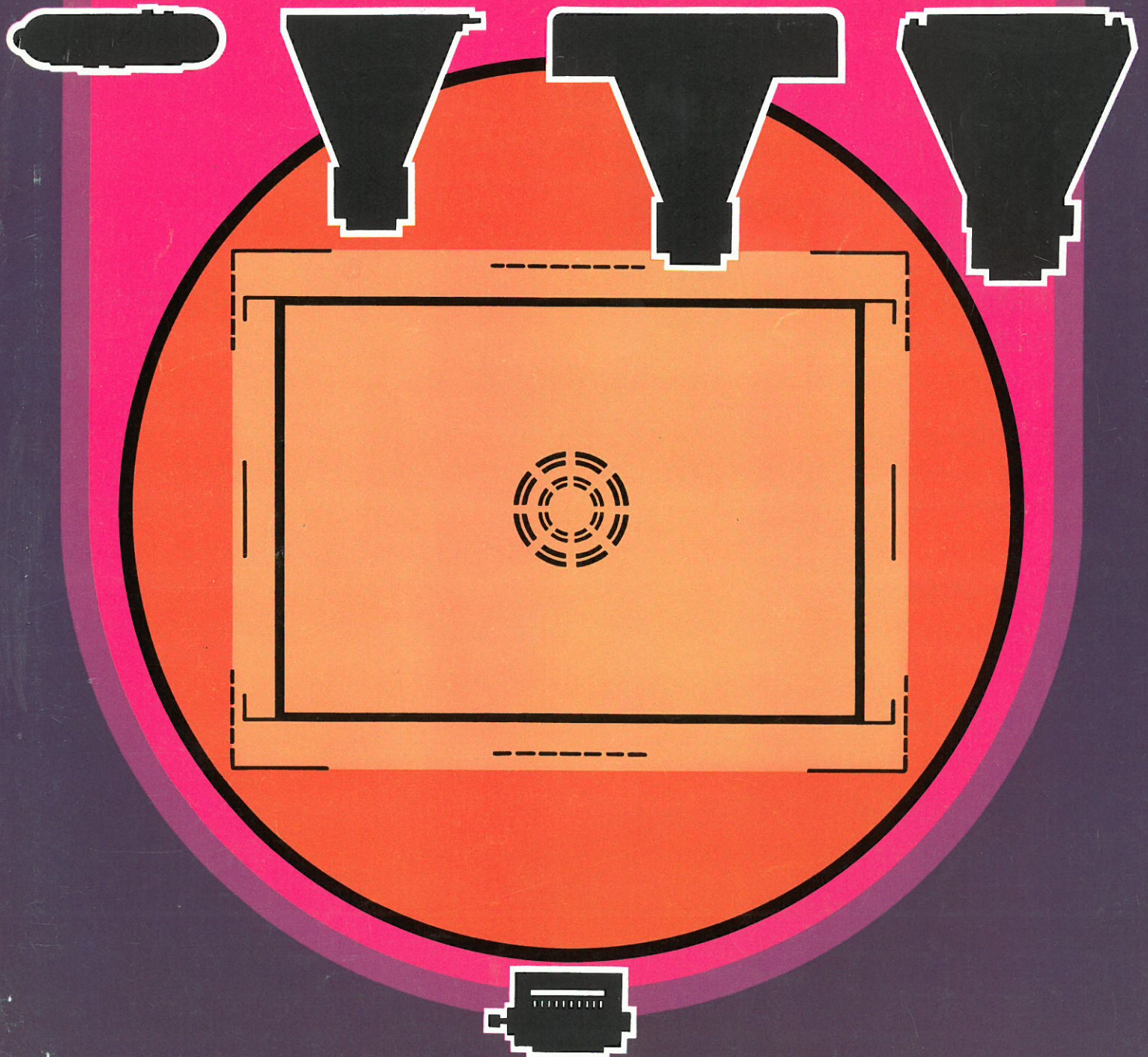


The LEITZ System Camera

A Universal Camera System
for Photomicrography



The LEITZ system camera

The LEITZ system camera is an inexpensive photomicrographic outfit incorporating a versatile and extensible system for all formats and any problem likely to be encountered in the field of photographic recording. It offers:

Universal application

All LEITZ microscopes with FSA tube can be used.

Free choice of camera format

All formats used in photomicrography from 24 x 36mm to 4 x 5in can be used.

Rapid change of film and format

through interchangeable camera bodies.

Largefield photomicrography — normal-field photomicrography or standard magnification

depending on the microscope stand and optical outfit.

Blind photography

The operator observes as usual in the binocular tube and photographs during observation — without changing the position of the eye. The camera format is outlined in the focusing eyepiece.

Optimum sharpness

through use of precision-matched eyepieces and tubes. Focused images are also in focus in the film plane.

Matching picture areas in all formats

through matched optical combinations.

Precise exposure

through detail measurement with the attachable exposure meter.

