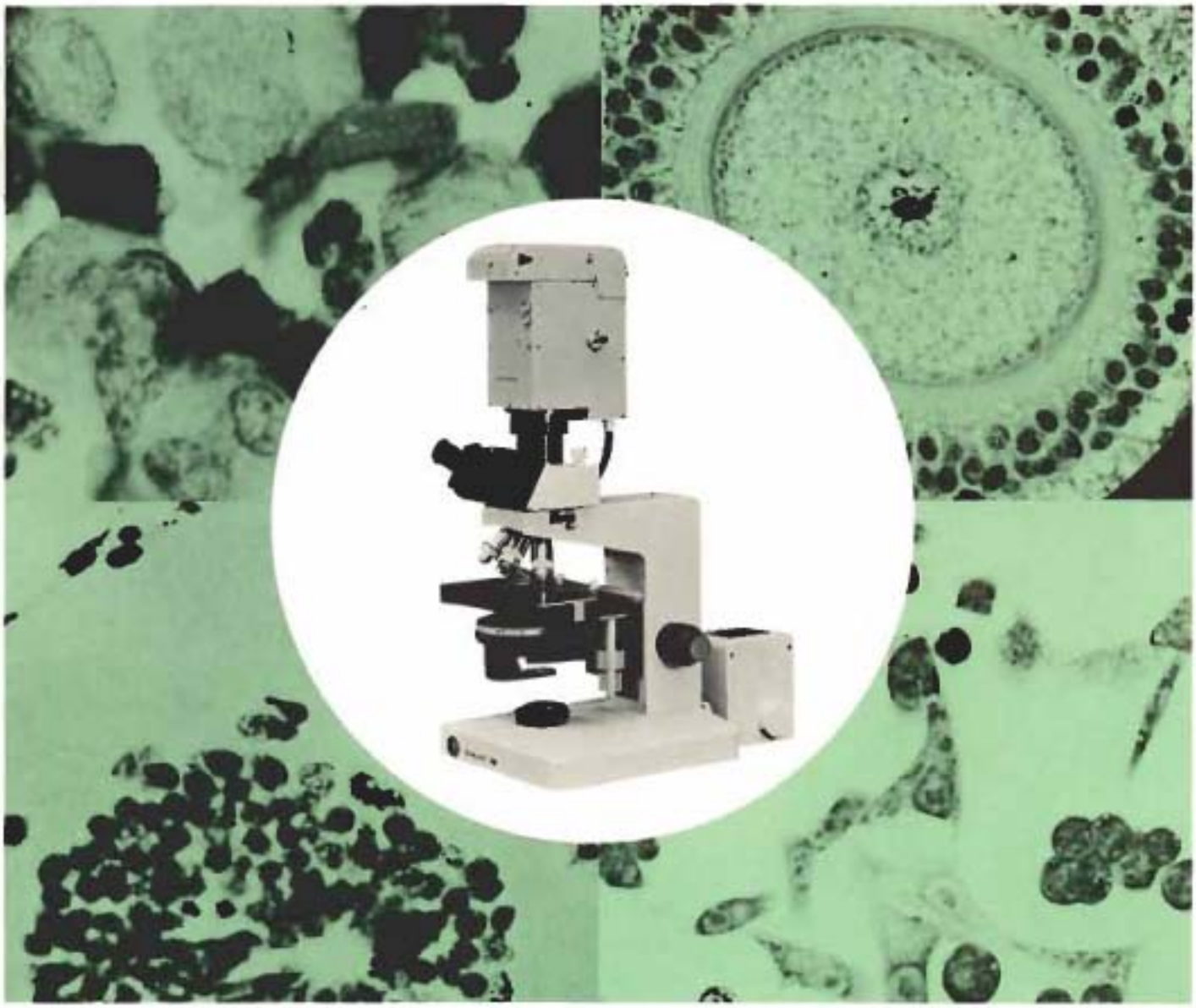
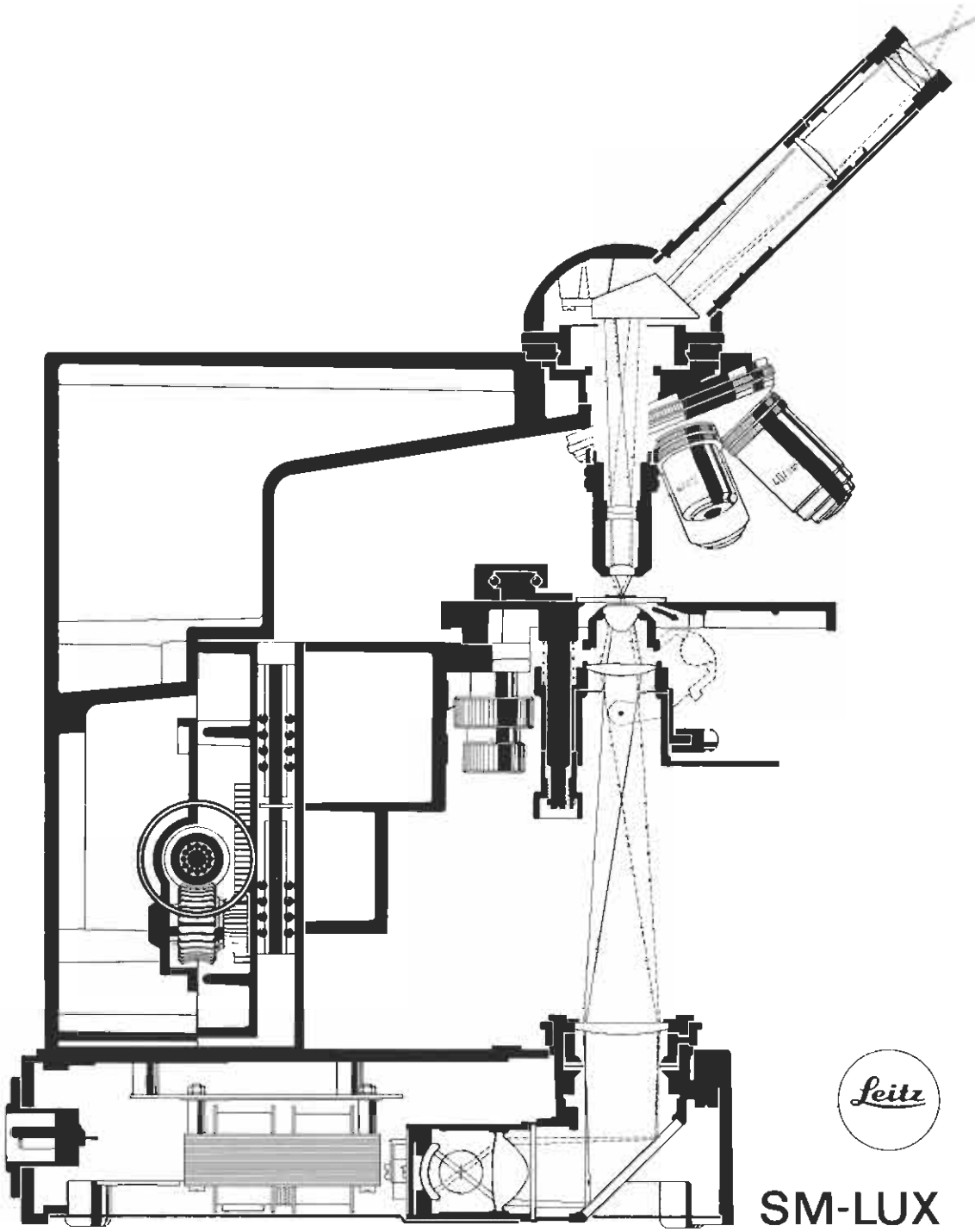
Leitz®



INSTRUMENTS FOR THE LABORATORY

Microscope illustrated on front cover:

LEITZ® DIALUX 20/ORTHOMAT-W Photomicroscope



Light path of SM-LUX Microscope

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Specifications subject to change without notice.

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 single knob combined coarse and fine adjustment with vertical travel of 33mm to an accuracy of 2 um 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 monocular observation tube P, rotatable through 360 degrees

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.

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

Flexible plastic protective dust cover

Optical Equipment A 51a Mono

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

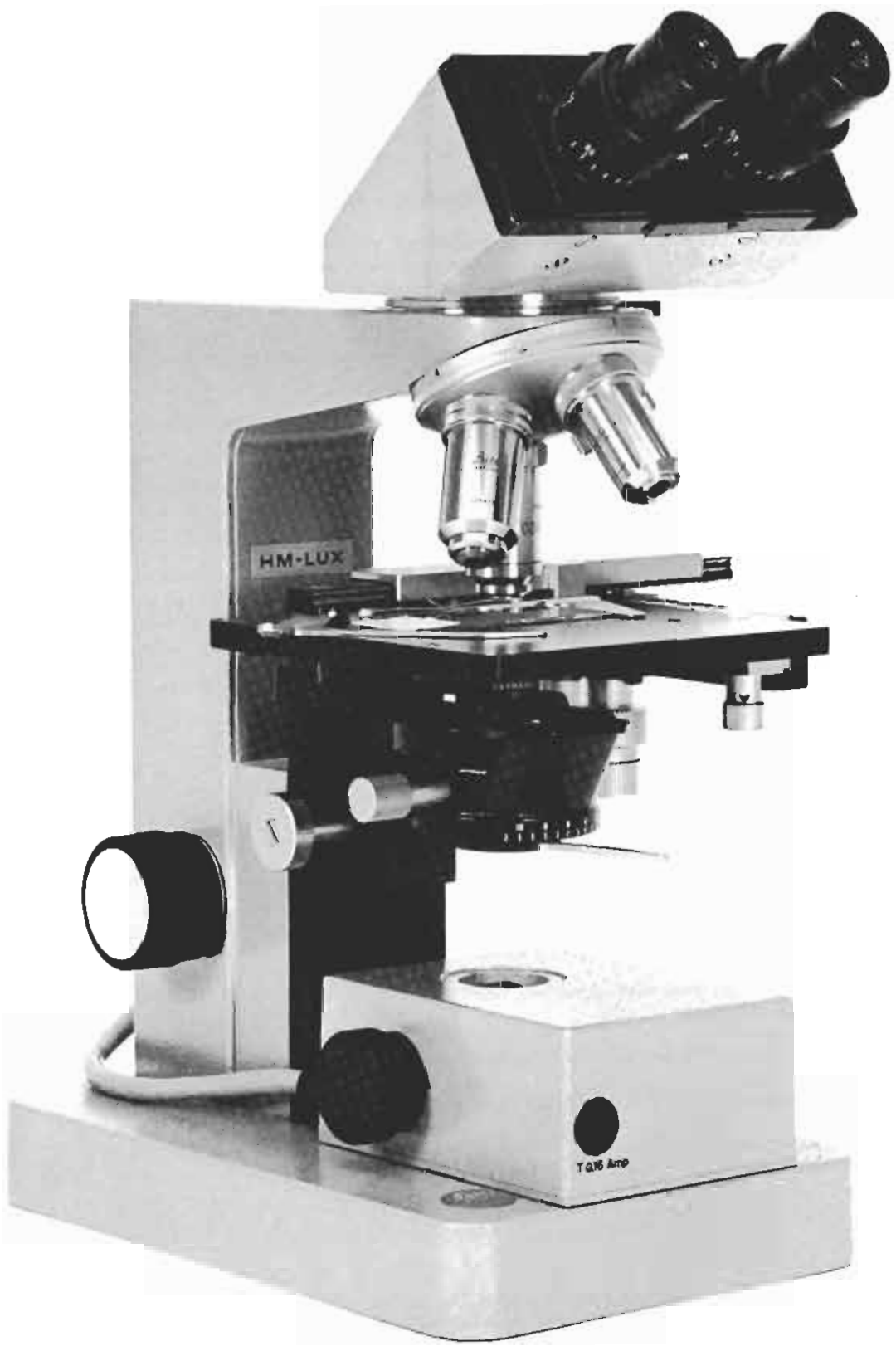
Achromatic oil immersion objective, 100/1.25, free working distance 0.10mm, with spring loaded mount

Immersion oil, PCB free, negligible fluorescence N_e^{23} 1.518, 10ml bottle

PERIPLAN widefield eyepiece, single NF 10x, field of view 18mm

051 598 **LEITZ Monocular Medical and Teaching Microscope HM-LUX 0.4.5.46 P 16/301 complete with optical equipment A 51a Mono for brightfield transmitted light** . . . . .

051 609 **LEITZ Monocular Medical and Teaching Microscope HM-LUX 0.4.5.46 P 16/301 complete with optical equipment as described above, however, without 4/0.12 objective** . . . . . .


HM-LUX
T QI6 Amp

LEITZ Binocular 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 2 um 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.

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.

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

Flexible plastic protective dust cover

Optical Equipment A 51a Bino

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 N_e^{23} 1.518, 10ml bottle

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

051 594 **LEITZ Binocular Medical and Teaching Microscope HM-LUX 0.4.5.46 S 16/301 complete with optical equipment A 51a Bino for brightfield transmitted light** . . . . . .

051 608 **LEITZ Binocular Medical and Teaching Microscope HM-LUX 0.4.5.46 S 16/301 complete with optical equipment as described under catalog number 051 594, however, without 4/0.12 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 33mm to an accuracy of 2 um 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.

Permanently attached, built-in mechanical stage No. EK7, 160 x 138mm, 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 top element As. 0.90; on interchange carrier

Flexible plastic protective dust cover

Optical Equipment A 51a Bino

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 N_e^{23} 1.518, 10ml bottle

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

051 615 **LEITZ Binocular Medical and Laboratory Microscope HM-LUX 0.4.5.46 S EK7/301 complete with optical equipment A 51a Bino for brightfield transmitted light** . . . . . .

LEITZ Binocular Phase 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 2 um 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.

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

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 diaphragms for PHACO 10/0.25, 40/0.65 and 100/1.25 oil immersion objectives; on 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 oil, free working distance 0.10mm, with spring loaded mount

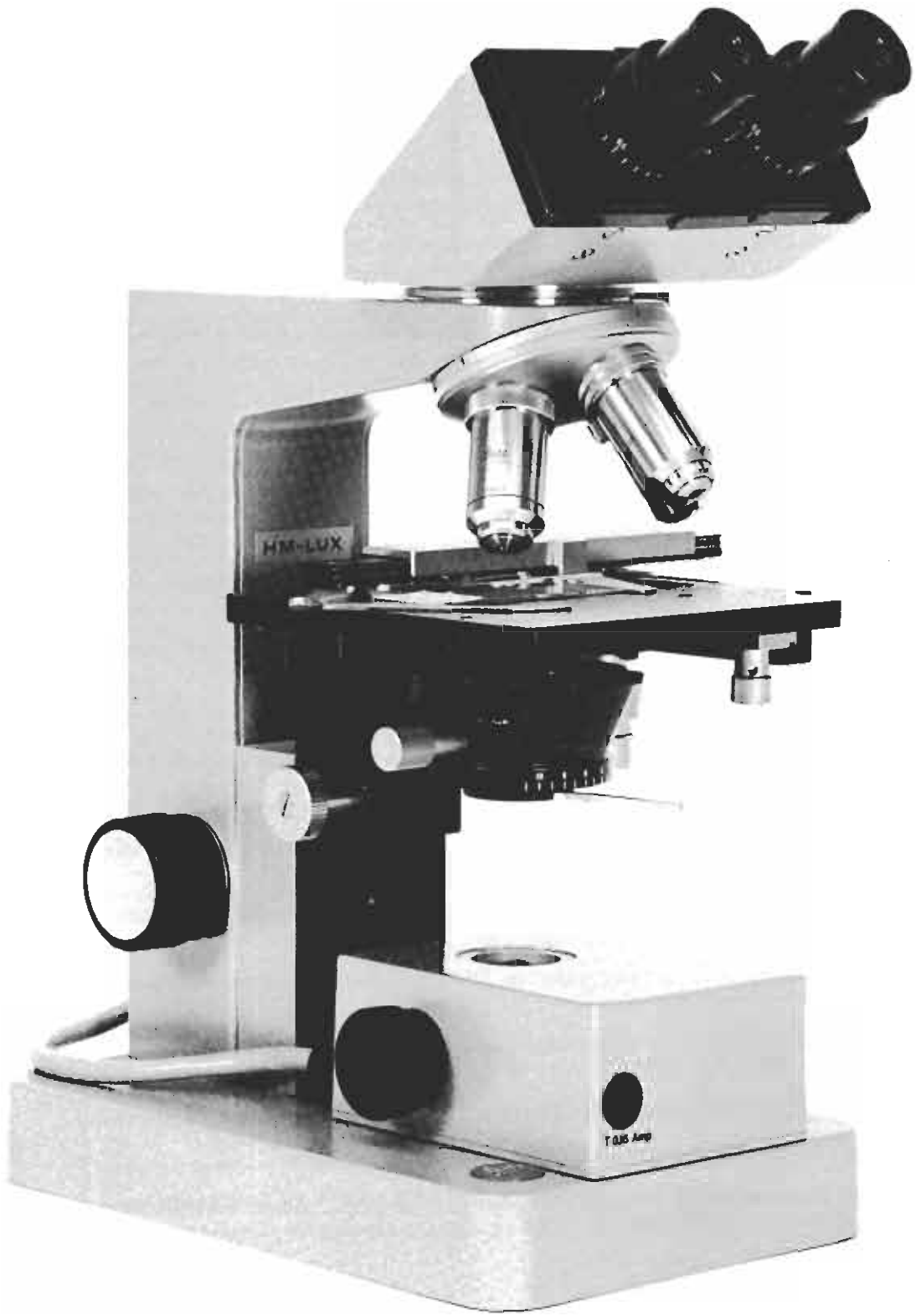
Immersion oil, PCB free, negligible fluorescence N_e^{23} 1.518, 10ml bottle

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

051 616 **LEITZ Binocular Phase Contrast Microscope HM-LUX 0.4.5.46 S EK 7/402a complete with optical equipment as described above** . . . . . .

Required

513 468 Focusing magnifier for centering the phase ring . . . . . .


HM-LUX

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 um 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.

