LEICA

Contents:

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" Registered Trademark

The illustrations in this catalogue are not necessarily
binding in every technical detail.

DISCOUNT SCHEDULES

Discounts are available to Authorized Leitz Dealers only.

BASIC DISCOUNTS:

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Items marked "P" ..........................33 1/3% from list
Items marked "L" ..........................   10% from list
Items marked "M" ..........................   25% from list
Items marked "N" ..........................   are net priced
Items marked "K" ..........................   15% from list
Items marked "V" ..........................   30% from list
Items marked "Z" ..........................36 2/3% from list
Items marked "D" ..........................   40% from list
Items marked "G" ..........................43 1/3% from list
Items marked "H" ..........................46 2/3% from list
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DETAILED DISCOUNT INFORMATION:

Z: Items marked "Z":
All   Pradovit and Prado (Not Basic Units)
                             Universal projectors 3 or more assorted
Catalog No. 19823   Binding Tape.............12 to 23 rolls
Catalog No. 98266   Collapsible Camera Bags.. 3 to 5 bags

D: Items marked "D":

Catalog No. 14076   Cable Release................. 6 or more
Catalog No. 14051   Rear cap M lenses............. 6 or more
Catalog No. 14054   Outlet covers................. 6 or more
Catalog No. 14067   Cable Release 10 in........... 6 or more
Catalog No. 14092   Adjustable neck strap......... 6 or more
Catalog No. 14094   Shoulder grip................. 6 or more
Catalog No. 14183   Double outlet cover for M5.... 6 or more
Catalog No. 15526   Outlet cover for Leicaflex.... 6 or more
Catalog No. 19823   Silver Bind tape..............24 or more
All   Perrot-Color Mounts..case lot of 48 boxes
                     (Assortable in   (25 ea.)/ 1-19 cases
                      case lots)   case lot of 12 boxes
                                        (100 ea.)/ 1-19 cases
Catalog No. 19855   Metal Masks.............case lot 25 boxes
Catalog No. 19825   Silvered Masks 2x2......case lot 25 boxes
Catalog No. 37844   2-pack
                     36-slide Mag...(Complete Case Lots of 10)
Catalog No. 37855   2-pack
                     50-Slide Mag...(Complete Case Lots of 10)
Catalog No. 98010   "Leica Manual".... 5 or more any assort.
Catalog No. 98094   Shoulder pad Uni.case.......... 6 or more
Catalog No. 98230   Slide retaining strap.... 6 boxes or more
Catalog No. 98236   Slide retaining strap.....6 boxes or more
Catalog No. 98250   Slide retaining strap....6 boxes or more
Catalog No. 98266   Collaps.Camera Bag..............6 or more
Catalog No. 98327
   (Assortable)   Tiltall tripod........4 or multiples of 4
Catalog No. 98328
   (Assortable)   Tiltall base/long.....4 or multiples of 4
Catalog No. 98329
   (Assortable)   Tiltall base/short....4 or multiples of 4
Catalog No. 98850   Test slide......................6 or more

G: Items marked "G":

All Perrot-Color mounts..............20 or more cases assorted
All 36/50 Slide magazines............ 4 or more cases assorted
Catalog No. 19821
   Glass Plates for Bindomat...1 or 2 cases (36 boxes per case)

H: Items marked "H":

Catalog No. 19821   Glass Plates for Bindomat.3 or more cases

CONDITIONS OF SALE FOR LEITZ® PRODUCTS
Photo Division
Effective June 1, 1979

Leitz Authorized Photo Dealers

Leitz Photo Products are distributed through Authorized Leica Dealers, who must meet qualifications specified in Leica Dealer Agreement.

PRICES

Our prices as listed in our Confidential Dealer net price list are subject to change without prior notice. All orders are accepted at prices prevailing at time of delivery unless otherwise specified.

SHIPPING POLICY

All shipments with a net value of $50.00 and more are made prepaid destination. Special requests for AIR or other fast carriers will be considered. The difference in shipping cost will be added to the invoice.

TERMS

Applicable trade discount less 2% cash discount, 10th prox., net 30 days.

DELIVERY

All items available will be shipped upon receipt of an order, items not presently available will be put on backorder and shipped when they become available. Upon request we shall hold an order for complete shipment until all items in the order are available. The order must specify: "SHIP COMPLETE ONLY."

ORDER/BACKORDER CANCELLATIONS

We will accept cancellations of orders or backorders prior to shipment.

WARRANTY POLICY

All Leitz photo products, including Trinovid binoculars, carry a limited warranty to the original owner against defects in workmanship and materials. They will be repaired or defective parts replaced at the option of E. Leitz, Inc. if returned to the company postage prepaid. The limited warranty period for optical and mechanical components is two years, for electrical and electronic components one year. Trinovid binoculars carry a limited 10 year warranty. Under the 1975 Consumer Products Warranties Act the above constitute limited warranties.

DEALER SPECIALS

Authorized Leica Dealers and their employees engaged in sales may purchase certain Leitz products for their own use at a special discount. Conditions to qualify for dealer special purchases are contained in the "Dealer Special Order Form", available from Leitz representatives or E. Leitz, Inc., Rockleigh, New Jersey, 07647. Products in short supply cannot be made available as Dealer Specials.

POLICY IN RETURNS

Merchandise will not be accepted for return without written authorization obtained in advance. A return authorization may be applied for by letter. Authorization cannot be issued without a valid reason. If a factory defect is claimed the defect should be described sufficiently to facilitate verification upon arrival. Invoice date and number must be given for identification of shipment to you of the product involved.

A 5% handling charge will be deducted for returned merchandise with the exception of:
- A. Defective merchandise if reported to us promptly upon arrival of shipment.
- B. Merchandise shipped by us in error. Any merchandise returned must include all parts originally supplied, such as instruction books, registration cards, import certificates, original display cartons, etc.

FACTORY PURCHASE PLAN FOR TOURISTS

In the event one of your customers travelling abroad wished to purchase Leica equipment directly from the factory in Wetzlar, Germany a 15 percent commission will be allowed the authorized dealer on any fully paid purchase of photo equipment. The tourist must, however, specify you as his dealer. In the case of cash purchases, a copy of the invoice (or the information contained therein) should be sent to E. Leitz, Inc. and a statement naming you as his dealer. If the purchase is made on credit extended through E. Leitz, Inc. for you, the dealer, and your customer, you will be invoiced for such credit less a 15 percent discount as your commission.

Prices charged by the Leitz factory under this plan will be the prevailing German prices plus an "added value tax" which will be refunded after German customs certifies that the items have been exported.

TRADEMARK INFORMATION

As the owners in the U.S. of the trademarks "Leitz", "Leica" and "Leicaflex", we have granted a blanket release which permits any United States resident (except officers or crew members of merchant vessels or commercial airlines) to bring into this country one Leica camera with one attached lens—provided he bought the equipment "incident to a trip abroad" and that it is for his own personal use and not for resale.

TERMINATION OF DEALER AGREEMENT

If a dealer agreement is terminated, we shall be willing to accept only current merchandise for credit—under a 5 percent restocking charge—which was purchased within a period of not more than six months preceding the date of return and in new resalable condition. No used equipment will be acceptable. Original invoice numbers covering items to be returned must be provided on an "Authorization for Return" form.

CUSTOMER SERVICE POLICY

Charges for repairs and adjustments depend on the condition of the equipment. After inspection, we provide an estimate indicating charges for labor and parts. Work recommended in the estimate is guaranteed for one year. Should you request only a partial repair, we will (if possible) comply with your request; a partial repair, however, does not have our usual guarantee. Please specify if our estimate should be for full or partial servicing; indicate if the equipment had been sent to us before and provide, if known, its previous Repair Transaction Number.

We do not repair or service an item if the serial number is defaced or unidentifiable.

The fastest service is received if we are given a "go-ahead" order; specify a high dollar ceiling. Otherwise, an estimate is sent and we wait for authorization before proceeding with the work.

Send repair shipment to: E. LEITZ, INC.
Service Operations
Rockleigh, NJ 07647

LEICA® R3 MOT
with accessories

Contents:

LEICA R3 MOT electronic

10 033
11 216

Type of camera

S.l.r. electronically controlled 35 mm camera. Only camera with switch-over exposure measurement through the lens: choice of LEITZ largefield integrating measurement or exactly limited LEITZ selective exposure measurement. Electronic automatic exposure control of the CLS metal-blade focal-plane shutter (Copal-LEITZ shutter). Rapid motor wind with the attachable motor-winder R 3.

Camera body

All-metal construction: aluminium die-cast body, conveniently shaped, grained PVC cover, 0.8mm-gauge brass top and baseplate, silver or black chromium finish. Mechanical connection and electrical contacts for motor-winder R3. Hinged back with film cartridge window. Tripod thread: standard (A 1/4, DIN 4503) (¼in). Lateral steel-core eyelets for the carrying strap. Rapid bayonet changer for LEITZ-R lenses and accessories.

Lens System

LEITZ R lenses with rapid bayonet changer, focal length from 16 to 800 mm. With LEITZ Absorban cement and LEITZ coating or LEITZ multiple coating. Automatic diaphragm and full-aperture measurement up to 250 mm focal length. Manual aperture adjustment and working aperture measurement with all other focal lengths and accessories.

Viewfinder

Bright and contrasty viewfinder image through built-in pentaprism and LEITZ universal focusing screen. Shallow eyepiece cups for spectacle wearers. 10 different correction lenses from +3 to -3 dioptres and a 90° angle viewfinder can be attached. Viewfinder magnification 3.75× = 0.79 with 50 mm lens at ∞-setting. The viewfinder image shows 92% of the picture area on the film, which corresponds to the picture area of a mounted standard slide. Viewfinder adjustment: -1 dioptres, eyepiece diaphragm can be closed.

Viewfinder display:

1. With automatic operation and LEITZ largefield integrating measurement
In the upper field-of-view frame:
Orange-coloured "A" = automatic
Pre-selected aperture value with all LEITZ-R lenses with fully automatic diaphragm
In the right-hand field-of-view frame:
Display of the measuring mode with symbol ■ = LEITZ largefield integrating measurement.
Display for the checking of the automatically determined shutter speed

2. With automatic operation and LEITZ selective measurement
In the upper field-of-view frame:
Orange-coloured „A" = automatic
Preselected aperture value with all LEITZ-R lenses with fully automatic diaphragm
In the right-hand field-of-view frame:
Display of the measuring mode with the symbol ■ = LEITZ selective measurement
Display for the checking of the automatically determined shutter speed.
With data storage (up to 30 sec) return of the measuring pointer to the initial position (as with the camera switched off).
In the centre of the viewfinder field:
Exact measuring field outline by the micro prism ring for LEITZ selective measurement.

3. With manual operation and LEITZ largefield integrating or LEITZ selective measurement
In the upper field-of-view frame:
Electronically controlled shutter speed chosen with the shutter speed ring
Chosen lens aperture with all LEITZ-R lenses with fully automatic diaphragm
In the right-hand field-of-view frame:
Display of the chosen measuring mode ■ or ●
display of the shutter speed measured for the compensation of the shutter speed/lens aperture combination.

4. With electronic flash operation
In the upper field-of-view frame:
Through operation of the shutter speed ring:
Symbol "X" = $1/90$ sec or optionally all speeds from "B" to $1/60$ sec
Selected lens aperture (with all lenses with fully automatic diaphragm),
In the right-hand field-of-view frame:
Display of the measured exposure time
important if the flash is to be used for the softening of shadows.

Focusing

Rapid and accurate focusing with the LEITZ universal focusing screen adjusted in the factory, with micro-matt LEITZ triangular micro-prisms in the entire viewfinder field (groundglass screen character). In addition central square micro-prism ring of 7 mm diameter with central split-wedge rangefinder of 3 mm diameter. The depth of field can be assessed by means of the depth-of-field button, which is most conveniently located.

Mirror

Semi-transparent LEITZ hinged mirror in sprung and strain-free bearings. 19 vapour-deposited layers ensure that 90% of the light reaches the viewfinder; 10% is transmitted for the exposure measurement and directed to the measuring cell in the base of the camera by means of a second mirror. Vibration-free mirror action through LEITZ crank-guide drive and cushioned stop in the rest position. High PO value (top $= \infty$, bottom $= 141$ mm).

Shutter

Vertical-action CLS metal-blade focal-plane shutter (Copal-LEITZ shutter) for fully electronic, continuously variable adjustment from 4 to $1/1000$ sec with automatic setting ("A"). With manual setting fully electronic control for 4, 2, 1, $1/2$, $1/4$, $1/8$, $1/15$, $1/30$, $1/60$, $1/125$, $1/250$, $1/500$, and $1/1000$ sec. Mechanical shutter control with "X" = $1/90$ sec setting (highest shutter speed for electronic flash units) and "B" = time exposures of any duration. All shutter settings are fully effective also with the motor-winder R3 in position. "X" or "B" settings can be used also when the battery of the LEICA R3 is exhausted. Attention: exhausted batteries must be taken out. Electronic flash synchronization with "X" setting and all speeds from "B" to $1/60$ sec. Shutter speed dial with clickstops, with clamp for automatic mode. The chosen shutter speeds, "X", "B" and automatic setting "A", are displayed in the viewfinder.

Shutter release

Smooth shutter release with slack point for measured-value storage with selective exposure measurement. International conical thread for cable release. Release block through conveniently-placed main switch of the camera.
The MOTOR-WINDER R3 has an additional series release (up to 2 frames per second).

Exposure measuring modes:

Conveniently-placed selector for two measuring modes: LEITZ largefield integrating measurement and LEITZ selective measurement. Full-aperture measurement with all R lenses with automatic diaphragm. Working-aperture measurement with all lenses without automatic diaphragm, focusing bellows R and adapter rings.

1. LEITZ largefield integrating measurement

With foreground weighting of horizontal views. Two series-connected CdS double photo-resistors above the penta-prism are electrically wired to the third CdS double photo-resistor (for selective measurement). This ensures ideal sensitivity distribution.

2. Leitz selective measurement

With exact measuring-field outline, which is visible in the viewfinder. A CdS double photo-resistor is installed in the base of the camera. 10% of the incident light is directed to the measuring cell via the semi-transparent hinged mirror and a secondary mirror.

The selectively-measured value can be stored for up to 30 seconds, if necessary, with light pressure on the camera release button (taking up the slack). Storage is indicated in the viewfinder by the measuring pointer returning to the rest position (as in the switched-off state).

Measuring range 0.25 cd/sq.m to 32,000 cd/sq.m at f/1.4 or 0.8 to 50,000 asb. For the 50 mm SUMMILUX-R f/1.4 this produces a working range from light value + 1 to +18 at 21 DIN/100 ASA, corresponding to aperture/shutter speed combinations from f/1.4/1 sec to f/16/$^1/_{1000}$ sec.

Exposure corrections of up to ± 2 light values. O click stop with block against accidental displacement.

Film speed range

12-35 DIN/12-3200 ASA on film speed selector with safety clickstop. Click-stop positions in $^1/_3$ steps or 1 DIN, 1.25 × ASA.

Batteries and battery test

2 1.5v silver oxide button cells, dia. 11.5 mm, height 5 mm. (Replacement batteries see "Technical Information")

Battery test with push-button and LED. Battery housing with cover on the underside of the camera. The battery can be changed with the film in the camera. Main switch of the camera for battery is at the same time release block and also switches off the motor-winder R3.

Flash synchronization

Recommended setting for electronic flash units: shutter speed ring at "X" = $^1/_{90}$ sec. Automatic synchronization for flash lamps (synchro-socket "M") up to $^1/_{1000}$ sec, for electronic flash units (synchro-socket "X") up to $^1/_{90}$ sec. Separate standard contact sockets for the connection of flash lamps and electronic flash units. Both types of flash can be used simultaneously. Accessory-shoe contact ("X"). Accessory-shoe contact and "X" synchro-socket cannot be used simultaneously.

Film insertion

Hinged camera back. Rapid film changing system for all commercial 35mm films: film insertion simply by pushing the film under the tongues of the take-up spool. Film plane index on the cover plate of the camera. Film cartridge window in the camera back.

Film transport

Angled lever for rapid film transport and shutter wind. Standby position makes it convenient for left-eye users. Winding angle from the stand-by position 130°. With motor operation the rapid winding lever remains in the rest position (parked). Motor film transport with the motor-winder R3. Film transport indicator window.

Automatic switch off after 36 exposures (end of film). Automatic film counter (additive) with automatic return to "S" (-2 exposures) when the camera back is opened. Push-button for film rewind release with automatic return in the camera base plate. Hinged film rewind crank; when pulled out, it serves for opening the camera back.

Multiple-exposure with selector: possible also with motor-winder R 3.

Dimensions

Height 96.5mm, length 148mm, overall depth 64,8mm (depth of body 32mm)

Weight

Body without lens 0.77kg
Body with 50mm SUMMICRON-R f/2 1.02kg

Black perlon-tissue carrying strap

Always soft and pliable because it is unaffected by weather and temperature. Non-slip pad, width 20mm. Adjustable length. Leather tongues with buttons on the camera side, and 2-part hook-in stainless-steel eyes (LEITZ patent). Fitting is child's play. Robust design.

When the camera is used in an ever-ready case, the carrying strap remains in position.

LEICA R3 MOT including: Code No.

1. Black perlon-tissue carrying strap

2. Twin flash socket cover

3. Camera top

4. Baseplate cover

LEICA R3 MOT electronic, black chromium finish 10 033

Motor-winder R3
With accessories as described below

Accessories for the LEICA R3 MOT:
Ever-ready cases
combination holdall case,
universal case,
reporter case,
correction lenses,
angle finder,
ball-and-socket heads,
table-top tripod,
cable releases,
camera carrying strap (replacement),
twin flash socket cover (replacement),
camera top (replacement),
baseplate cover (replacement):
description and Code Nos. under "Accessories for the LEICA
R-system"

LEICA R lenses:
Description and Code Nos. under "LEICA R LENSES",
page 37.

Motor-winder R3

14 270

Type of winder

Compact, handy winder, exclusively for the LEICA R3 MOT.
Single-exposure and series release.
Exposure frequency with series up to 2fps.
Very quiet operation of gear and motor.
Screw-in connecting bush[1]) for electronic control unit Remote-Control LEICA R and other electric releases (see accessory range)
Functionally-designed handgrip with button for series releases as accessory

Body

All-metal (magnesium diecast body), convenient to handle, covered with grained PVC
LEITZ design, LEITZ manufacture, LEITZ finish.
Electronic control, integrated circuit in C-MOS-technique.
Simplified, convenient attachment to the baseplate of the LEICA R 3 MOT through locating pins.
Coupling and connecting elements between the camera and the winder are concealed and protected between the underside of the camera and the top of the winder.
Reliable precision connection between camera and the winder through the tripod bush of the LEICA R 3 MOT by means of a long screw with hinged toggle.
Locking key for insertable battery-accumulator housing 14280 (for 6 commerical midget cells of 1.5v each, we recommend alcali-manganese batteries according to JEC LR 6)
Battery/accumulator housing very easy to change

Electric release switch with safety ring for series exposures on the front of the winder
Two tripod bushes "A $\frac{1}{4}$", preferably for the tripod holder 14 276 (can be supplied as accessory)

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[1]) Coupling plug series 711 from Franz Binder, P.O.B. 51, 7107 Neckarsulm, Tel. 0 71 32/60 51, Code No. 09-0095-00-05

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Motor: DC-micro motor with coreless armature
Convenient film loading and unloading with the motor-winder R 3 in position
Button for rewind release

Current supply by:

6 commercial 1.5v midget cells (we recommend alcali-manganese batteries accor-
ding to JEC LR 6) in the battery/accumulator housing (capacity to LEITZ test
standards: about 70 36-exposure films at 20° C.) Automatic switch-off when the
required battery output is not reached

or

6 NC accumulators, for instance VARTA DEAC 501 RS in the battery/accumulator
housing (accumulators remain in the battery/accumulator housing for recharging)

or

adapter for remote supply 14 278
with appliance cable, length 1 m, and screw-on connecting plug[2]). (Adapter for
remote supply is inserted in the winder in the place of the battery/accumulator
housing).

> **Possibilities of connection:**
> 1. Battery/accumulator housing (by means of a holder), if at low tempera-
>   tures batteries or accumulators must be kept at body temperature.
> 2. Mains unit of up to 8.5v DC
>   (Further possibilities according to LEICA R 3 MOT working sheets).

Functions

The main switch of the camera serves as on/off switch.
Film transport and shutter wind are automatic after film exposure.

Multiple exposures possible with single-exposure sequence or series release.
Automatic motor-switch-off at the ,,36" position of the film counter of the LEICA
R3 MOT (end of film)

Shutter speeds:

1. **With single-exposure release:**
   Automatic, continuously variable shutter speeds from 4 to $^1/_{1000}$ sec.
   manual setting of all shutter speeds:
   From 4 to $^1/_{1000}$ sec,
   at "X" = $^1/_{90}$ sec for electronic flash synchronization
   At "B" = time exposure of any duration (as long as the camera release remains
   depressed)

2. **With series release:**
   Automatic, continuously variable shutter speeds from 4 to $^1/_{1000}$ sec.
   Manual setting of all shutter speeds:
   From 4 to $^1/_{1000}$ sec,
   at "X" = $^1/_{90}$ sec for electronic flash synchronization

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[2]) Coupling plug series 711 from Binder, Code No. 09-0071-00-02.

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Operation

Even with motor operation the LEITZ largefield integrating or LEITZ selective measuring mode of the LEICA R 3 MOT can be used as desired or according to lighting conditions.

When the storage method of the LEITZ selective measuring mode is employed, the single-exposure release must be used.

Important: With winder operation the rapid film transport lever of the LEICA R 3 MOT must be in the parking position.

Single-exposure release

Deliberate with camera release. As the finger is removed from the release button, automatic film transport and shutter wind follow immediately.

Series release

with:

Electrical release switch on the motor-winder R 3,

or
handgrip 14 271 with release button,

or

various remote releases.

Series exposures

are taken as long as the various releases are operated or control units connected to the winder are switched on.

Dimensions and weight

Height 42 mm, width 147 mm, depth 45 mm. Weight of motor-winder R 3 without batteries 165 g, with batteries 385 g.

Code No.

Motor-winder R 3 . . . . **14 270**

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Accessories for the motor-winder R 3

Contents:

The following special accessories are available on request:
Mains unit for the LEICA R 3 MOT
Infra-red light barrier
Special accumulator for light barrier
and motor-winder R 3
Charging adapter for NC accumulators
for car batteries (12v)
Radio release FK 3 (transmitter and receiver)
Large control unit ST16 M
Extension cables of any length up to 100 m

Technical description and practical possibilities
see "Working Sheets LEICA R 3 MOT" (in
preparation)

Remote-Control LEICA R
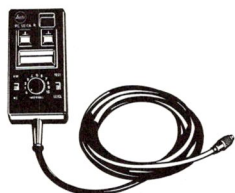
(RC LEICA R)

14277

Type

Electronic control unit for remote release
Built-in timer for automatic release
7 integrated circuits in C-MOS technique
Digital display of the completed exposure through feedback from the camera
Exclusively for the LEICA R 3 MOT with motor-winder R 3

Body

Screw-connected plastic die-cast parts
All controls and function displays are accessibly and lucidly
arranged on the top
Appliance cable, length 2 m, with screw-on coupling plug for the socket on the
motor-winder R 3
Brief instructions embossed on the back of the body

Functions

Broad push button (⊟) for single-exposure and series release.
Digital display of the completed exposures on 7 mm-high 2-digit, red 7-segment
display. The segments light up for about 2 seconds after each exposure.
Reading button (⊥) to enable the user to read the number of completed exposures
at any time. After the button has been dabbed the digital display lights up for about
2 seconds.
Input button (⊥) for the correction of the digital display if some exposures have
already been completed without the RC LEICA R (only when the slider switch is at
,,TEST").
Zeroing of the digital display by simultaneous operation of the reading and input
buttons (⊥ and ⊥).
Rotary interval switch for automatic single exposures at variable time intervals.
Illuminated decimal point on the left of the digital display indicates operation.
Slider switch "x1/x 10" for 2 interval ranges:
The switch-over "x1" or "x10" respectively is digital and therefore very precise.
Position "x1" = 1B/0.5 sec – about 1 B/1 min
Position "x10" = about 1B/5 sec – about 1B/10 min

Slider switch "LEICA/TEST" for various functions
Position "LEICA" = camera is released by push-button or by the interval switch.
Position "TEST" = release functions are blocked. Interval switch can be programmed with the rotary switch. The release impulse is signalled by the lighting up of the right-hand decimal point of the digital display, but the LEICA R3 MOT is not released. It is therefore possible to determine time intervals precisely. With switch-over from "TEST" to "LEICA" the camera is released after the preselected interval.
Operating range with extension cables "14 273/14 274": up to 100 m

Dimensions and weight:
Height 120 mm, width 60 mm, depth 30 mm
Weight, including cable 220 g

Code No.
Remote-control LEICA R (RC LEICA R) **14 277**

Handgrip R 3 for hand-held exposures

Sturdy, practical design with convenient release for series exposures (release button of the handgrip for series exposures and camera release button for single exposures are arranged conveniently close to each other),
Adjustable leather loop,
Screw with slot for coin for the attachment of the hadgrip to the motor-winder R 3.
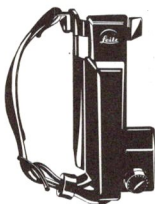
Code No.
14 271

Adapter for remote supply R 3

For connection to external current supply; with appliance cable, length 1 m, and screw-on connecting plug[1])
(Adapter for remote supply R 3 is inserted in the winder in place of the battery/accumulator housing)

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[1]) = suitable **coupling plug**
Series 711, by Franz Binder, P.O.B. 51, 7107 Neckersulm, Tel. 0 71 32/60 51, Code No. 09-00 71-00-02.

Possibilities of connection:
Battery/accumulator housing (by means of the holder 14 279), if at low temperatures batteries or accumulators must be kept at body heat and therefore housed externally.
Mains units of up to 8.5v d. c.
Other possibilities according to LEICA R3 MOT working sheets.

Code No.
14 278

Holder for battery/accumulator housing R 3

With connecting sockets marked "+" and "–" for the accumulator charger, for instance VARTA GE 1, 2–^{12}/0, 005-01ex.
The 6 NC accumulators, for instance VARTA DEAC 501 Rs remain in the battery/accumulator housing for recharging.
External current supply of the motor-winder R 3 by means of adapter for remote supply R 3, Code No. 14 278. Built-in connecting socket for same.

Code No.
14 279

Push-button

for remote release and universal handgrip with cable, length 0.3 m and screw-on connecting plug.

For universal handgrip

Practical accessory for work with long focal lengths, e.g. 250 mm f/4, 400 mm f/6.8, 580 mm f/6.8
When the pistol grip is used the push-button can be directly connected to the motor-winder R 3 with the screw-on connecting plug and the 0.3 m cable.

For remote release

Combined extension cable, length 10 m (14 274) or of any length, for electric remote release up to 100 m range

Code No.
14 275

Push-button

for remote release with cable, length 5 m and screw-on connecting plug.
In connection with extension cable, length 25 m (14 274) for remote release up to 100 m length.

N° de code
14 272

Extension cable, length 25 m* (for electric remote release).

With screw-on connecting plugs 14 274

N° de code
14 274

* Extension cable of up to 100 m length available on request.