Vibration-free operation

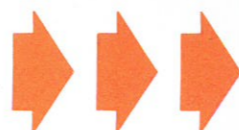
through anti-vibration mounted central shutter.

More reliable focusing

through eyepieces of higher magnification in the binocular tube.

LEITZ-DIALUX® microscope with FSA tube and system camera with LEICA MDa.





Range of application and camera format determine the choice of the suitable outfit. The purpose of the microscope stand for which the photomicrographic outfit is required will first have to be determined, e.g. general photomicrogra-

phy in medicine, biology, etc., before the decision is made in favour of this or that format. The optical combinations are arranged accordingly. The following table offers a survey of the combinations available:

	Range of application	Camera attachment: format/camera factor	Objectives	Eyepiece combination from table on P8.
Group I General photomicrography, e.g. biology, medicine	Largefield photomicrography (above field-of-view index 18) with ORTHOPLAN®	24 x 36 / 0.32x 9 x 12 / 1x 4 x 5in / 1x 6.5 x 9 / 0.8x 3 1/4 x 4 1/4 in / 0.8x	PI plano objectives, preferably plan-apochromats	1
	Normal-field photomicrography (up to field-of-view index 18) with all other stands	24 x 36 / 0.32x 9 x 12 / 1x 4 x 5in / 1x 6.5 x 9 / 0.8x 3 1/4 x 4 1/4 in / 0.8x	NPI plano objectives, or conventional systems	2
Group II Photomicrography at standard magnifications	Largefield metallographic photomicrography at standard magnifications. METALLOPLAN®	24 x 36 / 0.32x 9 x 12 / 1x 4 x 5in / 1x 6.5 x 9 / 0.8x 3 1/4 x 4 1/4 in / 0.8x	PI plano objectives, Tube factor 0.8x	3
	Normal-field metallographic photomicrography at standard magnifications. All other stands.	24 x 36 / 0.32x 9 x 12 / 1x 4 x 5in / 1x 6.5 x 9 / 0.8x 3 1/4 x 4 1/4 in / 0.8x	NPI plano objective or METALLUX® objectives. Tube factor 1x.	4

Camera format

As this table shows, all formats can be used in principle with our micro system camera. In the choice of the suitable format we advise you to consider the following points:

35mm photography

The resolving power of a finegrain black-and-white 35mm film is high enough to reproduce all information offered by the objective. This also approximately applies to colour films of high resolving power. This format has the added

advantage that the films are inexpensive and economical in use. The 35mm format is therefore recommended for most photomicrographic work.

Larger formats

are of interest when the film, etc., is used as an original for reproduction especially in colour or as recording material in metallography, when instant pictures with the POLAROID method are required or when photography is only an occasional feature. The facing double page contains detailed information about the individual outfits.

The technical conception is based on the principle of catering for all formats with the fewest possible components. Thus a central shutter part was created to which all camera bodies contained in the programme can be mounted either directly or by means of simple adapters. The camera objectives and eyepieces were chosen for the optimum photographic utilization of the field of view of the microscope.

The shutter part as central component

The shutter part is a structural component of the basic outfit. The camera attachments, and, where necessary, the adapters are attached to it. The shutter part contains a flash-synchronized central shutter with speeds from 1/125 to 1sec, T and B. The negligible shutter bounce is damped by the built in anti-vibration protection below the threshold of optical perception. A measuring tube on the right serves for the connection of the MICROSIX-L exposure meter. A focusing telescope was found unnecessary, because photo and focusing eyepieces are precision-matched for identical position of the intermediate image.

The interchangeable camera bodies

All camera bodies are interchangeable. They are mounted on the shutter part either directly or by means of an adapter. Thus a rapid change-over from black-and-white to colour or between the available formats from 24 x 36 mm to 9 x 12cm (or 4 x 5in) becomes possible.

Three camera bodies are available for 35mm photography, the LEICA MDa, if desired with recording device (or any other LEICA with changing bayonet), the LEICAFLEX, or a film transport housing.

For the medium format a 6.5x9cm camera body for sheet film and plates is supplied.

For the large format a 9 x 12cm or 4 x 5in camera attachment with international back is available. To this camera double darkslides, Polaroid 545 sheet film darkslides, 3 1/4 x 4 1/4 in Polaroid 226 sheet film cassettes, etc. can be used. For details see p9.

If work has to be frequently or exclusively carried out with the rapid Polaroid process, the CB 100 camera attachment for 3 1/4 x 4 1/4 in Polaroid film packs can be recommended.

The exposure meter with exact detail measurement

For the determination of the exposure time the measuring eye of the MICROSIX-L is pushed into the measuring tube on the right of the shutter part. Operation of a lever directs the central beam of the light into the measuring eye. The user reads the measured value on the scale of the exposure meter at a single glance and determines the exact time within seconds. Since only about 3% of the picture area are used for measurements, even small objects or object details can be exactly exposed. In darkground, phase contrast, etc. the effect of the surrounding field is thus completely eliminated.