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

Brightfield condenser No. 301, with aperture diaphragm and swing-out 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 0.42mm, with spring loaded mount

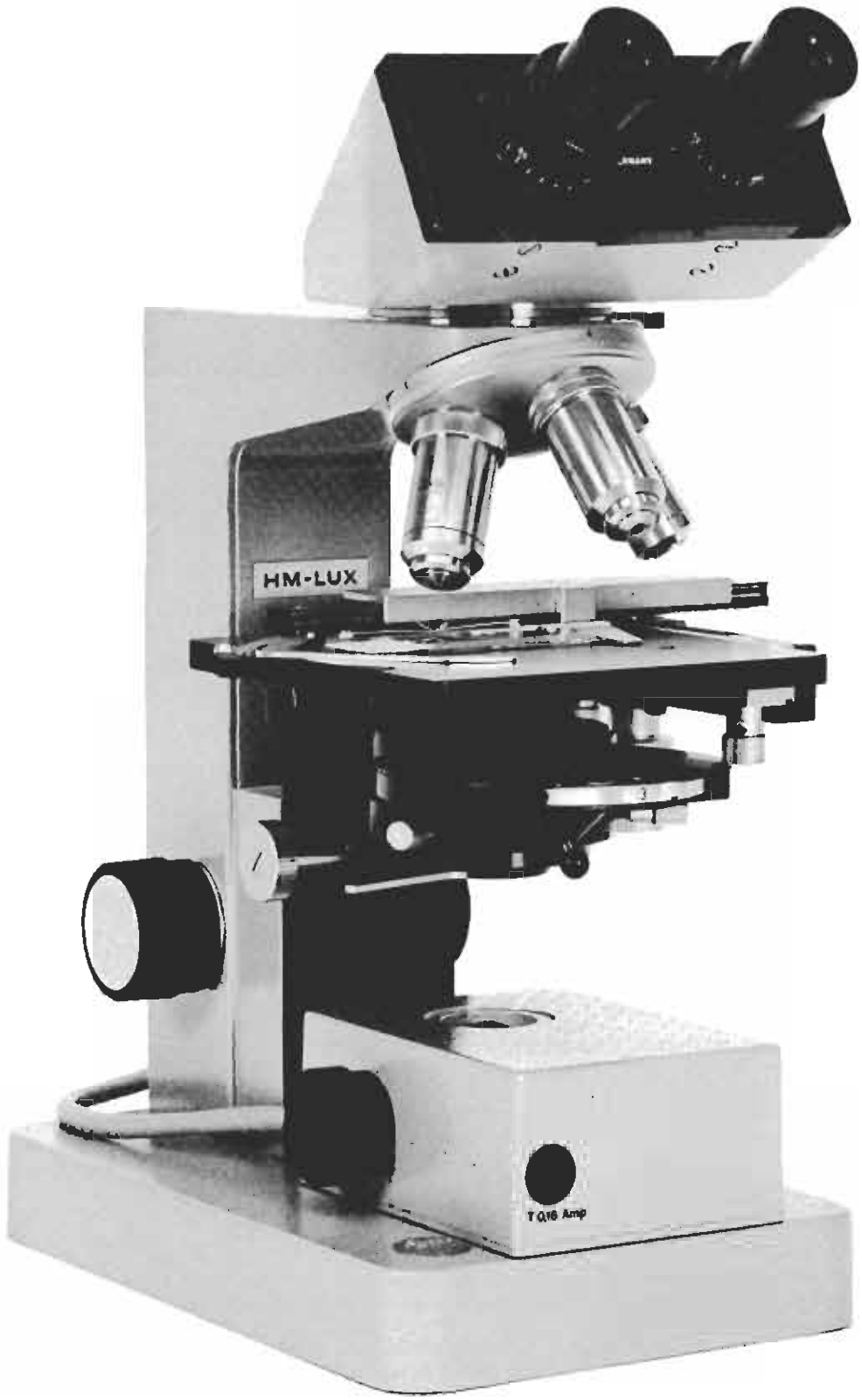
Achromatic oil immersion objective, 100/1.25, free working distance 0.10mm, with spring loaded mount

Immersion oil, PCB free, negligible fluorescence N_e^{23} 1.518, 10ml bottle

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

051 606 **LEITZ Binocular Medical and Teaching Microscope HM-LUX 0.4.5.46 S 16/301 complete with optical equipment for the examination of urine sediment and blood smear specimens** . . . . . .

051 607 **LEITZ Binocular Medical and Teaching Microscope HM-LUX 0.4.5.46 S 16/301 complete with optical equipment as described above, however, without 100/1.25 oil immersion objective and bottle of oil** . . . . . .


HM-LUX
T Q.16 Amp

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 knob combined coarse and fine adjustment with vertical travel of 33mm to an accuracy of 2 um 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.

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 Achr. 0.90 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; on 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 N_e^{23} 1.518, 10ml bottle

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

051 600 **LEITZ Binocular Phase Contrast Microscope HM-LUX 0.4.5.46 S 16/402a complete with optical equipment as described above** . . . . . .

Required

513 468 **Focusing magnifier for centering the phase ring** . . . . . .


HM-LUX

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 2 um 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 76 x 50mm, No. 16

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

Flexible plastic protective dust cover

Optical Equipment

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

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

PERIPLAN widefield eyepieces, paired NF 10xM, one with adjustable eyelens, field of view 18mm

051 605 **LEITZ Dual Viewing Medical and Teaching Microscope HM-LUX 0.4.5.46 S-SDV 16/301 complete with optical equipment for brightfield transmitted light** . . . . . .

LEITZ Binocular Medical and Laboratory Microscope SM-LUX, consisting of:

Modern broad-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 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 precentered 6 volt, 10 watt low voltage lamps (1 spare), field diaphragm for Koehler 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 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 . . .

LEITZ Binocular Medical and Laboratory Microscope SM-LUX 0.5.5.32 S 76/601 K1 as described above . . . . . .

Optical Equipment NJ 1 Bino

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

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

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

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

513 449 Immersion oil, PCB free, negligible fluorescence N_e^{23} 1.518, 10ml bottle . . . . . .

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

051 701 **LEITZ Binocular Medical and Laboratory Microscope SM-LUX 0.5.5.32 S 76/601 K1 complete with Optical Equipment NJ 1 Bino as described above** . . . . . .

051 700 **LEITZ Binocular Medical and Laboratory Microscope SM-LUX 0.5.5.32 S 76/601 K1 complete with Optical Equipment as described above, however, without 4/0.12 objective** . . . . . .

LEITZ Binocular Medical and Laboratory Microscope, SM-LUX, equipped for the Examination of Urine Sediment, consisting of:

Modern broad-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 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.–.–

Vertically adjustable helical fine focusing condenser mount (permanently attached to the object stage) –.–.14.–

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 precentered 6 volt, 10 watt low voltage lamps (1 spare), field diaphragm for Koehler illumination, blue and ground glass filters; for connection to 110 volts, 60 cycles A.C. –.–.–.32

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, centering mount and interchangeable swing-out condenser top element 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 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 . . . . . .

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, PHACO 40/0.65, free working distance 0.42mm . . . .
513 324 Push in diaphragm for simple phase contrast (25:1 and 40:1 phase objectives) and darkfield (10:1, 25:1, and 40:1 objectives) . . . . . .
519 318 PERIPLAN widefield eyepieces, paired NF 10x, field of view 18mm . . . . . .
512 027 Dust cap for vacant 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 objective:

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

513 449 Immersion oil, PCB free, negligible fluorescence N_e^{23} 1.518, 10ml bottle . . . . . .

LEITZ Binocular Medical and Laboratory Phase Microscope, SM-LUX, consisting of:

Modern broad-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 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 precentered 6 volt, 10 watt low voltage lamps (1 spare), field diaphragm for Koehler 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 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 . . . . . .

513 156 Phase contrast condenser, PHACO No. 402a K1 with lower element, 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 diaphragms for PHACO objectives 10 through 100 oil; on interchange carrier . . . . . .

LEITZ Binocular Medical and Laboratory Phase Microscope SM-LUX 0.5.5.32 S 16/402a K1 as described above . . . . . .

Optical Equipment C 11 Bino

519 165 Achromatic dry phase contrast objective, PHACO 10/0.25, free working distance 6.7mm . . . . . .

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_e^{23} 1.518, 10ml bottle . . . . . .

519 142 PERIPLAN widefield eyepieces, paired GF 10x, field of view 18mm . . . . . .

513 468 Focusing magnifier for centering the phase ring . . . . . .

799 747 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 S 16/402a K1 complete with Optical Equipment C 11 Bino 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 aluminum, with single knob combined coarse and fine focusing adjustment with vertical travel of 33mm to an accuracy of 2 um. Precision tube changing device to accept either observation tubes or incident light illuminators

Quintuple revolving objective nosepiece on ball bearings 0.5.–.–

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

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

513 516 PLOEMOPAK 2.3 fluorescence vertical illuminator with tube factor 1.25x, 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; centerable field iris diaphragm and device 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 Tetracyclin, Quinacrine Mustard and Acridin Orange . . . . . .

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 . . . . . .

512 357 Flexible plastic protective dust cover . . . . . .

LEITZ Binocular Laboratory and Medical Microscope SM-EPI 0.5.–.2.3 H S 76/– as described above . . . . . .

Optical Equipment

519 433 Achromatic oil immersion objective, 10/0.45, free working distance 0.39mm, 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. 100Z, with bayonet mounting device, filter holder, reflector and adjustable aspherical collector, centerable lamp socket with mercury burner HBO 50 watts and heat absorbing filter . . . . . .

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

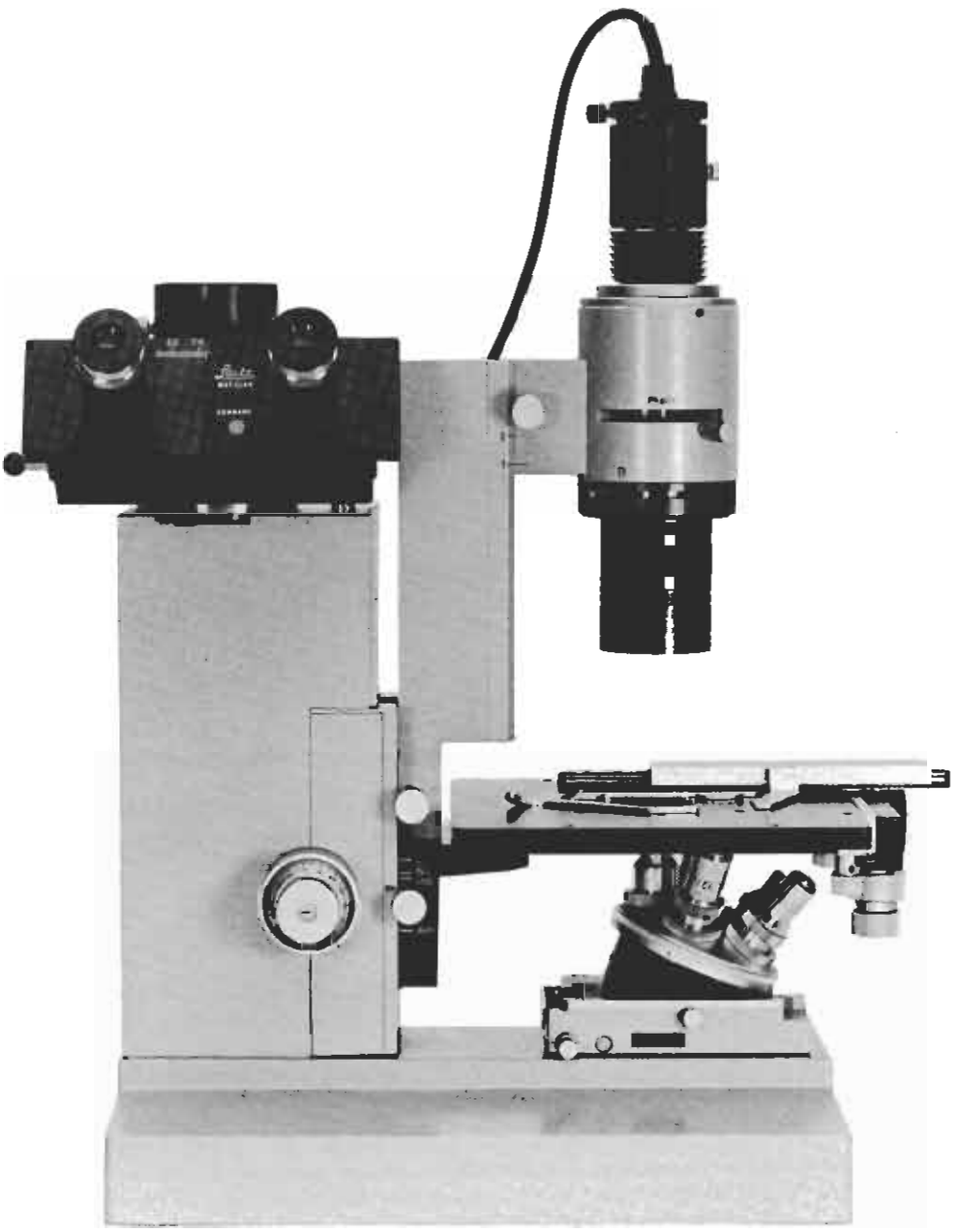
050 246 Power supply for Hg 50 watt bulb . . . . . .

LEITZ Binocular Medical and Laboratory Microscope SM-EPI 0.5.–.2.3 H S 76/– complete with Special Optical Equipment for Incident Light FITC Fluorescence (PLOEM) with Hg 50 Watt Lamp for Maximum Image Brightness . . . . . .

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 planetary gear and dual knob 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 . . . . . .

512 409 Quintuple revolving objective nosepiece with 1x tube lens; on interchange carrier 35.5.–.– . . . . . .

520 377 Holder with lamp housing . . . . . .

520 389 Low voltage lamp 6 volt, 15 watt 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 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 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 160mm; on interchange 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

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

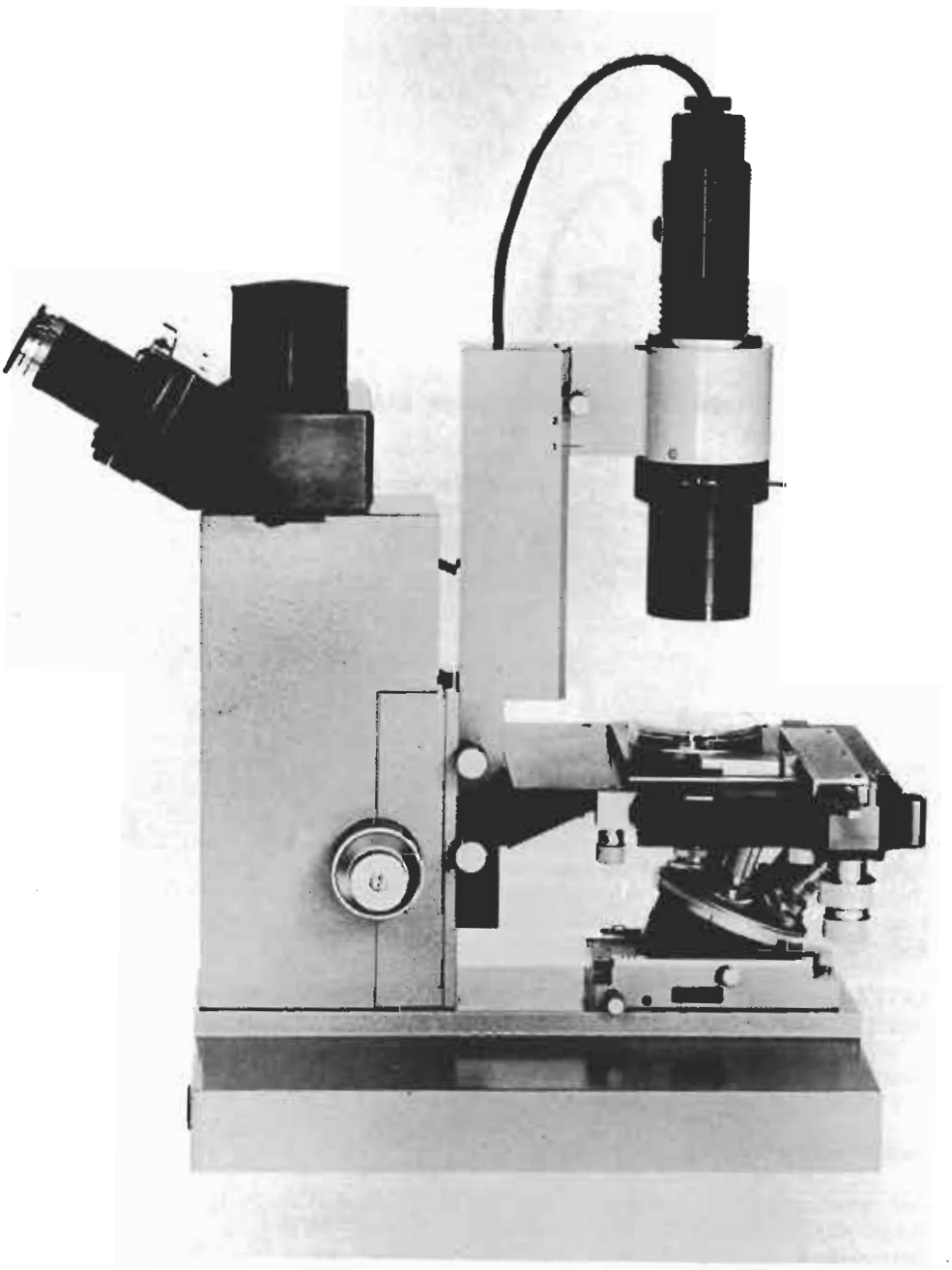
519 292 Achromatic dry objective, 4/0.12, free working distance 24mm . . . . . .

519 534 Special long working distance achromatic dry objective, L 20/0.32, free working distance 6.9mm . . . . . .

519 536 Special long working distance achromatic dry objective, L 32/0.40, free working distance 6.6mm . . . . . .

519 127 PERIPLAN widefield eyepieces, paired GF 10xM, one with adjustable eyelens 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 planetary gear and dual knob 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 . . . . . .
512 409 Qunituple revolving objective nosepiece with 1x tube lens; on interchange carrier 35.5.–.– . . . . . .
520 377 Holder with lamp housing . . . . . .
520 389 Low voltage lamp 6 volt, 15 watt 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 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 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 160mm; on interchange 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, PHACO 10/0.25, free working distance 6.7mm . . . . . .
519 537 Special long working distance achromatic dry phase contrast objective, PHACO L 20/0.32, free working distance 6.73mm . . . . . .
519 538 Special long working distance achromatic dry phase contrast objective, PHACO L 32/0.40, 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 eyelens and mount for reticles, field of view 18mm . . . . . .