Tripod holder R 3

For the use of the LEICA R 3 MOT combination with long-focal-length lenses on a camera tripod.
Sturdy design with two conveniently arranged screw connections for the tripod threads of the motor-winder.
Tripod holder with thread A $1/4$ DIN 4503 ($1/4$ in) for camera tripods.
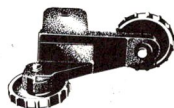
Code No.
14 276

Battery/accumulator housing R 3

For the motor-winder R 3, Spare
For heavy-duty work (prolonged use, low temperatures, expeditions) a second housing fitted with fresh batteries or charged accumulators offers additional reliability. Can be exchanged within seconds.

Code No.
14 280

27

LEICA R 3 electronic with accessories

Contents

LEICA R 3 electronic

10 032
11 216

Type of camera

S.l.r. electronically controlled 35 mm camera. Only camera with switch-over exposure measurement through the lens: choice of LEITZ largefield integrating measurement or exactly limited LEITZ selective exposure measurement. Electronic automatic exposure control of the CLS metal-blade focal-plane shutter (Copal-LEITZ shutter). Rapid motor wind with the attachable MOTOR-WINDER R 3.

Camera body

All-metal construction: aluminium die-cast body, conveniently shaped, grained PVC cover, 0.8mm-gauge brass top and baseplate, silver or black chromium finish. Mechanical connection and electrical contacts for MOTOR-WINDER R 3. Hinged back with film cartridge window. Tripod thread: standard (A ¹/₄, DIN 4503) (¹/₄in). Lateral steel-core eyelets for the carrying strap. Rapid bayonet changer for LEITZ-R lenses and accessories.

Lens System

LEITZ R lenses with rapid bayonet changer, focal length from 16 to 800 mm. With LEITZ Absorban cement and LEITZ coating or LEITZ multiple coating. Automatic diaphragm and full-aperture measurement up to 250 mm focal length. Manual aperture adjustment and working aperture measurement with all other focal lengths and accessories.

Viewfinder

Bright and contrasty viewfinder image through built-in pentaprism and LEITZ universal focusing screen. Shallow eyepiece cups for spectacle wearers. 10 different correction lenses from + 3 to − 3 dioptres and a 90° angle viewfinder can be attached. Viewfinder magnification 3.75× = 0.79 with 50 mm lens at ∞ setting. The viewfinder image shows 92% of the picture area on the film, which corresponds to the picture area of a mounted standard slide. Viewfinder adjustment: −1 dioptres, eyepiece diaphragm can be closed.

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Viewfinder display:

1. With automatic operation and LEITZ largefield integrating measurement
   In the upper field-of-view frame:
   Orange-coloured "A" = automatic
   Pre-selected aperture value with all LEITZ-R lenses with fully automatic diaphragm
   In the right-hand field-of-view frame:
   Display of the measuring mode with symbol ■ = LEITZ largefield integrating measurement.
   Display for the checking of the automatically determined shutter speed

2. With automatic operation and LEITZ selective measurement
   In the upper field-of-view frame:
   Orange-coloured "A" = automatic
   Preselected aperture value with all LEITZ-R lenses with fully automatic diaphragm
   In the right-hand field-of-view frame:
   Display for the checking of the automatically determined shutter speed.
   With data storage (up to 30 sec) return of the measuring pointer to the initial position (as with the camera switched off).
   In the centre of the viewfinder field
   Exact measuring field outline by the micro prism ring for LEITZ selective measurement.

3. With manual operation and LEITZ largefield integrating or LEITZ selective measurement
   In the upper field-of-view frame:
   Electronically controlled shutter speed chosen with the shutter speed ring
   Chosen lens aperture with all LEITZ-R lenses with fully automatic diaphragm
   In the right-hand field-of-view frame:
   display of the shutter speed measured for the compensation of the shutter speed/lens aperture combination.

4. With electronic flash operation
   In the upper field-of-view frame:
   Through operation of the shutter speed ring:
   Symbol "X" = $1/90$ sec or optionally
   all speeds from "B" to $1/60$ sec
   Selected lens aperture (with all lenses with fully automatic diaphragm),
   In the right-hand field-of-view frame:
   Display of the measured exposure time
   important if the flash is to be used for the softening of shadows.

Focusing

Rapid and accurate focusing with the LEITZ universal focusing screen adjusted in the factory, with micro-matt LEITZ triangular micro-prisms in the entire viewfinder field (groundglass screen character). In addition central square micro-prism ring of 7 mm diameter with central split-wedge rangefinder of 3 mm diameter. The depth of field can be assessed by means of the depth-of-field button, which is most conveniently located.

Mirror

Semi-transparent LEITZ hinged mirror in sprung and strain-free bearings. 19 vapour-deposited layers ensure that 90% of the light reaches the viewfinder; 10% is transmitted for the exposure measurement and directed to the measuring cell in the base of the camera by means of a second mirror. Vibration-free mirror action through LEITZ crank-guide drive and cushioned stop in the rest position. High PO value (top = ∞, bottom = 141 mm).

Shutter

Vertical-action CLS metal-blade focal-plane shutter (Copal-LEITZ shutter) for fully electronic, continuously variable adjustment from 4 to $1/1000$ sec with automatic setting ("A"). With manual setting fully electronic control for 4, 2, 1, $1/2$, $1/4$, $1/8$, $1/15$, $1/30$, $1/60$, $1/125$, $1/250$, $1/500$, and $1/1000$ sec. Mechanical shutter control with "X" = $1/90$ sec setting (highest shutter speed for electronic flash units) and "B" = time exposures of any duration. "X" or "B" settings can be used also when the battery of the LEICA R 3 is exhausted. Attention: exhausted batteries must be taken out.
Electronic flash synchronization with "X" setting and all speeds from "B" to $1/60$ sec. Shutter speed dial with clickstops, with clamp for automatic mode. The chosen shutter speeds, "X", "B" and automatic setting "A", are displayed in the viewfinder.

Shutter release

Smooth shutter release with slack point for measured-value storage with selective exposure measurement. International conical thread for cable release. Release block through conveniently-placed main switch of the camera.

Selftimer mechanism

Effective with all shutter speeds. Operated with winding lever and separate release button. Delay time 6–10 sec, can be preselected with variable lever wind.

Exposure measuring modes:

Conveniently-placed selector for two measuring modes: LEITZ largefield integrating measurement and LEITZ selective measurement. Full-aperture measurement with all R lenses with automatic diaphragm. Working-aperture measurement with all lenses without automatic diaphragm, focusing bellows R and adapter rings.

1. LEITZ largefield integrating measurement

With foreground weighting of horizontal views. Two series – connected CdS double photo-resistors above the penta-prism are electrically wired to the third CdS double photo-resistor (for selective measurement). This ensures ideal sensitivity distribution.

2. LEITZ selective measurement

With exact measuring-field outline, which is visible in the viewfinder. A CdS double photo-resistor is installed in the base of the camera. 10% of the incident light is directed to the measuring cell via the semi-transparent hinged mirror and a secondary mirror.

The selectively-measured value can be stored for up to 30 seconds, if necessary, with light pressure on the camera release button (taking up the slack). Storage is indicated in the viewfinder by the measuring pointer returning to the rest position (as in the switched-off state).

Measuring range 0.25 cd/sq.m to 32,000 cd/sq.m at f/1.4 or 0.8 to 50,000 asb. For the 50 mm SUMMILUX-R f/1.4 this produces a working range from light value + 1 to +18 at 21 DIN/100 ASA, corresponding to aperture/shutter speed combinations from 1:1.4/1 sec to 1:16/1/1000 sec.

Exposure corrections of up to ±2 light values. O click stop with block against accidental displacement.

Film speed range

12–35 DIN/12-3200 ASA on film speed selector with safety clickstop. Click-stop positions in $^1/_3$ steps or 1 DIN, 1.25x ASA.

Batteries and battery test

2 1.5v silver oxide button cells, dia. 11.5 mm, height 5 mm. (Replacement batteries see "Technical Information")

Battery test with push-button and LED. Battery housing with cover on the underside of the camera. The battery can be changed with the film in the camera. Main switch of the camera for battery is at the same time release block.

Attention: Always remove exhausted batteries.

Flash synchronization

Recommended setting for electronic flash units: shutter speed ring at "X" = $^1/_{90}$ sec. Automatic synchronization for flash lamps (synchro-socket "M") up to $^1/_{1000}$ sec, for electronic flash units (synchro-socket "X") up to $^1/_{90}$ sec. Separate standard contact sockets for the connection of flash lamps and electronic flash units. Both types of flash can be used simultaneously. Accessory-shoe contact ("X"). Accessory-shoe contact and "X" synchro-socket cannot be used simultaneously.

Film insertion

Hinged camera back. Rapid film changing system for all commercial 35mm films: film insertion simply by pushing the film under the tongues of the take-up spool. Film plane index on the cover plate of the camera. Film cartridge window in the camera back.

Film transport

Angled lever for rapid film transport and shutter wind. Standby position makes it convenient for left-eye users. Winding angle from the standby position 130° C. Film transport indicator window. Automatic film counter (additive) with automatic return to "S" (-2 exposures) when the camera back is opened. Push-button for film rewind release with automatic return in the camera base plate. Hinged film rewind crank; when pulled out, it serves for opening the camera back.

Multiple exposures by means of a selector combined with the rapid transport lever with automatic return.

Dimensions:

Height 96.5mm, length 148mm, overall depth 64,8mm (depth of body 32mm)
Weight:
Body without lens 0.78kg
Body with 50mm SUMMICRON-R f/2 1.02kg

LEICA R3 including:

1. Black perlon-tissue carrying strap
   Always soft and pliable because it is unaffected by the weather and temperature. Non-slip pad, width 20mm. Adjustable length. Leather tongues with buttons on the camera side, and 2-part hook-in stainless-steel eyes (LEITZ patent). Fitting is child's play. Robust design.
   When the camera is used in an ever-ready case, the carrying strap remains in position.
2. Twin flash socket cover
3. Camera top

		Code No.
LEICA R 3 electronic, silver chromium finish	. . . .	**10 031**
LEICA R 3 electronic, black chromium finish	. . . .	**10 032**

Accessories for the LEICA R 3

Ever-ready cases
combination holdall case,
universal case,
reporter case,
correction lenses,
angle finder,
ball-and-socket heads,
table-top tripod,
cable releases,
camera carrying strap (replacement),
twin flash socket cover (replacement),
camera top (replacement),
baseplate cover (replacement):
Description and Code Nos. under "Accessories for the LEICA R-system"

LEICA R lenses:

Description and Code Nos. under "LEICA R LENSES"

LEICA R lenses

for the
LEICA R 3,
LEICA R 3 MOT

LEICAFLEX SL2/SL2 MOT
LEICAFLEX SL/SL MOT
LEICAFLEX

Contents:

Lens	Max. aperture	Focal length mm	Remarks	Code No.	Page
Fisheye-ELMARIT-R	f/2.8	16	for R3/ R3 MOT/SL2/ SL2 MOT only	11222	39
ELMARIT-R	f/2.8	19		11225	40
SUPER-ANGULON-R	f/4	21		11813	41
ELMARIT-R	f/2.8	24	see Fisheye ELMARIT	11221	42
ELMARIT-R	f/2.8	28		11204	43
PA-CURTAGON-R	f/4	35		11202	44
ELMARIT-R	f/2.8	35		11201	46
SUMMICRON-R	f/2	35		11115	47
SUMMICRON-R	f/2	50		11215	48
SUMMICRON-R	f/2	50	for R3/ R3 MOT only	11216	48
SUMMILUX-R	f/1.4	50		11776	50
MACRO-ELMARIT-R	f/2.8	60		11205	51
ANGENIEUX-ZOOM	f/2.8	45–90	on request	on request	52
VARIO-ELMAR-R	f/4.5	75–200	new. for all LEICA R and LEICAFLEX-models	11226	53
ELMARIT-R	f/2.8	90		11239	54
SUMMICRON-R	f/2	90		11219	55
MACRO-ELMAR-R	f/4	100		11232	56
MACRO-ELMAR	f/4	100		11230	
ELMARIT-R	f/2.8	135		11211	58
ELMARIT-R	f/4	180		11922	59
APO-TELYT-R	f/3.4	180		11240	62
ELMARIT-R	f/2.8	180		11919	61
TELYT-R	f/4	250		11920	62
TELYT-R	f/6.8	400		11960	63
TELYT-R	f/6.8	560		11865	65
TELYT-S	f/6.3	800		11921	66
Adapter for the use of VISOFLEX 2/3 lenses on the LEICA R3/R3 MOT					67
Conversion of LEICAFLEX lenses for use on the LEICA R3/R3 MOT					67

FISHEYE-ELMARIT-R
f/2.8 16 mm

Fisheye lens for special pictorial effects
(**only** for the LEICA R 3/R 3 MOT and
LEICAFLEX SL 2/SL 2 MOT)
Angle of view: 180°

Number of elements: 11 (8 components)
Built-in turret with 4 filters: u. v., yellow,
orange, blue 80 B (conversion)
Fully automatic pre-set diaphragm with
click-stops (including ½ values)
Smallest aperture: f/16
Combined "feet-metre" scale
Focusing range: ∞ to 0.3 m (12 in)
Smallest object field:
401 x 601 mm (15.8 x 23.8 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet
changer
Black finish
Built-on lens hood
Lens cap dia. A 65 mm
Length from bayonet flange: 60 mm
Diameter: 71 mm
Weight: 0.470 kg

11 222

Code No.

FISHEYE-ELMARIT-R f/2.8 16 mm
with built-on lens hood, lens cap and rear cover **11 222**
(Replacement lens caps see "Accessories for the LEICA-R
sytem")
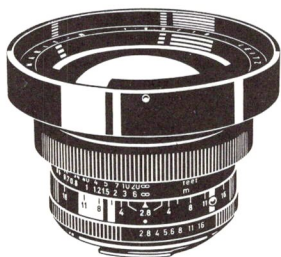
ELMARIT®-R f/2.8 19 mm

Fast ultra-wide-angle lens
Angle of view: 95.7°
Number of elements: 9 (7 components)
Internal thread: M 82 x 0.75
Fully automatic pre-set diaphragm with click-stops (including 1/2 values)
Smallest aperture: f/16
combined "feet/metre" scale
Focusing range: ∞ to 0.3 m (12 in)
Smallest object field:
261 x 392 mm (10.3 x 15.4 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet changer
Black finish
Lockable lens hood
Lens cap dia. A 88 mm
Length from bayonet flange: 60 mm
Diameter: 88 mm
Weight: 0.500 kg

11 225

Code No.

ELMARIT-R f/2.8 19 mm
with lens hood, lens cap and rear cover **11 225**
(Replacement lens hood and lens caps see "Accessories for the LEICA-R system")

SUPER-ANGULON®-R
f/4 21 mm

Wide-angle lens of extremely wide angle of view

Angle of view: 92°

Number of elements: 10 (8 components)

Filter size: 8.5

Internal thread: M 75 x 0.75

Fully automatic pre-set diaphragm with click-stops (including ½ values)

Smallest aperture: f/22

Combined "feet-metre" scale

Focusing range: ∞ to 0.2 m (8 in)

Smallest object field:
148 x 221 mm (6 x 8¾″ approx.)

Non-rotating focusing mount

Hard-chrome LEICA-R rapid bayonet changer

Black finish

Lens hood lockable, also adapter for Series 8.5 filters

Lens cap dia. A 75 mm

Length from bayonet flange: 43.5 mm

Diameter: 78 mm

Weight: 0.410 kg

11 813

Code No.

SUPER-ANGULON f/4 21 mm
with lens hood, lens cap and rear cover **11 813**
(Replacement lens hood, lens caps, Series 8.5 filters see "Accessories for the LEICA-R system")

11 221

ELMARIT-R f/2.8 24 mm

(**only** for the LEICAFLEX SL 2 and LEICA
R 3/R 3 MOT
Lens of very wide angle of view

Angle of view: 84°
Number of elements: 9 (7 components)
Floating elements: front section of the lens
can be moved independently of the rear
section because it is coupled with the
rangefinder, hence optimum correction in
the close-up range.
Filter size: 8
Internal thread: M 60 x 0.75
Fully automatic pre-set diaphragm with
click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ to 0.3 m
Non-rotating focusing mount
Smallest object field:
250 x 374 mm (10 x 15 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet
changer
Black finish
Lens hood lockable, also adapter for
Series 8 filters
Lens cap dia. A 70 mm
Length from bayonet flange: 46 mm
Diameter: 67 mm
Weight: 0.420 kg

Code No.

ELMARIT-R f/2.8 24 mm
with lens hood, lens cap and rear cover **11 221**
(Replacement lens hood, lens caps, Series 8 filters see "Ac-
cessories for the LEICA-R system")

11 204

ELMARIT®-R f/2.8 28 mm
Wide-angle lens
Angle of view: 76°
Number of elements: 8 (8 components)
Filter size: 7
Internal thread: M 48 x 0.75
Fully automatic pre-set diaphragm with
click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ to 0.3 m (12 in)
Smallest object field:
188 x 282 mm (7.5 x 11.3 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet
changer
Black finish
Locking lens hood, also adapter for Series
7 filters
Lens cap dia: A 51 mm
Length from bayonet flange: 40 mm
Diameter: 63 mm
Weight: 0.275 kg

Code No.

ELMARIT-R f/2.8 28 mm
with lens hood, lens cap and rear cover **11 204**
(Replacement lens hood, lens caps, Series 7 filters see "Ac-
cessories for the LEICA-R system")

PA-CURTAGON®-R
f/4 35 mm

Wide-angle lens without pre-set diaphragm with perspective compensation
Displacement from the optical axis:
7 mm in every direction
Radial adjustment: at 90° intervals
Angle of view: 63 – 78°
Number of elements: 7 (6 components)
Filter size: 8
Internal thread: M 60 x 0.75
Click-stops
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ to 0.3 m (12 in)
Smallest object field:
140 x 210 mm (5.5 x 8.3 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet changer
Black finish, with bright decorative ring
Locking lens hood, also adapter for Series 8 filters
Lens cap dia: A 63,7 mm
Length from bayonet flange: 51 mm
Diameter: 70 mm
Weight: 0.290 kg

11 202

Code No.

PA-CURTAGON-R f/4 35 mm
with lens hood, lens cap and rear cover **11 202**
(Replacement lens hood and lens caps, Series 8 filters see "Accessories for the LEICA-R system")

PA-CURTAGON-R f/4 35 mm

The PA-CURTAGON-R is a special wide-angle lens for perspective compensation (PA) in architectural photography. Tall buildings can be photographed without converging verticals, because the optical system can be displaced from the optical axis up to 7 mm simply by the rotation of a ring.

Lateral displacement, too, offers advantages if it is not possible to align the camera symmetrically.

In addition, special perspective exaggeration effects which are popular in the modern pictorial concept can also be obtained.
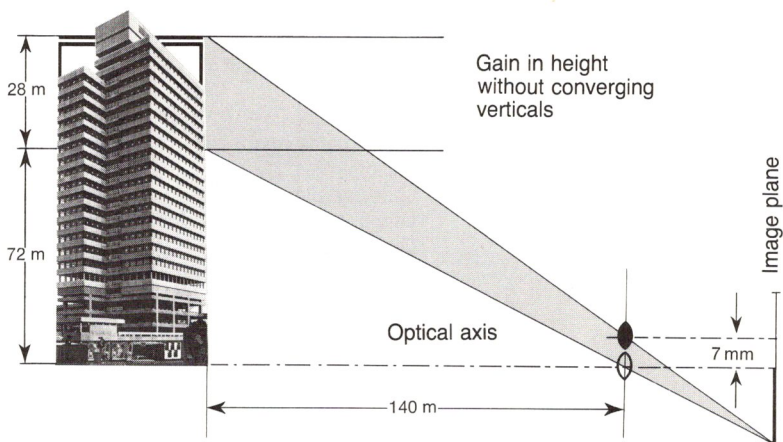
For the photography of tall buildings without converging verticals (perspective compensation).
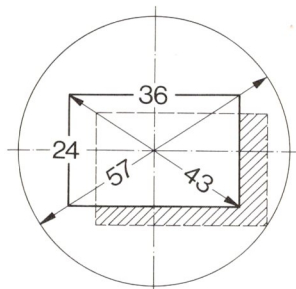
ELMARIT-R f/2.8 35 mm

Wide-angle lens
Angle of view: 64°
Number of elements: 7 (6 components)
Filter size: 7
Internal thread: M 48 x 0.75
Fully automatic pre-set diaphragm
with click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ to 0.3 m (12 in)
Smallest object field:
140 x 210 mm (5¾ x 8½ in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet
changer
Black finish
Locking lens hood, also adapter for Series
7 filters
Lens cap dia: A 51 mm
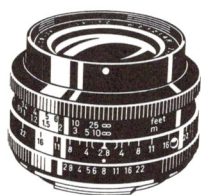Length from bayonet flange: 40 mm
Diameter: 63 mm
Weight: 0.410 kg

11 201

Code No.

ELMARIT-R f/2.8 35 mm
with lens hood, lens cap and rear cover **11 201**
(Replacement lens hood and lens caps, Series 7 filters see
"Accessories for the LEICA-R system")

11 115

SUMMICRON®-R f/2 35 mm

Fast wide-angle lens
Angle of view: 64°
Number of elements: 6 (6 components)
Filter size: E 55 or Series 7
For Series filters 7 the adapter 14 225 is required
Internal thread: M 55 x 0.75
Fully automatic pre-set diaphragm with click-stops (including ½ values)
Smallest aperture: f/16
Combined "feet-metre" scale
Focusing range: ∞ to 0.3 m (12 in)
Smallest object field: 140 x 210 mm (5.5 x 8.3 in)
Non-rotating focusing mount
Hard-chrome LEICA R rapid bayonet changer
Black finish
Built-on, extensible lens hood
Lens cap dia.: A 63 mm
Length from bayonet flange: 54 mm
Diameter: 66 mm
Weight: 0.422 kg

Code No.

SUMMICRON-R f/2 35 mm
With lens hood, lens cap and rear cover **11 115**
(Replacement lens cap, filter E 55 or Series 7, filter adapter 14 225, see "Accessories for the LEICA R system")

47

SUMMICRON-R f/2 50 mm

Fast universal lens
Angle of view: 45°
Number of elements: 6 (4 components)
Filter size: E 55 or Series 7
Internal thread: M 55 x 0.75
Fully automatic pre-set diaphragm with click-stops (including ½ values)
Smallest aperture: f/16
Combined "feet-metre" scale
Focusing range: ∞ to 0.5 m (20 in)
Smallest object field:
180 x 270 mm (7.5 x 10.75 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet changer
Black finish
Built-on, extensible lens hood
Lens cap dia: A 63 mm
Length from bayonet flange: 41 mm
Diameter: 66 mm
Weight: 0.250 kg

Rear of lens:
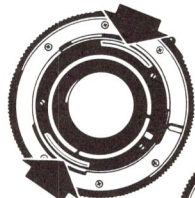
Universal version
11 215
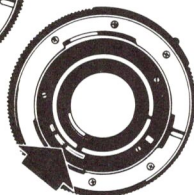
Version 11 216
for LEICA R 3/
LEICA R 3 MOT

SUMMICRON-R f/2 50 mm
With lens hood, lens cap and rear cover
1. Version for LEICA R 3 and LEICA R 3 MOT only **11 216**
2. Universal version for all LEICAFLEX models
   and for the LEICA R 3/LEICA R 3 MOT **11 215**
(Replacement lens cap, filter E 55 or Series 7, filter adapter 14 225 see "Accessories for the LEICA R system")

ELPRO (achromats) near-focusing attachments
● extend the excellent lens performance to the near-focusing range
● are easy to handle
● extend the possibilities of pictorial composition
● do not demand any exposure factor

ELPRO 1* **16 541**
ELPRO 2* **16 542**
Leather case for 1 near-focusing attachment **14 553**

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* Can also be used on the SUMMICRON f/2 50 mm Code No. 11 228.
  Lens hood cannot be attached.

SUMMICRON-R f/2 50mm	ELPRO	Distance scale at	Distance in cm object to film	object to front lens	Object field size in mm	Repro- duction scale
	1	∞	50	41	184x276	1 : 7.7
		0.5	31	21	91x137	1 : 3.8
	2	∞	30	21	94x141	1 : 3.9
		0.5	24	14	62x 93	1 : 2.6

SUMMILUX®-R f/1.4 50 mm

Ultra-fast lens
Angle of view: 45°
Number of elements: 7 (6 components)
Filter size: E 55 or 7
For Series 7 filters the adapter 14 225 is required
Internal thread: M 55 x 0.75
Fully automatic pre-set diaphragm with click-stops (including ½ values)
Smallest aperture: f/16
Combined "feet-metre" scale
Focusing range: ∞ to 0.5 m (20 in)
Smallest object field:
180 x 270 mm (7.1 x 10.6 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet changer
Black finish
Built-on, extensible lens hood
Lens cap dia: A 63 mm
Length from bayonet flange: 50.6 mm
Diameter: 66.5 mm
Weight: 0.395 kg

11 776

Code No.

SUMMILUX-R f/1.4 50 mm
with lens hood, lens cap and rear cover **11 776**
(Replacement lens caps, E 55 or Series 7 filters, filter adapter
14 225 see "Accessories for the LEICA-R system")
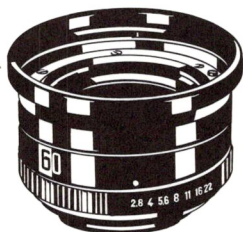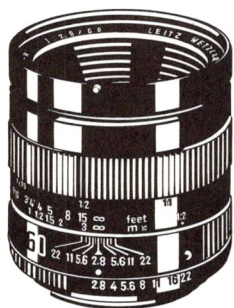
MACRO-ELMARIT®-R f/2.8 60 mm

Universal lens for photography in the range from infinity to reproduction scale 1:1
Angle of view: 39°
Number of elements: 6 (5 components)
Filter size: 8
Adaptation of the filters with the aid of the lens hood 12 514
Internal thread: M 60 x 0.75
Fully automatic pre-set diaphragm, also with 1:1 adapter*
click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale, reproduction scales are also engraved
Focusing range:
without 1:1 adapter: from ∞ to 27 cm (10.8in) (reproduction scale 1:2)
with 1:1 adapter: from reproduction scale 1:2 to 1:1 (from 27 to 24 cm) (10.8 to 9.6in)
Smallest object field:
without adapter: 48 x 72 mm (1.9 x 2.9in)
with adapter: 24 x 36 mm (0.9 x 1.4in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet changer
Black finish
Built-on lens hood
Lens cap dia: A 63.7 mm
Length from bayonet flange: 67 mm, with adapter: 97 mm
Diameter: 70 mm
Weight: 0.540 kg, without adapter: 0.375 kg

11 203

	Code No.
MACRO-ELMARIT-R f/2.8 (60 mm (without 1:1 adapter)	
with lens cap and rear cover	**11 205**
1:1 adapter*	14 198
MACRO-ELMARIT-R f/2.8 60 mm complete	
with lens cap and rear cover	**11 203**
Lens hood for same (necessary for filter adaptation, rotatable for circular pol-filter)	12 514
Leather case for the 1:1 adapter	14 621
Covers for the 1:1 adapter	
Front cover	14 184
Rear cover	14 162

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* The 1:1 adapter can be attached and locked only with the lens diaphragm closed. This setting is indicated by additional symbols. Wrong attachment is prevented by a locking device.
(Replacement lens caps for the MACRO-ELMARIT-R Series 8 filters see "Accessories for the LEICA-R system")
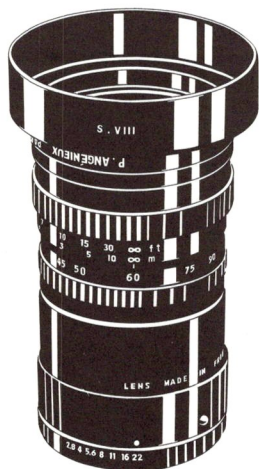
ANGENIEUX-Zoom
f/2.8 45 – 90 mm

Angle of view: 54° to 27°
Number of elements: 15 (12 components)
Filter size: Series 8
Internal thread: M 67 x 0.75
Fully automatic pre-set diaphragm with click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ to 1 m (40 in)
Smallest object field:
485 x 727 mm/216 x 324 mm
(19.1 x 28.6 in/8.5 x 11.8 in)
Hard-chrome LEICA R rapid bayonet changer
Black finish
Screw-in lens hood, also adapter for Series 8 filters
Length from bayonet flange: 122 mm
Dia. 69 mm (with lens hood 78 mm)
Weight: 0.774 kg;

Supply on request through local LEITZ Agency

Manufacturer, warranty, and service:
Pierre Angenieux, 42-Saint-Héand, Paris, France.