LEICA MDa
Code No. 500947

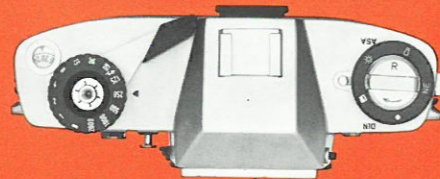
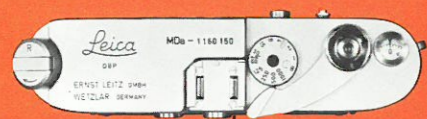
LEICAFLEX SL
Code No. 10011

Simple film transport housing
Code No. 543077

6.5 x 9cm camera attachment
Code No. 543217

3 1/4 x 4 1/4 in POLAROID CB 100
camera attachment
Code No. 543216

9 x 12cm (4 x 5in) camera attachment
Code No. 543234 with groundglass
screen frame and hood Code
No. 543237 and 1x camera objective
Code No. 543236



Adapter for LEICA M
Code No. 543195

Adapter for LEICAFLEX
Code No. 543196

0.32x camera objective
Code No. 543193

0.32x camera objective
Code No. 543197

0.8x camera objective
Code No. 543235

Shutter part with measuring tube
Code No. 543192

MICROSIX-L exposure meter
(with storage case)
Code No. 543058

Holder for system
camera for the ARISTOPHOT®
Code No. 543193



Adapter for highpoint
photo eyepieces
Code No. 543218



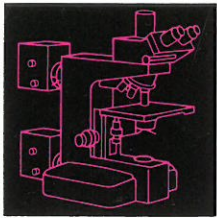
Clamping collar
Code No. 543194



Eyepiece combinations p. 8
Cable release, light screening
collars, see price key.

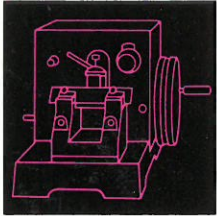


Production range



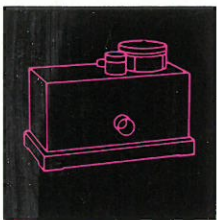
Microscopes

Microscopes of modern design for all investigations in transmitted, incident, and polarized light
 Microscope accessories, such as phase contrast equipment, heating and cooling stages, universal rotating stages
 Instruments for special aspects of microscopy, such as micromanipulators, transmitted-light interference microscopes, stereo microscopes, comparison microscopes
 Equipment for photomicrography
 ORTHOMAT® fully automatic microscope camera
 4x5in large-format camera with fully automatic exposure control



Microtomes

Microtomes for research and routine laboratories
 Ultramicrotomes for electron microscopy



Physical research instruments based on optical methods

Photometers
 MPV microscope photometer
 CLASSIMAT®, device for optical electronic image analysis
 Monochromators
 Micro-refractometers
 Instruments for routine dust measurements

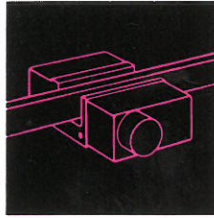
Materials testing instruments

MINILOAD hardness testers
 Dilatometers
 Heating microscopes



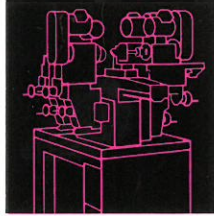
Optical-mechanical precision measuring instruments

Measuring microscopes
 Linear measuring instruments
 Angle measuring instruments
 Contour measuring projectors
 Alignment- and direction testers
 Optical installations and attachments
 Incident-light interference microscopes



Linear and angle measuring instruments with digital display

Type 200 Universal Linear Comparator, digital model
 Vertical Linear Precision Gauge, digital model
 Universal Measuring Microscope UWM, digital model
 Optical Master Dividing Head, digital model
 Cam Tester, digital model
 Automatic Cam Measuring Machine



Photoelectric incremental linear and angle transducers

Photoelectric measuring tubes

PRECICOMB

Machine tools composed of LEITZ modular units

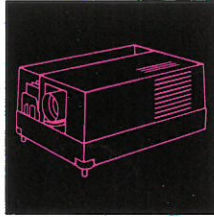


Photographic equipment

LEICA® 35mm camera
 LEICA lenses and accessories
 LEICAFLEX® 35mm single-lens-reflex camera
 LEICAFLEX lenses and accessories
 Accessories for scientific and technical photography
 Enlargers
 LEICINA® SUPER 8mm cine-camera

Binoculars

TRINOVID® for sport, travel, hunting



Projectors

PRADOVIT® COLOR automatic miniature projector
 PRADO® UNIVERSAL versatile classroom projector
 Episcopes
 Epidiascopes
 Large lecture hall projectors
 Microprojectors
 Writing and drawing projectors

® = Registered Trademark
 POLAROID = Trademark of Polaroid Inc.
 Design subject to alteration without notice.

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