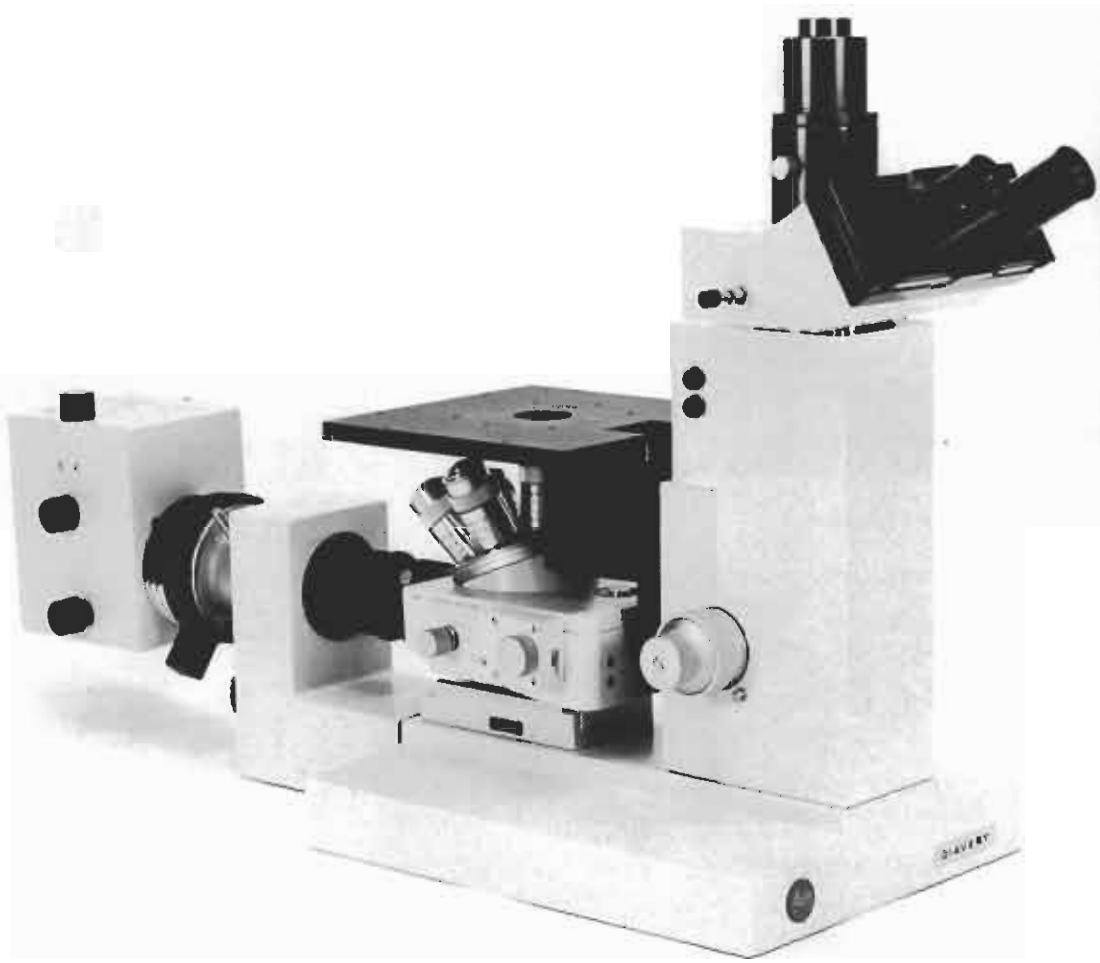
051 716 **LEITZ Universal Inverted Research Microscope, DIAVERT 35.5.–.37 FSA 918/91 complete with Optical Equipment for Phase Contrast Transmitted Light** . . . . . .

Optional Accessories

520 382 Phase annulus No. 2 in mount . . . . . .
520 385 Attachable mechanical stage for slides . . . . . .
520 398 Attachable mechanical stage (X-axis) for micro cuvette holder, accepts tissue culture plate with 96 wells, width 82mm . . . . . .
520 369 Holder for round flask, not adjustable . . . . . .

520 386 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 36mm) . . . . .
520 388 Holder for test plate (56mm x 82mm) . . . . . .
520 421 Holder for slides 1" x 3" . . . . . .



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 micrsocope stand, inverted system, with planetary gear and dual knob 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 . . . . . .

512 355 Interchangeable, combination inclined binocular observation tube with adjustable interpupillary distances from 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 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 . . . . . .

*520 470 Object stage 164 x 160mm, with raised bracket; on interchange carrier No. 918 . . . . .

513 409 PLOEMOPAK 2.2 for ORTHOLUX 2 and DIAVERT of compact design on changing slider with quintuple nosepiece 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 lock allowing access to the interior for interchanging filter systems, selector knob with setting lever 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, centerable and focusable field iris diaphragm, with optics system to allow a maximum observable field of view of 14.4mm . . . . . .

**513 417 Filter system 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, PCB free, negligible fluorescence, N_e^{23} 1.518 10ml bottle . . . . . .

519 186 PERIPLAN widefield eyepieces, paired 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. 530 384) is also available.**

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

Lamp Housing No. 100Z

520 383 Light shielding tube . . . . . .

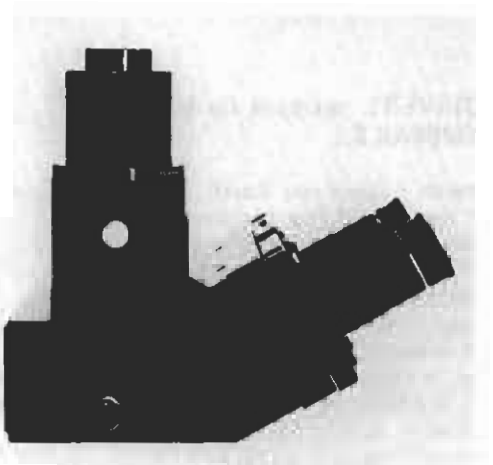
520 416 Lamp holder with bayonet mount for lamp housing No. 100Z . . . . . .

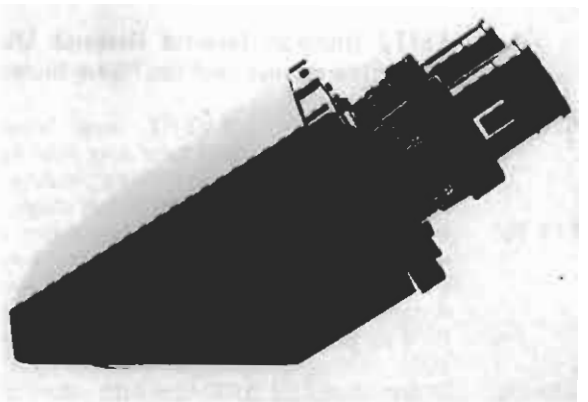
514 237 Lamp housing model No. 100Z, with bayonet mounting device, filter holder, reflector and adjustable aspheric collector, centerable lamp socket with mercury burner HBO 100 watts and heat absorbing filter . . . . . .

050 247 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 . . . . . .





OPTIONAL AND SUPPLEMENTARY EQUIPMENT FOR LEITZ MICROSCOPES DESIGNED FOR 170mm 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 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 . . . . . .

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 microscopic 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 Pointing device . . . . . .

Select observation tubes required.

MICROSCOPE CONDENSERS

A). Brightfield Condensers

512 081 Condenser base A 0.25 with aperture diaphragm and centering mount No. 600; on interchange carrier . . . . . .

512 420 Interchangeable condenser top element As 0.90 No. 001 . . . . . .
512 083 Interchangeable condenser top element Achr. 0.90 No. 002 . . . . . .
512 084 Interchangeable condenser top element Apl Oil 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. 86, 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 carrier . . . . . .

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 diaphragms for PHACO objectives 10/0.25 through 100/1.25; on interchange carrier **(for HM-LUX and DIAVERT Microscopes)** .

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 diaphragms 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 achromatic 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

519 684 Achromatic 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, 25:1 and 40:1 objectives) . . . . . .

051 735 Simple Phase Kit for the HM-LUX and SM-LUX Microscopes . . . . . .

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 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 interchange carrier . . . . . .

519 554 Fluorite dry phase contrast plano objective, PHACO 1 NPL Fl 10/0.30, free working distance 0.73mm, with spring loaded mount . . . . . .

519 505 Fluorite dry phase contrast plano objective, PHACO 1 NPL Fl 16/0.45, free working distance 0.58mm, with spring loaded mount . . . . . .

519 506 Fluorite dry phase contrast plano objective, PHACO 2 NPL Fl 25/0.55, free working distance 0.40mm, with spring loaded mount . . . . . .

519 507 Fluorite dry phase contrast plano objective, PHACO 2 NPL Fl 40/0.70, free working distance 0.24mm, with spring loaded mount . . . . . .

519 508 Fluorite oil immersion phase contrast plano objective, PHACO 3 NPL Fl 100/1.32, free working distance 0.16mm, with spring loaded mount . . . . . .

513 449 Immersion oil, PCB free, negligible fluorescence N_e^{23} 1.518, 10ml bottle . . . . . .

513 468 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 . . . . . .

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, swing-out 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 interchange carrier . . . . . .
519 165 Achromatic dry phase contrast objective, PHACO 10/0.25, free working distance 6.7mm . . . . . .
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_e^{23} 1.518, 10ml bottle . . . . . .
513 468 Focusing magnifier for centering the phase ring . . . . . .

051 713 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

Polarizing Kit for HM-LUX Microscope

513 430 Filter polarizer in mount . . . . . .
513 358 Filter analyzer . . . . . .

051 727 Polarizing kit for LEITZ HM-LUX Microscope . . . . . .

Polarizing Kit for SM-LUX Microscope

513 173 Filter polarizer in mount . . . . . .
513 088 Holder for polarizer with slot to accept compensators . . . . . .
513 358 Filter analyzer . . . . . .

051 737 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

513 089 Gypsum plate . . . . . .
513 090 Mica plate . . . . . .

Projection

513 342 Adjustable projection prism . . . . . .

Viewing and Demonstration Screen

902 080 Viewing and demonstration screen with 6" diameter frosted screen with crossline and built-in PERIPLAN widefield eyepiece GF 10x . . . . . .

FILTER SYSTEMS
Incident Light Fluorescence
(PLOEM Illuminator for SM-LUX and DIAVERT)

Catalog Number	Designation	Excitation Characteristics	Application	Price $
513 410	A	Wide band UV.	DANS fluorochromes. Bisaminophenyloxidiazole (CIBA).	
513 411	B	Wide band VIOLET.	Auto-fluorescing specimens such as coal, spores, minerals, etc. and specific fluorochromes.	
513 412	C	Narrow band VIOLET peak at 405nm.	Biogenetics. Biogene amines (catecholamines, noradrenalin, adrenalin, dopamin, 5-hydroxitryptamin, etc.)	
513 413	D	Wide band VIOLET.	Like C, higher intensity, less contrast.	
513 414	E 2	Narrow band VIOLET peak at 436nm.	Chromosome banding. Quinacrine mustard dihydrochloride (OM).	
513 416	G	Wide band BLUE.	Acridinorange	
513 417	H 2	Wide band BLUE, high intensity.	Fluoresceinisothiocyanat (FITC). Fluoresceindiacetat (FDA). Immunological stains. Conventional blue excitation. Tetracyclin. Quinacrine mustard. Acridinorange.	
513 418	I 2**	Narrow band BLUE to cut down auto-fluorescence.		
513 419	K 2	Extremely narrow band BLUE at 495nm to eliminate auto-fluorescence.		
513 420	L 2	Extremely narrow band BLUE with selective barrier at 525nm.		
513 530	L 2.1**	Extremely narrow band BLUE with selective barrier at 515-560nm.		
513 421	M 2	Narrow band GREEN.	Feulgen stain (pararosanilin). Lissamin-rhodamin B (RB 200). Methylgreen-pyronin Tetramethylrhodamin-isiothiocyanat (TRITC) double staining technique.	
513 422	N 2	Narrow band GREEN, but FITC excitation excluded.		
513 531	N 2.1**	Narrow band GREEN, but wider than N 2		
513 423		Filter module with dichromatic beam splitter TK 400.		
513 424		Filter module with dichromatic beam splitter TK 455.		
513 425		Filter module with dichromatic beam splitter TK 510.		
513 426		Filter module with dichromatic beam splitter TK 580.		
513 525		Transmitted light filter module		

****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. Ploem's "A New Type of Two-Color Fluorescence Staining for Cytology Specimens" in the JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY, 1976.**

FILTER SYSTEMS
Incident Light Fluorescence
(PLOEM Illuminator for SM-LUX and DIAVERT)

Catalog Number	Designation	Excitation Characteristics	Application	Price $
513 410	A	Wide band UV.	DANS fluorochromes. Bisaminophenyloxidiazole (CIBA).	
513 411	B	Wide band VIOLET.	Auto-fluorescing specimens such as coal, spores, minerals, etc. and specific fluorochromes.	
513 412	C	Narrow band VIOLET peak at 405nm.	Biogenetics. Biogene amines (catecholamines, noradrenalin, adrenalin, dopamin, 5-hydroxitryptamin, etc.)	
513 413	D	Wide band VIOLET.	Like C, higher intensity, less contrast.	
513 414	E 2	Narrow band VIOLET peak at 436nm.	Chromosome banding. Quinacrine mustard dihydrochloride (QM).	
513 416	G	Wide band BLUE.	Acridinorange	
513 417	H 2	Wide band BLUE, high intensity.	Fluoresceinisothiocyanat (FITC). Fluoresceindiacetat (FDA). Immunological stains. Conventional blue excitation. Tetracyclin. Quinacrine mustard. Acridinorange.	
513 418	I 2**	Narrow band BLUE to cut down auto-fluorescence.		
513 419	K 2	Extremely narrow band BLUE at 495nm to eliminate auto-fluorescence.		
513 420	L 2	Extremely narrow band BLUE with selective barrier at 525nm.		
513 530	L 2.1**	Extremely narrow band BLUE with selective barrier at 515-560nm.		
513 421	M 2	Narrow band GREEN.	Feulgen stain (pararosanilin). Lissamin-rhodamin B (RB 200). Methylgreen-pyronin Tetramethylrhodamin-isiothiocyanat (TRITC) double staining technique.	
513 422	N 2	Narrow band GREEN, but FITC excitation excluded.		
513 531	N 2.1**	Narrow band GREEN, but wider than N 2		
513 423		Filter module with dichromatic beam splitter TK 400.		
513 424		Filter module with dichromatic beam splitter TK 455.		
513 425		Filter module with dichromatic beam splitter TK 510.		
513 426		Filter module with dichromatic beam splitter TK 580.		
513 525		Transmitted light filter module		

****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. Ploem's "A New Type of Two-Color Fluorescence Staining for Cytology Specimens" in the JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY, 1976.**

Filters for LEITZ Microscopes

Transmitted Light Fluorescence Attachment after Nairn for DIAVERT Microscope

This new attachment consists of an exciter turret and a slider with barrier filter. The turret has four positions, three of which accept 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 2-wavelength excitation with the transmitted light fluorescence microscope.

513 456 Exciter filter turret . . . . . .
514 554 Filter slider with barrier filters K 430, K 515 and K 580 for DIAVERT . . . . . .
513 457 Filter System A for UV excitation . . . . . .
Methods: Autofluorescence, Bisaminophenyloxidiazole (BAO), Dansychlorid, Diaminoaphtylsulfonsaure (DANS), Sulfalvin, Methylgrun-Pyronin-Stilben (MPS). For double fluorochroming, use an additional Filter System M.
513 532 Filter System B for UV and violet excitaion . . . . . .
513 458 Filter System C for violet excitation . . . . . .
Methods: Autofluorescence, Acriflavin, Atebrin, Euchrysin, FIF (formaldyhyde-induced fluorescence), Primolin O, Tetracyclin, Thiflavin S.
513 533 Filter System E for blue excitation . . . . . .
513 459 Filter System G for blue excitation . . . . . .
Methods: Autofluorescence, Acridinyellow, Acridinorange, Auramin, Aurophosphin G, Berberinsulphat, Coriphosphin, Euchrysin Phosphin 3R, Tetracyclin.
513 460 Filter System H for blue excitation . . . . . .
Methods: Fluoresceinisothiocyanat (FITC), Quinacrine-Mustard (QM). For additional methods, see Filter System G.
513 534 Filter System I for blue excitation . . . . . .
513 535 Filter System K for blue excitation . . . . . .
513 461 Filter System M for green excitation . . . . . .
Methods: Autofluorescence, Tetramethylrhodaminisothiocyanat (TRITC), Evans-Blue, feulgen, Lissamin-Rhodamin B (Rhodamin B 200), Pyronin, Methylgrun-Pyronin-Stilben (MPS). For double fluorochroming, use an additional Filter System A.
513 497 Case for complete attachment . . . . . .

Barrier Filters in Slider for DIAVERT Microscope

514 554 Slider with K 430, K 460, K 515 and K 580 barrier filters . . . . . .
514 303 Slider with K 430 and K 460 barrier filters . . . . . .
514 304 Slider with K 470 and K 490 barrier filters . . . . . .
514 305 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 . . . . . .

Individual Filters for Fluorescence Microscopy

Exciter Filters
Heat Absorbing Filters **50mm Diameter**
Edge Filters
Red Suppression Filters

514 057 UV exciter filter UG 1, 1mm, mounted
514 029 UV exciter filter UG 1, 2mm, mounted
514 059 Blue exciter filter BG 12, 1.5mm, mounted
514 032 Blue exciter filter BG 12, 3mm, mounted
514 015 Blue exciter filter BG 3, 3mm, mounted
514 027 Heat absorbing filter KG 1, 2mm, unmounted for 12 volt, 100 watt, HBO 50 watt and HBO 100 watt
514 040 Heat absorbing filter B1/K2, unmounted for all XBO Xenon burners
514 170 Edge filter K 420 (λ) 420nm) mounted
514 263 Edge filter K 480 (λ) 480nm) mounted
514 033 Red suppression filter BG 38, 4mm, mounted
514 489 Red suppression filter BG 23, mounted
514 308 Band absorption filter BG 36, 2mm, mounted (Feulgen and TRITC)
514 042 Diffusion disc N
514 031 Filter density 0.2%

Exciter Filters
Red Suppression Filters **32mm Diameter**

514 424 UV exciter filter UG 1 S 360, mounted
514 413 Violet exciter filter S 400, mounted
514 350 FITC exciter filter KP 490, blue, mounted
514 412 FITC exciter filter KP 500, blue, mounted
514 414 Green exciter filter SS 546
514 256 Wide band green exciter filter S 546, mounted
514 287 Red suppression filter BG 38, 4mm, mounted
051 382 Red suppression filter BG 23, 3mm, mounted
051 381 Attachable swing-out filter holder for filters 32mm (to be clamped on dust glass mount)
*514 535 Filter K 445 for protection from UV radiation

Barrier Filters in Sliders for DIALUX

514 303 Slider with K 430 and K 460 barrier filters
514 304 Slider with K 470 and K 490 barrier filters
514 305 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
514 368 Slider with interference barrier filter S 525 for FITC

Neutral Density Filters 50mm Diameter, Mounted

514 036 5% transmission
514 031 0.2% transmission

Neutral Density Filters 32mm Diameter, Mounted

543 096 70% transmission
543 092 50% transmission
543 093 25% transmission
543 184 6.3% transmission
543 185 0.4% transmission

Case for Filters

514 416 Filter case, fitted

Further Accessories for Fluorescence Microscopy

514 080 Cover glass VG 5, 18 x 18mm
514 041 Filter green VG 9, 564nm
514 015 Filter 3mm BG 3, mounted (antibody)

***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 DIAVERT 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 DIAVERT microscope
500 182	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
050 615	High pressure mercury bulb Hg 200 watt, type W4/A.C.