VARIO-ELMAR-R f/4.5 75 – 200mm	ELPRO	Distance scale at	Distance in cm object to film plane	Distance in cm object to front lens	Object field size in mm	Repro-duction scale
	4	75mm/∞	156	135	414x621	1 : 17.3
		200mm/1.2	80	58	62x 93	1 : 2.6
	3	75mm/∞	82	61	187x281	1 : 7.8
		200mm/1.2	61	38	41x 62	1 : 1.7

VARIO-ELMAR-R
f/4.5 75 – 200 mm

Lens of variable focal length
Angle of view: 32° to 12.5°
Number of elements: 15 (11 components)
Filter size: E 55 or Series 7
For Series 7 filters the adapter 14 225 is required
Internal thread: M 55 x 0.75
Fully automatic pre-set diaphragm with click-stops (including ½ values).
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ to 1.2 m (48 in)
Smallest object field:
Focal length
75 mm: 207 x 405 mm (10.6 x 15.9 in)
Focal length
200 mm: 107 x 160 mm (4.2 x 6.3 in)
Focusing tube sets both focal length and focusing distance
Hard-chrome LEICA-R rapid bayonet changer
Black finish; easy-grip focusing tube covered with grained PVC
Built-on, extensible lens hood
Lens cap dia: A 70 mm
Length from bayonet flange: 157 mm
Diameter: 70 mm
Weight: 0.725 kg

11 226

Code No.

VIARIO-ELMAR-R f/4.5 75 – 200 mm
with lens hood, lens cap and rear cover **11 226**
(Replacement lens covers, E 55 or Series 7 filters and filter adapter 14 225 see "Accessories for the LEICA-R system")

ELPRO (achromats) near-focusing attachments
Extend the excellent lens performance to the near-focusing range
are easy to handle
extend the possibilities of pictorial composition
do not demand any exposure factor
ELPRO 3 . . . .   16 543
ELPRO 4 . . . .   16 544
Leather case for one near-focusing attachment 14 553

ELMARIT-R f/2.8 90 mm

Universal lens of long focal length
Angle of view: 27°
Number of elements: 5 (4 components)
Filter size: E 55 or Series 7
For Series 7 filters the adapter 14 225 is required
Internal thread: M 54 x 0,75*
Fully automatic pre-set diaphragm with click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ to 0.7 m (28 in)
Smallest object field:
140 x 210 mm (5.5 x 8.3 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet changer
Black finish
Built-on, extensible lens hood
Lens cap dia: A 65 mm
Length from bayonet flange: 12 mm
Diameter: 65 mm
Weight: 0.515 kg

11 239

Code No.

ELMARIT-R f/2.8 90 mm
with lens hood, lens cap and rear cover **11 239**
(Replacement lens cap, E 55 or Series 7 filters and filter adapter see "Accessories for the LEICA-R system")

ELPRO (achromat) near-focusing attachment
● extends the excellent lens performance to the near-focusing range
● is easy to handle
● extends the possibilities of pictorial composition
● does not demand any exposure factor
ELPRO 3 . . . .   16 543
Leather case for one near-focusing attachment 14 553

ELMARIT-R f/2.8 90mm	ELPRO	Distance scale at	Distance in cm		Object field size in mm	Reproduction scale
			object to film	object to front lens		
	3	∞	74	61	161x241	1 : 6.7
		0.7	44	30	72x108	1 : 3.0

* up to No. 2 809 000 internal thread of lens M 54 x 0.75

SUMMICRON-R f/2 90 mm

Fast reportage lens
Angle of view: 27°
Number of elements: 5 (4 components)
Filter size: E 55 or Series 7
For Series 7 filters the adapter 14 225 is required.
Retaining ring for Series 7 filters
External lens mount diameter: A 70
Internal thread: M 54 x 0.75*
Fully automatic pre-set diaphragm with click-stops (including ½ values)
Smallest aperture: f/16
Combined "feet-metre" scale
Focusing range: ∞ to 0.7 m (28 in)
Smallest object field:
140 x 210 mm (5.5 x 8.3 in)
Non-rotating focusing mount
Black finish
Hard-chrome LEICA-R rapid bayonet changer
Built-on, extensible lens hood
Lens cap dia: A 70 mm
Length from bayonet flange: 62.5 mm
Diameter: 70 mm
Weight: 0.560 kg

11 219

Code No.

SUMMICRON-R f/2 90 mm
with lens hood, lens cap and rear cover **11 219**
(Replacement lens caps, E 55 or Series 7 filters and filter adapter 14 225 see "Accessories for the LEICA-R system")

ELPRO (achromat) near-focusing attachment
● extends the excellent lens performance to the near-focusing range
● is easy to handle
● extends the possibilities of pictorial composition
● does not demand any exposure factor
ELPRO 3 . . . . 16 543
Leather case for one near-focusing attachment 14 553

SUMMICRON-R f/2 90mm	ELPRO	Distance scale at	Distance in cm object to film	object to front lens	Object field size in mm	Repro- duction scale
	3	∞	74	61	161×245	1:6.7
		0.7	44	30	72×108	1:3.0

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* up to No. 2 770 950 internal thread of lens M 54 x 0.75
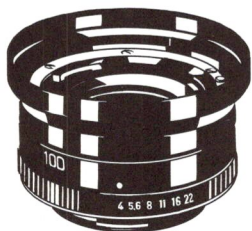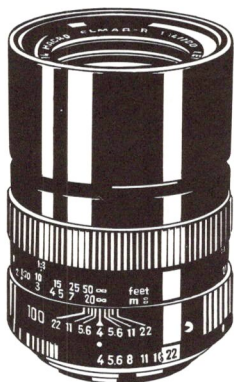
MACRO-ELMAR-R
f/4 100 mm

Universal lens of medium-long-focal length for work from ∞ up to the near-focusing range (reproduction scale 1:1.6)
Angle of view: 25°
Number of elements: 4 (3 components)
Filter size: E 55 or Series 7
For Series 7 the adapter 14 225 is required
Internal thread: M 55 x 0.75
Fully automatic pre-set diaphragm, also with close-up focusing ring* with click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale, reproduction scales are also engraved
Focusing range:
  Without close-up focusing ring:
  from ∞ to 60 cm (12 in)
  Smallest reproduction scale 1:3
  Free working distance: 39 cm
  With close-up focusing ring: from reproduction scale 1:3 to 1:1.6
  Free working distance: 40 to 23 cm
Smallest object field:
  Without close-up focusing ring:
  78 x 117 mm (3.1 x 4.6 in)
  With close-up focusing ring: 39 x 59 mm (1.5 x 2.3 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid baonet changer
Black finish
Built-on, extensible lens hood
Lens cap dia.: A 63 mm
Length from bayonet flange: 90 mm (with close-up focusing ring: 120 mm)
Maximum diameter: 67.5 mm
Weight: lens 540 g,
         close-up focusing ring 145 g

11 234

Code No.

MACRO-ELMAR-R f/4 100 mm
(without close-up focusing ring,
with lens hood, lens cap and rear cover) **11 232**
Close-up focusing ring* 14 262

MACRO-ELMAR-R f/4 100 mm,
complete with lens hood,
lens cap and rear cover and close-up focusing ring **11 234**

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* The close-up focusing ring can be attached and locked only when the lens stop is closed. This setting is indicated with additional symbols. Wrong attachment is prevented by a block.

56

Leather case for the close-up focusing ring 14 621
Covers for the close-up focusing ring
Front cover 14 144
Rear cover 14 162

(Replacement lens cap for the MACRO-ELMAR-R, E 55 and
Series 7 filters and filter adapter 14 225 see "Accessories for
the LEICA-R system").

ELPRO (achromats) near-focusing attachments

Extend the excellent lens performance to the near-focusing
range
are easy to handle
extend the possibilities of pictorial composition
do not demand any exposure factor
ELPRO 3 . . . .   16 543
ELPRO 4 . . . .   16 544
Leather case for one near-focusing attachment 14 553

MACRO-ELMAR-R f/4 100 mm	ELPRO	Distance scale at	Distance in cm object to film plane	Distance in cm object to front lens	Object field size in mm	Repro-duction scale
	4	∞	150.5	136	323x484	1 : 13
		0.6	48.6	31	61x92	1 : 2.5
With close-up focusing ring 14 262	4	∞	48.5	31	63x 94	1 : 2.6
		0.6	40.6	20	34x 51	1 : 1.4
	3	∞	75.5	61	145x218	1 : 6
		0.6	41.6	24	48x 72	1 : 2

ELMARIT-R f/2.8 135 mm

Telephoto lens
Angle of view: 18°
Number of elements: 5 (4 components)
Filter size: E 55 or 7
For Series 7 filters the adapter 14 225 is required
Internal thread: M 55 x 0.75*
Fully automatic pre-set diaphragm with click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ to 1.5 m (5ft)
Smallest object field:
220 x 330 mm (8.7 x 13.0 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet changer
Black finish
Built-on, extensible lens hood
Lens cap dia: A 65 mm
Length from bayonet flange: 93 mm
Diameter: 65 mm
Weight: 0.73 kg

11 211

Code No.

ELMARIT-R f/2.8 135 mm
with lens hood, lens cap and rear cover **11 211**
(Replacement lens cap, E 55 or Series 7 filters and filter adapter 14 225 see "Accessories for the LEICA-R system")

ELPRO (achromats) near-focusing attachments
● extend the excellent lens performance to the near-focusing range
● are easy to handle
● extend the possibilities of pictorial composition
do not demand any exposure factor
ELPRO 3 . . . .   16 543
ELPRO 4 . . . .   16 544
Leather case for one near-focusing attachment 14 553

ELMARIT-R f/2.8 135mm	ELPRO	Distance scale at	Distance in cm		Object field size in mm	Repro- duction scale
			object to film	object to front lens		
	4	∞	150	135	237x355	1 : 9,9
		1,5	84	68	106x159	1 : 4,4
	3	∞	76	61	107x160	1 : 4,5
		1,5	58	42	66x 99	1 : 2,8

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* up to No. 2 772 618 internal thread of lens M 54 x 0.75

ELMAR-R f/4 180 mm

Handy telephoto lens
Angle of view: 14°
Number of elements: 5 (4 components)
Filter size: E 55 or Series 7
For Series 7 filters the adapter 14 225 is required
Fully automatic pre-set diaphragm with click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ – 1.8 m (6 ft)
Smallest object field:
175 x 262 mm (6.9 x 10.3 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet changer
Black finish
Built-on, extensible lens hood
Lens cap dia: A 65 mm
Length from bayonet flange: 100 mm
Diameter: 65.5 mm
Weight: 0.570 kg

11 922

Code No.

ELMAR f/4 180 mm
with lens hood, lens cap and rear cover **11 922**
(Replacement lens cover, E 55 or Series 7 filters and filter adapter 14 225 see "Accessories for the LEICA-R system")

ELPRO (achromats) near-focusing attachments
● extend the excellent lens performance to the near-focusing range
● are easy to handle
● extend the possibilities of pictorial composition
● do not demand any exposure factor
ELPRO 3 . . . .   16 543
ELPRO 4 . . . .   16 544
Leather case for 1 nnear-focusing attachment 14 553

ELMAR-R f/4 180mm	ELPRO	Distance scale at	Distance in cm object to film	object to front lens	Object field size in mm	Repro-duction scale
	4	∞	151	135	178×267	1 : 7.4
		1.8	93	75	80×120	1 : 3.3
	3	∞	77	61	80×120	1 : 3.3
		1.8	63	45	48× 72	1 : 2.0

59

APO-®TELYT-R
f/3.4 180 mm

Special lens of extended spectral range
Angle of view: 14°
Number of elements: 7 (4 components)
Filter size: 7.5
Adapter ring for Series 7.5 filters: 14 222
Internal thread: M 59 x 0.75
Fully automatic pre-set diaphragm with
click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ – 2.5 m (8 f 4 in)
Smallest object field:
276 x 414 mm (10.9 x 16.3 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet
changer
Black finish
Built-on, extensible lens hood
Lens cap dia: A 65 mm
Length from bayonet flange: 135 mm
Diameter: 68 mm
Weight: 0.750 kg

11 240

Code No.

APO-TELYT-R f/3.4 180 mm
with lens hood, lens cap, rear cover,
filter adapter **11 240**
(Replacement lens cap and adapter ring for Series 7.5 filters
14 222 see "Accessories for the LEICA-R system")
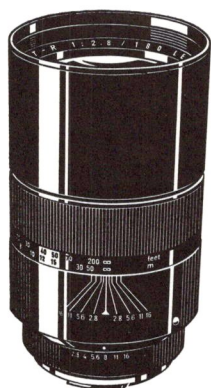
ELMARIT-R f/2.8 180 mm

Fast telephoto lens
Angle of view: 14°
Number of elements: 5 (4 components)
Filter size: Series 8
Adapter ring for Series 8 filters: 14 165
Internal thread: M 72 x 0.75
Fully automatic pre-set diaphragm with clickstops (including ½ values)
Smallest aperture: f/16
Combined "feet/metre" scale
Focusing range: ∞ to 2 m (6 ft 8 in)
Smallest object field: 213 x 320 mm (8.4 x 12.6 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet changer
Black finish
Built-on, extensible lens hood
Lens cap dia.: A 78 mm
Tripod thread A ¼ (DIN 4503) (¼ in)
Length from bayonet flange: 134 mm
Diameter: 78 mm
Weight: 1.325 kg

11 919

Code No.

ELMARIT-R f/2.8 180 mm,
with lens hood,
lens cap and rear cover, filter adapter **11 919**
(Replacement lens cap and adapter ring 14 165 for Series 8 filters, Series 8 filters see "Accessories for the LEICA-R system")
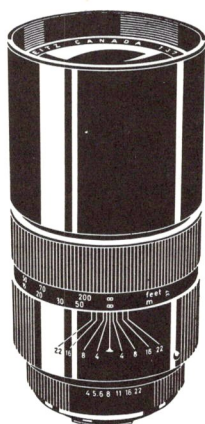
TELYT®-R f/4 250 mm

Telephoto lens
Angle of view: 10°
Number of elements: 6 (5 components)
Filter size: 8
Adapter ring for Series 8 filters: 14 165
Internal thread: M 72 x 0.75
Fully automatic pre-set diaphragm with
click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Focusing range: ∞ to 4 m (13 ft)
Smallest object field:
318 x 477 mm (12.5 x 18.8 in)
Non-rotating focusing mount
Hard-chrome LEICA-R rapid bayonet
changer
Black finish
Built-on, extensible lens hood
Lens cap dia: A 78 mm
Tripod thread A ¼ (DIN 4503), (¼ in)
Length from bayonet flange: 154 mm
Diameter: 78 mm
Weight: 1.410 kg

11 920

Code No

TELYT-R f/4 250
with lens hood,
lens cap and rear cover, filter adapter **11 920**
(Replacement lens cap and adapter ring 14 165 for Series
8 filters see "Accessories for the LEICA-R system")

62
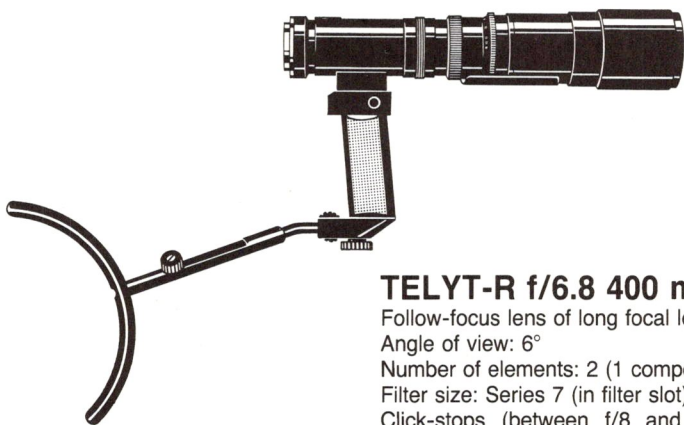
11 960

TELYT-R f/6.8 400 mm
Follow-focus lens of long focal length
Angle of view: 6°
Number of elements: 2 (1 component)
Filter size: Series 7 (in filter slot)
Click-stops (between f/8 and f/16 also ½ values)
Smallest aperture: f/32
Focusing range: ∞ to 3.6 m (12 ft)
Follow-focus device (adjustable front part of lens with parallel guide, push-button to release the focusing mechanism)
Smallest object field:
158 x 236 mm (6.2 x 9.3 in)

Rotatable swivelling device for upright and horizontal format
(push-button engages at 90°)
Lens can be dismantled for convenient transport
Hard-chrome LEICA-R rapid objective changer
Slot with cover for Series 7 filters
Black finish
Lens cap dia. A 78 mm
Tripod thread A ¼ and A ⅜ (DIN 4503) (¼ in and ⅜ in)
Length from bayonet flange: 384 mm
Diameter: 78 mm
Weight: 1.830 kg
Universal handgrip with shoulder stock, detachable

Code No.

TELYT-R f/6.8 400 mm, consisting of:
TELYT-R f/6.8 400 mm lens unit 11 903
Lens tube 11 906
Universal handgrip with shoulder stock 14 188

TELYT-R f/6.8 400 mm, complete
with lens hood and lens covers **11 960**
(Replacement lens cover and Series 7 filters see "Accessories for the LEICA-R system")

Recommended accessories:

14 182

Extension tube (60 mm for the TELYT-R f/6.8 560 mm lens* to
extend the operating range (near focusing) 14 182

Minimum focusing distance (with one extension tube) With the TELYT f/6.8 560 mm: 641 – 396 cm (21 ft – 13 ft)	Smallest object field (with one intermediate tube) 112 x 168 mm (4.4 x 6.6 in)

Carrying strap for heavy equipment 14 130
Release switch for insertion in the universal handgrip for the
combination LEICA R 3 MOT/motor-winder R 3   . . . .   14 275

For TELYT-R f/6.8   560 mm

Recommended accessories:

14 182

Extension tube (60 mm for the TELYT-R f/6.8 560 mm lens*
to extend the operating range (near focusing) 14 182

Minimum focusing distance (with one extension tube) With the TELYT f/6.8 560 mm: 641 – 396 cm (21 ft – 13 ft)	Smallest object field (with one intermediate tube) 112 x 168 mm (4.4 x 6.6 in)

Carrying strap for heavy equipment 14 130
Release switch for insertion in the universal handgrip for the
combination LEICA R 3 MOT/motor-winder R 3   . . . .   14 275

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* also suitable for the TELYT-R f/6.8-560 mm
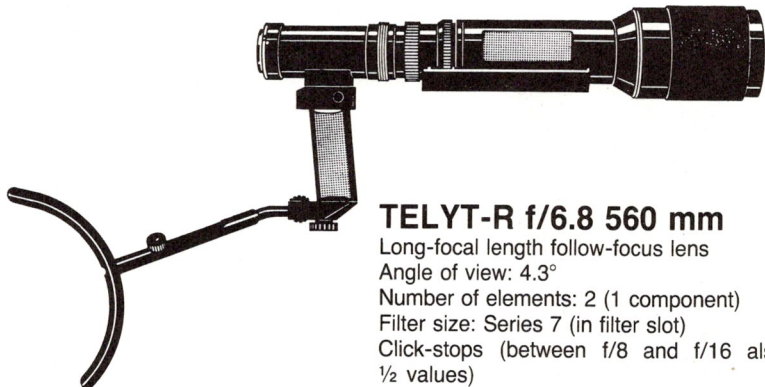
TELYT-R f/6.8 560 mm

Long-focal length follow-focus lens
Angle of view: 4.3°
Number of elements: 2 (1 component)
Filter size: Series 7 (in filter slot)
Click-stops (between f/8 and f/16 also ½ values)
Smallest aperture: f/32
Focusing range: ∞ – 6.4 m (21 ft)
Follow-focus device (adjustable front part of lens with parallel guide, push-button to release the focusing mechanism)
Smallest object field: 224 x 336 mm (8.8 x 13.2 in)
Built-on, extensible, easy-grip lens hood covered with grained PVC
Rotatable swivelling device for upright and horizontal format (push-button engages at 90°
Lens can be dismantled for easy transport
Hard-chrome LEICA-R rapid bayonet changer
Slot with cover for Series 7 filters
Black finish
Lens cap dia.: A 98 mm
Tripod thread A ¼ and ³/₈ (DIN 4503) (¼ and ³/₈in)
Length from bayonet flange: 530 mm
Diameter: 98 mm
Weight: 2.33 kg
Universal handgrip with shoulder stock, detachable

11 865

	Code No.
TELYT-R f/6.8 560 mm, consisting of:	
TELYT-R f/6.8 560 mm lens unit	11 907
Lens tube	11 906
Universal handgrip with shoulder stock	14 188

TELYT-R f/6.8 560 mm, complete
with lens hood and lens cap and rear cover **11 865**
(Replacement lens cap and Series 7 filters see "Accessories for the LEICA-R System")

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* Suitable also for the TELYT-R f/6.8 400 mm

65
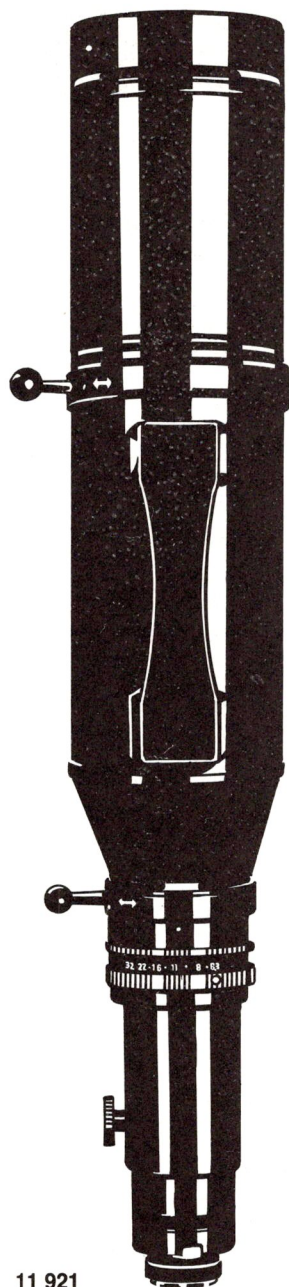
TELYT-S f/6.3 800 mm

Extreme telephoto lens with LEITZ special glasses for maximum optical performance
Angle of view: 3°
Number of elements: 3 (1 component)
Filter size: Series 7 (in filter slot)
Click-stops (between ft 6.3 and 22 also ½ values)
Pres-set diaphragm
Smallest aperture: ft 32
Focusing range: ∞ to 12.5 m (41 ft)
Smallest object field: 320 x 480 mm (1 ft 0.6 in – 1 ft 7 in)
Rapid focusing by means of an easy-grip rotary knob and parallel guide
Lens can be dismantled into 5 parts for transport in a special metal case – assembly and dismantling by means of bayonet and marked locking rings with levers
Sturdy carrying grip for assembled lens
Lining-up device in the shape of a sports finder with rear and front sight and field-of-view orientating device for upright and horizontal format, protected against damage by integration with the carrying grip.
Detachable and lockable lens hood
Slot with cover for Series 7 filters
Thread A ³/₈ (DIN 4503), ³/₈ in) for sturdy tripods
Support ring, rotatable with tripod thread A ¼ (DIN 4503), (¼ in) for additional monopod
Black finish
LEICA R rapid bayonet changer
Rotatable swivelling device for upright and horizontal format (push-button engages at 90°)
Length from bayonet flange: 780 mm
Diameter: 152 mm
Weight: 6,82 kg

11 921

	Code No.
TELYT-S f/6.3 800 mm Complete, with special metal transport case	11 921

14 167

Adapter
For the use of the VISOFLEX 2/3 lenses an:
LEICA R 3/R 3 MOT, LEICAFLEX SL 2/SL 2 MOT,
LEICAFLEX SL/SL MOT (with working aperture) 14 167

Adapter
for LEICA lenses of the VISOFLEX 3 (stop simulation for
LEICAFLEX with external measurement) 14 127

Modification of LEICAFLEX lenses for use on the LEICA R 3

Existing LEICAFLEX-R lenses can be fitted with a cam for the
full utilization of the LEICA R 3 exposure facilities.

**Modified lenses continue to be fully suitable for all LEICA-
FLEX models as before.**

Price and delivery after modification
On request from your local LEITZ agent or the Technical
Service Centre, Ernst Leitz Wetzlar GmbH,
P. O. Box 2027,
D-6330 Wetzlar, Germany.