EYEPIECES FOR BIOLOGICAL MICROSCOPES

PERIPLAN Eyepieces 23.2mm Diameter

Magnification	Field of View (MM)	Catalog Number and Price					
		Single	Price $	Single For Pair	Price $	Pair	Price $
6.3x	18	519 185		519 185		519 186	
6.3xM	18	519 188		519 185		519 187	
8x High Eyepoint	18	519 377		519 377		519 378	
10x High Eyepoint	18	519 609		519 609		519 603	
10xM High Eyepoint	18	*519 611		519 609		519 604	

PERIPLAN Widefield Eyepieces NF/GF, 23.2mm Diameter

Magnification	Field of View (MM)	Catalog Number and Price					
		Single	Price $	Single For Pair	Price $	Pair	Price $
NF 10x	18	519 319		519 319		519 318	
NF 10xM	18	519 320		519 319		519 327	
NF 10xMM	18	519 320		519 320		519 328	
NF 10x with pointer	18	519 321					
GF 10x	18	519 137		519 137		519 142	
GF 10xM	18	519 126		519 137		519 127	
GF 10xMM	18	519 126		519 126		519 281	
GF 10x with pointer	18	519 329					
GF 12.5x	18	519 462		519 462		519 452	
GF 12.5x High Eyepoint	16	519 411		519 411		519 412	
GF 12.5xM	18	519 463		519 462		519 453	
GF 12.5xMM	18	519 463		519 463		519 454	
GF 16x	16	519 369		519 369		519 370	
GF 25xM	10	519 577		519 576		519 574	

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

EYEPIECE RETICLES FOR M EYEPIECES 23.2mm DIAMETER

519 960 Eyepiece micrometer, 5mm = 100 divisions . . . . . .
519 941 Eyepiece micrometer, 10mm = 100 divisions . . . . . .

519 932 Eyepiece micrometer, 0.4mm = 40 divisions . . . . . .
519 943 Crossline plate . . . . . .
519 942 Eyepiece micrometer, 10mm = 100 divisions and crosslines . . . . . .
519 946 Eyepiece micrometer, 10mm = 200 divisions and crosslines . . . . . .
519 903 Eyepiece net micrometer, 5 x 5mm divided into squares 0.5mm . . . . . .

519 948 Eyepiece net micrometer, 10 x 10mm divided into squares 0.1mm . . . . . .

519 949 Eyepiece net micrometer, 10 x 10mm divided into squares 0.5mm . . . . . .
519 950 Eyepiece net micrometer, 10 x 10mm divided into squares 1.0mm . . . . . .
519 951 Eyepiece net micrometer, 10 x 10mm divided into squares 2.0mm . . . . . .

STAGE MICROMETERS

A). TRANSMITTED LIGHT

513 106 Stage micrometer on glass 2mm = 200 divisions with photographic scale . . . . . .

***Note: This eyepiece accepts only 19mm in diameter reticles. Please refer to page 65 for a listing of these reticles.**

Objectives for Brightfield-Darkfield Transmitted Light, 45mm Adjustment Length

Type of Objectives	Magnification/Aperture		Free Working Distance	Type of Eyepiece	Cover Glass Correction	Catalog Number	Price $
NPL FLUOTAR Objectives for Maximum Flatness of Field up to 18mm diameter	NPL Fl	6.3/0.20	2.0	P	DO	519 540	
	NPL Fl	10/0.30	0.73	P	DO	519 661	
	NPL Fl	16/0.45	0.58	P	D	519 500	
	NPL Fl	25/0.55	0.36	P	D	519 501	
	NPL Fl	40/0.70	0.24	P	D	519 502	
	NPL Fl	63/0.90	0.11	P	O	519 503	
	NPL Fl	63/0.90K	0.11	P	D	519 446	
	NPL Fl Oil	100/1.32	0.17	P	D	519 504	
	NPL Fl Oil	100/1.30-0.60	0.14	P	D	519 652	
Fluorite Objectives	Fl	63/0.85	0.14	P	D!	519 617	
	Fl Oil	40/1.30	0.21	P	D	519 473	
Achromatic Oil Immersion Objectives (Fluorescence)	Oil	10/0.45	0.39	P	D	519 433	
	Oil	25/0.75	0.36	P	D	519 646	
	Oil	63/1.30	0.14	P	D	519 474	
Achromatic Water Immersion Objectives (Fluorescence)	W	25/0.60	0.30	P	D	519 647	
	W	50/1.00	0.68	P	D	519 648	
	W	100/1.20	0.18	P	D	519 649	
Achromatic Salt Water Immersion Objectives with up to 6% NACL	SW	25/0.60	1.67	P	O	519 381	
	SW	50/1.00	0.75	P	O	519 426	
	SW	100/1.20	0.22	P	O	519 429	
Special Long Working Distance Achromatic Objectives	L	10/0.22 IRIS	16	P	DO	519 438	
	L	20/0.32 IRIS	6.9	P	DO	519 534	
	L	25/0.22 IRIS	14.8	P	DO	519 535	
	L	32/0.40	6.6	P	DO	519 536	
Achromatic Objectives		4/0.12	24	P	DO	519 292	
		10/0.25	6.7	P	DO	519 293	
		25/0.50	0.44	P	D	519 489	
		40/0.65	0.42	P	D	519 419	
		40/0.65	0.50	P	D	519 530	
	Oil	100/1.25	0.10	P	D	519 565	

Objective Funnel Stops

513 362 Funnel stop for achromatic objective 100/1.25 (45mm) and PHACO objective 100/1.25 (45mm) . . . . .

513 433 Funnel stop for Fl 63x/0.85 (45mm), D 0.80 darkfield condenser . . . . .

Immersion Oil

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

513 522 Plastic bottle of immersion oil, PCB free according to DIN 58884, with extremely low autofluorescence, 100ml . . . . .

513 449 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 10ml bottle . . . . .

513 445 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 100ml bottle . . . . .

513 447 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 500ml bottle . . . . .

513 448 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 1000ml bottle . . . . .

Miscellaneous

513 108 Combination bottle for immersion oil and XYLOL . . . . .

513 442 Diamond object marker . . . . .

512 027 Dust cap for vacant nosepiece threads . . . . .

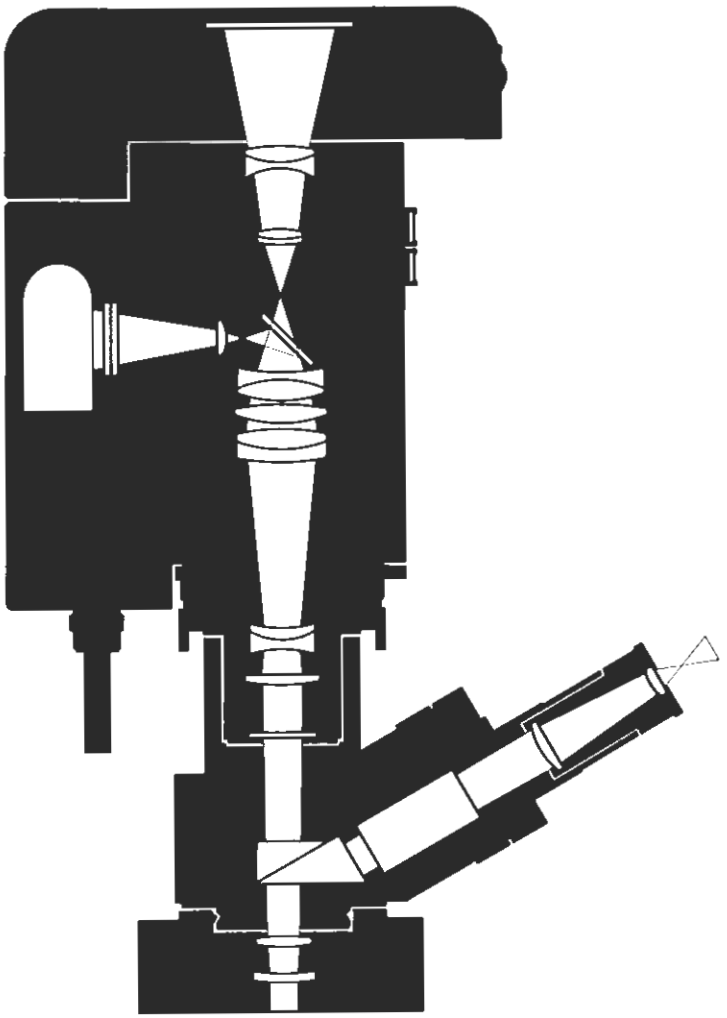
OBJECTIVES FOR TRANSMITTED LIGHT PHASE CONTRAST – ZERNIKE SYSTEM

45mm Adjustment Length

Type of Objectives	Magnification/Aperture		Free Working Distance	Type of Eyepiece	Cover Glass Correction	Catalog Number	Price S
NPL Fluotar Phase Objectives for Maximum Flatness of Field up to 18mm diameter	NPL FI	10/0.30 PHACO 1	0.73	P	DO	519 554	
	NPL FI	16/0.45 PHACO 1	0.58	P	D	519 505	
	NPL FI	25/0.55 PHACO 2	0.40	P	D	519 506	
	NPL FI	40/0.70 PHACO 2	0.24	P	D	519 507	
	NPL FI	63/0.90K PHACO 4	0.11	P	D	519 447	
	NPL FI Oil	100/1.32 PHACO 3	0.16	P	D	519 508	
Fluorite Phase Oil Immersion Objective	FI Oil	40/1.30 PHACO 3	0.21	P	D	519 552	
Special Achromatic Oil Immersion Phase Objectives	Oil	10/0.45 PHACO 2	0.39	P	D	519 431	
	Oil	25/0.75 PHACO 2	0.37	P	D	519 432	
	Oil	63/1.30 PHACO 3	0.19	P	D	519 553	
Achromatic Water Immersion Phase Objective	W	100/1.20 PHACO 3	0.18	P	D	519 427	
Achromatic Salt Water Immersion Phase Objective with up to 6% NACL	SW	100/1.20 PHACO 3	0.22	P	D	519 428	
Special Long Working Distance Achromatic Phase Objectives	L	20/0.32 PHACO 1	6.73	P	DO	519 537	
	L	32/0.40 PHACO 1	6.45	P	DO	519 538	
Achromatic Phase Objectives		10/0.25 PHACO 1	6.7	P	DO	519 165	
		25/0.50 PHACO 2	0.44	P	D	519 236	
		40/0.65 PHACO 2	0.42	P	D	519 420	
		40/0.65 PHACO 2	0.50	P	D	519 684	
	Oil	100/1.25 PHACO 3	0.10	P	D	519 566	

D = For use with specimens with cover glass
DO = For use with specimens with or without cover glass
D! = 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 specimens 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-W, Fully Automatic 35mm Microscope 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; electromagnetic, 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 ½ hour or more, with film speed setting for color or black and white; capable of solving the most complicated photographic task . . . . . .

519 458 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyelens and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm . . . . . .

051 720 **LEITZ ORTHOMAT-W, 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 MICROSIX-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 - upto 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 eyelens 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 - upto 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 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 . . . . . .

543 352 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 eyelens 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 tapes . . . . . .

3). 3¼ x 4¼" Format with the POLAROID Camera Back CB 101

543 395 COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - upto 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 3¼ x 4¼" with provisions for half-format size of 3¼ x 2¼" . . . . .

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 eyelens 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 3¼ x 4¼" or 3¼ x 2¼" Film Format with the POLAROID Camera Back CB 101 . . . . . .

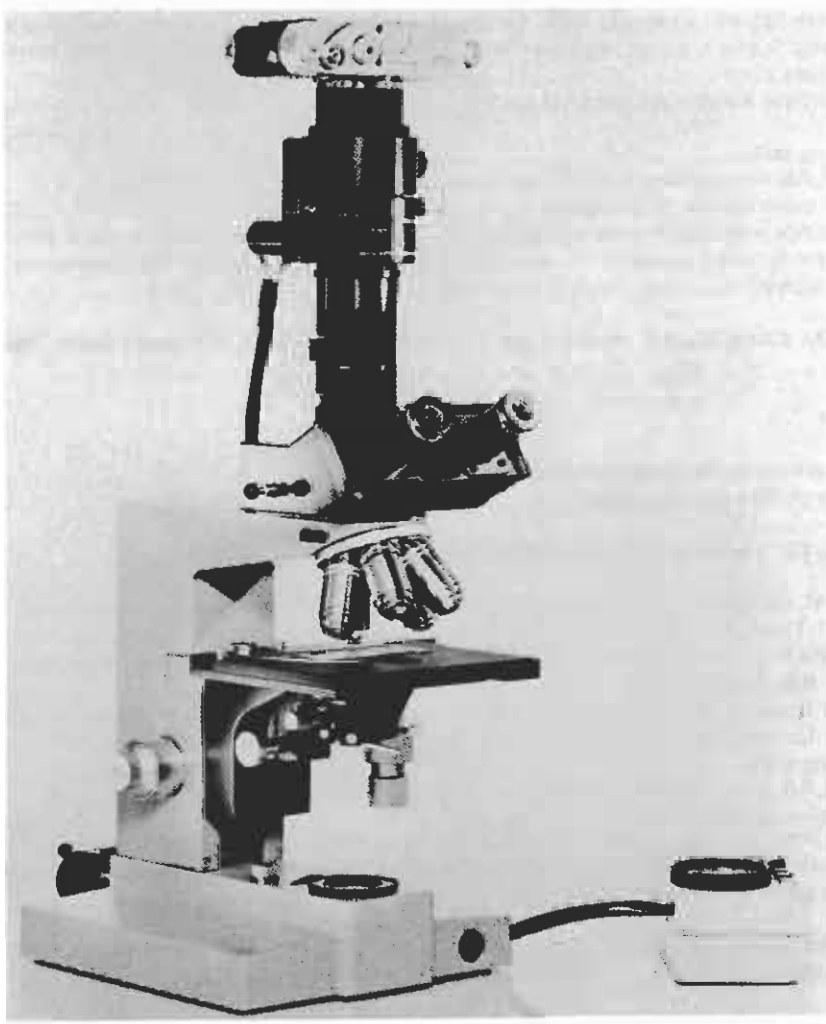
4). 4 x 5" Format with the POLAROID Camera Back 545

543 395	COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - upto 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 .
054 338	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 holders . . . . .
543 273	Intermediate optical system 1x . . . . .
543 237	International back with ground glass focusing screen and spring clamp assembly . . . . .
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 eyelens 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 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 . . . . .
513 468	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 MICROSIX-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 . . . . . .
519 720 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 eyelens and one with reticle with concentirc 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 MICROSIX-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 . . . . . .

543 352 Clamping collar . . . . . .
519 720 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 eyelens 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). 3¼ x 4¼" 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 MICROSIX-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 3¼ x 4¼" with provisions for half-format size of 3¼ x 2¼" . . . . .
543 352 Clamping collar . . . . . .
519 720 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 eyelens and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm . . . . . .

SYSTEM CAMERA for 3¼ x 4¼" or 3¼ x 2¼" 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 1/125th to 1 second and time; provision to accept measuring eye of MICROSIX-L exposure meter (not included) with lever to direct the central beam of light to the measuring eye . . . . .
054 338	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 holders . . . . .
543 273	Intermediate optical system 1x . . . . .
543 237	International back with ground glass focusing screen and spring clip assembly . . . . .
543 352	Clamping collar . . . . .
519 720	PERIPLAN high eyepioint photographic eyepiece 10x, field of view 18mm . . . . .
543 212	Cable release, 50cm length . . . . .
519 456	PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyelens 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 . . . . .
513 468	Focusing telescope for low power photomicrography . . . . .
543 353	Swing-out filter holder for focusing telescope . . . . .
543 306	MICROSIX-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 55 control unit and cables
373 450	Motor adapter
370 759	Objective 0.32:1 and screw driver
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 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 55 control unit and cables
376 110	Eyepiece adapter
519 610	PERIPLAN high eyepoint eyepiece 10x
543 269	Adapter with optical system 0.32:1
519 456	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). 3¼ x 4¼" 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 55 control unit and cables
376 110	Eyepiece adapter
519 610	PERIPLAN high eyepoint eyepiece 10x
543 387	Camera attachment with POLAROID CB 101 for 3¼ x 4¼"
519 456	PERIPLAN eyepieces, paired GF 12.5x/SY 2

MPS 50 PHOTOAUTOMAT for 3¼ x 4¼" Film Format with the POLAROID Camera Back CB 101

4). 4 x 5" Format with the POLAROID Camera Back 545

375 898	MPS 51 camera body with electronically controlled shutter and an element for center-weighted integral measurement
319 501	MPS 55 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	International back with focusing screen
519 456	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

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 of 35mm and scale units of 0.002mm. Precision tube-changing 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-into the base transformer and 6 volt, 20 watt illumination system with centerable field diaphragm, base completely enclosed for dust protection –.–.–.47

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

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

512 584 Interchangeable quintuple revolving nosepiece with internal click stops 8.5.–.– . . . . .
512 582 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 . . . . . .
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 special darkfield top elements . . . . . .
500 245 Tungsten halogen bulb, 6 volts, 20 watts (replacement) . . . . . .
500 999 Connecting 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 Fluotar 6.3/0.20, free working distance 2.30mm, color coded orange . . . . . .
519 500 Fluorite dry plano objective, NPL Fluotar 16/0.45, free working distance 0.58mm, color coded light green . . . . . .
519 501 Fluorite dry plano objective, NPL Fluotar 25/0.55, free working distance 0.40mm, with spring loaded mount, color coded dark green . . . . . .
519 502 Fluorite dry plano objective, NPL Fluotar 40/0.70, free working distance 0.24mm, 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 . . . . . .
513 449 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 10ml bottle . . . . . .
514 316 Daylight conversion filter CB 12, 32mm in diameter, mounted . . . . . .
519 622 PERIPLAN widefield eyepieces, paired GF 10x, field of view 18mm . . . . . .

LEITZ Binocular Laboratory and Research Microscope DIALUX 20 EB D 8.5.15.47 S 78/SK 0.90 S1.1 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 0.002mm. Precision tube-changing 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-into the base transformer and 6 volt, 20 watt illumination system with centerable field diaphragm, base completely enclosed for dust protection –.–.–.47

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

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

512 584 Interchangeable quintuple revolving nosepiece with internal click stops 8.5.–.– . . . . .
512 582 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 . . . . . .
513 477 Universal condenser UK Ph. 0.90 S1.1 for phase contrast, with interchangeable light ring turret with annular diaphragm for PHACO objectives 10:1 through 100:1 oil, central stop for darkfield and Koehler illumination with all objectives down to 1.6:1, top element Achr. 0.90 S1.1 interchangeable with special darkfield top elements . . . .
500 245 Tungsten halogen bulb, 6 volts, 20 watts (replacement) . . . . . .
500 999 Connecting cable . . . . . .
512 594 Flexible protective dust cover . . . . . .

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 Fluorite dry phase contrast plano objective NPL Fluotar 10/0.30 PHACO 1, free working distance 0.75mm, color coded yellow . . . . . .
519 505 Fluorite dry phase contrast plano objective NPL Fluotar 16/0.45 PHACO 1, free working distance 0.58mm, color coded light green . . . . . .
519 506 Fluorite dry phase contrast plano objective NPL Fluotar 25/0.55 PHACO 2, free working distance 0.40mm, with spring loaded mount, color coded dark green . . . . . .
519 507 Fluorite dry phase contrast plano objective NPL Fluotar 40/0.70 PHACO 2, free working distance 0.24mm, with spring loaded mount, color coded light blue . . . . . .
519 508 Fluorite oil immersion phase contrast plano objective NPL Fluotar 100/1.32 oil PHACO 3, free working distance 0.16mm, with spring loaded mount, color coded white/black . . . . . .
513 449 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 10ml bottle . . . . . .
514 316 Daylight conversion filter CB 12, 32mm in diameter, mounted . . . . . .
519 622 PERIPLAN widefield eyepieces, paired GF 10x, field of view 18mm . . . . . .
513 468 Focusing magnifier for centering the phase 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 . . . . . .


DIALUX 20

LEITZ Binocular Laboratory and Research Microscope, DIALUX 20, equipped for Transmitted Light FITC Fluorescence (50 Watt Mercury Lamb)

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-changing 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, 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, 76 x 50mm 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 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 . . . . . .
513 474 Standard condenser base SK . . . . . .
513 466 Darkfield condenser top element D 1.19-1.44 . . . . . .
514 565 Alignment mirror . . . . . .
512 595 Flexible protective dust cover . . . . . .
514 579 Lamp housing model No. 102Z with bayonet mounting device, filter holder, centerable and focusable reflector, adjustable aspheric collector, centerable lamp socket with mercury burner HBO 50 watts and heat absorbing filter . . . . . .

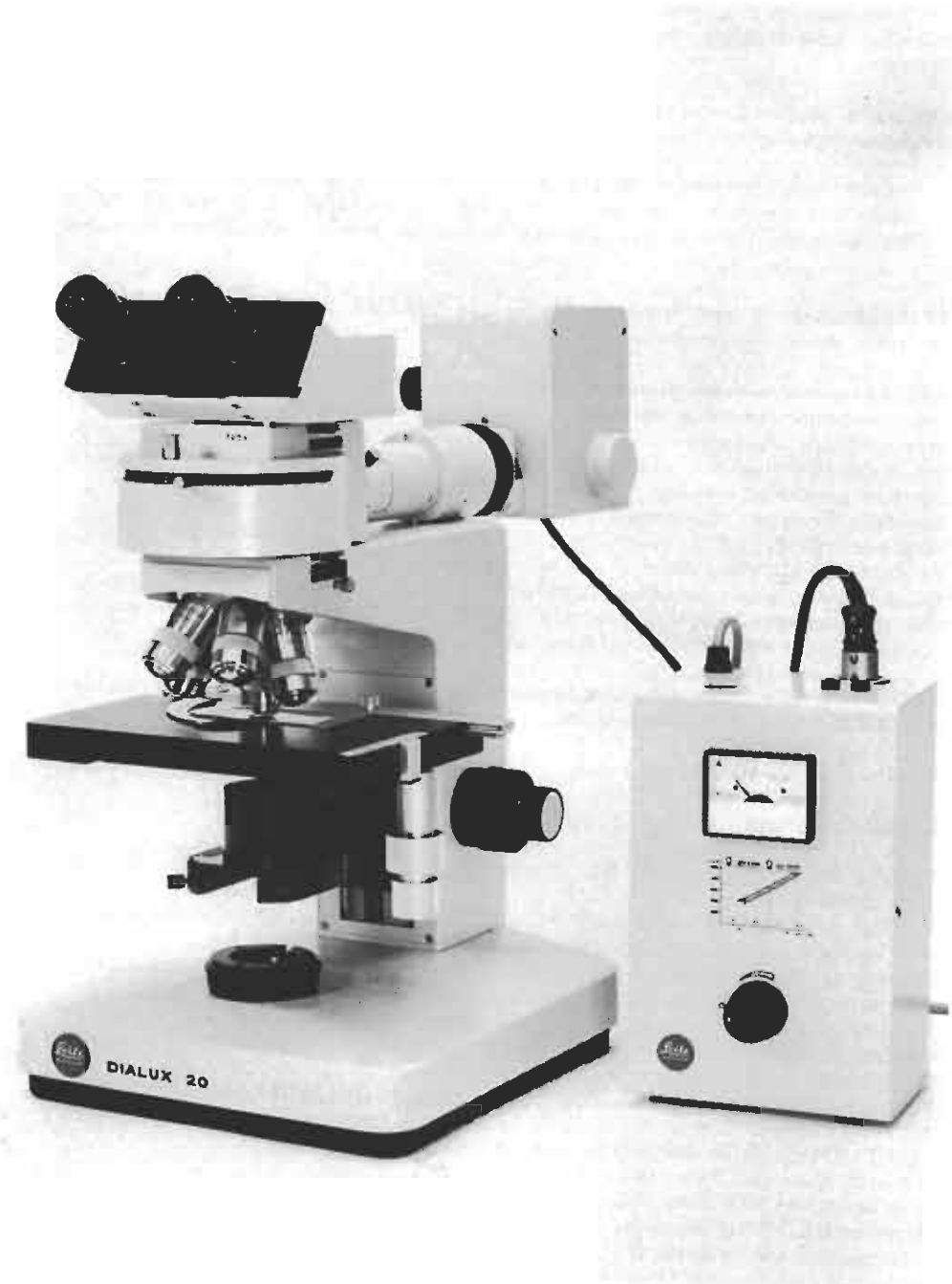
LEITZ Binocular Laboratory and Research Microscope DIALUX 20 D 8.5.15.102Z S 78/SK D 1.19-1.44 as described above . . . . . .

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

Optical Equipment

519 496 Fluorite dry plano objective, NPL Fluotar 10/0.30, free working distance 0.75mm, color coded yellow . . . . . .
519 501 Fluorite dry plano objective, NPL Fluotar 25/0.55, free working distance 0.40mm, with spring loaded mount, color coded dark green . . . . . .
519 502 Fluorite dry plano objective, NPL Fluotar 40/0.70, free working distance 0.24mm, with spring loaded mount, color coded light blue . . . . . .
519 652 Fluorite oil immersion objective, NPL Fluotar 100/1.32-0.60 oil, with built-in iris 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 PERIPLAN eyepieces, paired 6.3x, field of view 18mm . . . . . .
514 029 UV excitation filter 2mm, UG 1, mounted . . . . . .
514 015 Blue excitation filter 3mm, BG 3, mounted . . . . . .
514 032 Blue excitation filter 3mm, BG 12, mounted . . . . . .
514 033 Heat absorbing filter 4mm, BG 38, mounted . . . . . .
514 570 Filter slider with barrier filters K 430 and K 460 . . . . . .
514 571 Filter slider with barrier filters K 470 and K 490 . . . . . .
514 572 Filter slider with barrier filters K 510 and K 530 . . . . . .
514 573 Filter slider with barrier filters K 570 and K 580 . . . . . .

LEITZ Binocular Laboratory and Research Microscope DIALUX 20 D 8.5.15.102Z S 78/SK D 1.19-1.44 Complete with Optical Equipment for Transmitted Light Darkfield Fluorescence . . . . . .


DIALUX 20

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-changing 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, 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, 76 x 50mm 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 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 . . . . . .
512 596 Flexible protective dust cover . . . . . .
513 463 PLOEMOPAK 2.4 for DIALUX 20, to be locked between the stand and the tube, centerable and focusable field diaphragm changing device for 3 filter blocks, dark slide for specimen protection and lamp holder . . . . . .
513 417** Interchangeable filter system H2 for wide band blue light excitation; most recommended for FITC excitation and other immunological stains as well as conventional blue light excitation with specimens exhibitng no or moderate autofluorescence . . . . .
514 579 Lamp housing model No. 102Z with bayonet mounting device, filter holder, centerable and focusable reflector, adjustable aspheric collector, centerable lamp socket with mercury burner HBO 50 watts and heat absorbing filter . . . . . .
513 508 Light shield . . . . . .

LEITZ Binocular Laboratory and Research Microscope DIALUX 20 D 8.5.15.102Z S 78/– as described above . . . . . .

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

Optical Equipment

519 496 Fluorite dry plano objective, NPL Fluotar 10/0.30, free working distance 0.75mm, color coded yellow . . . . . .
519 501 Fluorite dry plano objective, NPL Fluotar 25/0.55, free working distance 0.40mm, with spring loaded mount, color coded dark green . . . . . .
519 502 Fluorite dry plano objective, NPL Fluotar 40/0.70, 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, PCB free according to DIN 58884, with extremely low autofluorescence, 10ml . . . . . .
519 627 PERIPLAN eyepieces, paired 6.3x, field of view 18mm . . . . . .
514 031 Gray filter 0.2%, mounted . . . . . .

LEITZ Binocular Laboratory and Research Microscope DIALUX 20 D 8.5.15.102Z S 78/– Complete with Optical Equipment for Incident Light Fluorescence . . . . . .

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

Observation Tubes

512 582 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 . . . . . .

512 583 Interchangeable, combination inclined binocular observation tube with adjustable interpupillary distances 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 . . . . . .

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 transversing 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 26mm; 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 centerable 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 (attachable to the foot 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 . . . . . .

Condensers

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

513 467 Universal condenser base UK
513 475 Condenser top element Achr. 0.90 S1.1

513 493 **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 ring turret. Complete as described above**

513 467 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 interchangeable with darkfield top elements, with provision for interchangeable light ring turret. Complete as described above**

D). Darkfield Universal Condensers UK

513 467 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**

513 467 Universal condenser base UK
513 466 Darkfield condenser top element D 1.19-1.44 oil

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

513 467 Universal condenser base UK . . . . . .
513 475 Condenser top element Achr. 0.90 S1.1 . . . . . .
513 504 Interchangeable light ring turret S1.1 complete with light rings 1, 2, 3, 4 and darkfield light ring . . . . . .

513 477 **Universal Condenser UK Ph. 0.90 S1.1 for phase contrast with interchangeable light ring turret with annular diaphragm for PHACO objectives 10:1 through 100:1 oil. Central stop for darkfield and Koehler Illumination with all objectives down to 1.6:1. Top element Achr. 0.90 S1.1 interchangeable with special darkfield top elements. Complete as described above** . . . . . .

Accessories for Both the Standard Condensers and Universal Condensers

513 501 Condenser top element 0.70 S4 . . . . . .
513 502 Condenser top element 0.55 S15 . . . . . .
513 503 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.

513 478 Light ring turret . . . . . .
513 479 Light ring 1 S1.1 . . . . . .
513 480 Light ring 2 S1.1 . . . . . .
513 481 Light ring 3 S1.1 . . . . . .
513 482 Light ring 4 S1.1 . . . . . .
513 483 Darkfield light ring DF S1.1 . . . . . .

513 504 **Interchangeable light ring turret S1.1 with light rings 1, 2, 3, 4 and darkfield light ring, complete as described above** . . . . . .

513 478 Light ring turret . . . . . .
513 484 Light ring 1 S4 . . . . . .
513 485 Light ring 2 S4 . . . . . .
513 486 Light ring 3 S4 . . . . . .
513 487 Light ring 4 S4 . . . . . .

513 505 **Interchangeable light ring turret S4 with light rings 1, 2, 3 and 4, complete as described above** . . . . . .

513 478 Light ring turret . . . . . .
513 488 Light ring 1 S15 . . . . . .
513 489 Light ring 2 S15 . . . . . .
513 490 Light ring 4 S15 . . . . . .

513 506 **Interchangeable light ring turret S15 with light rings 1, 2 and 4, complete as described above** . . . . . .

513 478 Light ring turret . . . . . .
513 491 Light ring 1 S35 . . . . . .
513 492 Light ring 2 S35 . . . . . .

513 507 **Interchangeable light ring turret S35 with light rings 1 and 2, complete as described above** . . . . . .

FILTER SYSTEMS
Incident Light Fluorescence
(PLOEM Illuminator)

Catalog Number	Desig-nation	Excitation Characteristics	Application	Price $
513 410	A	Wide band UV.	DANS fluorochromes. Bisaminophenyloxidiazole (CIBA).	
513 411	B	Wide band VIOLET.	Auto-fluorescing specimens such as coal, spores, minerals, etc. and specific fluorochromes.	
513 412	C	Narrow band VIOLET peak at 405nm.	Biogenetics. Biogene amines (catecholamines, noradrenalin, adrenalin, dopamin, 5-hydroxitryptamin, etc.)	
513 413	D	Wide band VIOLET.	Like C, higher intensity, less contrast.	
513 414	E 2	Narrow band VIOLET peak at 436nm.	Chromosome banding. Quinacrine mustard dihydrochloride (QM).	
513 416	G	Wide band BLUE.	Acridinorange	
513 417	H 2	Wide band BLUE, high intensity.	Fluoresceinisothiocyanat (FITC). Fluoresceindiacetat (FDA). Immunological stains. Conventional blue excitation. Tetracyclin. Quinacrine mustard. Acridinorange.	
513 418	I 2**	Narrow band BLUE to cut down auto-fluorescence.		
513 419	K 2	Extremely narrow band BLUE at 495nm to eliminate auto-fluorescence.		
513 420	L 2	Extremely narrow band BLUE with selective barrier at 525nm.		
513 530	L 2.1**	Extremely narrow band BLUE with selective barrier at 515-560nm.		
513 421	M 2	Narrow band GREEN.	Feulgen stain (pararosanilin). Lissamin-rhodamin B (RB 200). Methylgreen-pyronin Tetramethylrhodamin-isiothiocyanat (TRITC) double staining technique.	
513 422	N 2	Narrow band GREEN, but FITC excitation excluded.		
513 531	N 2.1**	Narrow band GREEN, but wider than N 2		
513 423		Filter module with dichromatic beam splitter TK 400.		
513 424		Filter module with dichromatic beam splitter TK 455.		
513 425		Filter module with dichromatic beam splitter TK 510.		
513 426		Filter module with dichromatic beam splitter TK 580.		
513 525		Transmitted light filter module		

****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. Ploem's "A New Type of Two-Color Fluorescence Staining for Cytology Specimens" in the JOURNAL OF HISTOCHEMISTRY AND CYTOCHEMISTRY, 1976.**

Individual Filters for Fluorescence Microscopy

50mm Diameter

Exciter Filters, Heat Absorbing Filters, Edge Filters and Red Suppression Filters

514 057	UV exciter filter UG 1, 1mm, mounted
514 029	UV exciter filter UG 1, 2mm, mounted
514 059	Blue exciter filter BG 12, 1.5mm, mounted
514 032	Blue exciter filter BG 12, 3mm, mounted
514 015	Blue exciter filter BG 3, mounted
514 027	Heat absorbing filter KG 1, 2mm, unmounted for 12 volt, 100 watt, HBO 50 watt and HBO 100 watt burners
514 040	Heat absorbing filter B1/K2, unmounted for all XBO Xenon burners
514 170	Edge filter K 420 (λ) 420nm), mounted
514 263	Edge filter K 480 (λ) 480nm), mounted
514 033	Red suppression filter BG 38, 4mm, mounted
514 308	Band absorption filter BG 36, 2mm, mounted (Feulgen and TRITC)
514 042	Diffusion disc N

32mm Diameter

Exciter Filters, Red Suppression Filters and Edge Filters

514 424	UV exciter filter UG 1 S 360, mounted
514 413	Violet exciter filter S 400, mounted
514 350	FITC exciter filter KP 490, blue, mounted
514 412	FITC exciter filter KP 500, blue, mounted
514 414	Green exciter filter SS 546
514 256	Wide band green exciter filter S 546, mounted (to be used in conjunction with 514 027, 514 033 and 514 308, see above listing). Recommended for Feulgen and TRITC fluorescence
514 287	Red suppression filter BG 38, 4mm, mounted
051 382	Red suppression filter BG 23, 3mm, mounted
*514 535	Filter K 445 for reduction of UV radiation

Barrier Filters in Slider

514 570	Filter slider with barrier filters K 430 and K 460
514 571	Filter slider with barrier filters K 470 and K 490
514 572	Filter slider with barrier filters K 510 and K 530
514 573	Filter slider with barrier filters K 570 and K 580

Neutral Density Filters, 50mm Diameter, Mounted

514 036	5% transmission
514 031	0.2% transmission

Neutral Density Filters, 32mm Diameter, Mounted

543 096	70% transmission
543 092	50% transmission
543 093	25% transmission
543 184	6.3% transmission
543 185	0.4% transmission

***Discontinued, limited supply still available.**

Interference Contrast Device T

513 524 Analyzer on slide
512 610 Quintuple revolving nosepiece
553 358 Polarizer
513 467 Universal condenser base UK
552 258 Condenser top element Achr. 0.90 S1.1 P
559 187 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
559 189 Fluorite oil immersion plano interference contrast objective, NPL Fluotar 100/1.32 oil ICT
513 449 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 10ml bottle
553 351 Centering key
553 351 Centering key

553 354 ICT turret for the universal condenser UK
553 355 Wollaston prism for objective NPL Fluotar 16/0.45 ICT
553 356 Wollaston prism for objective NPL Fluotar 40/0.70 ICT
553 357 Wollaston 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 Wollaston prism for objective NPL Fluotar 25/0.55 ICT

For Phase Contrast

513 479 Light ring 1 S1.1
513 480 Light ring 2 S1.1
513 481 Light ring 3 S1.1
513 482 Light ring 4 S1.1
513 468 Focusing magnifier for centering the phase ring
513 483 Darkfield light ring DF S1.1

Lamp Housing Model No. 102Z for DIALUX 20 Microscope

Halogen Filament Lamp 12 Volt, 100 Watt

514 577 Lamp housing model No. 102Z with bayonet mounting device, filter holder, centerable and focusable reflector, adjustable aspheric collector, and heat absorbing filter . .
514 558 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. 102Z 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. 102Z with bayonet mounting device, filter holder, centerable and focusable reflector, adjustable aspheric collector and heat absorbing filter . . .
514 560 Socket for high pressure mercury lamp HBO 50 watt . . . . . .
500 137 High pressure mercury lamp HBO 50 watt . . . . . .

514 579 **Lamp Housing Model No. 102Z 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. 102Z with bayonet mounting device, filter holder, centerable and focusable 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 . . . . . .
051 438 Heat sink . . . . . .