Accessories for the LEICA R-system

LEICA R 3
LEICA R 3 MOT
LEICAFLEX SL 2/SL2 MOT
LEICAFLEX SL/SL MOT
LEICAFLEX

Contents:

Correction lenses

For the LEICA R3,
      LEICA R3 MOT
      LEICAFLEX SL 2/SL2 MOT
      (spherical)

+ 0.5	14 240
+ 1.0	14 241
+ 1.5	14 242
+ 2.0	14 243
+ 3.0	14 244
− 0.5	14 245
− 1.0	14 246
− 1.5	14 247
− 2.0	14 248
− 3.0	14 249

For the LEICAFLEX SL/SL MOT,
      LEICAFLEX with external exposure measurement
      Also for VISOFLEX III
      (spherical)

+ 0,5	14 118
+ 1,0	14 371
+ 1,5	14 372
+ 2,0	14 373
+ 3,0	14 374
− 0,5	14 375
− 1,0	14 376
− 1,5	14 377
− 2,0	14 378
− 3,0	14 064

Ever-ready cases

For the **LEICA R 3,**
       LEICA R 3 MOT
       (without motor-winder R 3)
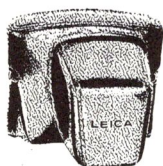
14 506

Ever-ready case, leather
with standard front part for 50 mm lenses with lens hood . .   **14 506**
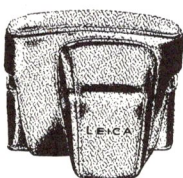
14 507

Ever-ready case, leather
with large front part for the following lenses:
16 mm f/2.8, 28 mm f/2.8, 35 mm f/2.8, 35 mm f/2, 60 mm
f/2.8 (without 1:1 adapter), 90 mm f/2.8, 90 mm f/2 with lens
hood; 21 mm f/4, 24 mm f/2.8, PA/35 mm without lens hood . **14 507**

Ever-ready case, soft leather
with standard front part for 50 mm lenses with collapsible lens
hood   (in preparation)

Ever-ready case for the LEICA R3 MOT
with the motor-winder R3 and handgrip in position   (in preparation)

For the LEICAFLEX SL2

14 504

Ever-ready case for the LEICAFLEX SL2
with normal front part for the 50 mm f/2 lens
with lens hood **14 504**

72

Ever-ready case for the LEICAFLEX SL2 with large front part for the following lenses: 16mm f/2.8, 28 mm f/2.8, 35 mm f/2.8, 35 mm f/2, 50 mm f/1.4, 60 mm f/2.8 (without adapter), 90 mm f/2.8, 90 mm f/2 with lens hood; 21 mm f/4, 24 mm f/2.8, 35 mm f/2, PA/35 mm without lens hood **14 509**

Separate button-on large front part 14 508

Leather case for the hoods 14 621
of the following lenses:
f/1.4 50 R 11 875,
f/2 35 R 11 227,
f/2.8 28 R 11 228

Combination cases
for the LEICA R3

Accepts one LEICA-R with lens of focal length up to 135 mm in position and, depending on their length, two additional lenses, films and filters **14 828**

For the LEICA R3 MOT (in preparation)

for the LEICAFLEX

External dimensions: about 21 x 11.5 x 19 cm
Weight: 0.66 kg
(Coupling ring: Item No. 028-855.002–000)
Available from LEITZ After-Sales-Service Department.
Accepts one LEICAFLEX with lens of focal length up to 135 mm in position, up to two additional lenses depending on their length, films, and filters 14 824

Universal holdall cases
for the LEICA R3
and the LEICAFLEX

External dimensions: about 30 x 12.5 x 18.5 cm
With insert III taking:
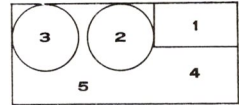
1 = 1 Camera with 16mm, 21mm, 28mm, 35mm, 50mm, 60mm lens without 1:1 adapter or 1:2/90mm lens in position.
2 = 1 100mm lens without close up adapter 135mm lens or 180mm lens coupled with 1 21mm*, 24mm*, 28mm*, 2.8/35mm* or 2/50mm lens, or 1 19mm or 100mm with close up adapter or 180mm or 250mm or 45–90mm or 75–200mm or 80–200mm lens.
3 = 1 60mm lens with 1:1 adapter coupled with 1 28mm*, 2.8/35mm* or 2/50mm lens or 1 60mm lens without 1:1 adapter or 90mm coupled with 21mm*, 24mm*, 28mm*, 2/35mm, 2.8/35mm*, 4/35mm* or 50mm lens.
4 = 4 ELPRO near-focusing attachments in leather case.
5 = space for films and filters in containers.

	Code No.
Complete outfit, weight 1 kg	14 809
Insert III separate	14 819
Universal holdall case separate	14 815

(Coupling ring: Item No. 028-855.002-000)
Available from LEITZ After-Sales-Service Department

For the LEICA R3 MOT   (in preparation)

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* without lens hood.

Reporter Case

14 830

Reporter Case
External dimensions: 35 x 15 x 32 cm 14 830

Angle finder

For candid shots "round the corner" or above the heads of
a crowd
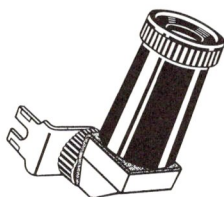
14 288

For the LEICA R3/R3 MOT
90° angle finder, right-way-round, upright image, with focus-
ing eyepiece 14 288

For the LEICAFLEX/SL/SL2
90° angle finder, right-way-round, upright image, with focus-
ing eyepiece 14 286

Ball-and-socket heads
for all camera models

14 119

14 121

Large ball-and-socket head with tripod thread
A ³/₈ and A ¹/₄ DIN 4503 (³/₈ in and ¹/₄ in) (combined) 14 121
Small ball-and-socket head with tripod thread A ¹/₄ (¹/₄ in) . .   14 119

Table-top tripod
for all camera models

14 100

Table-top tripod with three folding legs,
tripod thread A ¹/₄ (¹/₄ in) 14 100

Universal handgrip

14 188

Universal handgrip with shoulder stock, universally
adjustable for the requirements of the individual user
Thread A ¹/₄ DIN 4503 (¹/₄ in) for the carrying strap 14 300
Universal Handgrip with shoulder stock, weight 0.61 kg . . .   14 188

Carrying straps for heavy equipment

(See universal handgrip 14 188)

14 130

Carrying strap with non-slip pad for heavy equipment, with
two tripod screws, thread A ¼ (¼ in) 14 130

Cable releases

For all camera models with conical thread
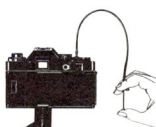
Cable release, length 25 cm, with arresting screw 14 067
Cable release, length 50 cm, with arresting screw 14 076

Camera Spare Parts

14 103

Camera body cover R bayonet (replacement) 14 103
(for all R cameras)

Carrying straps
for the LEICA R3/R3-MOT

14 226

14 092

Carrying strap
for the LEICA R3 (replacement) 14 226

Carrying strap (with non-slip pad), adjustable (replacement)   14 092
for all LEICAFLEX cameras

14 183

Twin flash socket cover (replacement) 14 183
For all R cameras

LEICAFLEX-MOTOR
For the SL MOT and SL2 MOT

14 077

For use only on the LEICAFLEX SL MOT or SL2 MOT

Automatic shutter wind for series and single exposures

Remote control via electric cable or radio etc.

Frequency 3–4 fps
Can be switched over for camera and motor operation as well as for single exposures

Battery housing, for 10 NC batteries, e.g. VARTA DEAC 501 RS (or 10 1.5 v midget batteries)

Required for same: one VARTA charger, Code No. GF 1.2-12/0.005-0.5.
The charger must charge at about 45 mA, i.e. it must be set for 10 batteries.

Film counter for motor-operated exposures
End switch for 36 exposures and ∞-position
3-pin connection for remote release and remote counter
Radio control on request

Dimensions: height 92 mm, length 145 mm, depth 40 mm.
Weight: 0.7 kg

LEICAFLEX-MOTOR 14 077

Accessories for the LEICAFLEX-MOTOR

Battery housing for the LEICAFLEX-MOTOR, separate
(replacement) 14 147

Tripod holder for mounting the motor equipment
on a tripod 14 148

14 181

Handgrip for hand-held exposures 14 181

Connecting cable for remote supply (with safety switch) .   14 175

Extension cable for remote release, 5 m 14 179

Extension cable for remote release, 25 m 14 178

Remote release with push-button, length 2.5 m 14 176

Remote release with additional built-in counter (14 178 or
14 179 required) 14 177

Tandem device for connecting two LEICAFLEX SL2 MOT
cameras for exposures at 6–7 fps 14 185

Twin cable for coupling a radio control and the remote release
with counter with the LEICAFLEX SL2 MOT 14 180

Connecting cable for the LEICAFLEX SL2 MOT with the STI
LEICINA SUPER control unit (for intervals from about 0.5 sec
to about 360 sec) 14 187

Universal handgrip for hand-held exposures with lenses of
long focal length 14 188

Release switch for the use of the universal handgrip on
LEICAFLEX SL MOT 14 189

Accessories for R lenses

LEITZ-filters

	Screw-in filter E 55 (M 55 × 0.75)	Series 6	Series 7	Series 8	Series 8.5
Yellow	13 326	13 013	13 006	13 019	13 022
Yellow-Green	–	13 014	13 007	13 021	–
Orange	13 312	13 011	13 008	13 017	13 023
UV (colourless)	13 373	13 012	13 009	13 018	13 024
Circular pol	13 357[1]	–	13 370[2]	13 372[3]	–
Pol	13 374[1]	–	–	–	–
Filter adapter	–	14 160 (M 44 × 0.75)	14 161 (M 44 × 0.75) 14 225 (M 55 × 0.75)	14 165 (M 72 × 0.75)	–

1. With screw-in rotary mount M 55 x 0.75

2. For R lenses:
   - f/2.8   28* 11 204
   - f/2.8   35* 11 201 (from No. 2.517.851)
   - f/2   35* 11 227 (lens discontinued)
   - f/1.4   50* 11 875 (lens discontinued)
   - f/6.8   400 11 960
   - f/6.8   560 11 865

   * Rotation with lens hood as filter adapter

3. For R lenses:
   - f/2.8   24* 11 221
   - PA f/4   35* 11 202
   - f/2.8   60* 11 203
   - f/2.8   180 11 219
   - f/4   250 11 920

   * Rotation with lens hood as filter adapter

Circular pol filters
With screw-in rotary mount

M 44 x 0.75   for R f/2.8 35 11 101 (lens discontinued)
(E44)   (up to No. 2.517.850)
13 353   for R f/250 11 228 (lens discontinued)
   (up to No. 2.816.825)

M 54 x 0.75   for R f/2.8 90 11 239 up to No. 2.809.000
(E54)   (higher numbers filter E 55)
13 354   for R f/2 90 11 219 up to No. 2.770.950 (higher numbers filter E55)
   for R f/4 100 11 230 of the focusing bellows R
   for R f/2.8 135 11 211 up to No. 2.772.618 (higher numbers filter E55)

Polarizing filters
With screw-in rotary mount

M 44 x 0.75
(E44)
13 358
for R f/2.8 35 11 101 (lens discontinued)
(up to No. 2.517.850)
for R f/250 11 228 (lens discontinued)
(up to No. 2.816.825)

M 54 x 0.75   for R f/2.8 90 11 239 up to No. 2.809.000
(E54)   (higher numbers filter E55)
13 359   for R f/2 90 11 219 up to No. 2.770.950
   (higher numbers filter E55)
   for R f/4 100 11 230 of the focusing bellows R
   for R f/2.8 135 11 211 up to No. 2.772.618
   (higher numbers filter E 55)

Transparent plastic container for Series filters
(replacement) **14 612**

Container for Series 7, 8, filters, pol filter, and circular
pol filter (replacement) **14 614**

Accessories for discontinued R lenses

R lens	Code No	Lens hood	Lens cap	Rear cover	Filter (4) or screw-in	Series	Adapter f. Series filter
f/2.8 16	11 222	built in	14 089	14 162	built in		–
f/2.8 19	11 225	12 529	14 221	14 162	M82 x 0.75		–
f/4 21	11 813	12 506	14 145	14 162	–	8.5	lens hood
f/2.8 24	11 221	12 523	14 184	14 162	–	8	lens hood
f/2.8 28	11 204	12 509	14 172	14 162	–	7	lens hood
f/2.8 35	11 201	12 509	14 133	14 162	–	7	lens hood
f/2 35	11 115	built in	14 133	14 162	E55 or 7		14 225
f/4 35	11 202	12 514	14 184	14 162	–	8	lens hood
f/2 50	11 215 11 216	built in	14 133	14 162	E55 or 7		14 225
f/1.4 50	11 776	built in	14 133	14 162	E55 or 7		14 225
f/2.8 60	11 203	12 514	14 184	14 162	–	8	lens hood
f/2.8 90 from No. 2.809.001	11 239	built in	14 089	14 162	E55 or 7		14 225
f/2 90 from No. 2770951	11 219	built in	14 144	14 162	E55 or 7		14 225
f/4 100 (1)	11 232	built in	14 089	14 162	E55 or 7		14 225
f/2.8 135 from No. 2772619	11 211	built in	14 089	14 162	E55 or 7		14 225
f/4 180	11 922	built in	14 089	14 162	E55 or 7		14 225
f/3.4 180	11 240	built in	14 089	14 162	–	7.5	14 222
f/2.8 180	11 919	built in	14 166	14 162	–	8	14 165
f/4.5 75 – 200	11 226	built in	14 144	14 162	E55 or 7		14 225
f/4 250	11 920	built in	14 166	14 162	–	8	14 165
f/6.8 400	11 960	built in	14 152 (2)	14 162 (3)	–	7	filter slot
f/6.8 560	11 865	built in	14 140 (2)	14 162 (3)	–	7	filter slot
f/6.3 800	11 921	built in	on request	14 162	–	7	filter slot

(1) 100 mm MARCO-ELMAR f/4 11 230 for the focusing bellows-R see below "Accessories R for the nearfocusing range"
(2) Front cover for lens tube 11 906 of the f/6.8 400 and f/6.8 560 on request
(3) Rear cover for lens units f/6.8 400 and f/6.8 560: 14 150
(4) Filters see table page 82

Accessories for discontinued R lenses

R lens	Lens hood	Lens hood cap	Lens cap	Rear cover	Filter size (2)	Adapter for Series filter	Internal lens thread
SUPER-ANGULON-R 3.4 21 11803	12 511	14 107	–	14 106	–	–	–
ELMARIT-R 2.8 35 11101 up to No. 2.517.850	12 564	14 163	–	14 162	Series 6	14 160	M44 x 0.75
SUMMICRON-R 2 35 11227 up to No. 2.791.416	12 509 (1)	–	14 172	14 162	Series 7	lens hood	M48 x 0.75
SUMMICRON-R 2 50 11228 up to No. 2.816.825	12 564	14 163	–	14 162	Series 6	14 160	M44 x 0.75
SUMMILUX-R 1.4 50 11875 up to No. 2.806.500	12 508 (1)	14 171	14 172	14 162	Series 7	lens hood	M48 x 0.75
ELMARIT-R 2,8 90 11239 up to No. 2.809.000	built in	–	14 089	14 162	Series 7	14 161	M54 x 0.75
SUMMICRON-R 2 90 11219 up to No. 2.770.950	built in	–	14 144	14 162	Series 7	14 161	M54 x 0.75
ELMARIT-R 2.8 135 11211 up to No. 2.772.618	built in	–	14 089	14 162	Series 7	14 161	M54 x 0.75
VARIO-ELMAR-R 4.5 80 – 200 11224	built in	–	14 044	14 162	E 55 or Series 7	14 225 for Series 7	M55 x 0.75
TELYT-unit 5.6 400 (TELEVIT-R)	built in	–	14 140	14 150	Series 7	Filterslot	–
TELYT-unit 5.6 560 (TELEVIT-R)	built in	–	14 141	14 150	Series 7	Filterslot	–

(1) Leather case for same: 14 621
(2) Filters see table page 82

Lens hoods
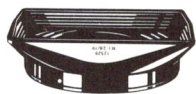
Lens hood for the f/2.8 19 mm lens (replacement) **12 529**
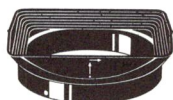
12 506

Lens hood for the f/4 21 mm lens (replacement) **12 506**
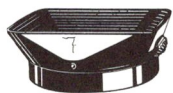
12 523

Lens hood for the f/2.8 24 mm lens (replacement) **12 523**

12 509

Lens hood for the f/2.8 28 mm and f/2 35 mm (11 227) lenses (replacement) (f/2.8 35 mm from lens No. 2.517.851) **12 501**
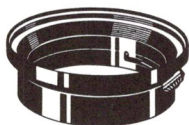
12 514

Lens hood for the 35 mm PA-CURTAGON f/4 lens (replacement) and the 60 mm MACRO-ELMARIT-R f/2.8 . . . . . . **12 514**

12 564

Lens hood for the f/2.8 35 and f/2 50 mm (11 228) R lenses (replacement) (f/2.8 35 mm up to lens No. 2.517.850) **12 564**

12 508

Lens hood for the f/1.4 50 mm lens (replacement) **12 508**

86

Accessories R for the near-focusing range

See also LEICA R lenses in the near-focusing range
60 mm MACRO-ELMARIT-R f/2.8 and
100 mm MACRO-ELMAR-R f/4

16 543

ELPRO near-focusing attachments for current LEITZ-R lenses

Lens	ELPRO 1* 16541	ELPRO 2* 16542	ELPRO 3 16543	ELPRO 4 16544
SUMMICRON-R f/2 50mm (E 55) 11215/11216	●	●		
ELMARIT-R f/2.8 90mm (E 55) from No. 2.809.001 11239			●	
SUMMICRON-R f/2 90mm (E 55) from No. 2.770.951 11219			●	
MACRO-ELMAR-R f/4 100mm (E 55) 11232/11234			●	●
ELMARIT-R f/2.8 135mm (E 55) from No. 2.772.619 11211			●	●
ELMAR-R f/4 180mm (E 55) 11922			●	●
VARIO-ELMAR-R f/4.5 75 – 200mm (E 55) 11226			●	●

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* can also be used on the 50 mm SUMMICRON f/2 Code No. 11 228.
  Lens hood cannot be attached

Data and details see under the relevant lenses, section "LEICA-R lenses"

ELPRO near-focusing attachments for discontinued LEITZ-R lenses

Lens:	ELPRO	Distance scale on	Distance in cm Object film	Object front lens	Object area in mm	Reproduction scale	Depth of field in mm circle of confusion 1/30 mm 8	11	16
SUMMICRON-R	VI a	∞	50	41	184 x 276	1 : 7.7	31	43	63
f/2 50mm	16531	0.5	31	21	91 x 137	1 : 3.8	8	11	16
(M 44 x 0.75)	VI b	∞	30	21	94 x 141	1 : 3.9	9	12	17
11228*	16532	0.5	24	14	62 x 93	1 : 2.6	4	5	8
ELMARIT-R f/2.8 90mm up to No. 2.809.000 (M 54 x 0.75) 11239	VII a 16533	∞ 0.7	74 44	61 30	161 x 241 72 x 108	1 : 6.7 1 : 3.0	24 6	33 8	49 12
SUMMICRON-R f/2 90mm up to No. 2.770.950 (M 54 x 0.75) 11219	VII a 16533	∞ 0.7	74 44	61 30	161 x 241 72 x 108	1 : 6.7 1 : 3.0	24 6	33 8	49 12
ELMARIT-R	VII a	∞	76	61	107 x 160	1 : 4.5	10	15	21
f/2.8 135mm up to	16533	1.5	58	42	66 x 99	1 : 2.8	5	7	10
No. 2.772.618	VII b	∞	150	135	237 x 355	1 : 9.9	52	71	104
(M 54 x 0.75) 11211	16534	1.5	84	68	106 x 159	1 : 4.4	12	17	25
VARIO-ELMAR-R	3	80mm/∞	82	61	177 x 266	1 : 7.4	29	40	58
f/4.5 80 – 200mm	16543	200mm/1.8	66	45	50 x 75	1 : 2.1	3	4	6
(M 54 x 0.75)	4	80mm/∞	156	135	392 x 588	1 : 16.3	142	195	284
11224	16544	200mm/1.8	96	74	83 x 125	1 : 3.5	8	11	16

Leather-case for one near-focusing attachment **14 553**

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* ELPRO 1 and ELPRO 2 can be used.
In that case the lens hood cannot be used.

Ring combination for the near-focusing range

14 159

Ring combination for the near-focusing range with semi-automatic pre-set diaphragm
2-part ring (height 25 mm) **14 158**
Middle ring (height 25 mm) for increasing the reproduction
scale, per piece **14 135**

Combination complete, weight 0.175 kg **14 159**

on the 50 mm SUMMICRON-R   reproduction scale 1.1:1
on   90 mm lenses   reproduction scale 1:1.3
on the 135 mm ELMARIT-R   reproduction scale 1:2.1
on the 180 mm ELMARIT-R   reproduction scale 1:2.5
on the 180 mm APO-TELYT-R   reproduction scale 1:2.7
on the 250 mm TELYT-R   reproduction scale 1:3.6

Twin cable release for same **16 494**

Copying Stand
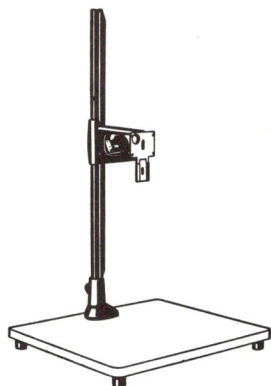
For the attachment of:
The LEICA R3 and all LEICAFLEX models with or without
Universal Focusing Bellows R
All LEICA models (up to M5) with VISO-FLEX 3, with or without Universal Focusing Bellows 2

16 707

Copying stand
consisting of:
46 x 50 cm baseplate, 80 cm column, with non-rotating guide and flange, carrier with coarse and fine adjustment **16 707**
Weight: 6.26 kg

Angle Finders

(for working on the copying stand and for photography "round the corner" or above the heads of a crowd)

for the LEICA R3

14 288

Angle finder 90°, right-way-round, upright image, focusing
eyepiece **14 288**

for the LEICAFLEX SL/SL2
Angle finder 90°, right-way-round, upright image, focusing
eyepiece **14 286**

Focusing Bellows R

For the LEICA R3/R3 MOT,
LEICAFLEX SL/SL2:
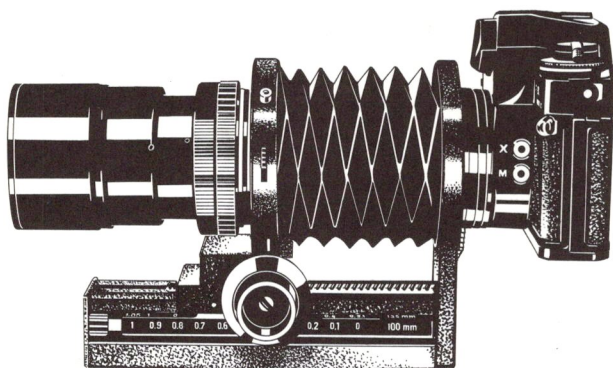
Focusing Bellows R

Very robust, variable extension for continuous focusing in conjunction with the LEICA R3/R3 MOT and all LEICAFLEX models.

Maximum extension 100 mm.

Rotatable scale carrier; the reproduction scales for 90, 100, and 135 mm LEICA-FLEX lenses are engraved.
Additional mm scale, length 100 mm.

Additional clamping adjustment facility for the preservation of a certain reproduction scale.

Lens stop closed to the pre-selected value with twin-cable release or pressure on the sliding knob (pre-set diaphragm)

Alternative upright and horizontal format
Tripod thread A ¼ and A ³/₈ DIN 4503 (¼ and ³/₈ in)
Weight: 0.78 kg

Code No.

Focusing Bellows R
(without lens) **16 860**
Twin cable release for same 16 494

With 100 mm MACRO-ELMAR f/4 special lens for photography within the range of ∞ to 1:1.

MACRO-ELMAR® f/4 100 mm

Lens for the use on the Focusing Bellows R

Angle of view: 24.5°
Number of elements: 4
Filter size: series 7
Adapter ring for Series 7 filters
Lens cap dia.: A 65mm
Click-stops (including ½ values)
Smallest aperture: f/22
Focusing range with Focusing Bellows R:
∞ − 1:1
Smallest object field: 24 x 26 mm (1x1.5 in)
Black finish
Built-on, extensible lens hood
Internal thread: M54 x 0.75
Weight: 0.365 kg

11 230

MACRO-ELMAR f/4 100 mm
with lens hood, lens cap and rear cover **11 230**
Replacement parts:
Lens cap: 14 089
Rear cover: 14 162
Filter adapter for Series 7: 14 161
Series 7 filters see "Accessories for the LEICA-R SYSTEM/B")

Universal handgrip
with shoulder stock for hand-held exposures with the Focusing Bellows R.
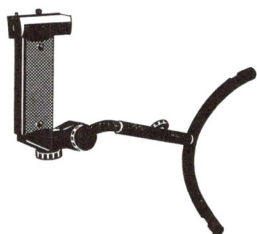
14 188

Universal handgrip with shoulder stock, weight 0.61 kg **14 188**

Further possibilities of combination of the Focusing Bellows-R with the R lenses

	Range of reproduction scales	Free distance between the front element of the lens and object	Object field
SUMMICRON-R (R) f/2 50 mm	1:1,2 - 2,9:1	9,1 - 4,5 cm	29,6 × 44,4 à 8,4 × 12,5 mm
MACRO-ELMARIT-R (R) f/2 60 mm	1:1,5 - 2,8:1	12,5 - 5,7 cm	35 × 53 à 8,5 × 12,8 mm
MACRO-ELMARIT-R f/2.8 60 mm with 1:1 adapter	2,8:1 - 3,3:1	5,7 - 5,4 cm	8,5 × 12,8 à 7,2 × 10,8 mm
MACRO-ELMAR (R) f/4 100 mm	1:2,1 - 1,8:1	24,5 - 10,4 cm	51,1 × 76,6 à 13,7 × 20,6 mm
90 mm lenses	∞ - 1:1	∞ - 18,7 cm	∞ à 24,0 × 36,0 mm
MACRO-ELMAR-R f/4 100 mm with helical focusing mount	1:2,4 - 1,7:1	32,6 - 14,7 cm	57,1 × 85,7 à 14,2 × 21,3 mm
MACRO-ELMAR-R f/4 100 mm with helical focusing mount and close-up focusing ring	1:1,4 - 2,0:1	22,6 - 13,8 cm	33,3 × 50,0 à 12,1 × 18,1 mm
ELMARIT-R (R) f/2.8 135 mm	1:3,2 - 1,2:1	57,7 - 25,9 cm	77,2 × 115,8 à 20.6 × 30,9 mm
ELMARIT-R f/2.8 180 mm	1:4,4 - 1:1,1	98,0 - 40,6 cm	104,3 × 156,5 à 26,1 × 39,1 mm
APO-TELYT-R f/3.4 180 mm	1:4,3 - 1:1,1	101,8 - 45,3 cm	102,7 × 154,1 à 27,4 × 41,1 mm
TELYT-R (R) f/4 250 mm	1:6 - 1:1,6	196,2 - 86,9 cm	142,8 × 214,2 à 37,9 × 56,8 mm

16 863

Adapter ring
for the use of the following lenses on the Focusing Bellows R:

65 mm ELMAR f/3.5 lens (∞ – 1.5:1)
Lens unit of the 90 mm ELMARIT f/2.8 (∞ – 1.1:1)
Lens unit of the 135 mm ELE-ELMAR f/4 (∞ – 1:1.3)
Adapter ring **16 863**

Lenses for the LEICA-M can be used with adapter 14 127 and 14 167 respectively.

LEITZ-PHOTAR lenses on the Focusing Bellows R
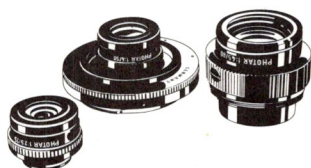
PHOTAR	Code No.	Short bellows extension		Long bellows extension	
		reproduction scale	working distance	reproduction scale	working distance
12.5mm f/1.9	549 017	8:1	10mm	16:1	9mm
25mm f/2.5	549 018	3:1	21mm	7:1	17mm
50mm f/4	549 019	1:1	91mm	3:1	56mm

All values are round. The working distance corresponds to the distance between the object plane and the lens mount.

PHOTAR® lenses can be attached with adapter rings, Code No. 500 935 and 542 185

LEICA M-system

Contents:

LEICA M 4-2

10 410
11 114

Compact all-metal body with hinged back, easy-grip, covered with grained PVC, carrying eyelets on one side, top and baseplate black chromium plated. ¼″ tripod thread. A ¼ DIN 4503 (¼ in)

Built-in bright-line measuring viewfinder for critical focusing.

Automatically reflected image frames for 35, 50, 90 and 135 mm focal length.

Automatic parallax compensation.

Finder frame selector.

Quick-change bayonet lens mount.

Click-stop shutter speed dial, can be coupled with attachable LEICAMETER® MR exposure meter.

Focal-plane shutter for 1, ½, ¼, ¹/₈, ¹/₁₅, ¹/₃₀, ¹/₆₀, ¹/₁₂₅, ¹/₂₅₀, ¹/₅₀₀ and ¹/₁₀₀₀ sec and time exposures of any duration.

Automatic flash synchronization for flashbulbs up to ¹/₅₀₀ sec, for electronic flash units up to ¹/₅₀ sec.

Separate standard contacts for flashbulbs and electronic flash units.

Accessory shoe contact (X contact).

Rapid winding lever with double-exposure lock for shutter wind and film transport.

Quick film reloading system for all commercially available 35 mm films and LEICA cassettes.

Inclined crank handle for rewinding the exposed film.

Automatic frame counter read through a magnifying glass.

Film indicator with DIN-ASA conversion scale.

Shoe for special viewfinders and other accessories.

Mechanical junctions for the use of the LEICA winder.

Dimensions: Height 11 mm, length 138 mm, depth 36 mm.

Weight: 0.525 kg

LEICA M4-2 body
(Black chromium finish) with carrying strap, body cover, and
flash socket covers **10 410**

Ever-ready case and other accessories: see "Accessories for
the M cameras"

LEICA-winder M4-2
Can be used on the LEICA M4-2 and the LEICA MD-2 only.
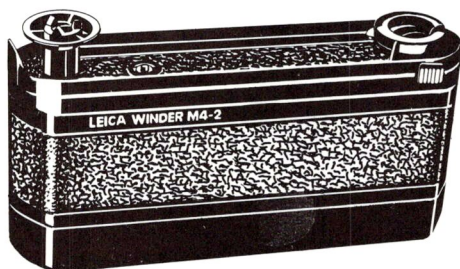
14 214

Automatic shutter wind and film transport for single exposures up to 3 pictures per second.

For all shutter speeds from 1 to 1/1000 sec including B.

Remote release via cable release bush.

Manual film transport and shutter wind possible when the winder is disengaged or the batteries are exhausted.

Battery housing for 4 1.5 v midget cells or 4 NC batteries.

Dimensions:
Height including battery housing 56 mm, length 138 mm, depth 35 mm.
Weight: 0.37 kg.

	Code No.
LEICA-winder M4-2	14 214

Accessories:

Hand loop	14 228
Connecting cable for remote supply	14 229
Battery housing for the winder (replacement)	14 227

LEICA MD-2
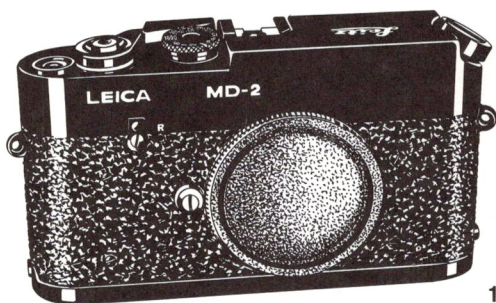
10 105

Compact <u>all-metal body with hinged back and </u>eyelets on both sides, top and baseplate black chromium plated. ¼″ tripod thread A ¼ DIN 4503

<u>Quick-change bayonet lens mount.</u>

<u>Click-stop shutter speed dial.</u>

<u>Focal-plane shutter for</u> 1, $^1/_2$, $^1/_4$, $^1/_8$, $^1/_{15}$, $^1/_{30}$, $^1/_{60}$, $^1/_{125}$, $^1/_{250}$, $^1/_{500}$ and $^1/_{1000}$ sec and time exposures of any duration.

<u>Automatic flash synchronization f</u>or flashbulb up to $^1/_{500}$ sec, for electronic flash units up to $^1/_{50}$ sec. Accessory shoe contact (X).

<u>Separate standarad contacts</u> for flashbulb and electronic flash units.

<u>Rapid winding lever with double exposure lock </u>for shutter wind and film transport.

<u>Quick film reloading system</u> for all commercially available 35 mm films and LEICA cassettes.

<u>Inclined crank handle</u> for rewinding the exposed film.

<u>Automatic frame counter</u> read through a magnifying glass.

<u>Film indicator</u> with DIN-ASA conversion scale.

Shoe for special viewfinders and other accessories.

Prepared for the use on the REPROVIT IIa.

Mechanical junctions for the use of the LEICA winder M4-2

Dimensions: Height 77 mm, length 138 mm, depth 36 mm.

Weight: 0.46 kg

Code No.

LEICA MD-2 BODY,
with body cover and flash socket covers **10 105**

104

Accessories:

Recording device consisting of:
Special baseplate for the LEICA MD-2* (including 10 marking
strips) 14 142
100 marking strips 14 170
LEICA-WINDER M4-2 (see ,,LEICA M4-2")

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* cannot be used together with the LEICA-WINDER M4-2

SUPER-ANGULON®-M
f/3.4 21 mm*

11 103

Lens of extremely wide angle of view
Angle of view: 92°
Number of elements: 8
Filter size: 7 or E 48
Series 7 filters must be inserted in the lens hood
External lens mount diameter: A 52.5
Combined "feet-metre" scale
Click-stops (including ½ values)
Smallest aperture: f/22
Rangefinder coupling:
for LEICA M2, M4, M4-2 and M5:
∞ to 0.7 m (28 in)
for LEICA M 3: ∞ to 1 m (40 in)
Manual focusing on M 3
down to 0.4 m (16 in)
Smallest object field:
380 x 570 mm (15 x 22.5 in approx.)
Brilliant finder required
Non-rotating focusing mount
Black finish
Lens hood
Internal thread: M 48 x 0.75
Weight: 0.3 kg
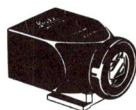
12 002

SUPER-ANGULON-M f/3.4 21mm with lens hood **11 103**
Brilliant viewfinder **12 002**
Leather case for brilliant viewfinder 14 617

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* For use in the LEICA M 5 please note directions on page 276.
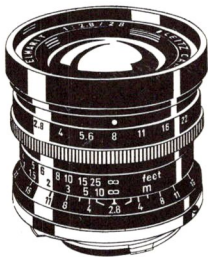
ELMARIT-M f/2.8 28 mm*

Wide-angle lens

Angle of view: 76°
Number of elements: 8
Filter size: 7 or E 48
Series 7 filters must be inserted in the lens hood
External lens mount diameter: A 52.5
Combined "feet-metre" scale
Click-stops (including ½ values)
Smallest aperture: f/22
Rangefinder coupling:
for LEICA M2, M4, M4-2 and M5:
∞ to 0.7 m (28 in)
for LEICA M 3: ∞ to 1 m (40 in)
Manual focusing on M 3 down
to 0.7 m (28 in)
Smallest object field:
533 x 800mm (21 x 32.5 in)
Brilliant finder required
Non-rotating focusing mount
Black finish
Lens hood
Internal thread: M 48 x 0.75
Weight: 0.225 kg
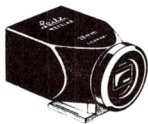
11 801

12 007

	Code No.
ELMARIT-M f/2.8 28mm with lens hood	**11 801**
Brilliant viewfinder	**12 007**
Leather case for brilliant viewfinder	14 617

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* For use in the LEICA M 5 please note directions on page 276.

SUMMICRON-M f/2 35mm

Fast wide-angle lens

Angle of view: 64°
Number of elements: 6
Filter size: 7 or E 39
External lens mount diameter: A 42
Combined "feet-metre" scale
Click-stops (including ½ values)
Smallest aperture: f/16
Rangefinder coupling:
for LEICA M2, M4, M4-2 and M5:
∞ to 0.7 m (28 in)
Smallest object field:
for LEICA M2, M4 AND M5:
430 x 640 mm (17 x 25 in approx.)
for LEICA M3:
630 x 950 mm (25 x 27 in)
Built-in camera finder
Non-rotating focusing mount
Black finish
Lens hood takes Series 7 filters
(unscrew front part of lens hood to insert the filter)
Internal thread: M 39 x 0.5
Weight: 0.17 kg

11 309

Code No.

SUMMICRON-M f/2 35 mm
with lens hood **11 309**

108
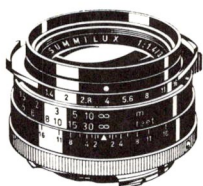
SUMMILUX®-M f/1.4 35 mm

Ultra-fast wide-angle lens
Angle of view: 64°
Number of elements: 7
Filter size: E 41 (up to Serial No. 2 166 700)
7 (from Serial No. 2 166 701)
External lens mount diameter:
A 46.5 (up to Serial No. 2 166 700)
A 42 (from Serial No. 2 166 701)
Combined "feet-metre" scale
Click-stops (including ½ values)
Smallest aperture: f/16
Rangefinder coupling:
∞ to 1 m (40 in)
Smallest object field:
630 x 950 mm (25 x 37 in)
Built-in camera finder
Non-rotating focusing mount
Black finish
Lens hood takes filters from Serial No.
2 166 701
Can be unscrewed to take the Series 7 filter
Internal thread up to No. 2 166 700:
M 41 x 0.75
Weight: 0.245 kg

11 870

Code No

SUMMILUX-M f/1.4 35mm
with lens hood **11 870**

SUMMICRON-M f/2 50mm

Fast universal lens

Angle of view: 45°
Number of elements: 6
Filter size: E 39
External lens mount diameter: A 42
Combined "feet-metre" scale
Click-stops (including ½ values)
Smallest aperture: f/16
Rangefinder coupling: ∞ to 0.7 m (28 in)
On LEICA M 3: ∞ to 1 m (40 in)
Smallest object field:
277 x 416 mm (11 x 16.4 in approx.)
(on M5, M4, M4-2, and M2)
410 x 620 mm (16 x 24.5 in approx.) (on M 3)
Built-in camera finder
Non-rotating focusing mount
Lens unit can be unscrewed from mount
Lens hood
Black finish
Internal thread: M 39 x 0.5
Weight: 0.26 kg

11 817

	Code No.
SUMMICRON-M f/2 50mm with lens hood	11 817

SUMMILUX-M f/1.4 50mm

Ultra-fast universal lens

Angle of view: 45°
Number of elements: 7
Filter size: E 43
External lens mount diameter: A 45
Click-stops (from Serial No. 2 048 701 including ½ values)
Smallest aperture: f/16
Rangefinder coupling: ∞ to 1 m (40 in)
Smallest object field:
410 x 620 mm (16 x 24.5 in approx.)
Combined "feet-metre" scale
Built-in camera finder
Non-rotating focusing mount
Black finish
Lens hood
Internal thread: M 43 x 0.5
Weight: 0.36 kg

11 114

	Code No.
SUMMILUX-M f/1.4 50mm with lens hood	11 114
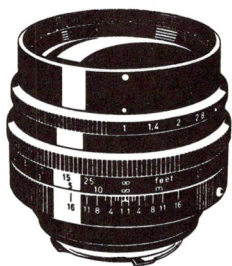
NOCTILUX®-M f/1 50 mm

Special lens of extreme speed

Angle of view: 45°
Number of elements: 7
Filter size: E 58
External lens mount diameter: A 61
Click-stops (including ½ values)
Smallest aperture: f/16
Rangefinder coupling: ∞ to 1 m (40 in)
Smallest object field:
410 x 620 mm (16 x 14.5 in approx.)
Combined "feet-metre" scale
Built-in camera finder
Non-rotating focusing mount
Black finish
Lens hood
Internal thread: M 58 x 0.75
Weight: 0.58 kg

11 821

Code No.

NOCTILUX-M f/1 50 mm
with lens hood 11 821
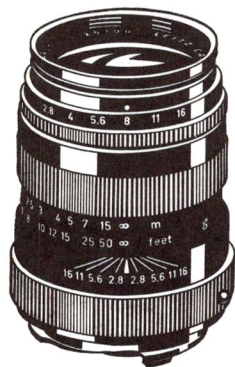
TELE-ELMARIT-M
f/2.8 90 mm (short design)

Handy press and snapshot lens

Angle of view: 27°
Number of elements: 4
Filter size: E 39
External lens mount diamter: A 42
Smallest aperture: f/16
Click-stops (including ½ values)
Rangefinder coupling: ∞ to 1 m (40 in)
Smallest object field:
220 x 330 mm (8.7 x 13 in approx.)
Combined "feet-metre" scale
Non-rotating focusing mount
Built-in camera finder
Lens unit cannot be unscrewed
Black finish
Internal thread: M 39 x 0.5
Weight: 0.225 kg

11 800

Code No.

TELE-ELMARIT-M f/2.8 90mm
with lens hood 11 800

11 026

ELMARIT-M f/2.8 90 mm
Lens unit separate

for use on the VISOFLEX 3 or Universal Focusing Bellows
2 (with lens hood) 11 026

112

SUMMICRON-M f/2 90mm

Fast lens for press work
Angle of view: 27°
Number of elements: 6
Filter size: E 48
External lens mount diameter: A 63.7
Click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Rangefinder coupling: ∞ to 1 m (40 in)
Smallest object field:
220 x 330 mm (8.7 x 13 in approx.)
Non-rotating focusing mount
Lens unit can be unscrewed from the mount
Built-in camera finder
Built-on, extensible lens hood
Black finish
Internal thread: M 48 x 0.75
Weight: 0.66 kg

11 123

	Code No.
SUMMICRON-M f/2 90 mm	11 123

Accessories for use on the VISOFLEX 3:

Short focusing mount for conversion of a rangefinder-cou-
pled lens for use on the VISOFLEX 3 (also suitable for
ELMARIT-M 135 mm, page 115 . . . . 16 462

SUMMICRON-M f/2 90 mm lens unit separate
for use on the Universal Focusing Bellows 2 . . . . 11 133
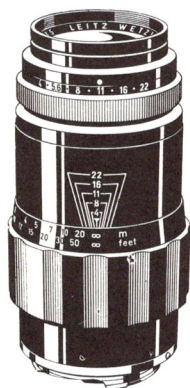
TELE-ELMAR-M
f/4 135 mm

Telephoto lens

Angle of view: 18°
Number of elements: 5
Filter size: E 39
External lens mount diameter: A 42
Click-stops (including ½ values)
Smallest aperture: f/22
Rangefinder coupling: ∞ to 1.5 m (60 in)
Smallest object field:
220 x 330 mm (8.7 x 13 in approx.)
Combined "feet-metre" scale
Lens unit can be unscrewed from
the mount
Viewfinder:
LEICA M 5, M 4, M 4-2, and M 3
built into the camera
LEICA M 2 brilliant finder required
Non-rotating focusing mount
Black finish
Internal thread: M 39 x 0.5
Weight: 0.55 kg

11 851

Code No.

TELE-ELMAR-M f/4 135 mm
with lens hood 11 851

TELE-ELMAR-M f/4 135 mm lens unit separate
for use on the Universal Focusing Bellows 2 and on the
VISOFLEX 3 with lens hood 11 852

ELMARIT-M f/2.8 135 mm with viewfinder front attachment

Fast telephoto lens
Angle of view: 18°
Number of elements: 5
Filter size: E 55 (M 55 x 0.75*)
For Series 7 filters the adapter 14 225 ist required
External lens mount diameter: A 63.7
Click-stops (including ½ values)
Smallest aperture: f/32
Rangefinder coupling: ∞ to 1.5 m (60 in)
Smallest object field:
220 x 330 mm (8.7 x 13 in approx.)
Combined "feet-metre" scale
Lens unit can be unscrewed from the mount
Built-in camera finder
Non-rotating focusing mount
Black finish
Built-on, extensible lens hood
Internal thread: M 55 x 0.75
Weight: 0.73 kg

11 829

Code No.
ELMARIT-M f/2.8 135 mm **11 829**

11 828

ELMARIT-M f/2.8 135 mm lens unit separate
for use on the Universal Focusing Bellows 2   . . . .   11 828

Accessories for use on the VISOFLEX 3:

16 462

<u>Short focusing mount</u> for conversion of a rangefinder-coupled lens for use on the VISOFLEX 3 (also suitable for SUMMI-CRON-M 90 mm, page 113) 16 462

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* up to No. 2.788.926, internal thread M 54 x 0.75, Series 7 filters, filter adapter 14 161

Mirror-reflex attachment

16 499

16 497

VISOFLEX® 3*

Mirror reflex device for lenses from 65 to 560 mm and Universal Focusing Bellows 2. Three possibilities of varying the mirror operation:

1. Instant return shortly before shutter release (adjustable)
2. Coupled with the lever operation.
3. Arrest of raised mirror (for long exposure times.)
   In the settings 1 and 2 the mirror returns to its rest position after the exposure.

Cable release bush.

Right-angle right-way-round 4 x viewing magnifier.

Vertical 5 x magnifier (reversed image), adjustable for the correction of deficient eyesight from + 1.75 to − 2,5 dioptres. The magnifiers can be left in position when the camera body is interchanged.

¼″ tripod thread A ¼

Weight: 0.48 kg

Code No.

VISOFLEX 3

without magnifier	16 497
4 x magnifier (90°), also for VISOFLEX 2	16 499
VISOFLEX 3 with 4 x magnifier, complete	16 498

16 461

5 x magnifier (vertical), also for VISOFLEX 2	16 461

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* Cannot be used on the LEICA CL.

116

Correction lenses
(spherical) for 4 x magnifier (also for LEICAFLEX SL)

		Code No.
+ 0.5	. . . .	14 118
+ 1.0	. . . .	14 371
+ 1.5	. . . .	14 372
+ 2.0	. . . .	14 373
+ 3.0	. . . .	14 374
− 0.5	. . . .	14 375
− 1.0	. . . .	14 376
− 1.5	. . . .	14 377
− 2.0	. . . .	14 378
− 3.0	. . . .	14 064

Accessories for VISOFLEX 3

16 464

Universal focusing mount for the use of the ELMAR-M f/3.5
65 mm, ELMARIT-M f/2.8 90 mm and TELE-ELMAR-M f/4
135 mm **16 464**

16 471

Extension tube for extending the reproduction scale of the   Code No.
universal focusing mount (height: 26.5 mm) **16 471**

16 474

Extension ring for the SUMMICRON-M f/2 90 mm and ELMA-
RIT-M F/2.8 135 mm in short mount (height 14.5 mm)

                                                              16 474

16 466

Extension ring for the use of the HEKTOR ± 125 mm, ELMAR
and HEKTOR 135 mm in short mount, TELYT-M 200, 280
(Code No. 11 912) and f/5 400mm (normal focusing range)   **16 466**

16 469

Extension ring for the use of the 50 mm and 35 mm* M-lenses
on the VISOFLEX 3 . . . .   **16 469**

* For lenses with screw thread a bayonet adapter 14 097 is required (see page 136)

118

The versatile possibilities of the VISOFLEX 3

Components (top to bottom): 16 469 · 16 464 · 16 462 · 16 466 · 14 182

16 471 · 16 474 · 14 020 · 16 469

	35mm lenses	50mm lenses	ELMAR f/3.5 65mm	ELMARIT f/2.8 90mm	TELE-ELMAR f/4 135mm	SUMMICRON f/2 90mm	ELMARIT f/2.8 135mm	TELYT f/4 200mm	TELYT f/4.8 280mm	TELYT f/6.8 400mm	TELYT f/6.8 560mm
Subject to film plane	14cm (5½")	21.3cm (8⅜")	∞ – 33mm	∞ – 50cm (∞ – 13")	∞ – 98cm (∞ – 38⅝")	∞ – 72cm (∞ – 28⅜")	∞ – 151cm (∞ – 59⅜")	∞ – 300mm (∞ – 10ft)	∞ – 350mm (∞ – 11'8")	∞ – 353cm (∞ – 12ft)	∞ – 641cm (∞ – 21'3")
	2 x 3cm (¾ x 1⅛")	3.1 x 4.7cm (1¼ x 1⅞")	5.8 x 8.7cm (2¼ x 3½")	8 x 12cm (3⅛ x 4¾")	12 x 18cm (4¾ x 7⅛")	14.4 x 21.6cm (5¾ x 8½")	21.6 x 32.4cm (8½ x 12¾")	30.7 x 46.1cm (12 x 18½")	24.2 x 36.3cm (9⅜ x 14½")	15.8 x 23.6cm (6⅜ x 9¼")	22.4 x 33.6cm (8⅞ x 13¼")
Dimensions of the smallest object field	14.5cm (5¾")	20.8cm (8¼")	33 – 27cm (13 – 10¾")	50 – 39cm (19¾ x 15½")	100 – 68cm (39⅜ x 26¾")	ü)‹ – 47cm (29⅛ x 18½")	155 – 93cm (61 – 36½")	311 – 176cm (10'4" – 5'10")	350 – 276cm (11'8" – 9'2")	353 x 226cm (11'9" x 7'11")	641 – 386cm (21'3" – 12'7")
	1.6 x 2.4cm (5/8 x 1")	2.4 x 3.6cm (1 x 1½")	2.9 x 4.3cm (1⅛ x 1¾")	4 x 6cm (1⅝ x 2⅜")	6 x 9cm (2⅜ x 3½")	7.4 x 11.2cm (27⅝ x 4⅜")	11.0 x 16.6cm (4⅜ x 6½")	15.6 x 23.4cm (6¼ x 9⅜")	17.8 x 26.7cm (7⅛ x 10¾")	8 x 12cm (3⅛ x 4¾")	11.2 x 16.8cm (4⅜ x 6⅞")

Bold type = normal working range
Lean type = black intermediate rings necessary for the macro or close-up range
Format = dimensions of the field at minimum focusing distance

25 982 b – 110

ELMAR-M f/3.5 65 mm

Universal lens of the shortest focal length for the VISOFLEX 3

Angle of view: 36°
Number of elements: 4
Filter size: Series 6 (from No. 2 378 901)
Retaining ring for Series 6 filters
External lens mount diameter: A 56
Pre-set diaphragm
Click-stops (including ½ values)
Smallest aperture: f/22
Use on the VISOFLEX 3:
with universal focusing mount
∞ to 33 cm (13 in) = 1:2.5 with extension
ring 16 471
33–27 cm (13 to 11 in approx.) = 1:1.25
Smallest object field:
30 x 45 mm (1.2 x 1.8 in approx.)
ELPRO VI b attachable
(reproduction scales from 1:3.2 to 1:1.4)
Black finish
Internal thread:
(up to Serial No. 2 378 900): M 41 x 0.5
(from Serial No. 2 378 901): M 44 x 0.75
Weight: 0.13 kg

11 162

Code No.

ELMAR-M f/3.5 65 mm
with built-on lens hood **11 162**

SUMMICRON-M f/2 90 mm

for VISOFLEX 3
Fast lens for press work

Angle of view: 27°
Number of elements: 6
Filter size: E 48
External lens mount diameter: A 63.7
Click-stops (including ½ values)
Smallest aperture: f/22
Non-rotating focusing mount
Lens unit can be unscrewed from the mount
Use on the VISOFLEX 3
from ∞ to 0.76 m (30 in)
Smallest object field:
148 x 222 mm (5.8 x 8.7 in approx.)
Black finish
Built-on, extensible lens hood
Internal thread: M 48 x 0.75
Weight: 0.525 kg

11 124

	Code No.
SUMMICRON-M f/2 90 mm	**11 124**
Accessories for use directly on the LEICA-M:	
Long focusing mount with bayonet*	14 019
for the conversion of a lens in short focusing mount for the rangefinder-coupled use on the LEICA	
Lens unit separate for use on the Universal Focusing Bellows 2	**11 133**

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* please return lens to the factory.

ELMARIT-M f/2.8 135 mm

for VISOFLEX 3
Fast telephoto lens

Angle of view: 18°
Number of elements: 5
Filter size: E 55 (M 55 x 0.75)*
The adapter 14 225 is required for Series
7 filters
External lens mount diameter: A 63.7
Click-stops (including ½ values)
Smallest aperture: f/32
Non-rotating focusing mount
Lens unit can be unscrewed from the mount
Use on the VISOFLEX 3
from ∞ to 1.55 m (62 in)
Smallest object field:
220 x 330 mm (8.7 x 13 in approx.)
ELPRO VII a and VII b attachable
Black finish
Built-on, extensible lens hood
Internal thread: M 55 x 0.75
Weight: 0.76 kg

11 827

	Code No.
ELMARIT-M f/2.8 135 mm	11 827
Lens unit separate for use on the Focusing Bellows 2	11 828

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* E 55 (M 55 x 0.75) from No. 2.788.927 – numbers below this: Series 7 filters; filter adapter 14 161
** ELPRO VII a and VII b near-focusing attachments up to No. 2.788.926 can be used – ELPRO 3 and ELPRO 4 near-focusing attachments from No. 2.788.927 see "Accessories R for the near-focusing range"

122
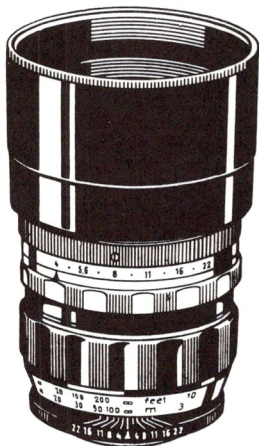
TELYT-M f/4 200 mm

for VISOFLEX 1, 2, and 3
Telephoto lens
Angle of view: 12°
Number of elements: 4
Filter size: E 58
External lens mount diameter: A 72
Pre-set diaphragm
Click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Non-rotating focusing mount
Scale rings chromium finished
Use on the VISOFLEX 1, 2 and 3
  from ∞ to 3 m (10ft)
Smallest object field:
310 x 460 mm (12.2 x 18.1 in)
Black finish
Built-on, extensible lens hood
Internal thread: M 58 x 0.75
Weight: 0.64 kg

11 063

	Code No.
TELYT-M f/4 200 mm	11 063

Accessory:
Extension ring for use on the VISOFLEX 2 and 3 . . . .   16 466

14 020

Extension ring 15 mm for photography in the near-focusing range
                                                                14 020
1 ring 3 m to 1.7 m (10 ft to 5 ft 8 in approx.),
smallest object field 156 x 234 mm (6.1 x 9.2 in approx.);
2 rings – 1.7 m to 1.3 m (5 ft 8 in to 4 ft 4 in approx.),
smallest object field 106 x 159 mm (4.2 x 6.3 in approx.);
3 rings – 1.3 m to 1.113 m (4 ft 4 in to 3 ft 9 in),
smallest object field 80 x 120 mm (3.1 x 4.7 in approx.).
(Data refer to the distance between object and film plane.)

11 069

Lens unit separate for use on the Universal Focusing Bel-
lows 2 . . . .   11 069
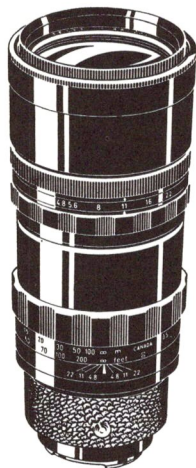
TELYT-M f/4.8 280 mm
for VISOFLEX 3

Telephoto lens

Angle of view: 8.5°
Number of elements: 4
Filter sizes: Series 8
Retaining ring for Series 8 filters
External lens mount diameter: A 76
Pre-set diaphragm
Click-stops (including ½ values)
Smallest aperture: f/22
Combined "feet-metre" scale
Non-rotating focusing mount
Use on the VISOFLEX 3
from ∞ to 3.5 m (11 ft 8 in)
Smallest object field:
242 x 363 mm (9.5 x 14.3 in)
Lens unit on the TELEVIT follows-focus device
from ∞ to about 2 m (6 ft 8 in)
Smallest object field:
approx. 100 x 150 mm (4 x 6 in)
Black finish
Built-on, extensible lens hood
Internal thread: M 66 x 0.75
Weight: 1.2 kg

11 914

	Code No.
TELYT-M f/4.8 280 mm	11 914

16 469

Adapter ring 10 mm for photography in he near-focusing
range 16 469
1 ring – 3.5 to 2.76 m (11 ft 8 in to 9 ft 2 in approx.);
smallest object field 178 x 267mm (7 x 10.5 in approx.);
2 rings – 2.76 m to 2.33 m (9 ft 2 in to 7 ft 5 in),
smallest object field 141 x 212mm (5.6 x 8.3 in);
3 rings – 2.33 m to 2.06 m (7 ft 5 in to 6 ft 10 in),
smallest object field 117 x 176 mm (4.6 x 6.9 in).
(Data refer to the distance between object and film plane.)