514 580 **Lamp Housing Model No. 102Z 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. 102Z with bayonet mounting device, filter holder, centerable and focusable 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. 102Z 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 0.23mm can be used

Type of Objective	MAGNIFICATION/ APERTURE	Working Distance (MM)	Eyepiece	Cover Glass Correction	Color Code For Magnification/ Immersion	Catalog Number	Price $
Achromatic Objectives	4/0.12	2.4	P	DO	Red	519 614	
	10/0.25	6.8	P	DO	Yellow	519 615	
	25/0.50	0.44	P	D	Dark Green	519 489	
	40/0.65	0.42	P	D	Light Blue	519 655	
	FI 63/0.85	0.15	P	D	Dark Blue	519 617	
	100/1.25 oil	0.09	P	D	White	519 618	
NPL Fluotar Plano Objectives	NPL Fluotar 6.3/0.20	2.30	P	DO	Orange	519 493	
	NPL Fluotar 10/0.30	0.75	P	DO	Yellow	519 496	
	NPL Fluotar 16/0.45	0.58	P	D	Light Green	519 500	
	NPL Fluotar 25/0.55	0.40	P	D	Dark Green	519 501	
	NPL Fluotar 40/0.70	0.24	P	D	Light Blue	519 502	
	NPL Fluotar 50/1.00 oil	0.18	P	D	Light Blue	519 693	
	NPL Fluotar 63/0.90 Corr.	0.11	P	D	Dark Blue	519 446	
	NPL Fluotar 63/0.90	0.11	P	O	Dark Blue	519 503	
	NPL Fluotar 100/1.32 oil	0.16	P	D	White/ Black	519 504	
	NPL Fluotar 100/1.32-0.60 oil	0.16	P	D	White/ Black	519 652	
PI Plano Objectives	PI 1.6/0.05	7.2	P	DO	Grey	519 619	
	PI 2.5/0.08	11.8	P	DO	Brown	519 495	

Type of Objective	MAGNIFICATION/ APERTURE	Working Distance (MM)	Eyepiece	Cover Glass Correction	Color Code For Magnification/ Immersion	Catalog Number	Price S
Achromatic Phase Contrast Objectives	10/0.25 PHACO 1	6.8	P	DO	Yellow	519 683	
	25/0.59 PHACO 2	0.44	P	D	Dark Green	519 665	
	40/0.65 PHACO 2	0.42	P	D	Light Blue	519 686	
	100/1.25 oil PHACO 3	0.09	P	D	White	519 685	
NPL Fluotar Phase Contrast Objectives	NPL Fluotar 10/0.30 PHACO 1	0.75	P	DO	Yellow	519 497	
	NPL Fluotar 16/0.45 PHACO 1	0.58	P	D	Light Green	519 505	
	NPL Fluotar 25/0.65 PHACO 2	0.40	P	D	Dark Green	519 506	
	NPL Fluotar 40/0.70 PHACO 2	0.24	P	D	Light Blue	519 507	
	NPL Fluotar 50/1.00 PHACO 3 oil	0.18	P	D	Light Blue	519 694	
	NPL Fluotar 63/0.90 PHACO 4 Corr.	0.11	P	D	Dark Blue	519 447	
	NPL Fluotar 100/1.32 oil PHACO 3	0.16	P	D	White/ Black	519 508	
Special Objectives For Fluorescence Microscopy	10/0.45 oil fluorescence	0.39	P	D	Yellow	519 645	
	25/0.75 oil fluorescence	0.36	P	D	Dark Green	519 646	
	Fl 40/1.30 oil fluorescence	0.21	P	D	Light Blue	519 473	
	63/1.30 oil fluorescence	0.14	P	D	Dark Blue	519 474	
	25/0.60 W fluorescence	0.30	P	D	Dark Green	519 647	
	50/1.00 W fluorescence	0.68	P	D	Light Blue	519 648	
	100/1.20 W fluorescence	0.18	P	D	White	519 649	

Immersion Oil

513 449 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 10ml bottle . . . . . .
513 445 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 100ml bottle . . . . . .
513 447 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 500ml bottle . . . . . .
513 448 Immersion oil, PCB free, negligible fluorescence, N_e^{23} 1.518, 1,000ml bottle . . . . . .
513 108 Combination bottle for immersion oil and xylol . . . . . .

Immersion Oil for Fluorescence Microscopy

513 523 Plastic bottle of immersion oil, PCB free according to DIN 58884, with extremely low auto fluorescence, 10ml . . . . . .
513 522 Glass bottle of immersion oil, PCB free according to DIN 58884, with extremely low auto fluorescence, 100ml . . . . . .

EYEPIECES**

Corrected for 160mm tube length

M = Focusing eyepiece
MM = Both eyepieces focusing

PERIPLAN Eyepieces, 23.2mm Diameter

MAGNIFICATION	FIELD OF VIEW (MM)	SINGLE	PRICE $	SINGLE FOR PAIR	PRICE $	PAIR	PRICE $
6.3x	18	519 625		519 625		519 627	
6.3xM	18	519 626		519 625		519 628	
6.3xMM	18	519 626		519 626		519 629	
10x high eyepoint	18	519 613		519 613		519 608	
10xM high eyepoint	18	519 640		519 613		519 642	
10xMM high eyepoint	18	519 640		519 640		519 643	
10x high eyepoint with red dot for photomicrography with the Systems or Combiphot Cameras	18	519 639					
10x high eyepoint with pointer	18	519 641					

PERIPLAN Widefield GF Eyepieces, 23.2mm Diameter

MAGNIFICATION	FIELD OF VIEW (MM)	SINGLE	PRICE $	SINGLE FOR PAIR	PRICE $	PAIR	PRICE $
GF 10x	18	519 620		519 620		519 622	
GF 10x high eyepoint	20	519 651		519 651		519 650	
GF 10xM	18	519 621		519 620		519 623	
GF 10xMM	18	519 621		519 621		519 624	
GF 12.5x	18	519 630		519 630		519 634	
GF 12.5xM	18	519 631		519 630		519 635	
GF 12.5xMM	18	519 631		519 631		519 636	
GF 12.5MF with SY2 reticle for photomicrography with the Systems and Combiphot Cameras	18	519 632		519 631		519 637	
GF 12.5xMF with OM2 reticle for photomicrography with the Orthomat W Camera	18	519 633		519 631		519 638	

****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) . . . . . .

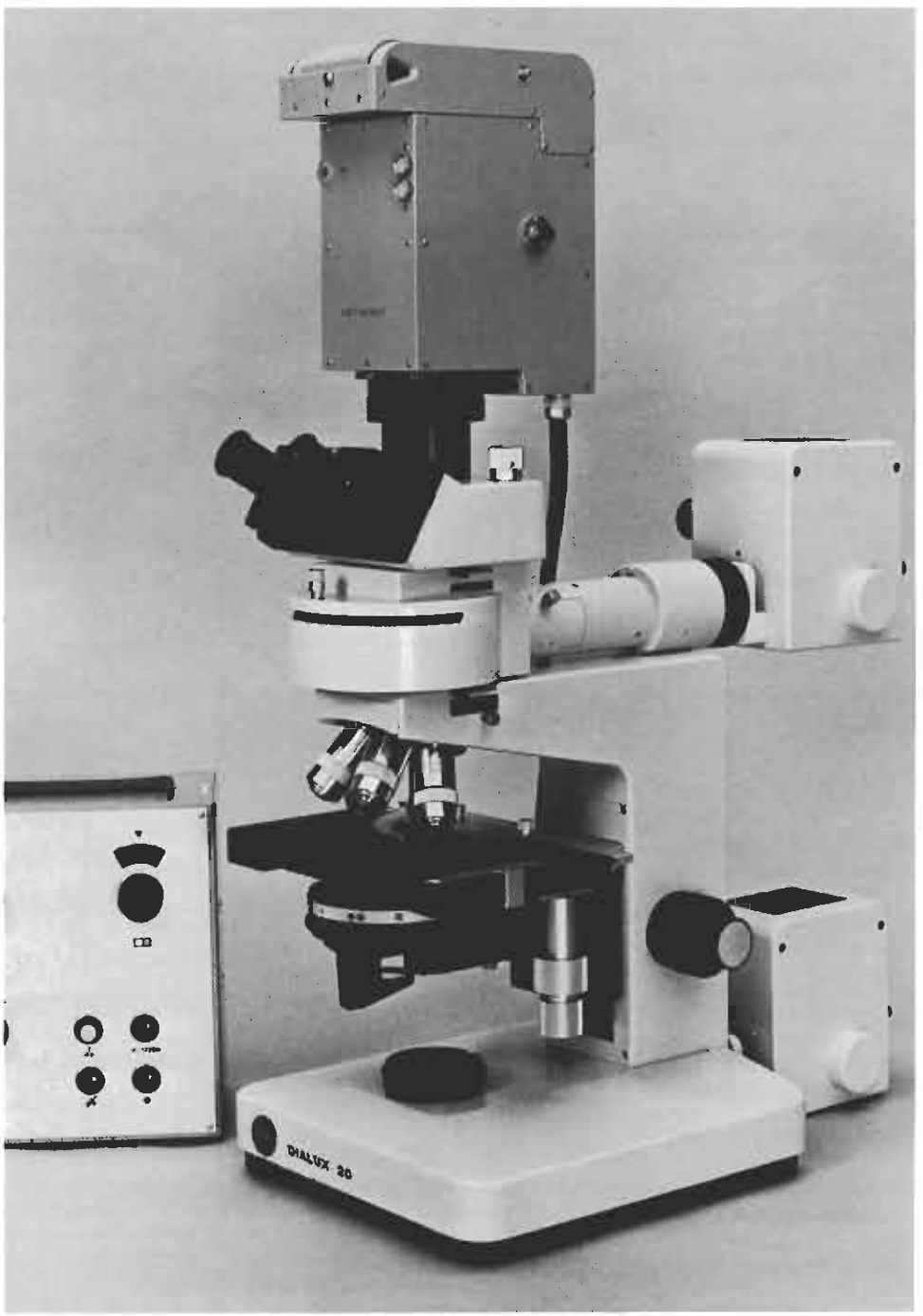
In order to use eyepieces designed for 160mm mechanical tube length on the ORTHOPLAN, the following must be purchased:

513 526 Pair of intermediate adapters . . . . . .

Eyepiece Reticles for M Eyepieces (19mm in Diameter)

519 969 Eyepiece micrometer, 10mm = 100 divisions . . . . . .
519 965 Eyepiece net micrometer, 10 x 10mm divided into squares 0.10mm . . . . . .
519 966 Eyepiece net micrometer, 10 x 10mm divided into squares 1.0mm . . . . . .
519 967 Crossline plate . . . . . .
519 968 Eyepiece micrometer, 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; electromagnetic, 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 photographic task . . . . . .

Recommended Tube

512 583 Interchangeable combination inclined binocular observation tube with adjustable interpupillary distances 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 12.5xMF with adjustable eyelens 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 12.5xMF with adjustable eyelens, one 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 - upto 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 . . . . . .
519 727 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 eyelens 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 - upto 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 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 . . . . . .
543 352 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 eyelens 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). 3¼ x 4¼" Format with the POLAROID Camera Back CB 101

543 395 COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - upto 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 3¼ x 4¼" with provisions for half-format size of 3¼ x 2¼" . . . . .
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 eyelens 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 3¼ x 4¼" or 3¼ x 2¼" Film Format with the POLAROID Camera Back CB 101 . . . . . .

4). 4 x 5" Format with the POLAROID Camera Back 545

543 395 COMBIPHOT, central shutter unit, anti-vibration mounted, with automatic shutter speed - upto 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 .
054 338 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 holders . . . . . .
543 273 Intermediate optical system 1x . . . . . .
543 237 International back with ground glass focusing screen and spring clamp assembly . . . . .
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 eyelens 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 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 . . . . . .

513 468 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 MICROSIX-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 . . . . . .
519 637 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyelens and one with reticle with concentirc 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 MICROSIX-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 . . . . . .

543 352 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 eyelens 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). 3¼ x 4¼" 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 MICROSIX-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 3¼ x 4¼" with provisions for half-format size of 3¼ x 2¼" . . . . .
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 eyelens and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm . . . . . .

SYSTEM CAMERA for 3¼ x 4¼" or 3¼ x 2¼" 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 1/125th to 1 second and time; provision to accept measuring eye of MICROSIX-L exposure meter (not included) with lever to direct the central beam of light to the measuring eye . . . . . .
054 338 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 holders . . . . . .
543 273 Intermediate optical system 1x . . . . . .
543 237 International back with ground glass focusing screen and spring clip assembly . . . . . .
543 352 Clamping collar . . . . . .
519 727 PERIPLAN high eyepioint photographic eyepiece 10x, field of view 18mm . . . . . .
543 212 Cable release, 50cm length . . . . . .
519 637 PERIPLAN widefield eyepieces, paired GF 12.5xMF, with adjustable eyelens and one with reticle with concentric focusing rings and area markings circumscribing the photographic image area, field of view 18mm . . . . . .

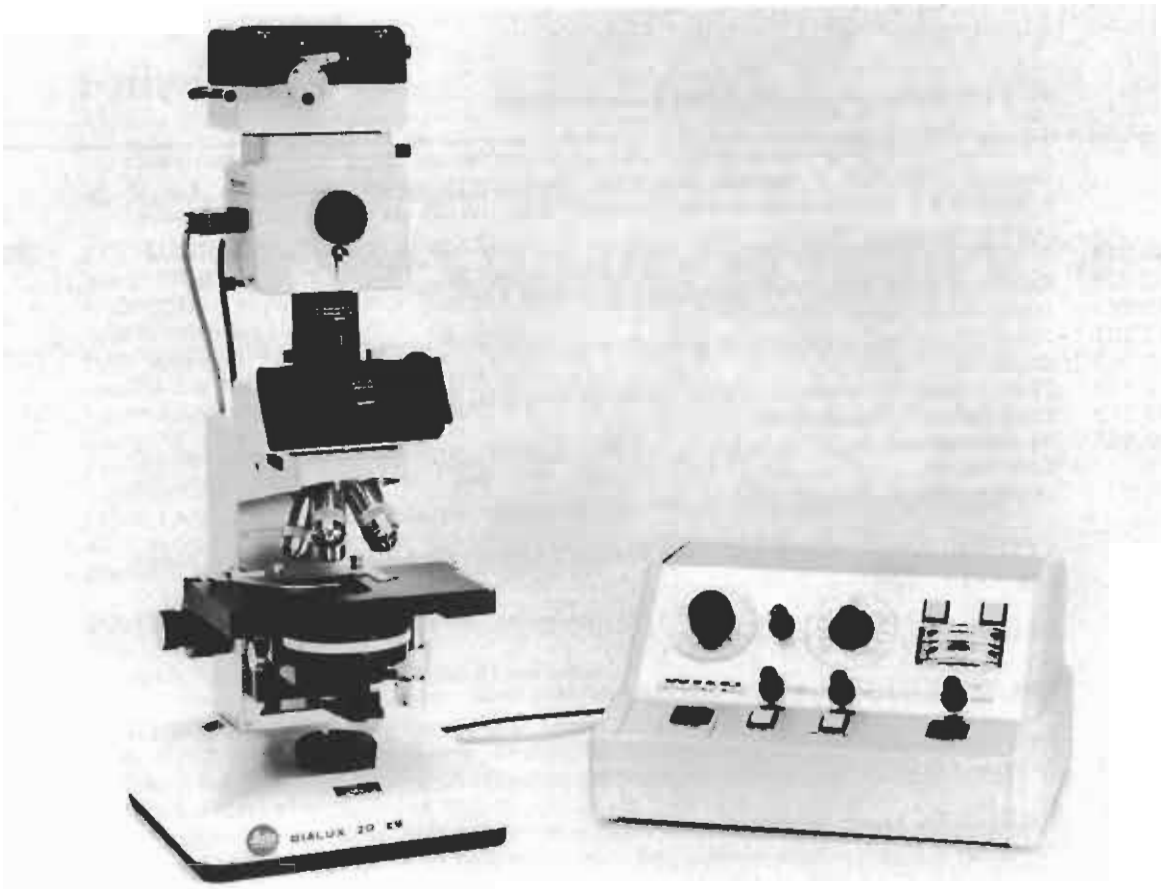
SYSTEM CAMERA for 4 x 5" Film Format with the POLAROID Film Holder Model 545 . . . . . .

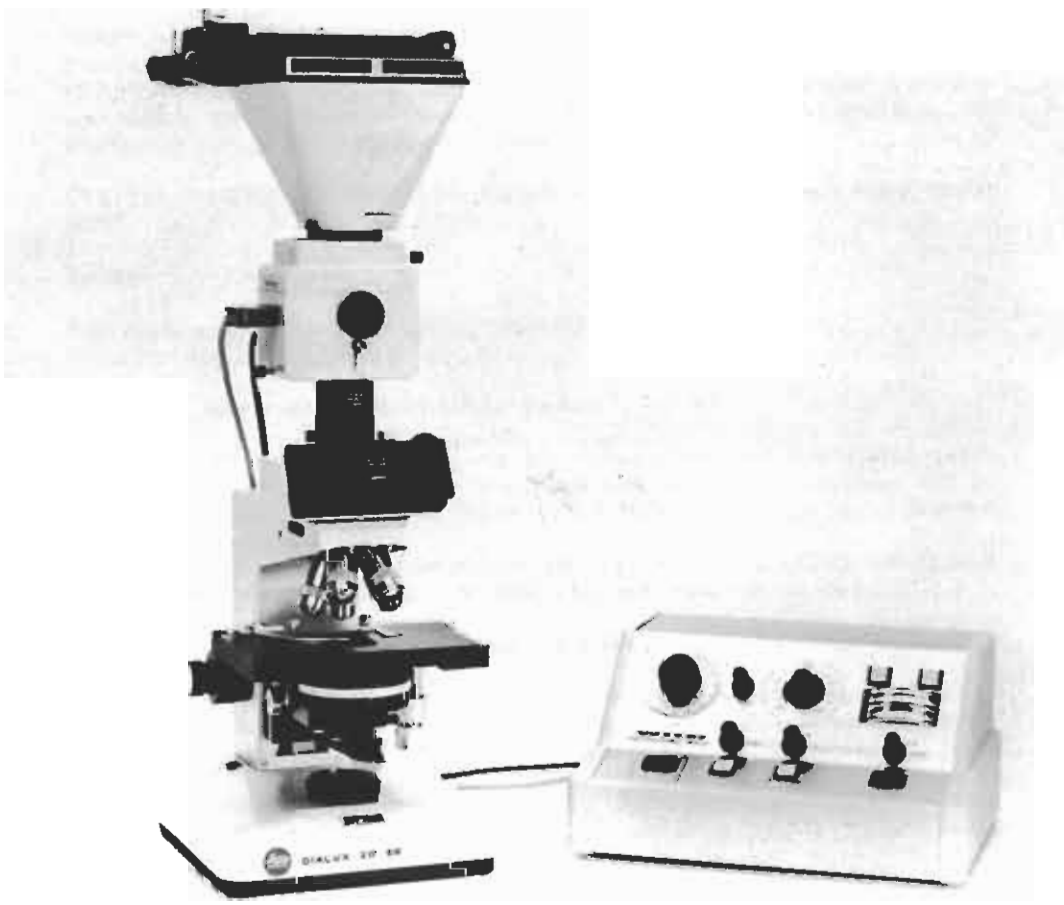
Optional and Supplementary Equipment

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

513 468 Focusing telescope for low power photomicrography . . . . . .
543 353 Swing-out filter holder for focusing telescope . . . . . .