11 904

Lens unit separate for use on the Universal Focusing
Bellows-2 or on the TELEVIT follow-focus device 11 904

Retaining ring for Series 8 filters (replacement) 14 169

124

TELYT-M f/6.8 400 mm for VISOFLEX 3

Telephoto lens with follow-focus mount
Angle of view: 6°
Number of elements: 2
Filter size: Series 7 (in filter slot)
External lens mount diameter: A 78
Click-stops (between f/8 and f/16 also ½ values)
Smallest aperture: f/32
Use on the VISOFLEX II/3
from ∞ to 3.6 m (12ft)
Smallest object field:
158 x 236 mm (6.2 x 9.3 in approx.)
Black finish
Built-on, extensible lens hood
Detachable shoulder stock
Internal thread: M 72 x 0.75
Weight: 1.83 kg

11 966

	Code No.
TELYT-M f/6.8 400 mm consisting of:	
Lens unit	11 903
Tube	11 905
Handgrip	14 188
TELYT-M f/6.8 400 mm complete	**11 966**

14 182

Recommended accessories:
Extension tube (60 mm) for the TELYT-M f/6.8 400 mm to extend the focusing range (near focusing), also suitable for f/6.8 560 mm **14 182**
Nearest distance
(with 1 extension tube): 353 – 226 cm
Smallest object field: 8 x 12 cm

Heavy-duty carrying strap **14 130**

125
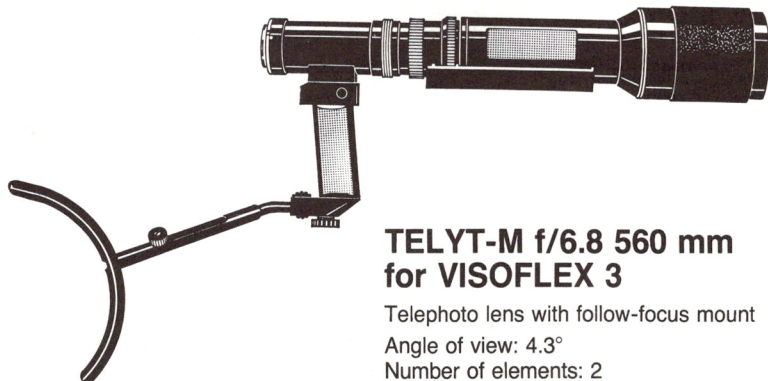
TELYT-M f/6.8 560 mm
for VISOFLEX 3

Telephoto lens with follow-focus mount

Angle of view: 4.3°
Number of elements: 2
Filter size: Series 7 (in filter slot)
External lens mount diameter: A 98
Click-stops
(between f/8 and f/16 also ½ values)
Smallest aperture: f/32
Use on the VISOFLEX II/3:
from ∞ to 6.4 m (21ft 4 in)
Smallest object field:
224 x 336 mm (8.8 x 13.2 in)
¼ and ⅜″ tripod threads
Black finish
Built-on, extensible lens hood covered with
grained PVC
Detachable shoulder stock
Weight: 2.3 kg

		Code No.
TELYT-M f/6.8 560 mm consisting of:		
Lens unit		11 907
Tube		11 905
Handgrip		14 188
TELYT-M f/6.8 560 mm, complete		**11 864**

14 182

Recommended accessories:
Extension tube (60 mm) for the TELYT-M f/6.8 560 mm to
extend the focusing range (near focusing), suitable also for
f/6.8 400 mm 14 182
Nearest distance
(with 1 extension tube): 641 – 396 cm
Smallest object field: 11,2 x 16,8 cm

Heavy-duty carrying strap 14 130
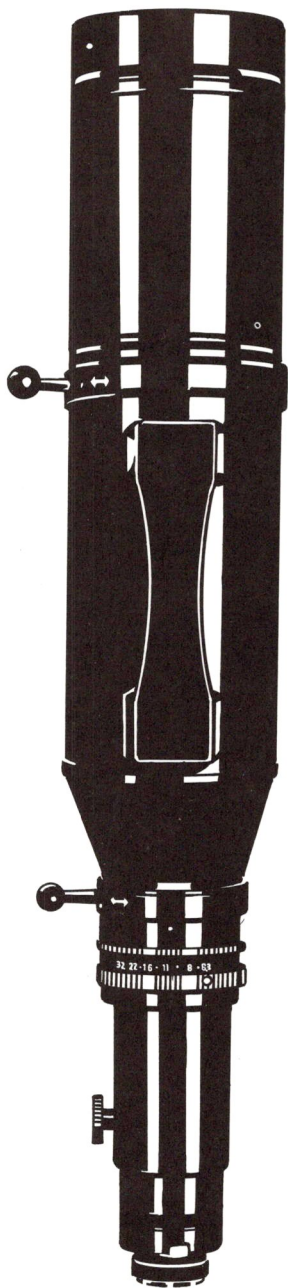
TELYT-S f/6.3 800 mm for VISOFLEX 3

Extreme telephoto lens with LEITZ special glasses for optimum optical performance

Angle of view: 3°

Number of elements: 2

Filter size: Series 7 (in filter slot)

Pre-set diaphragm with click-stops (between f/6.3 and f/22 also ½ values)

Smallest aperture: f/32

Focusing range: ∞ to 12.5 m (41 ft)

Smallest object field: 320 x 480 mm (1 ft 0.6 in x 1 ft 7 in)

Rapid focusing by means of an easy-grip rotary knob and parallel guide

Lens can be dismantled into 5 parts for transport in a special metal case – assembly and dismantling by means of bayonet and marked locking rings with vievers

Sturdy carrying handle for assembled lens, lining-up device in the shape of a sports finder with rear and front sight and field-of-view orientating device for upright and horizontal format protected against demage by integration with the carrying handle

Detachable and lockable lens hood

Slot with cover for Series 7 filters

Thread A ³⁄₈ (DIN 4503) (³⁄₈ in) for sturdy tripods

Support ring, rotatable with tripod thread A ¼ (DIN 4503) (¼ in), for additional monopod

Black finish

LEICA M rapid bayonet changer

Rotatable swivelling device for upright and horizontal format (push-button engages at 90°)

Length from bayonet flange: 790 mm

Diameter: 152 mm

Weight: 6.86 kg

TELYT-S f/6.3 800 mm
complete, with special metal transport case . . . . on request

Accessories
for the LEICA M-system

Contents:

Ever-ready cases

for the LEICA M4–2

Ever-ready case (soft leather) for the LEICA M4–2 with all
lenses up to 50 mm, each with lens hood (except 21 mm, 28
mm, and 50 mm NOCTILUX–M) Weight: 0.38 kg 14 546

for the LEICA M5

14 541

Ever-ready case (soft leather) for the LEICA M5 with all
lenses up to 50 mm, each with lens hood (except 28 mm and
50 mm NOCTILUX-M) and TELE-ELMARIT-M f/2.8 90mm
without lens hood
Weight: 0.5 kg 14 541

14 544

Ever-ready case (leather) for the LEICA M5 with all lenses up
to 50 mm, each with lens hood (except 21 mm, 28 mm, and
50 mm NOCTILUX®-M and the TELE-ELMARIT-f/2.8 90 mm,
Weight: 0.38 kg 14 544

Combination cases

for the LEICA M4–2

Combination case for the LEICA M4-2   Code No.
Accepting:
1 LEICA M4-2 with SUMMICRON-M f/2 50 mm*, f/2 35 mm,
f/1.4 35 mm, f/2.8 28 mm, or f/3.4 21 mm, and additionally
1 TELE-ELMARIT-M f/2.8 90 mm, or TELE-ELMAR-M f/4
135 mm.
External dimensions: about 17 x 16 x 9 cm, weight: 0.5 kg   . .   14 826

for the LEICA M5

14 823

Combination case for the LEICA M5
Accepting:
1 LEICA M5 with lens of focal length up to 135 mm in position,
and up to 2 additional lenses depending on their length, films
and filters 14 823
External dimensions: about 21 x 11.5 x 19 cm, weight: 0.66 kg

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* without lens hood

Holdall combination case

External measurements: about 30 x 12.5 x 18.5 cm
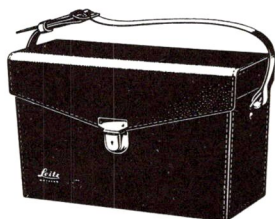
14 815

with Insert I fitted for:

1 = 1 LEICA M body
2 = 1 LEICA M body with LEICAMETER® and
35 mm or 50 mm lens or TELE-ELMARIT-M
f/2.8 90 mm in position with lens hood and
covers.
3 = 3 filters E 39, E 41, E 43 or Series 6 in containers.
4 = 1 f/4 135 mm lens with lens hood and covers.
5 = 1 21mm or 28mm lens with lens hood and covers.
6 = 1 f/2 90 mm or f/2.8 135 mm lens coupled with 1 35 mm
or 1 f/4 or f/2.8 90 mm lens, each coupled with 1 lens of
35 mm or 50 mm focal length.
All lenses (except 35 mm with finder attachment) with
lens hood and covers.
7 = space for films or for additional filters in containers
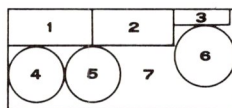
	Code No.
Outfit I complete, weight 1.455 kg	14 807
Holdall combination case separate	14 815
Inset for Outfit I separate	14 817

Coupling ring, Order No. 028–855.001–000 (replacement)
(available from LEITZ After-Sales Service Dept.)

Correction Lenses

for LEICA M Models (spherical)

	Code No.			Code No.
+ 0.5 =	14 361		− 0.5 =	14 366
+ 1.0 =	14 362		− 1 =	14 367
+ 1.5 =	14 363		− 1.5 =	14 368
+ 2 =	14 364		− 2 =	14 369
+ 3 =	14 365		− 3 =	14 370

Our After Sales Service Department supplies correction lens
mounts for astigmatism (Order No. 042–253.008). The lens
must be produced and mounted by an ophthalmic optician.

Ball-and-socket heads
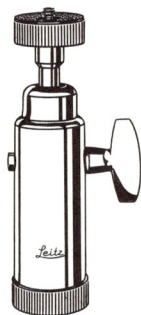
14 121

14 119

	Code No.
Large ball-and-socket head with tripod thread A ¹/₄ and A ³/₈ DIN 4503 (¹/₄ and ³/₈ in)	14 121
Small ball-and-socket head with tripod thread A 1/4 (¹/₄ in) .	14 119

Table-top tripod

14 100

Table-top tripod with 3 folding legs, tripod thread A 1/4 DIN 4503 (¹/₄ in)	14 100

Universal handgrip

Universal handgrip with shoulder stock, weight 0.61 kg . . .	14 188
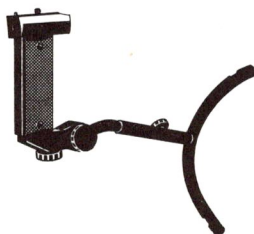
14 188

(Accessory: Carrying strap for heavy equipment	14 130)

134

Carrying straps

Carrying strap with non-slip pad (replacement) for LEICA
M4–2 . . . .   14 226

14 092

Carrying strap, adjustable, with split rings and non-slip pad for
LEICA models up to M4 . . . .   14 092
Carrying strap with non-slip pad, adjustable, for the LEICA M5
(replacement) 14 196

14 130

Carrying strap for heavy equipment, with two tripod screws,
thread A 1/4 (¼ in) 14 130
(see also universal handgrip 14 188)

Non-slip pad for carrying straps 14 094
(Please state width and colour of strap)

Cable releases

14 067

Cable release
Cable release, length 25 cm, with arresting screw for the
LEICA-M 14 067
Cable release, length 50 cm, with arresting screw for the
LEICA-M 14 076

14 088

Adapter for the use of cable releases with captive thread on
the LEICA-M with bayonet changer 14 088

135

Flash socket covers

 14 054   **15 526**   **14 183**

	Code No.
Flash socket cover for M3, M2, M1, MD (replacement)	14 054
Flash socket cover for M4, MDa, M4–2, MD–2 (replacement)	15 526
Twin flash socket cover for M5 and LEICAFLEX (replacement)	14 183

Bayonet adapter rings
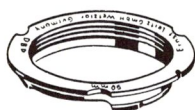
   14 098

**for the use of LEICA lenses with screw mount on the
LEICA M 3**

21-50 mm focal length	14 097
90 mm focal length	14 098
135 mm focal length and VISOFLEX 1 attachment	14 099

on the LEICA M5, M4, M4–2, M2, MD, and MDa and CL

21 mm, 28 mm, and 50 mm focal length	14 097
90 mm focal length	14 098
35 mm, 135 mm focal length and VISOFLEX 1 attachment . .	14 099

LEICAMETER MR
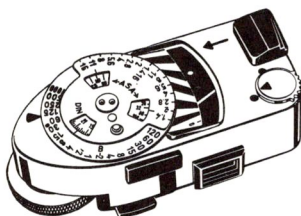
14 218

LEICAMETER MR, black chromium finish 14 218
Leather case for the LEICAMETER 14 213

Camera spools

14 022

Spare take-up spool (with spring-loaded top) for the LEICA
M3, M2, M1, MD, IIIg, Ig 14 022
Ditto, for all other LEICA models (except M5, M4, and MDa) . 14 021
Ditto, for the LEICA M5 . . . . 14 192

14 260

Rapid film loading system for all LEICA M models
(except M5, M4, and MDa) can be installed by means of the
rapid loading spool for all standard 35 mm films and for LEICA
cassettes 14 260

Brilliant finders and cases

Brilliant finder
right-way-round, brilliant image.
Reflected bright frame.

12 002

Brilliant finder for 21 mm lenses
reproduction scale 0.3, black finish 12 002
Leather case for same 14 617

12 007

Brilliant finder for 28 mm lenses
reproduction scale 0.5 with line marking for parallax compen-
sation below about 2 m (6 ft 8 in), black finish 12 007
Leather case for same 14 617

14 625

Leather cases for viewfinders
Leather case for brilliant finders for the following focal lengths:
21 mm and 28mm 14 617
50mm 14 625
90mm and 135mm 14 630

138
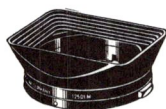
Lens hoods

12 501

Lens hood for the SUPER-ANGULON-M f/3.4 21 mm
and ELMARIT-M f/2.8 28 mm (replacement) **12 501**

12 504

Lens hood for the SUMMILUX-M f/1.4 35 mm
(replacement; from Serial No. 2 166 701 onwards) **12 504**
SUMMICRON-M f/2 35 mm 11 309 (replacement) **12 504**

12 585

Lens hood for all 50 mm lenses
of 42 mm external lens mount diameter 12 585
Cap for same (replacement) 14 033
Lens hood for the SUMMILUX-M f/1.4 50 mm (replacement) 12 586
Cap for same (replacement) 14 037
Lens hood for the NOCTILUX-M f/1.2 50 mm (replacement) 12 503
Lens hood for the NOCTILUX-M f/1 50 mm (replacement) . 12 519
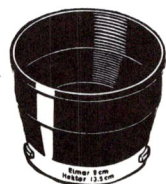
12 575

Lens hood for the ELMARIT-M f/2.8 90 mm and TELE-EL-
MAR-M f/4 135 mm of 42 mm external lens mount diameter
(replacement) 12 575
Cap for same (replacement) 14 033
Lens hood for the TELE-ELMARIT-M f/2.8 90 mm, internal
thread 39 mm (rubber) (replacement) 11 250
Cap for same (replacement) 11 252

139

Lens caps

 14 031

for the

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* not included with the lens

Rear covers

14 050

14 051

for lenses
SUPER-ANGULON-M and ELMARIT-M 28 mm with M-bayo-
net (plastic) 14 042
all other lenses,
with M-bayonet (plastic) 14 051
with screw mount 14 050
ELMAR-M 65 mm (A35) (plastic) 14 074
lens unit TELYT-M f/5.6 400 mm and f/5.6 560 mm (replace-
ment) 14 150

14 195

Camera body cover
M-bayonet (plastic) 14 195
ditto, for cameras with screw mount 14 055

Film cassette

14 006   **14 015**

All-metal cassette model N for all LEICA models (except M5,
and CL), with container 14 006
Container (replacement) 14 010
Replacement cassette spool 14 015

Filters

Screw-in filter	E 39	E 41	E 43	E 48	E 55	E 58	Series-Filter 6	Series-Filter 7	Series-Filter 8
Yellow	13086	13160	13161	13295	13326	13235	13235	13006	13019
Yellow-Green	13096	–	13171	13305	–	13245	13014	13007	13021
Orange	13101	–	13176	13310	13312	13250	13011	13008	13017
Red (R)	13116	13190	13191	13315	–	13255	–	–	–
Infra-red (IR)	13126	13200	13196	13325	–	–	–	–	–
U.V.a. Colourless	13131	13205	13206	13330	13373	13270	13012	13009	13018
Blue	13098	–	13173	13307	–	–	–	–	–
Polarizing	(A42) 13352	–	(A45) 13351	–	13374	–	–	–	–
Circular polarizing	–	–	–	–	13357	–	–	*13370	13372
Filter Adapter	–	–	–	–	–	–	14160	14161	14169

	Code No.
Polarizing filter for ELMAR-M f/3.5 65 mm (11 162)	13 358
Polarizing filter for ELMARIT-M f/2.8 135 mm (11 827)	13 374

Transparent Plastic Containers (replacement) for filters
Series 6 and E39, E41, and E43 . . . .   14 612
Ditto, for E48, E58, Series 7 and 8 . . . .   14 614

* For use with TELYT f/6.8 400 mm } can be rotated in the lens filter slot
TELYT f/6.8 560mm

Near-focusing accessories M

16 526

Copying gauge for A4, A5 and A 6
consisting of 3 extension collars and 4 extending legs
for LEICA M models
with ELMAR-M f/3.5 50 mm bayonet mount,
ELMAR-M f/2.8 50 mm, SUMMICRON-M f/2 50 mm 16 526

Bayonet mount for use with the lens unit of the
SUMMICRON-M f/2 50 mm unscrewed from its mount 16 508

Copying stand
for the attachment of
all LEICA models (including M5) with VISOFLEX 3
with or without Focusing Bellows 2.
LEICAFLEX with or without Focusing Bellows-R
(see under REPROVIT IIa/copying outfil).

143

Focusing Bellows 2
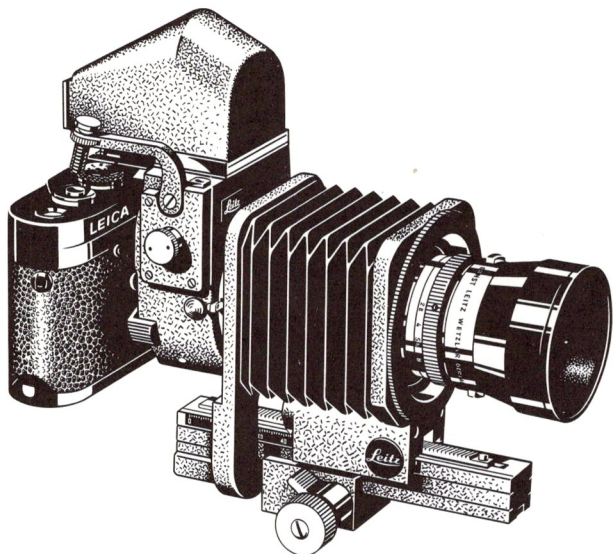
Variable extension for continuous focusing in conjunction with the VISO-FLEX 3 mirror-reflex attachment.
Permits photographs within the range of ∞ to 1:1 with the lens units of the ELMAR-M and ELMARIT-M 90 mm and with the ELMAR-M 65 mm.
Additional adjustment for reproduction at a given scale.
Interchangeable upright and horizontal format.
³/₈ in and ¹/₄ in tripod threads A ¼ and A ³/₈ DIN 4503
Weight: 0.56 kg.

Code No.

Focusing bellows 2
outfit for 65 mm ELMAR-M (∞ to 1.4:1)
and lens units of the 90 mm ELMAR-M or ELMARIT-M (∞ to
1:1) and for the 135 mm TELE-ELMAR-M (∞ to 1:1.3) **16 556**

Accessories for Focusing Bellows 2

16 596

Lenses with bayonet mount
focal length 50 mm 1.4 : 1 – 3.2 : 1
focal length 35 mm 2.1 : 1 – 4.7 : 1
adapter ring 16 596
Lenses with screw mount
focal length 50 mm 1:1 : 1 – 3 : 1
focal length 35 mm 1:7 : 1 – 4.3 :1
REPROR-PHOTAR f/2.5 25 mm 4 : 1 – 8 : 1
PHOTAR f/1.9 12.5 mm* 9 : 1 – 17 : 1
PHOTAR f/4 50 mm* 1.3 : 1 – 3 : 1
adapter ring 16 590

17 672

Lens unit of the 90mm SUMMICRON-M (1:9–1:1.2)
adapter ring 16 590
+ adapter ring 17 672

16 598

Lens unit of the 135 mm ELMARIT-M (1:18.5–1:1.32)
Lens unit of the TELYT-M f/4 200 mm (∞ to 1:3)
Lens unit of the TELYT-M f/4.8 280 mm (∞ to 1:6)
adapter ring 16 598

16 558

Lens unit of the 135 mm TELE-ELMAR-M (∞ to 1:1.3)
90 mm ELMAR-M and ELMARIT-M (∞ to 1:1) and ELMAR-M
65 mm (∞ to 1.4:1)
adapter ring (replacement) 16 558

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* Additional adapter ring (Order No. 042–716.041)
  This adapter ring forms part of the REPRO-PHOTAR f/2.5 25 mm and can be obtained as a
  replacement part from LEITZ Technical Service Centre or the National LEITZ Agency.

Accessories for the LEICA CL
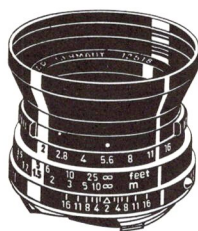
11 542

SUMMICRON-C f/2 40 mm

compact standard lens for the LEICA CL

Angle of view: 57°
Number of elements: 6
Filter size: 5.5 (36 mm dia.)
(held by screw-in lens hood)
Combined "feet-metre" scale
Click-stops (including ½ values)
Smallest aperture: f/16
Rangefinder coupling: ∞ to 0.8 m (32 in)
Smallest object field:
434 x 651 mm (17.1 x 25.6 in)
Built-in camera finder (LEICA CL)
Non-rotating focusing mount
Flexible fold-over lens hood
in screw base M 39x 0.75
Push-in lens cap (A 35.5) fits
into lens hood mount
Black finish
Weight: 0.15 kg

N° de code

SUMMICRON-C f/2 40 mm with rear cover **11 542**
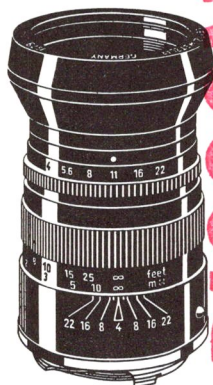
11 540

ELMAR-C f/4 90 mm

compact medium-focal-length lens

Length: 61 mm (2.4 in)
Maximum diameter: 51 mm (2 in) for the
LEICA CL
Angle of view: 27°
Number of elements: 4
Filter size: 5.5 (36 mm dia.)
(held by screw-in lens hood)
Combined "feet-metre" scale
Click-stops (including ½ values)
Smallest aperture: f/22
Rangefinder coupling: ∞ to 1 m (40 in)
Smallest object field:
220 x 330 mm (8.7x13 in)
Built-in camera finder (LEICA CL)
Non-rotating focusing mount
Flexible fold-over lens hood
in screw base M 39 x 0.75
Push-in lens cap (A 35.5) fits
into lens hood mount
Black finish
Weight: 0.27 kg

Code No.

ELMAR-C f/4 90 mm with rear lens cover and soft-leather
case **11 540**

Ever-ready case, zip-round soft black leather case with openings for shoulder strap, for LEICA CL with 40 mm
SUMMICRON-C weight: 0.04 kg 14 542
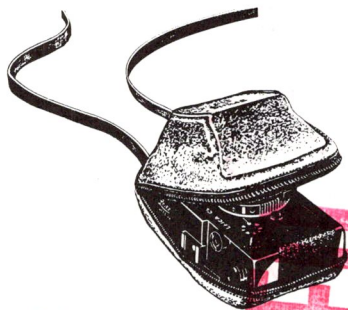
14 542

14 825

Combination case for LEICA CL accepting:
1 LEICA CL body
1 SUMMICRON-C 40 mm
1 ELMAR-C 90 mm
films and filters (one lens attached to body)
size approx. 17 x 16 x 9 cm (6.7 x 6.3 x 3.5 in) 14 825
Short wrist strap, for use instead of neck strap 14 197
Correction lens fitting into finder eyepiece   on request
Correction lens mount, Order No. 044–044.12
(available through LEITZ After-Sales Service Dept.)

Replacement parts

Neck strap with non-slip pad 14 194
Lens hood for SUMMICRON-C 40 mm 12 518
Lens hood for ELMAR-C 90 mm 12 517
Lens cap A 35.5 to fit into lens hoods 14 191
Bayonet rear cover for C and M lenses 14 051
Bayonet camera body dust cover 14 195
Soft leather bag for ELMAR-C 90 mm 14 543

147

Accessories for the LEICINA

1. For the LEICINA SPECIAL
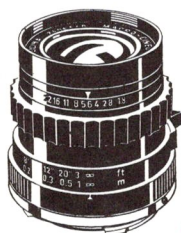
21 002

MACRO-CINEGON® f/1.8 10 mm

Standard lens of fixed focal length, with very long focusing range

Angle of view: 38.8°
Number of elements: 7
Filter size: 5.5
Smallest aperture: f/22, the aperture can be completely closed for lap dissolves
Combined "feet-metre" scale
Focusing range: ∞ – 0.12 m (4.8in)
Smallest object field: 36x 27 mm
Non-rotating focusing mount
Lens hood
Black finish
Internal thread: M 39 x 0.75
Weight: 0.26 kg

Code No.

MACRO-CINEGON f/1.8 10 mm
in container with lens hood 21 002

Adapter for LEICA lenses:
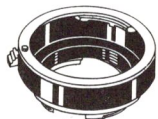
22 228

For LEICAFLEX lenses: 22 228

LEICA-M lenses can be attached without adapter if no rear part protrudes (details on request)
Additionally required for the use of LEICA lenses with screw thread:
Bayonet adapters . . . . 14 097, 14 098 or 14 099

Required for the use of VISOFLEX lenses (except for the universal focusing mount 16 464 (without VISOFLEX attachment):
Adapter 543 195

Copying outfits

Contents

REPROVIT® IIa universal copying outfit

Universal copying outfit for the reproduction of plane or 3-dimensional objects.

Self-locking vertical adjustment of the carrying arm with counterweight, coarse and fine adjustment, parallel guide and built-in projection device 150W 220v) projector lamp with pin-type base such as Osram No. 58.8295, base G17g).