543 306 MICROSIX-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 55 control unit and cables
373 450	Motor adapter
370 759	Objective 0.32:1 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 Automatic 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 55 control unit and cables
376 102	Eyepiece adapter
519 639	PERIPLAN high eyepoint eyepiece 10x
543 269	Adapter with optical system 0.32:1
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). 3¼ x 4¼" 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 55 control unit and cables
376 102	Eyepiece adapter
519 639	PERIPLAN high eyepoint eyepiece 10x
543 387	Camera attachment with POLAROID CB 101 for 3¼ x 4¼"
519 637	PERIPLAN eyepieces, paired GF 12.5x/SY 2

MPS 50 PHOTOAUTOMAT for 3¼ x 4¼" Film Format with the POLAROID Camera Back CB 101

4). 4 x 5" Format with the POLAROID Camera Back 545

375 898	MPS 51 camera body with electronically controlled shutter and an element for center-weighted integral measurement
319 501	MPS 55 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

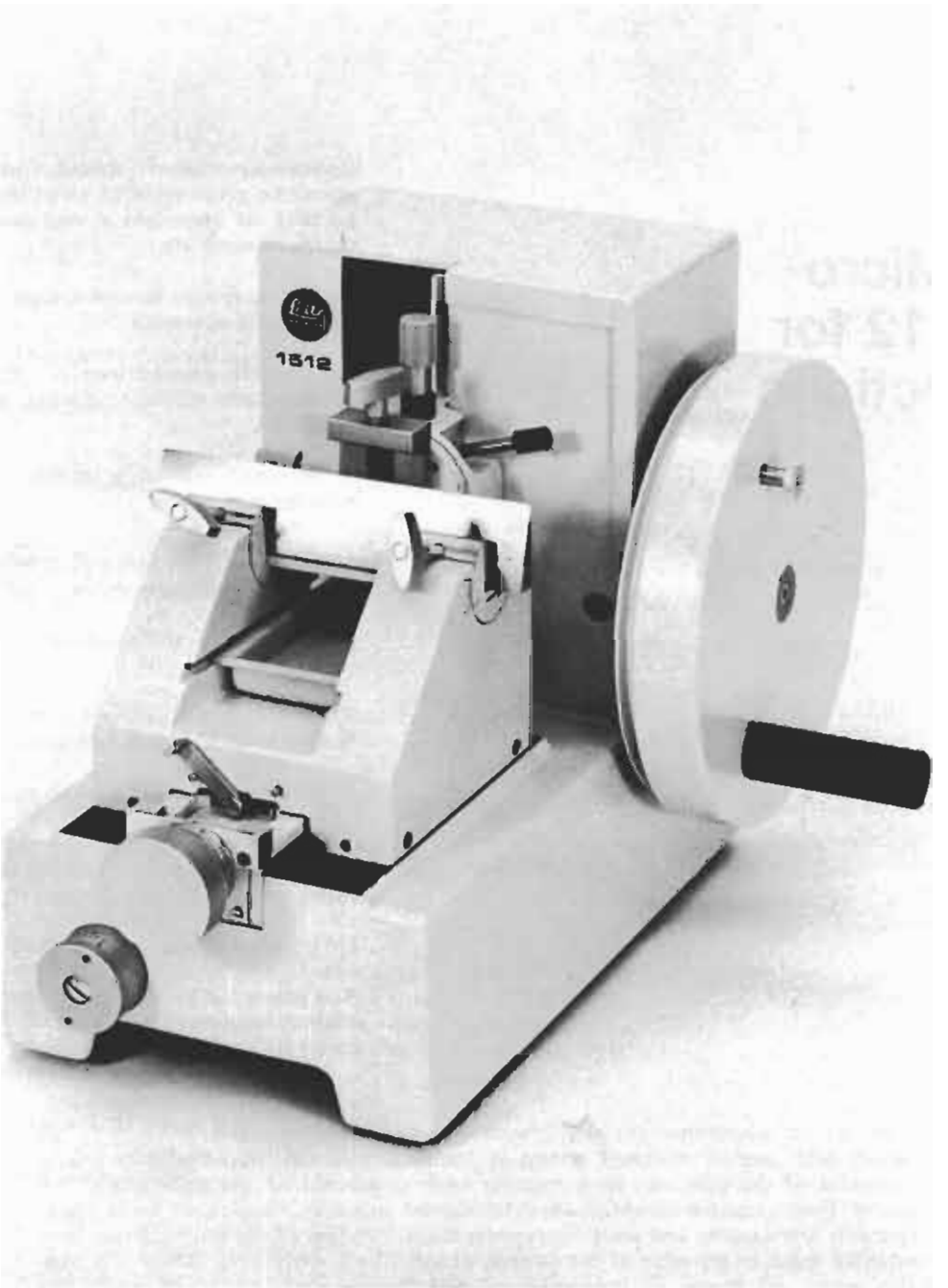
Microtomes

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 microtome sections.

The optical precision of the microscope must be equalled 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 microtome and microscope. 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.

Rotary Microtome 1512



Rotary Microtome 1512 for serial sections

Corrosion-protected special microtome for t
economic production of serial sections embedded
paraffin, of specimens in medicine, zoology, botar
textile research etc.

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

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

Unrestricted manual operation even when equipp
with the motor.

Functional principle:	Fixed knife - moving object.
Cutting movement:	By rotation of the handwheel the object is mov vertically.
Coarse adjustment:	For the coarse adjustment of the knife to the obje Rotary knob for accurate manual adjustment.
Section thickness adjustment:	In steps from 1 to 25 um with clickstops.
Feed:	Automatic specimen advance for section thickn with each rotation of the hand wheel or by means rotary knob, manually set steps for trimming.
Knife clamping:	On both sides by means of grip screws.
Knife inclination:	The adjustable angle of inclination is maintained ev after the release of the knife.

Minot rotary 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 counter balanced wheel for ease of operation. Heavy duty knife block, adjustable knife clamp and scale for reading the inclination of the knife; cardan joint clamp for quick orientation of the sample, object clamp, metal stage 30mm x 30mm, 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 Rotary Microtome No. 1512 for the Cutting of Paraffin Sections, 1 to 25 Microns, (knife not included) complete as described above** . . . . . .

REQUIRED ACCESSORIES

Knives for the Rotary Microtome No. 1512

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.

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

530 440 Microtome knife, 17cm length, 36mm width, plano concave, in case . . . . . .

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

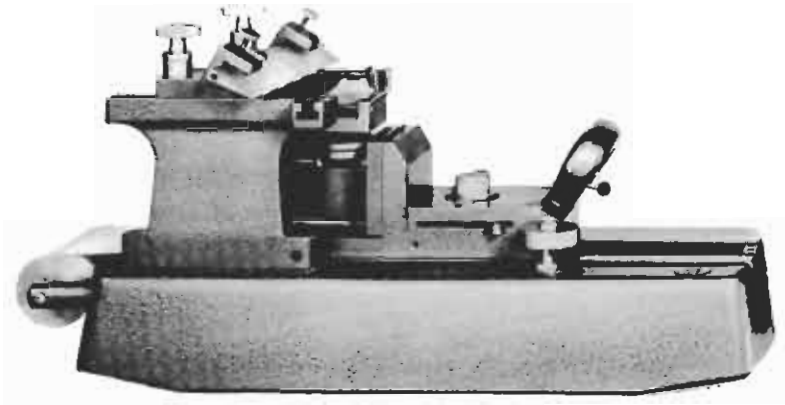
Optional Accessories

530 052 Simple strop, single faced leather on wooden base, 36mm length . . . . . .
530 084 Plastic stropping bevel for microtome knives 17cm length . . . . . .
530 167 Metal stropping bevel for microtome knives 17cm length . . . . . .
530 039 Handle for knives with screw thread and for knives with shaft . . . . . .
530 053 Stropping paste . . . . . .

530 335 Automatic conveyor belt . . . . . .
530 273 Glass knife holder . . . . . .
530 045 Razor blade holder . . . . . .

530 057 Plastic object mounting block 25 x 25mm . . . . . .
530 055 Plastic object mounting block 30 x 30mm . . . . . .
530 056 Plastic object mounting block 45 x 45mm . . . . . .
530 321 Metal object block 30 x 30mm (as replacement) . . . . . .

530 101 Knife guard (as replacement) . . . . . .
530 200 Bottle of oil, 50 grams (as replacement) . . . . . .
530 336 Flexible plastic protective dust cover (as replacement) . . . . . .



Base Sledge Microtome 1400

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

Special version for section thicknesses below 1 u (see model 1401).

In the medical, zoological, and botanical laboratory for paraffin, celloidin, celloidin/paraffin, gelatine methacrylate and epoxy-resin embedding.

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

Functional principle:	Fixed knife - moving object.
Cutting movement:	The object is moved horizontally in a play-free, easi moving sledge track.
Coarse adjustment:	Lever movement, which can be clamped in an position, for the coarse adjustment of the object t the knife. Rotary knob for accurate manual adjus ment.
Section thickness adjustment:	In steps from 1 to 40 um with clickstops.
Object feed (lift):	Automatic specimen advance for section thickne after each step or manual with rotary knob in larg steps for trimming.
Knife clamping:	At both ends of the knife by means of grip screw knife block adjustable parallel to the cutting plan for large sections and for the inclination of the knife
Knife inclination:	Adjustment by means of a scale.
Frozen section cutting:	CO_2 freezing.

Large base sledge microtome No. 1400 with heavy duty cast iron base, dual precision guideways for the object sledge; protective apron for the guideways, 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 guards; including flexible plastic protective dust cover.

530 306 **LEITZ Base Sledge Microtome, No. 1400 for Cutting Section Thickness of 1 to 40 Microns of Soft to Hard Materials** . . . . . .

REQUIRED ACCESSORIES

Knives for the Base Sledge Microtome No. 1400

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.

530 426 Microtome knife, 24cm length, 36mm width, strongly plano concave, in case . . . . . .
530 427 Microtome knife, 24cm length, 36mm width, plano concave, in case . . . . . .
530 425 Microtome knife, 24cm length, 36mm width, wedge shaped, in case . . . . . .
530 428 Microtome knife, 24cm length, 36mm width, wedge shaped with plane edge, in case . .

Accessories for Celloidin Sections

530 070 Alcohol dropping apparatus . . . . . .
530 326 Special knife clamp for positioning the knife obliquely . . . . . .
530 423 Microtome knife, 240mm length, 45mm width, strongly plano concave, in case . . . . .

Optional Accessories

530 052 Simple strop, single faced leather on wooden base, 36mm length . . . . . .
530 082 Plastic stropping bevel for microtome knives 24cm length, 36mm width . . . . . .
530 081 Plastic stropping bevel for microtome knives 24cm length, 45mm width . . . . . .
530 169 Metal stropping bevel for microtome knives 24cm length for cutting plastic . . . . . .
530 039 Handle for knives with screw thread and for knives with shaft . . . . . .
530 053 Stropping paste . . . . . .

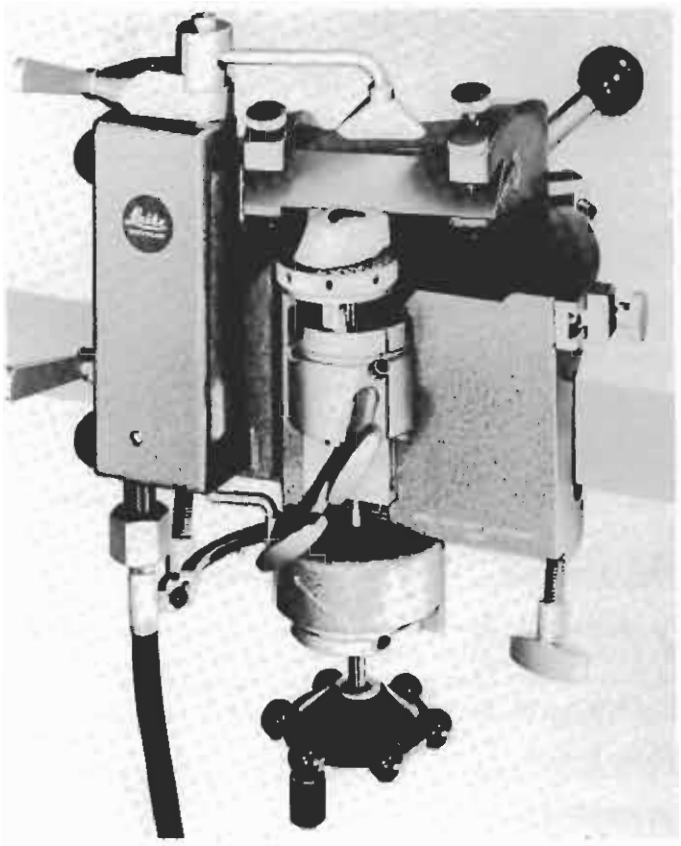
530 044 Razor blade holder . . . . . .
530 343 Cardan joint clamp . . . . . .

530 023 Large object stage 9 x 13cm . . . . . .
530 071 Circular freezing stage 90mm diameter . . . . . .
530 069 Large freezing stage, 9 x 13cm . . . . . .
530 043 Knife cooling attachment . . . . . .
530 325 Pair of knife extension blocks, 25mm height . . . . . .

530 057 Plastic object mounting block 25 x 25mm . . . . . .
530 055 Plastic object mounting block 30 x 30mm . . . . . .
530 056 Plastic object mounting block 45 x 45mm . . . . . .
530 058 Plastic object mounting block 60 x 50mm . . . . . .
530 059 Plastic object mounting block 75 x 60mm . . . . . .

530 321 Metal object mounting block 30 x 30mm . . . . . .
530 322 Metal object mounting block 60 x 50mm . . . . . .
530 323 Metal object mounting block 90 x 80mm . . . . . .
530 324 Metal object mounting block 130 x 90mm . . . . . .

530 345 Knife holder (as replacement) . . . . . .
530 344 Ball and socket clamp (as replacement) . . . . . .
530 262 Object clamp (as replacement) . . . . . .
530 101 Knife guard (as replacement) . . . . . .
530 200 Bottle of oil, 50 grams (as replacement) . . . . . .
530 309 Flexible protective dust cover (as replacement) . . . . . .



Freezing Microtome 1310

Special microtome with built-in device for CO_2 freezing for the cutting of frozen sections of tissue specimens for histopathological routine work. Easy and convenient to handle - space saving - portable.

Functional principle:	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.
Cutting movement:	Knife guidance on a circular track by means of a handgrip on the knife holder, independent of the pressure of the hand.
Coarse adjustment:	Hand crank for the coarse adjustment of the object to the knife.
Section thickness adjustment:	In steps from 2.5 to 50 um.
Object feed (lift):	Automatic specimen advance for section thickness or manual in larger steps for trimming.
Knife clamping:	At both ends of the knife.
Knife inclination:	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 CO_2 and flexible plastic protective dust cover.

530 254 **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 Freezing Microtome No. 1310

	Wedge Shaped:	For paraffin, frozen, wood and rubber sections.
	Wedge Shaped with Plane Edge:	For hard materials and plastic embedding.
530 455	Microtome knife, 11cm length, 32mm width, wedge shaped, in case	
530 456	Microtome knife, 11cm length, 32mm width, wedge shaped with plane edge, in case	

Optional Accessories

530 052	Simple strop, single faced leather on wooden base, 36mm length
530 080	Plastic stropping bevel for microtome knives 11cm length
530 166	Metal stropping bevel for microtome knives 11cm length
530 039	Handle for knives with screw thread and for knives with shaft
530 053	Stropping paste
530 046	Razor blade holder
530 032	Special circular freezing stage, 50mm diameter
530 033	Tilting freezing stage, 50mm diameter
530 035	Tilting object clamp
530 057	Plastic object mounting block 25 x 25mm
530 055	Plastic object mounting block 30 x 30mm
530 056	Plastic object mounting block 45 x 45mm
530 058	Plastic object mounting block 60 x 50mm
530 059	Plastic object mounting block 75 x 60mm
530 321	Metal object mounting block 30 x 30mm
530 322	Metal object mounting block 60 x 50mm
530 323	Metal object mounting block 90 x 80mm
530 324	Metal object mounting block 130 x 90mm
530 034	Circular freezing stage, 50mm diameter (as replacement)
530 185	Section trough for specimen (as replacement)
530 089	Connecting tube for CO_2 (as replacement)
530 004	Flexible plastic protective dust cover (as replacement)

MICROTOME KNIVES IN CASES

MICROTOME	LENGTH (MM)	WIDTH (MM)	KNIFE BACK (MM)	PROFILE	ONE KNIFE IN CASE	PRICE $	TWO KNIVES IN CASE	PRICE $
Base Sledge	240	45	11	Strongly plano concave (Jung)	530 423		530 430	
				Plano concave (Jung)	530 424		530 431	
				Wedge shaped (Jung)	530 422		530 429	
				Wedge-shaped for Shandon-Elliot sharpening machine	530 366		530 436	
Microtome 1400	240	36	13	Strongly plano concave (Loew)	530 426		530 433	
				Plano concave (Loew)	530 427		530 434	
				Wedge shaped (Loew)	530 425		530 432	
				Wedge shaped with plane edge	530 428		530 435	
				Wedge shaped for Shandon-Elliot sharpening machine	530 367		530 437	
				Wedge shaped with plane edge for Shandon-Elliot sharpening machine	530 368		530 438	
Minot Rotary Microtomes 1512	170	36	13	Plano concave (Loew)	530 440		530 443	
				Wedge shaped (Minot)	530 439		530 442	
				Wedge shaped with plane edge	530 441		530 444	
				Wedge shaped for Shandon-Elliot sharpening machine	530 364		530 446	
				Wedge shaped with plane edge for Shandon-Elliot sharpening machine	530 363		530 445	
Freezing Microtome 1310	110	32	7.5	Wedge shaped (Loew)	530 455		530 458	
				Wedge shaped with plane edge	530 456		530 459	
				Wedge shaped for Shandon-Elliot sharpening machine	530 457		530 460	

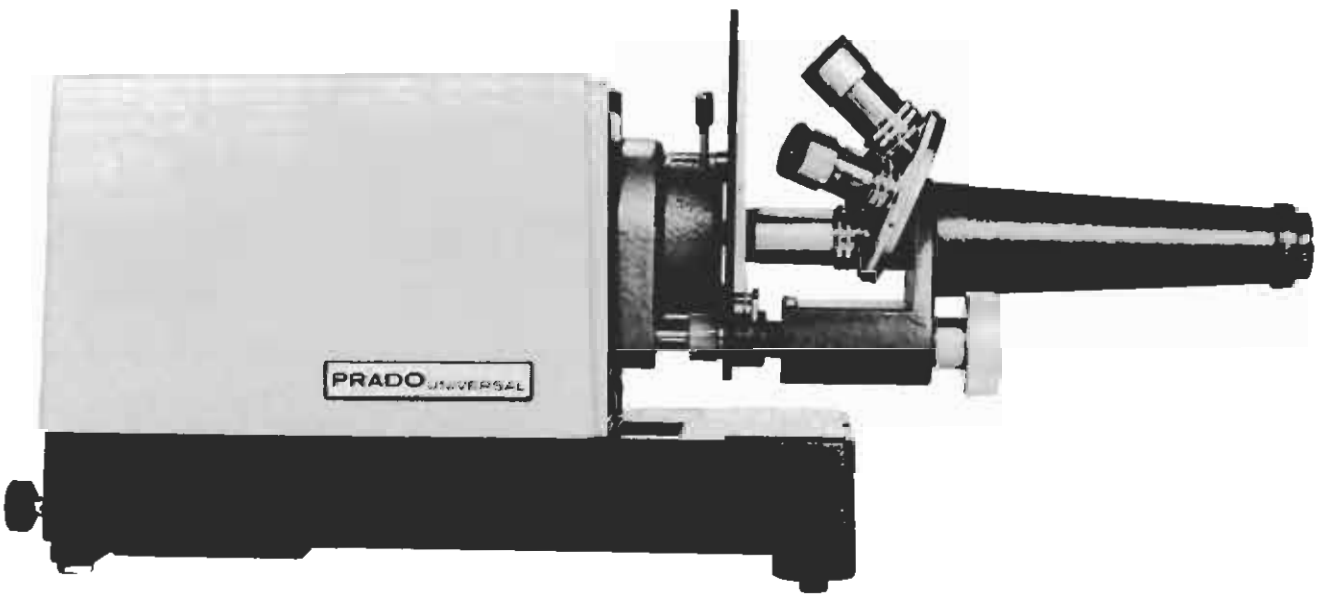
Micro attachments A and B

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 graded 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 flowing or melting objects. Both attachments have the same optical equipment.