Special changing slide with bellows and rack-and-pinion motion for focusing.

Continuously variable setting of the reproduction scale from about DIN A2 (about 420 x 594mm) reduces down to same-size reproduction. Rapid transition from low power to close-up work. Extension of the range with the column rotated through 180°.

Rapid and reliable focusing of plane objects by means of focusing a test mark projected onto the original. The illuminated field outlines the object field to be photographed. 3-dimensional objects are focused with the focusing magnifier.

Exposure lock prevents camera release if the changing slide is not correctly set.
Automatc switch-over of projection device and 4-lamp illuminator.

Even illumination by means of 4 lamps (100W, frosted), reflection screens.

Automatic lens aperture adjustment when the changing slide is operated.

Built-in camera magnet release for the camera shutter, depending on the shutter speed set on the exposure timer.

Exposure timer

REPROVIT IIa

Baseplate 67 x 68cm, connecting cable, column with parallel guide and counter-weight, carrier arm with built-in projection device, coarse and fine adjustment and magnet release, exposure timer.

Special changing slide with scale, settings from DIN A2 to 1:1. Extension of the range with the column rotated through 180°. Designed for the LEICA MD-2. Drive fork and aperture lever for the automatic stopping-down of the 50mm FOCOTAR® lens.

90 ° 5x magnifier
50mm FOCOTAR f/4.5 lens
4-lamp illuminator

	Code No.
Basic outfit of the REPROVIT IIa complete (220v)	16 788
Ditto, for 110v a.c.	16 789
Dust cover for the REPROVIT IIa	16 608

Camera:

LEICA MD-2*	10 105
Recording device for same	14 142
100 marking strips	14 170

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* Description under LEICA M-System, see page 104

Accessories for the REPROVIT IIa

Universal camera holder for the REPROVIT IIa

For adaptation remove the changing slide and the cover of the illuminator, attach the camera holder and the new hood.
Suitable for
LEICA M cameras
LEICA M cameras with winder
Both in connection with the VISOFLEX 3, with or without Focusing Bellows 2,
All LEICAFLEX camera models, including the LEICA R3 with lens, with or without Focusing Bellows R,
LEICA R3-MOT with MOTOR WINDER R3, with lens, with or without Focusing Bellows R
LEICA CL with VISOFLEX 3,
all 35mm cameras on the market with ¼in camera thread, various 60 x 60 and 60 x 70mm cameras.

Code No.

Universal camera holder **16 798**
(LEICA R3 MOT with motor-winder R3 neads tripod holder
14 276)
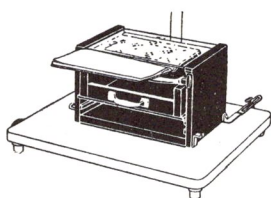
Framing box

16 761

Framing box for rapid, perfectly plane position of book pages,
maps, drawings of DIN A3 (29.7 x 42cm) object field 16 761

Light box

16 792

for the reproduction of slides, negatives, x-ray originals, stained-glass objects
as background illumination for reproductions of 3-dimensional objects
for the convenient sorting of negatives and slides

Technical details:
Grey metal housing, space-saving trapezoidal shape
Large working area because of the trapezoidal form; illuminated area and surrounding field arranged at the same level (no disturbing edges)
Low design produces favourable conditions for reproduction
400 x 614mm illuminated area (adequate for instance for 96 50 x 50mm slides).
2 Philips TLH 83 strip lights, low heat generation on the working plate, brightness about 9000 lux, colour temperature about 3200° K

Recommendations:
Use artificial-light colour reversal film in conjunction with Tiffen filter FL-B. When daylight colour reversal film is used we recommend Osram 20W/19 lamps (5000° K) without filters.

420 x 437mm glass sheek to keep the originals flat
2 built-in carrying handles
On/off switch
4 black screening cloths to eliminate straylight

Light box 16 792

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Further Accessories

Four spacing rods, can be screwed into the threads M8 of the carrying handles for the use of a glass plate.
One spacing rod net DM 11.60 (can be obtained from our Technical Service Centre)
The glass plate for same can be obtained by the customer to our dimensions from a glazier.

16 786

Object stage for the production of slide copies and photography within the magnification range 16 786

16 783

25mm REPRO-PHOTAR® with special ring for up to 4x magnification (with 3 extension rings 16 615 about 7x) 16 783

16 615

REPRO extension ring (height 26mm)
(2 REPRO rings in conjunction with the 50mm FOCOTAR permit settings within the range from 1:1 to 2:1) 16 615

16 486

5x low-power magnifier, straight (image inverted and reversed) 16 486

16 488

90° 5x magnifier (image inverted) (replacement) 16 488

ILLUMITRAN-D*

Semi-automatic slide copier . . . . ILLUD
Universal holder for all film formats up to 6 x 6cm
UNIHA
9 x 12cm sheet-film attachment . . . . . . PFASZ
With extension cable for photo cell . . . . . VERLE
Accepts:
LEICAFLEX® SL with Focusing Bellows-R and 100mm
MACRO-ELMAR f/4 as well as the copying stand for
same.

Also obtainable:
Focusing bellows, can be screwed on to same LEICA
adapter ring . . . . BALGT
for the LEICA . . . . ADRLC
for the LEICAFLEX . . . . ADRLX
for the 50mm FOCOTAR f/4.5 . . . . ADR50
for the 65mm ELMAR f/3.5 . . . . ADR65
Flash release button . . . . BLIAU
Manufacturers: Bowens, London
Available from Leitz Agencies (on request)
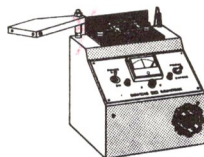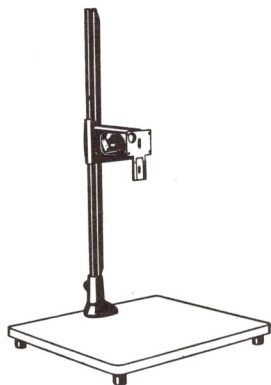
16 707

Copying stand

For the attachment of
all LEICA models (including M5) with VISOFLEX 3 with or without Focusing
Bellows 2
the LEICA R3 and all LEICAFLEX models with or without Focusing Bellows-R
Consisting of
46 x 50cm baseboard, 90cm column with guide rail and flange,
carrying arm with coarse and fine adjustment **16 707**
Weight: 6.26 kg

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Automatic enlargers with accessories

Contents

FOCOMAT V 35 AUTOFOCUS

Type of instrument

Compact enlarger for colour and black-and-white with automatic focusing and 40mm WA-FOCOTAR f/2.8 wide-angle lens
for negative formats 24 x 36mm
                       28 x 28mm
                       13 x 17mm and
                       35mm transparencies (external format 50 x 50mm)
with 12 v 75 W tungsten halogen lamp with cold-light mirror,
Extremely large automatic enlarging range 3-16x with the 40mm A-FOCOTAR f/2.8
30% more enlargement and
70% more picture area is offered by the 40mm WA-FOCOTAR compared with a 50mm lens at the same working distance from the baseboard.

Negative stage

For negative holder with glassless support exerting one-sided glass pressure (with anti-Newton surface) interchangeable for the formats:
24 x 36mm* (contained in the basic outfit)
28 x 28mm (accessory)
13 x 17mm (accessory)
for the 24 x 36mm glassless negative holder (accessory)
for slide holder for 35mm transparencies (external format 50 x 50mm) for convenient, rapid colour enlargement of transparencies. After initial focusing automatic focusing within the enlargement range from 3-16x (accessory)

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* = with film number window

163

Technical description of the film stage:

Die cast part is screwed on to the chassis of the enlarger head

Film stage aligned parallel to the baseboard at right angles to the optical axis

Maximum transmission 28 x 36mm,

Swinging pressure plate exerts spring pressure on the negative or slide holder.

Rapid and easy insertion of the negative or slide holders in the lamp housing when the pressure plate is raised

Convenient arrangement of the controls on the left and right

The pressure plate is raised for effortless movement of the inserted film strips to the next frame.

Integrated format masking, continuously adjustable with rotary knobs on the front.

Adjustment facility:

From about 36mm to 3mm in the x-direction

and

from about 28mm to 6mm in the y-direction

Interchangeable negative holders with glass pressure (anti-Newton surface) for the formats

24 x 36mm

28 x 28mm

13 x 17mm

The negative strips of the various formats can be inserted and fixed in position without risk of damage. Single negatives, too, are effectively positioned in the holder.

If the anti-Newton disc is damaged the upper pressure plate can be easily exchanged. Additional accessory: glassless 24 x 36mm negative holder.

Precision autofocusing and 40mm WA-FOCOTAR f/2.8 lens

Rapid continuous focusing within the automatic enlargement range **without** manual refocusing.

Automatic mechanism prevents wrong/inaccurate focusing

Large autofocus range with the 40mm WA-FOCOTAR f/2.8 for enlargements from 72 x 108mm to 384 x 576mm.

Ideal for part enlargements

Large area of the baseboard permits easy and convenient adjustment of the masking frame

Adjustment of the lens in the enlarger via a factory-adjusted stainless steel precision cam

The autofocus device saves time and material

Precise, durable autofocus mechanism

Adjustment range of the focal plane from 0 to 60mm, for the adaptation of the automatic mechanism to different heights of masking frames

"Giant enlargements" through swivelling the column (floor projection). Enlargement indicator between the swivelling arm and the lamp housing illuminated by light conductor. Can be adjusted for separate indication of enlarging ratios of 40 or 50 mm lenses. Convenient arrangement of this indicator permits reading of the enlargement ratio also in a sitting position.

40mm WA-FOCOTAR f/2.8 lens

High-performance wide-angle enlarging lens in the top class (WA = wide angle). Number of elements: 5, modified Gauss type with Absorban-cemented component. Apertures f/2.8-f/16 with click-stops at full values, can be adapted for continuous setting. Illuminated aperture scale can be read from the front.

Enlarger lens of the world-famous FOCOTAR series specially computed for the FOCOMAT V 35 AUTOFOCUS with use of highly refractive LEITZ glasses.

High contrast, high resolving power, very good illumination and excellent colour differentiation ensure brilliant reproduction.

Automatic focusing range 3-16x

Optimum correction at 7x enlargement

Optimum rendering already from f/5.6 means shorter exposure times and reduced risk of vibration with giant enlargements.

Raising of the column to 60mm = 17.5x enlargement on the baseboard (manual setting)

Easy focusing outside the automatic range with the helical focusing mount on the instrument.

Favourably-priced alternative for the 40mm WA-FOCOTAR f/2.8 LEITZ high-performance lens:

Rodenstock 50mm Ysaron f/3.5 lens

4-element lens of good optical quality, click-stops, illuminated aperture scale – no continuous adjustment

Raising the column to 60mm = 13.5x enlargement of the baseboard (manual setting)

Automatic focusing range 3-12x

Modification of an existing instrument with this lens for the 40mm WA-FOCOTAR f/2.8 is possible

Lamp housing

LEITZ illuminating system developed according to the latest illuminating techniques Light deflection according to the principle of Ulbricht's sphere in the mixing chamber of neutral-colour polyalkene foam guarantees

high light utilization

optimum illumination

unsurpassed homogeneity of colours

The diffuse illuminating system gives soft light, which makes it eminently suitable for colour work

LEITZ modules for colour and black and white

In the black-and-white version of the FOCOMAT V 35 AUTOFOCUS the red filter is no longer in front of the lens, but has become part of the module, which is inserted in the lamp housing between the lamp and the light chamber. The red filter can be swivelled into and out of the optical path with a rotary knob.

Rapid and simple exchange of the black-and-white module against the colour module

Colour module with cam-controlled dichroic filters.

The subtractive colour correction filters can be continuously adjusted. All three filters (Y, M, C) can be swivelled from the optical path simultaneously with preservation of the programmed filter values, and, of course, be swivelled back into it in the programmed state.

The filter density range for Y, M, and C extends from 0 to 200 densitometric filter values (this corresponds to 288 Kodak CC densities or 400 Agfa densities).

Control knobs with indicator scale for density values of the dichroic filters are also part of the colour module. The scales are colour-coded and arranged in the sequence Y, M, C from bottom to top.

When the colour module is inserted the control knobs are on the left of the lamp housing. Convenient operation from a sitting position. High linearity of the density curves permits accurate dosage of the filter values throughout the entire range.

Excellent cooling system

The cold-light mirror of the horizontally mounted tungsten halogen lamp deflects the heat rays to the rear.

In addition, optimum heat dissipation already at the lamp base through DBGM design registered dissipation principle (cooling ring).

This cooling ring also prolongs the life of the lamp.

Infra-red suppression filter on the front of the mixing chamber – reflects heat rays to the rear in the direction of the lamp.

The IR suppression filter is matched for the spectral sensitivity of the colour materials and suppresses only radiation in the infra-red region.

A deflecting baffle (DBGM design registered) on the outside of the mixing chamber additionally removes heat from the chamber.

High stability

The new FOCOMAT V 35 AUTOFOCUS in even more robust than the existing FOCOMAT Ic.

Steel column of circular cross section

Robust steel column, circular cross section, in reflection-reducing black chromium finish rotatably mounted in the large foot of the instrument. Diameter 60mm. Total height baseboard to swivelling arm 600mm.

Asymmetrically arranged vertical-adjustment arm, aluminium diecast, totates on the column in a brass bearing.

Lamp housing rotates on the vertical-adjustment arm.

Vertical-adjustment arm fully screened, with rolling-band mechanism and diagonal spring. This ensures rigid parallel guidance of the lamp housing and weight compensation during vertical adjustment throughout the entire range.

A brake, also integrated in the arm, is operated by release or tightening of the clamping knob. After release of the knob rapid and smooth adjustment of the vertical-adjustment arm. After arrest of the clamping knob the lamp housing remains absolutely rigid in the chosen position without any vibration.

Diecast column foot:
The foot of the column contains the transformer, fuse, on/off switch, voltage selector for the 110-250v version, mains plug and the mechanism for the vertical adjustment. The column can be raised continuously up to 60mm. Setting by means of a scale.

Large, rigid baseboard.
Professional baseboard with effective white area of 540 x 590mm. Shock-absorbing 4-point support. Additional stabilization of the baseboard through profile steel on the underside.
Space for a large packet of enlarging paper under the plane baseboard.

Electrical data/safety
All electrical cables are wired inside the instrument and fully protected. The only cable outside the instrument is the mains cable. Low-voltage transformer built into the foot of the enlarger, hence no separate part to be set up.
Transformer input maximum 100 W
Input voltage/frequency depending on the instrument version:
220v-50Hz or   .
110–250v/50–60Hz
Fuses:
220v   version T 315mA
110–250v version T 630mA
Tungsten halogen lamp:
12v 75W with cold-light mirror
Test symbols: VDE–GS, CSA, Demko, Nemko, Semko, and SEV safety symbol (planned).

Dimensions and weights
Height: 600mm
Width: 540mm
Depth: 700mm
FOCOMAT V 35 AUTOFOCUS: 21.8 kg
Colour module: 0.475 kg

Outfits:

FOCOMAT V 35 AUTOFOCUS
With 24 x 36mm negative holder
12v 75W tungsten halogen lamp with cold-light mirror
Built-in transformer
Mains cable
Interchangeable LEITZ module
Factory-adjusted lens

in: Code No.

black-and-white version – 220v (with black-and-white module)
with 40mm WA-FOCOTAR f/2.8 . . . .   17 405

Colour version: – 220v (with colour module), with 40mm
WA-FOCOTAR f/2.8 . . . .   17 409

Black-and-white version, adjustable 110/250v (with black-
and-white module), with 40mm WA-FOCOTAR f/2.8 . . . . .   17 407

Colour version, adjustable 110/250v (with colour module),
with 40mm WA-FOCOTAR f/2.8 . . . .   17 411

Black-and-white version – 220v (with black-and-white modu-
le), with 50mm Ysaron f/3.5 . . . .   17 404

Colour version – 220v (with colour module) with 50mm Ysaron
f/3.5 . . . .   17 408

Black-and-white version, adjustable 110/250v (with black-
and-white module), with 50mm Ysaron f/3.5 . . . .   17 406

Colour version, adjustable 110/250v (with colour module),
with 50mm Ysaron f/3.5 . . . .   17 410

Masking frames

for all FOCOMAT models
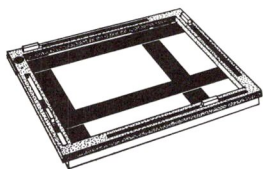
17 584

Code No.

24 x 30cm (10 x 12in) universal masking frame with
4 adjustable masking strips, combined "feet-metre" scale . .   17 584

30 x 40cm masking frame, with adjustable masking strips
and adapter ring for the column for compensating the greater
thickness of this frame 17 586

English system (inch):
12 x 16in masking frame 17 630

LEITZ-FOCOTIMER

Electronically-controlled exposure timer with digital display
The long-time range can also be used for the monitoring of developing
processes.

Description:

Modern, electronically-controlled exposure timer with digital display.
The time elapsed is visible on the display panel. It can be stopped by
repeated pressure on the time button. The original time is automatically
reprogrammed.
The long-time range can be used for the monitoring of developing
processes.
While the time is elapsing, a new time can be fed in via the slider switches
and called subsequently.
The end of the time in the long-time range will be indicated acoustically
5 seconds in advance.
Illuminated button for continuous light
Illuminated button for exposure with interruption
3 slider switches for time preselection
Selector for 2 time ranges
On/off mains switch
Socket for foot switch
Safety socket for connecting the enlarger
The mains cable with safety plug is permanently connected with the
instrument.

Technical Data

The electronics of the instrument are designed according to MOS techni-
que and specially filtered against mains interference.
Housing and other plastic parts are made of acid-resistant and not easily
flammable material.
VDE-GS test symbol as well as CSA, Demko, Nemko, Semko and SEV
safety symbol (planned).
Mains connection: 220v
                                   110v
The instrument is independent of the mains frequency.

170

Power: 800W
Instrument socket: 2-pin, with switch
Fused circuit 4A medium-slow
Time range: 0.1 to 99.9sec adjustable in steps of 0.1sec
Switch-over from 0.01 to 9.99min in steps of 0.01min
Error limits: reproducible time error: $\pm$ 1 %
absolute time error: $\pm$ 1 %

	Code No.
FOCOTIMER 110v version	17 432
FOCOTIMER 220v version	17 433
Foot switch for FOCOTIMER	17 434

LEITZ-FOCOMETER

Modern, electronic automatic exposure meter for black-and-white and colour with timer. Electronic light measurement with automatic conversion into exposure time. Storage and digital display of the determined exposure time.

Spot and integrating measurement possible. The latter via a diffusion disc in front of the lens.

The long-time range can be used for the monitoring of developing processes.

Description:

Electronic light measurement with automatic conversion of the measured light intensity into the exposure time for the paper in use

Storage and digital display of the determined exposure time

Determination of the speed of all types of paper as well as manual setting facility for the paper speed

Determination of the density range (contrast range) of negatives and transparencies through spot measurement of the brightest and darkest area. For black-and-white for the determination of the grade of paper to be used.

Operation of the enlarger

After release the time display runs backwards to the 000 position. Thereafter the previously determined time immediately lights up again and can be repeated.

Manual time setting via slider switch. If after a measurement a different time is set manually instead of the measured time, the set time will be operative.

The previously measured time will be stored and will again appear in the display after switch-over to automatic operation.

Use as a simple timer (exposure timer) for the control of the enlarger (switch position manual).

The operative time is visible in the display window. It can be stopped by repeated pressure of the time button. The originally input time is automatically reprogrammed.

The long-time range can be used for the monitoring of developing processes.

During the lapse of the time a new time can be input via the slider switches and called subsequently.

Slider switch for the setting of the paper speed

Illuminated push-buttons for
  exposure measurement
  continuous light
  exposure with interruption
3 slider switches for time preselection
Selector for 2 time ranges
Mains switch: on/off
Socket for foot switch
Safety socket for instrument connection
Measuring probe via plug-in connection
The mains cable with safety plug is permanently connected with the instrument

Technical Data

The electronics of the instrument are designed according to MOS technique and specially filtered against mains interference.
Housing and other plastic parts are made of acid-resistant and not easily flammable materials.
VDE-GS test symbol as well as CAS, Demko, Nemko, Semko and SEV safety symbol (planned),
Mains connection: 220v
                  110v
The instrument is independent of the mains frequency.
Power: 800W
Instrument socket: 2-pin, with switch
Fused circuit 4A medium-slow
Time range: 0.1 to 99.0sec adjustable in steps of 0.1sec
Switch-over from 0.01 to 9.99min in steps of 0.01min
Light range: linear measurement from 0.3 to 100 Lux
Error limits: reproducible time error ± 1 %
Absolute time error ± 1 %
Measuring error ± 1.5 %

	Code No.
FOCOMETER 110v version	17 435
FOCOMETER 220v version	17 436

Diffusion disc

The diffusion disc is attached to the lens carrier. It is required
for the integrating exposure measurement and for this purpose
must be swivelled in front of the lens 17 430

Voltage stabilizer:

Recommended for colour enlarging, particularly when bad
mains fluctuations are encountered

Code No.

Voltage stabilizer for 110v 17 437
Voltage stabilizer for 220v 17 438

Further accessories

For subsequent modification of the instrument from the Rodenstock 50mm Ysaron f/3.5 to the high-performance 40mm WA-FOCOTAR f/2.8 lens through Technical Service Centre, ERNST LEITZ, WETZLAR GmbH or authorized workshops of LEITZ Agencies

17 419

Holder for 35mm slides (external format 50 x 50mm) 17 419
35mm negative holder (replacement) 17 420
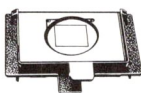
17 423
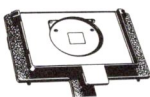
17 424

28 x 28mm negative holder 17 423
13 x 17mm negative holder 17 424
Glassless negative holder for the 35mm format 17 431
Two film troughs for the enlargement of uncut films 17 425
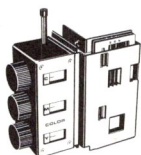
17 428

Colour module 17 428
for conversion from black-and-white to colour

Dust cover for the enlarger 17 429
Adapter for 1:1 reproduction scale (26mm) 16 615

Replacement lamps:
supplied by Technical Service Centre, P. O. B. 2027, ERNST LEITZ WETZLAR GmbH, D-6330 Wetzlar, or the National Leitz Agency. Code No. TSC 75W/12v, base GZ 6.35 038-101.128-000.

Focomat IIc
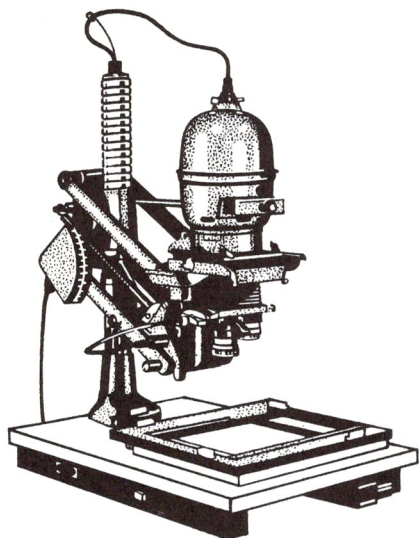
Type of instrument
Universal enlarger for colour and black-and-white
for formats from 13 x 17mm to 60 x 90mm
for electron micrographs, holder up to format 79 x 93mm

Two automatic setting ranges, adjustable:
up to 40 x 40mm format – 2 to 11x with 60mm FOCOTAR f/4.5
from 45 x 60 to 60 x 90mm format, 1.5 to 6x with 100mm FOCOTAR – 2 f/5.6.
with 150W high-voltage enlarger lamp
Manual settings:
down to reproduction scale 1:1, reductions to 1:2.5
When the lamp housing is raised, up to 16x with the 60mm FOCOTAR, and up to
8.6x with the 100mm FOCOTAR-2.

Film stage
The film stage is aligned parallel to the baseboard and at right angles to the optical
axis.
Maximum transmission 60 x 90mm
Rapid and easy insertion of the negative holders
Negative holder with top and bottom glass plate for roll films and film strips up to 60
x 90mm negative format. The top glass plate has been specially treated for the
prevention of Newton's rings.
Negative masks from the 13 x 17mm format onwards for insertion in the negative
holder.
Negative holder exerting one-sided glass pressure (anti-Newton surface) for the
35mm format.

Holders for electron micrographs:
Negative holders for 62 x 65mm effective format
Negative holder for 79 x 93mm effective format
with graduated filter
and 100 x 220mm double-glass plate
Glass negative holder for the 65 x 90mm format
Glass negative holder for the 76 x 95 mm format with graduated filter

Precision autofocusing mechanism and lenses
Rapid, continuous adjustment of the enlarging ratios **without** manual refocusing
The automatic mechanism prevents wrong/inaccurate focusing
Rapid changeover from one focal length to the other with the lens changing slide
Rapid switch-over of the automatic focusing ranges
Lens change and switch-over of the automatic lens adjustment are simultaneous
Two cams of hardened special alloy, factory-adjusted, are operated by cam rollers
for both focal lengths.

Range of automatic focusing:
 60mm FOCOTAR f/4.5 from about 2 to 11x
100mm FOCOTAR-2 f/4.5 from about 1.5 to 6x
Saving of time and material through autofocus mechanism
Precise, durable autofocus mechanism.
Raising facility of the focal plane up to 30mm for adjustment of the automatic
mechanism to different heights of the printing frame.
Swivelling of the column for giant enlargements (floor projection) possible.

60mm FOCOTAR f/4.5
For formats up to 40 x 40mm
High-performance enlarging lens in the top class
Number of elements: 5, triplet variant with 1 cemented component
Apertures: f/4.5 to f/22 with click-stops at full values
Optimum correction at 5x enlargement
Optimum reproduction at f/8
Up to 16x enlargement on the baseboard outside the automatic focusing range
through raising the lamp housing. Easy focusing outside the automatic range
through helical mount on the instrument.

100mm FOCOTAR-f/4.5
Number of elements: 6, modified Gauss type with 1 cemented component
Apertures: f/5.6 to f/22, click-stops at full values
Enlarger lens of the world-famous FOCOTAR series of high optical quality
Optimum illumination up to 60 x 90mm format.
Optimum correction at 6x enlargement
Optimum reproduction at f/8
Up to 6.8x enlargement on the baseboard outside the automatic focusing range
through raising the lamp housing (manual).
Easy focusing outside the automatic range with the helical mount on the instrument.

Lamp housing

150W high-voltage opal enlarger lamp in well-ventilated lamp housing. Instead of the 150W a 250W enlarger lamp can be used. To achieve uniform illumination the lamp can be vertically adjusted, rotated, and fixed with 3 fixing screws.

For special tasks (correction of converging verticals) the lamp housing is vertically adjustable

Double condenser designed for up to 60 x 90mm format

The combination of the opal lamp and the condenser is suitable for black-and-white as well as for colour enlarging (for colour the 250W lamp is recommended).

The illuminating system offers

high light utilization

good illumination

Colour version: Lamp housing + filter slide for the insertion of the 120 x 120mm correction filters. Easy interchange of the filters with a raiser.

Transilluminated enlargement indicator for colour enlargements (additionally available).

Possibility of attaching well-known colour heads, e. g. Agfa, Super-Chromega D Dichroic II, Durst CLS 450, Wallner

High rigidity

Chromium-plated steel column, circular cross section, in a solid diecast foot screwed on to the baseboard. Diameter of column 60mm, height 800mm.