Screen image diameter	Objective/aperture and reproduction ratio			Projection eyepiece and projection distance in m							
	4/0.12	10/0.25	25/0.50	5x	4x	3.2x	2.5x	2x	1.6x	1.25x	1x
60 cm	110:1	275:1	680:1				2.7	3.4	4.2	5.5	6.8
85 cm	155:1	400:1	1000:1			3.0	3.9	4.8	6.0	7.8	
125 cm	230:1	570.1	1400:1	2.8	3.6	4.4	5.7	7.1	8.8		

Example: with the 2.5x eyepiece at a projection distance of 2.7m a screen image of 60cm diameter is obtained. The magnifications that can be achieved with the above mentioned objectives will then be 110x, 275x, and 680x.

PRADO-Universal Projector

Equipped for: Microprojection (Horizontal)

32,820 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 reflector 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

Equipped for: Microprojection (Vertical)

32,821 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 objective (4/0.12, 10/0.25 and 25/0.50), 4x Huygens projection eyepiece and adjustable projection prism . . . . . .

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 reflector 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) .

37,300 Projection eyepiece, PERIPLAN 2x . . . . . .

513 342 Adjustable projection prism . . . . . .

37,850 Culture trough, 1mm depth . . . . . .

37,857 Culture trough, 2mm depth . . . . . .

37,858 Culture trough, 3mm depth . . . . . .

37,859 Culture trough, 4mm 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 experimenting table.

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

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

PRADO-Universal Projector

Equipped for: Macroprojection

32,825 Vertical macro attachment "C", with interchange bracket, projection front with mirror housing, object stage with two clamps, condenser lens and two vertical bars with deflecting mirror and bracket to accept to lens focusing mount . . . . . .

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 reflector and aspherical condenser, heat absorption filter, without front 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 and Image Size

37,051 Projection lens, 50mm ELMARON f/2.8, without focusing mount . . . . . .

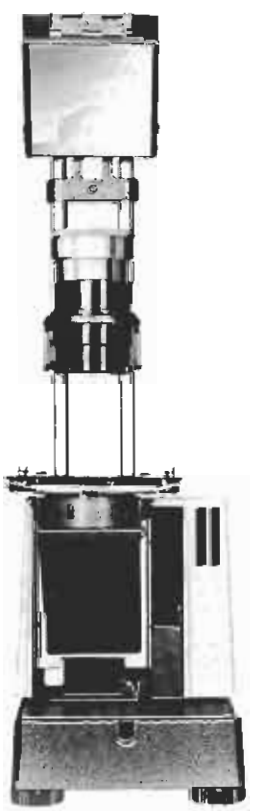
37,119 Focusing mount for 50mm projection lens . . . . .

37,206 Field condenser for 50mm projection lens . . . . . .

37,005 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 Plano 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 180 degree revolving turret for objectives up to 6.3:1 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 O . . . . . .

513 323 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 Sleeve 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) . . . . . .

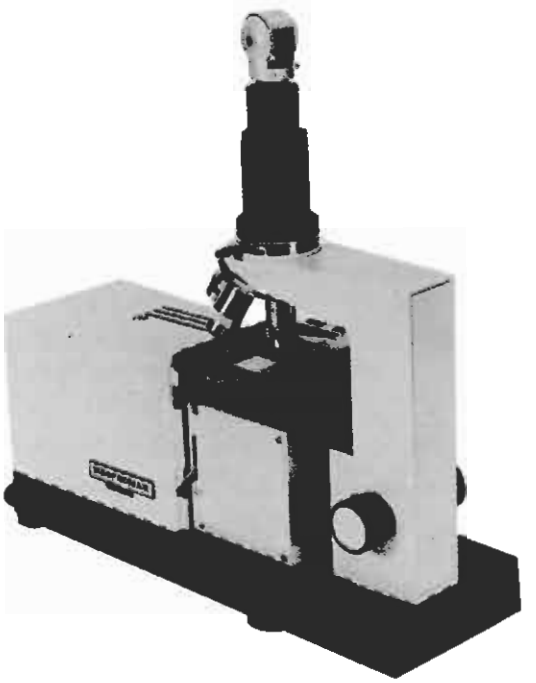
520 494 Light exclusion sleeve for NPL FLUOTAR 25/0.55 objective . . . . . .

592 031 PERIPLAN projection eyepiece P 4x . . . . . .

519 653 Spacer ring (TL 160) . . . . . .

513 342 Adjustable projection prism . . . . . .

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



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 plain object stage 130 x 125mm. Twin condensers on 180 degree revolving turret for objectives up to 6.3:1 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 O . . . . . .

513 323 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

519 495 Achromatic dry plano objective, Pl 2.5/0.08, free working distance 11.8mm (color coded - brown) . . . . . .

520 510 Light exclusion sleeve for Pl 2.5/0.08 objective . . . . . .

519 614 Achromatic dry objective, 4/0.12, free working distance 24mm (color coded - red) . . .

520 511 Light exclusion sleeve for achromatic 4/0.12 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) . . . . . .

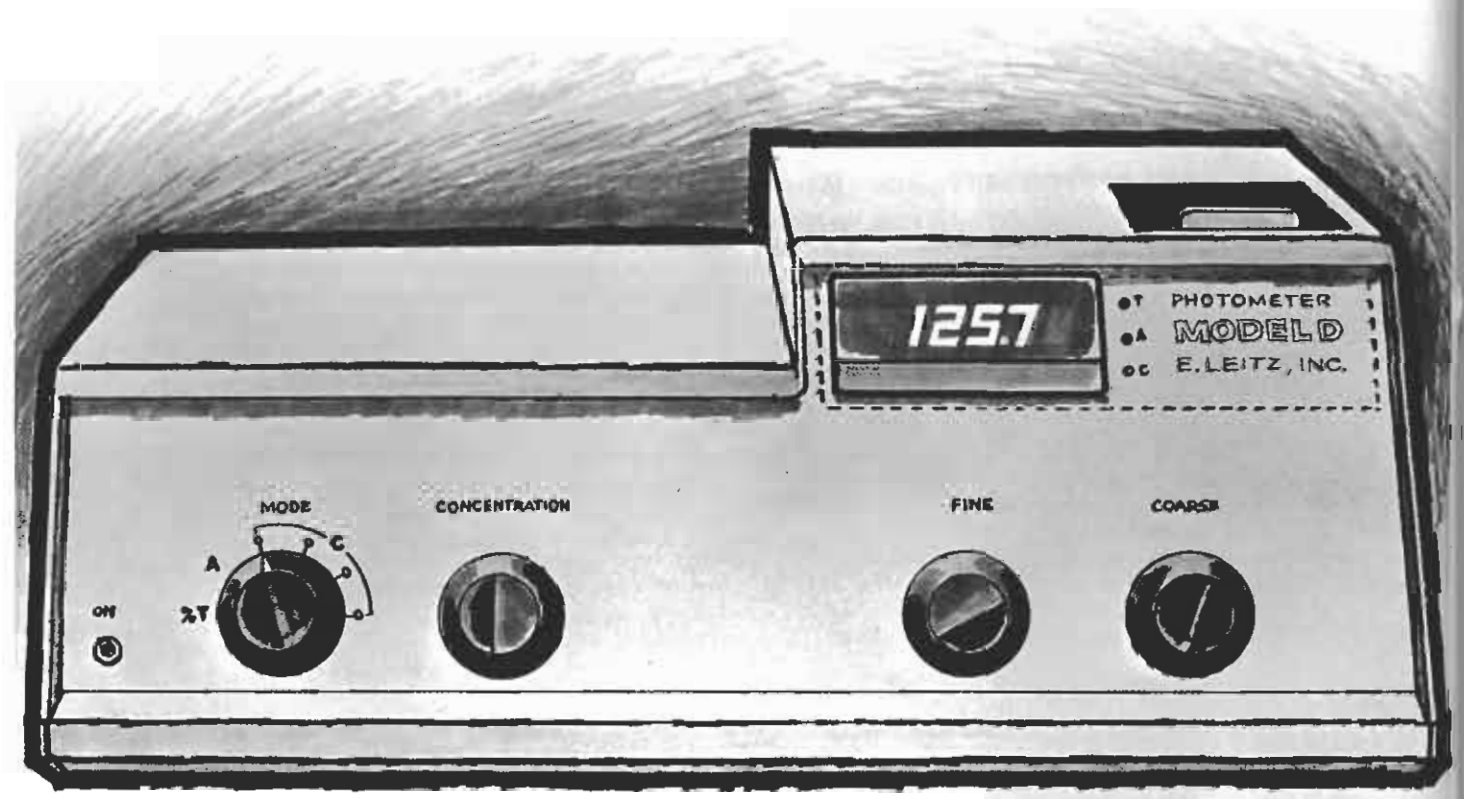
520 494 Light exclusion sleeve for achromatic 40/0.65 objective . . . . . .

592 031 PERIPLAN projection eyepiece P 4x . . . . . .

519 653 Spacer ring (TL 160) . . . . . .

513 342 Adjustable projection prism . . . . . .

520 512 LEITZ Projection Microscope NEO-PROMAR complete with Optical Equipment as described above . . . . . .


125.7
●T PHOTOMETER
●A MODEL D
●C E.LEITZ, INC.
MODE
CONCENTRATION
FINE
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LEITZ Model D Photometer - Precision Digital Abridged Spectrophotometer

Digital Readout: % Transmittance; Absorbance 0-1.999A; Concentration 0.1-5xA

Stability: After ½ hour warm-up, less than 0.004A per hour at 0.000A and 1.500A or equivalent in % Transmittance

Repeatability: ± 1½ digits

Absorbance: % Transmittance Tracking: Better than 0.5%

Spectral System 340-660nm, 3 cavity interference filters. Band width: 50% 8-9nm; 10% 12nm; 1% 18nm; .1% 26nm. All filters are blocked to a minimum of 10-5.

10 Filters Mounted In Turret Assembly: 340, 405, 450, 480, 510, 540, 570, 600, 630 and 660nm. Additional supplementary filters are available.

Linearity 0-1.999A and 1.0 - 100.0% T

Detector: UV enhanced silicon photodetector covers range 320-1000nm.

Cuvette System: Plano-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 prefocused 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 use 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: Muted blue and gray finish minimizes glare. Epoxy paint provides reagent resistant finish.

Size: 20 inches (50mm) W; 8½ inches (21mm) H; 11½ inches (20mm) D.

Net Weight 27 pounds (12.3 kilos). Gross weight 31 pounds (14.1 kilos)

LEITZ Model D Photometer

92400 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

92329 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 . . . . . .
94540 Set of 5 sealed cuvettes containing colored solutions to monitor reproducibility of instrument . . . . . .
92390 Recorder, 10" strip chart recorder, 100 mV . . . . . .
92349 Water Bath, constant temperature water bath and circulator . . . . . .
94506 Cuvette, 10mm light path (10 x 10) . . . . . .
94515 Cuvette, 10mm light path (10 x 10) sealed with distilled water . . . . . .
94509 Cuvette, 5mm light path (5 x 10) . . . . . .
94514 Cuvette, 5mm light path (5 x 10) sealed with distilled water . . . . . .
94512 Cuvette, 20mm light path (20 x 20) . . . . . .
94513 Cuvette, 20mm light path (20 x 20) sealed with distilled water . . . . . .
94518 Cuvette, 10mm light path (10 x 10), glass stopped . . . . . .
94626 Combination 10 x 10 glass precision cuvette and 200mm glass stoppered flask. Borosilicate glass construction. For the determination of lead. ASTM procedure . . . . .
94627 Flow-thru cuvette, 10mm light path (10 x 10) . . . . . .
94529 Light bulb 6.0 volt with soldered leads and male plug. Package of 5 . . . . . .

Model M Photrometer

Complete in gray enameled die-cast housing with plastic dust cover; all working parts mounted on precision cast aluminum base; die-cast main mounting bracket – precision molded plastic cuvette holder 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 combination transformer – voltage stabilizer - dual mirror backed scale microammeter – built-in filter wheel with eleven narrow pass-band compound solid glass filters – on-off switch and panel light – molded line cord.

The LEITZ Photrometer, 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 Photrometer 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 Photrometer, model M, complete with dual cuvette holder, spare bulb, standard operating handbook and protective dust cover; wired for 115 volt, 60Hz . . .
92,321 LEITZ Photrometer, model M, as described above, however, wired for 115 volt, 50Hz .
92,322 LEITZ Photrometer, model M, as described above, however, wired for 220 volt, 50Hz .

Optional Accessories and Replacement Parts

92,324 Package of loose-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 . . . . . .
92,333 Round cell adapter for Dow Diagnostest System ("13"mm o.d.) . . . . . .
92,325 Standard operating handbook (as replacement) . . . . . .
92,329 Water-jacketed cuvette holder which accommodate 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 bulbs, as above (Pkg. of 5) . . . . . .
94,545 Protective dust cover (as replacement) . . . . . .

Glassware and Accessories for LEITZ Photrometers

94,509	Cuvette, 5 x 10mm rectangular, 5mm light path, total capacity 4.5ml
94,506	Cuvette, 10 x 10mm square, 10mm light path, total capacity 9.0ml
94,512	Cuvette 20 x 20mm square, 20mm light path, total capacity 45ml
94,514	Cuvette, 5 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 - Borosilicate glass construction - for determination of lead - ASTM procedure
94,627	Flow thru, 10 x 10mm square
94,539	Stoppers, rubbers, for 10 x 10mm square cuvette (Pkg. of 6)
94,542	Yellow color standard, sealed into cuvette for checking reproductibility of instrument
94,533	Cuvette rack, stainless steel, for sixteen 5 x 10 or 10 x 10mm cuvettes
94,536	Cuvette rack, stainless steel, for four 20 x 20mm cuvettes
94,528	Light bulb, 6 volt with soldered leads and male plug suitable for all Photrometers with serial numbers 19,000 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 Photrometers with serial numbers 7,601 to 18,999) (Pkg. of 5)
94,524	Light bulbs, 6 volt with wires and plugs (only for Photrometers 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, Cyanmethemoglobin, "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)
94,556	Pipettes, "to contain" 0.020ml for Cyanmethemoglobin (Pkg. of 3)
94,548	Pipettes, "to contain" 0.025ml for Oxyhemoglobin (Pkg. of 3)
*94,552	Pipettes, "to contain" 0.05ml for Oxyhemoglobin (Pkg. of 3)
*94,576	Pipette, "to contain" 0.1ml, for Serum Chloride and/or Thymol turbidity determinations
*94,577	Pipette, Van Slyke-Neill, 0.1ml "between markings" for micro work (red label package)
*94,570	Pipette, Van Slyke-Neill, 0.2ml "between markings" for micro work (blue label package)
*94,582	Blood Sugar Tubes, Folin-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 Colorimeters 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 12)
94,502	Light bulbs, 6 volt (for Colorimeters with serial numbers lower than 3,408) (Pkg. of 5)
94,504	Light bulbs, 6 volt, plain flanged (for Colorimeters with serial numbers 3,409 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 340/800 Photometer System wired for 115V/50Hz . . . . . .
92,394 LEITZ 340/800 Photometer System wired for 220V/50Hz . . . . . .

Components

92,300 LEITZ 340/800 Photometer, complete with dual cuvette holder, spare bulb, standard operation handbook and protective dust cover; wired for 115V/60Hz . . . . . .
92,301 LEITZ 340/800 Photometer, as described above, however, wired for 115V/50Hz . . . .
92,302 LEITZ 340/800 Photometer, as described above, however, wired for 220V/50Hz . . . .
92,329 Water-jacketed cuvette holder which permits temperature control of sample. Accommodates either the 10 x 10 cuvette, "12"mm or "13"mm round tube . . . . . .
92,349 Constant temperature water bath circulator; wired for 115V/50-60Hz . . . . . .
92,390 Recorder, 10" strip chart recorder, reads in absorbance and transmittance wired for 115V/60Hz . . . . . .
92,388 Recorder, as described above, however, wired for 220V/50Hz . . . . . .

Optional Accessories and Replacement Parts

94,506 Cuvette, 10mm light path (10 x 10mm) . . . . . .
94,509 Cuvette, 5mm light path (5 x 10mm) . . . . . .
94,512 Cuvette, 20mm light path (20 x 20mm) . . . . . .
94,515 Cuvette, 10mm light path (10 x 10mm), sealed with distilled water . . . . . .
94,514 Cuvette, 5mm light path (5 x 10mm), sealed with distilled water . . . . . .
94,513 Cuvette, 20mm light path (20 x 20mm), sealed with distilled water . . . . . .
94,518 Cuvette, 10mm light path (10 x 10mm), glass stoppered . . . . . .
94,626 Combination 10 x 10mm glass precision cuvette and 200mm glass stoppered flask - Borosilicate glass construction. For the determination of lead. ASTM procedure . . . . .
94,627 Flow-thru cuvette, 10mm light path (10 x 10mm) . . . . . .
92,326 Cuvette holder for cuvette with 10mm light path (5 x 10mm) . . . . . .
92,327 Cuvette holder for cuvette with 10mm light path (10 x 10mm) . . . . . .
94,533 Cuvette rack, stainless steel, for sixteen 5mm light path cuvettes or 10mm light path cuvettes . . . . . .
94,536 Cuvette rack, stainless steel, for four 20mm light path cuvettes . . . . . .
94,545 Cover for Photometer, transparent pliofilm . . . . . .
94,528 Light bulb 6.0 volt with solder leads and male plug . . . . . .
94,529 Light bulbs, same as above, package of 5 . . . . . .
94,539 Stoppers, rubber square for 10mm light path cuvettes, package of 6 . . . . . .
94,542 Yellow color standard, for checking reproducibility of instrument . . . . . .
94,526 Recorder paper, 10", 100' long . . . . . .
94,520 Replacement recorder pen . . . . . .

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