Parallelogram linkage with lamp housing, including film stage, bellows, and lens holder. Rapid and easy adjustment of the lamp housing. Particularly rigid solidly mounted levers and balancing spring.

Lamp housing can be safely clamped at any desired level within the entire adustment range through clamping knob, remains in the chosen position firmly and without vibration.

Parallelogram linkage firmly connected with the column via column clamping piece. After release of the clamping piece the entire parallelogram linkage can be moved upwards or downwards along the column.

Solid baseboard

Large professional baseboard, white, effective area 535 x 590mm. High immobility owing to solid construction on two wooden strips, width 5mm, permanently mounted on the baseboard. Additional stability through profile steels on the underside of the baseboard.

Space for a medium-sized package of enlarging paper.

Storage box for negative masks on the underside of the baseboard, easily accessible at the front right-hand side.

Full utilization of the baseboard area from corner to corner.

Electrical data/safety
Electrical cables wired in the **baseboard** and **in the column.** Socket at the top end of the column for the connection of the lamp housing. Additional holder prevents sagging of the connecting cable.
Socket for mains cable underneath the baseboard
On/off switch on the left on the baseboard
150W high-voltage enlarger lamp
High-voltage enlarger lamps (replacement or supply through Technical Service Centre, E. Leitz Wetzlar GmbH, P. O. B. 2027, D-6300 Wetzlar, Germany)

Lamp	Code No.	
150W/110v	38.127.001-002	
150W/125v	38.127.001-005	
150W/220v	38.127.001-014	(part of the basic outfit)
250W/110v	38.127.002-002	
250W/125v	38.127.002-005	
250W/220v	38.127.002-014	

Dimensions and weights
Height: 920mm width: 535mm depth: 740mm
FOCOMAT IIc in black-and-white version: 37.6 kg
FOCOMAT IIc in colour version: 38.3 kg

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Outfits and instrument variants:

FOCOMAT® IIc enlarger
for negative formats of up to 6 x 9cm
FOCOMAT IIc with 53.5 x 59cm baseboard, 80cm column, dia. 6cm, parallelogram linkage, lamp housing, double condenser, 60mm FOCOTAR f/4.5 and 100mm FOCOTAR f/5.6 special enlarging lenses with changing slide and automatic switch-over of the automatic lens control, 24 x 36mm and 6 x 6cm masks, with 150W lamp, ready for connection, swivelling red filter, but without masking frame 17 860

dto., CSA version (CSA safety standard) 17 613

FOCOMAT IIc-COLOR complete, (including transilluminated enlargement indicator, slide for 12 x 12cm correction filters) . 17 870

dto., CSA version 17 614

Dust cover for FOCOMAT IIc or IIc-COLOR 17 606

Graduated filter for FOCOMAT IIc COLOR from 6 x 6 upwards (recommended also for black-and-white contrasty paper) . . 17 855

FOCOMAT IIc for the attachment of the Agfa colour head 17 973

dto. CSA version 17 917

Adapter 17 775

For the use of the Agfa Variomat
60mm dia. adapter ring 17 633

FOCOMAT IIc for the attachment of the Super Chromega D
Dichroic II 17 971

dto. CSA version 17 915

Adapter: PSL Hamburg

FOCOMAT IIc for the attachment of the Durst CLS 450 . . 17 972

Adapter: Durst FOCODAP

dto. CSA version 17 916

FOCOMAT IIc for the attachment of the Wallner colour head

17 970

Adapter: Wallner
dto. CSA version 17 914

Masking frames
for all FOCOMAT models
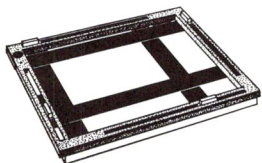
17 584

24 x 30cm (10 x 12in) universal masking frame with
4 adjustable masking strips, combined "feet-metre" scale . .   17 584

30 x 40cm masking frame, with adjustable masking strips
and adapter ring for the column for compensating the
greater thickness of this frame 17 586

English system (inch):
12 x 16in masking frame 17 630

Negative masks for format:

13 x 17mm	17 897
18 x 24mm	17 899
24 x 24mm	17 887
28 x 28mm	17 898
24 x 36mm (replacement)	17 888
3 x 4cm	17 889
4 x 4cm	17 890
4.5 x 6cm	17 891
4 x 6.5cm	17 892
6 x 6cm (replacement)	17 893
14 x 20cm "F 16"	17 857
32 x 45mm "M"	17 858
22.5 x 32mm "M½"	17 859

Accessories for single negatives
Insert for the double glass plate and additional helical focusing
mount click-stop 17 712
10 x 22cm double glass plate for same 17 710

Electron micrography
● effective format 62 x 65mm
Insert with enlarged recess for the double glass plate and
additional helical focusing mount click-stop 17 716
10 x 22cm double glass plate for same 17 710
62 x 65mm negative mask for same 17 803

● 79 x 93mm effective format
Insert with enlarged recess for the double glass plate and
additional helical focusing mount click-stop 17 808
10 x 22cm double glass plate for same 17 710
● 76 x 95mm effective format
Inserts for 3$\frac{1}{2}$ x 4 in (83 x 102mm) plates with graduated filters
and helical focusing mount click-stop 17 717

17 869

Glass negative holder for the 6.5 x 9 and 7 x 7cm formats   .   17 869
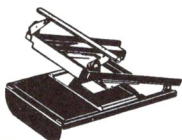
17 876

Film pressure device
with one-sided glass pressure plate (specially treated) for the
35mm format 17 876
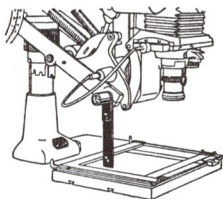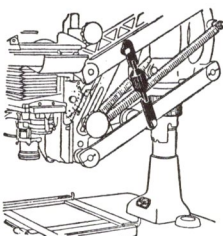
17 861   **16 617**

Extension of the reproduction scale
Additional setting device for 1:1 and reductions
(without 16 617 and 16 615) 17 861
Adapter for same for the 60mm FOCOTAR for reductions to
1:2.5, i. e. from the 6 x 9cm to the 35mm format 16 617
Adapter ring for same for the 100mm V-Elmar for the 1:1
reproduction scale 16 615

Device for correcting converging verticals
Film holder swivelling device with additional bellows, film
holder (specially treated) 17 884

Further accessories for the FOCOMAT IIc:

Voltage stabilizer:
Recommended for colour enlarging when major mains fluctuations are encountered

LEITZ-FOCOTIMER:
Electronically controlled exposure timer with digital display. The long time range can be used for the monitoring of developing processes.

LEITZ-FOCOMETER:
Modern, electronic automatic exposure meter for black-and-white and colour with timer. Light measurement with automatic conversion into the exposure time. Storage and digital display of the determined exposure time.
Further description and detailed information on the voltage stabilizer, LEITZ-FOCOTIMER,
LEITZ-FOCOMETER see under "Recommended accessories for the FOCOMAT V 35 AUTOFOCUS" from page 170.

Accessories for the FOCOMAT Ic

17 582

Code No.

FOCOTAR®-2 f/4.5 50 mm, enlarging lens
with click-stops 17 582
Filter drawer 17 772
Enlargement indicator 17 773
Dust cover for FOCOMAT I c or I c-COLOR 17 607

Masking frames
for all FOCOMAT models
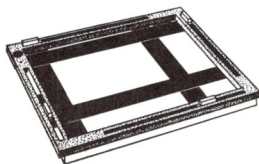
17 584

Code No.

20 x 30cm (10 x 12in) universal masking frame with
4 adjustable masking strips, combined "feet-metre" scale . . 17 584

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30 x 40cm masking frame, with adjustable masking strips and adapter ring for the column for compensating the greater thickness of this frame . . . .   Code No.

17 586

English system (inch):
12 x 16in masking frame 17 630
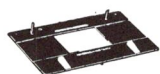
Film guides
suitable also for VALOY® II, FOCOMAT I a
8 x 11mm 17 514
13 x 17mm 17 517
18 x 24mm 17 516
24 x 24mm 17 521
28 x 28mm 17 642
24 x 36mm (replacement) 17 526
3 x 4cm 17 531
4 x 4cm (corners are cut by approx. 3mm) 17 536

Single-negative holders
also for the FOCOMAT I a and I and VALOY I and II
Double glass plate   3.5 x 12cm 17 545
                      5   x 16cm 17 565
Masks   24   x 24mm 17 541
                    24   x 36mm 17 540
                     3   x 4cm 17 555
                     4   x 4cm 17 560

New:
5 x 5cm slide holder for the FOCOMAT I c 17 542

Adapter ring
also for VALOY II
for the use of the 50mm SUMMICRON lens unit 17 672
Adapter ring for the use of the 50mm ELMAR and SUMMI-
CRON lenses, collapsible with bayonet mount 17 671

17 652

Anti-Newton-disc
with 3mm spacing ring for type N condenser 17 652
Type N Condenser (replacement) also for FOCOMAT I a . .   17 639

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Accessory for increasing the enlarging range
also for FOCOMAT I a, VALOY I, II
REPRO extension ring, for 1:1 . . . .   16 615

17 775   **17 780**

Accessories for the AGFA colour head
for the FOCOMAT I c-color and I a-color
Adapter 17 775
Additional condenser 17 780

For the use of the AGFA-VARIOMAT®
40mm-diameter spacing ring 17 631

In addition the following colour heads can be adapted:
Chromega B Dichroic
Wallner Colorhead
For more detailed information please contact your
National LEITZ Agency.

Automatic
35 mm projectors
with accessories

Contents

PRADOVIT C
for projection without irritating dark interval
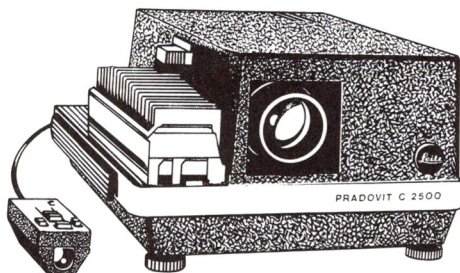
30 253

PRADOVIT C 1500 (24v-150W)
PRADOVIT CA 1500 (24v-150W-AUTOFOCUS)
PRADOVIT C 2500 (24v-250W)
PRADOVIT CA 2500 (24v-250W-AUTOFOCUS)

Officially certified school projector, with VDE or GS test symbol

Type of projector
Automatic 35mm slide projector for "smooth slide change"
= projection without irritating dark interval, the method of projection that is kindest to
your eyes
Standard magazines for 36 or 50 slides
High optical performance of 90mm LEITZ-COLORPLAN f/2.5
– LEITZ lenses from 35 to 300mm

Projector housing
Stylish design and optimum stability through high-quality aluminium diecasting
LEITZ Wetzlar manufacture and more than 20 years of experience in the construc-
tion of PRADOVIT projectors guarantee durability and high reliability.
Quiet, precise projector running
Dark charcoal finish and light central band for stylish appearance
Very rigid 3-point support
Vertical adjustment with knurled screws for precision horizontal alignment.
Appliance plug for mains cable

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Mains switch
Lamp economy switch
110-240v/50-60Hz voltage selector on adjustable models
Standard version of the models C 1500/CA 1500 for 220/240v/50Hz mains voltage
Connection for remote control (8-pin)
Connection for slide control units (6-pin)
Remote control with built-in light pointer (length of cable 3m)
Slide changing button
Carrying handle, folds away

Magazine guide and slide transport
Free access to the magazine chamber of the projector
Convenient insertion of the standard magazines for 36 or 50 slides
Trouble-free guide of the slide magazine in the magazine trough. – Good sliding properties and excellent heat insulation
Trouble-free slide transport by securely guided claw and hard-chromed sliding elements of the slide tracks and the control rollers. Projects all types of slide mount (to DIN 108 standards)

Projection without irritating dark interval with 3-channel system. Dark phase from the start to the end of the curtain shutter operation only 0.4 sec.
Automatic blanking of the slide gate when the slide transport device in the optical path is empty.
Low noise level of slide transport and change
Forward and reverse movement of the inserted slide magazine as required
Automatic return of the last projected slide when the magazine ist removed.

Slide change and focusing
Remote-control handgrip with 3m long cable and 8-pin standard plug:
Forward and reverse transport of the slide magazine by means of two push-buttons
Rapid, motor-driven focusing of the projected image (forward and reverse) with two push-buttons
With the CA models: switch for automatic focusing
Light pointer built into the remote-control handgrip, with switch button
Extension cable of up to 50m length for remote control or permanently installed remote-control cables (as accessories)
or
Slide changing button on the projector (forward and reverse)*

* With CA models automatic focusing through the use of the dummy plug

Further possibilities:
Timer, can be connected for automatic showing with adjustable time intervals*
Radio control, attachable, wireless (on request)
IR remote control, attachable, wireless
Lap dissolve devices,
(with or without tape control)

AUTOFOCUS Device
Automatic focusing with the PRADOVIT CA models
Extremely sensitive and rapid response through silicon photo elements. High setting accuracy
PRADOVIT CA Autofocus device has its own light source, which makes it independent of the centring of the projector lamp. High electrical stability
Autofocus device switched on with the switch on the remote control handgrip or with dummy plug
Automatic middle position with magazine change

Sockets
Socket, 8-pin for remote control
Socket, 6-pin, wired to DIN standards. Possibility of connecting tape or slide control units
Simultaneous use of remote-control cable and slide control unit (without additional twin plug) through the above-mentioned two sockets

Lenses and condenser system
High optical performance, optimum image quality through the 90mm LEITZ-COLOR-PLAN f/2.5
Adaptation to all requirements from wide-angle projection to the bridging of long projection distances through LEITZ lenses of 35mm to 300mm focal length
Modern, aspherical condenser system, specially computed for the 35mm format
Interchangeable condensers –
For the 35mm format:
35 – 50mm lenses
60 – 150mm lenses
175 – 300mm lenses
On request also 40 x 40 format through interchange of the aspherical condenser system and the interchangeable condenser for: 60 – 120mm lenses and 150 – 300mm lenses.

Tungsten halogen lamps and function
24v-150W for PRADOVIT C 1500 and CA 1500
24v-250W for PRADOVIT C 2500 and CA 2500
(Transformer built into the projectors)
Projectors are supplied complete with lamp. Optimum lamp centration carried out in the factory
Easy change of the projector lamps
Slide illumination in conjunction with the aspherical condenser system radiantly bright from corner to corner.
Uniformity of illumination more than 80 % (referred to 90mm COLORPLAN f/2.5 and 24 x 36mm film size)

Effective light flux:
To DIN 19 021 standards, referred to 24 x 36mm film size and 90mm COLORPLAN F/2.5 lens:
PRADOVIT C/CA 1500 550 lm
PRADOVIT C/CA 2500 800 lm

Slide gate temperature
Measured to DIN 19 021 standards
PRADOVIT C/CA 1500: 55° C
PRADOVIT C/CA 2500: 65° C

Economy switch
(separate switch) for doubling the life of the lamp

Blower system
Two-channel blower for optimum cooling
Separate cool air streams for slide gate and lamp through ingenious two-channel radial blower.
In addition: heat filter, thickness 5.5mm (KG 1-glass for the absorption of IR rays).
Remarkably quiet running of the blower

Mains connection
For 220v/50Hz or, with voltage selector 110–240v/50–60Hz in the adjustable models.

Electrical safety
VDE or GS symbol as well as interference suppression symbol, also Semko, Nemko, Demko and SEV

Thermostatic cut-out
Built in. Automatically switches off the current during overheating (for instance broken fan belt).

Dimensions and weights
Standing area: Length: 334mm, width 268mm, height 166mm.
Weight: depending on the model and equipment, between 7 and 10 kg

PRADOVIT C/CA
Projector with carrying grip
mains cable, 2.50m long
factory-centered tungsten halogen lamp
one 36-slidge magazine
remote control cable, 3m long
choice of projector lenses from 35 to 300mm focal length
other accessories optional.

Outfits:

PRADOVIT C 1500, (220v/50Hz) Code No.
complete with 24v/150W tungsten halogen lamp,
one magazine for 36 slides, without hood, with mains cable
and remote control, with lens:

ELMARON® f/2.8 35mm[1])	30 210
ELMARON f/2.8 50mm[2])	20 211
ELMARON f/2.8 85mm	30 212
COLORPLAN® f/2.5 90mm	**30 213**
ELMARON f/2.8 120mm	30 214
ELMARON f/2.8 150mm	30 215
ELMARON f/3.6 200mm	30 216
ELMARON f/4 250mm	30 217

Body without: lens, focusing sleeve, remote-control cable,
mains cable, but with interchangeable condenser for 60
– 150mm 30 200

PRADOVIT CA 1500 (220v/50Hz) with autofocus device,
complete with 24v/150W tungsten halogen lamp, one magazi-
ne for 36 slides, mains cable and remote-control cable, with
lens:

ELMARON f/2.8 35mm[1])	30 218
ELMARON f/2.8 50mm[2])	30 219
ELMARON f/2.8 85mm	30 220
COLORPLAN f/2.5 90mm	**30 221**
ELMARON f/2.8 120mm	30 222
ELMARON f/2.8 150mm	30 223
ELMARON f/3.6 200mm	30 224
ELMARON f/4 250mm	30 225

Body without: lens, focusing, sleeve, remote-control cable,
mains cable, but with interchangeable condenser for 60
– 150mm 30 201

PRADOVIT CA 1500 (220v/50Hz) with autofocus device,
complete with 24v/150W tungsten halogen lamp, one magazi-
ne for 36 slides, mains cable and remote-control cable, with
lens:

ELMARON f/2.8 35mm[1])	30 226
ELMARON f/2.8 50mm[2])	30 227
ELMARON f/2.8 85mm	30 228
COLORPLAN f/2.5 90mm	**30 229**
ELMARON f/2.8 120mm	30 230
ELMARON f/2.8 150mm	30 231
ELMARON f/3.6 200mm	30 232
ELMARON f/4 250mm	30 233

Body without: lens, focusing sleeve, remote-control cable,
mains cable, but with interchangeable condenser for 60
– 150mm 30 202

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[1]) for 35mm slides and 30-slide magazine only
[2]) for 35mm slides only, not for 50-slide magazine

PRADOVIT CA 1500 (adjustable 110 – 240v/50 – 60Hz) with autofocus device,
complete with 24v/150W tungsten halogen lamp, one magazine for 36 slides, mains cable and remote-control cable, with lens:

Code No.

ELMARON f/2.8 35mm[1])	30 234
ELMARON f/2.8 50mm[2])	30 235
ELMARON f/2.8 85mm	30 236
COLORPLAN f/2.5 90mm	**30 237**
ELMARON f/2.8 120mm	30 238
ELMARON f/2.8 150mm	30 239
ELMARON f/3.6 200mm	30 240
ELMARON f/4 250mm	30 241

Body without: lens, focusing sleeve, remote-control cable, mains cable, but with interchangeable condenser for 60 – 150mm 30 203

PRADOVIT C 2500 (adjustable 110 – 240v/50 – 60Hz)
complete with 24v/250W tungsten halogen lamp, one magazine for 36 slides, mains cable and remote-control cable, with lens:

ELMARON f/2.8 35mm[1])	30 242
ELMARON f/2.8 50mm[2])	30 243
ELMARON f/2.8 85mm	30 244
COLORPLAN f/2.5 90mm	**30 245**
ELMARON f/2.8 120mm	30 246
ELMARON f/2.8 150mm	30 247
ELMARON f/3.6 200mm	30 248
ELMARON f/4 250mm	30 249
EPNOR f/4.3 250mm	30 279

Body without: lens, focusing sleeve, remote-control cable, mains cable, but with interchangeable condenser for 60 – 150mm 30 204

PRADOVIT CA 2500 (adjustable 110 – 240v/50 – 60Hz) with autofocus device,
complete with 24v/250W tungsten halogen lamp, one magazine for 36 slides, mains cable and remote-control cable, with lens:

ELMARON f/2.8 35mm[1])	30 250
ELMARON f/2.8 50mm[2])	30 251
ELMARON f/2.8 85mm	30 252
COLORPLAN f/2.5 90mm	**30 253**
ELMARON f/2.8 120mm	30 254
ELMARON f2.8 150mm	30 255
ELMARON f/3.6 200mm	30 256
ELMARON f/4 250mm	30 257
EPNOR f/4.3 300mm	30 278

Body without: lens, focusing sleeve, remote-control cable, mains cable, but with interchangeable condenser for 60 – 150mm 30 205

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[1]) for 35mm slides and 30-slide magazine only
[2]) for 35mm slides only, not for 50-slide magazine

Standard accessories:

37 956

Hood for projector with lenses of up to 120mm focal length, as
dust protection and base for the projector 37 956

Case for PRADOVIT-C 1500/2500 and
CA 1500/2500
with lenses up to 250mm 37 961
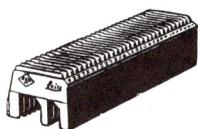
Magazines

Transparent box with two 36-slide magazines 37 863
Transparent box with two 50-slide-magazines 37 835
Stacking box with two 36-slide magazines **37 844**
Stacking box with two 50-slide magazines **37 855**

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Interchangeable projector lenses with accessories:

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[1]) for 35mm slides and 30-slide magazine only
[2]) for 35mm slides only, not for 50-slide magazine
[3]) not for 50-slide magazine

**Lap dissolve devices, adapters,
and connecting cables:**

Lap dissolve control unit D. U. 24 A
for 2 PRADOVIT projectors
Code No., technical description, and possibilities of combina-
tions see under „Lap dissolve projection"

Manual control unit D. U. 24 M
for two projectors
Code No., technical description and possibilities of combina-
tion see under „Lap Dissolve Projection"

PRADOVIT Console
for lap dissolve projection
Code No., technical description see under „Lap dissolve
projection"
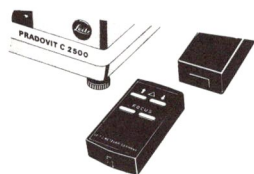
Infra-red remote control

Range about 20m
Detector in robust plastic housing, modern design
Connecting cable, length 60cm, with 8-pin plug
Selector with autofocus and remote focusing
Transmitter in handy, robust plastic housing
Powered by 9v IEC 6 F 22 battery
Four transmitting channels with a push-button each for slide
transport forward, slide transport reverse, and focusing for-
ward and focusing reverse
Push-buttons conveniently and practically arranged
IR remote control complete, but without battery 37 970

Radio control
Range: 18 – 22m (on request)

Timer

can be universally used for all PRADOVIT models with 6-pin socket to DIN 45 322, for instance PRADOVIT C, PRADOVIT S, PRADOVIT TA, PRADOVIT RC, PRADO-VIT R 150, PRADOVIT-COLOR and all projectors with 6-pin socket to DIN 45 322 which are wired to DIN 45 523 specifications.
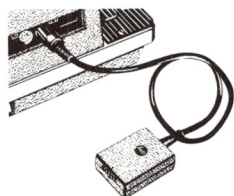
Robust plastic body with black, grained surface.
Connecting cable, length 60cm, with 6-pin plug. The length of the cable permits any desired set-up next to the projector. The 6-pin plug is inserted in the "tape" socket in the PRADOVIT C and PRADOVIT S models. With autofocus models of this series the remote-control socket is closed with the dummy plug if autofocus is to be operated.
Interval timer, adjustable between about 3 and 30 sec, figures engraved in white.
Dimensions:
Length 65mm – width 50mm – height 23.5mm

Code No.
Timer complete 37 969

Daylight projection box

for the PRADOVIT A (advertising projector) – PRADOVIT C – PRADOVIT S
Stylish, robust body with rounded corners, covered with grained, matt-black foil.
Code No. and technical description see advertising projector.

Replacement parts:

Replacement **projector and light-pointer lamps** supplied by:
Technical Service Centre, P. O. B. 2027, Leitz Wetzlar GmbH,
D-6330 Wetzlar or the National LEITZ Agency
(please give detailed data)

PRADOVIT S and S/AF
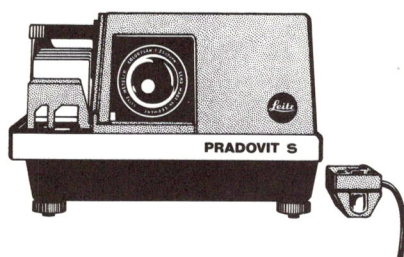
PRADOVIT S **(24v/250W)**
PRADOVIT S/AF (24v/250W-AUTOFOCUS)

Type of projector

Automatic 35mm slide projector for the 36- or 50-slide standard magazine
With conventional slide change, dark interval only about 1.4sec Particularly recommended for lap-dissolve projection with 2 projectors because here the advantages of the instant slide change of the PRADOVIT C/CA are not effective.
Technical features of the PRADOVIT S or S/AF are the same as the PRADOVIT C 2500 and CA 2500 respectively except for the slide changing mechanism and method.
Leitz projector lenses also from 35 to 300mm.

PRADOVIT S (adjustable 110 – 240v/50 – 60Hz), complete with 24v 250W tungsten halogen lamp, one magazine for 36 slides, mains cable, remote-control cable, and lens

	Code No.
ELMARON f/2.8 35mm[1])	30 260
ELMARON f/2.8 50mm[2])	30 261
ELMARON f/2.8 85mm	30 262
COLORPLAN f/2.5 90mm	**30 263**
ELMARON f/2.8 120mm	30 264
ELMARON f/2.8 150mm	30 265
ELMARON f/3.6 200mm	30 266
ELMARON f/4 250mm	30 267
EPNOR f/4.3 300mm	30 277
Body without: lens, focusing sleeve, remote-control cable, mains cable	30 206

[1]) for 35mm slides and 30-slide magazine only
[2]) for 35mm slides only, not for 50-slide magazine

PRADOVIT S/AF (adjustable 110 – 240v/50 – 60Hz) with Autofocus, complete with 24v 250W tungsten halogen lamp, one magazine for 36 slides, mains cable, remote-control cable, and lens

ELMARON f/2.8 35mm[1])	30 260
ELMARON f/2.8 50mm[2])	30 261
ELMARON f/2.8 85mm	30 270
COLORPLAN f/2.5 90mm	**30 271**
ELMARON f/2.8 120mm	30 272
ELMARON f/2.8 150mm	30 273
ELMARON f/3.6 200mm	30 274
ELMARON f/4 250mm	30 275
EPNOR f/4.3 300mm	30 276
Body without: lens, focusing sleeve, remote-control cable, mains cable	30 206

Standard accessories:
Hood for projector with lens up to 120mm as dust protection and projector platform 37 956
Case for projector with lens of up to 250mm 37 961

Magazines
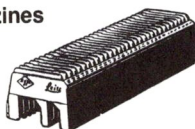
Transparent box with two 36-slide magazines	37 863
Transparent box with two 50-slide magazines	37 835
Stacking box with two 36-slide magazines	**37 844**
Stacking box with two 50-slide magazines	**37 855**

Replacement order of tungsten halogen lamps from your LEITZ agency.

Interchangeable projector lenses
From 35 to 300mm with focusing sleeves and interchangeable condensers
See under "Accessories PRADOVIT C"

Accessories for 40 x 40
See under "Accessories PRADOVIT C"

Film guide on the PRADOVIT S and S/AF

1. Holder for PRADOVIT	37 937
2. Rotating part with rods	32 850
3. Lens carrier	32 404
4. Film guide	37 868
5. Optionally:	
● ELMARON f/2.8 50mm	37 008
Focusing sleeve for same	37 119

---

1) for 35mm slides and 30-slide magazine only
2) for 35mm slides only, not for 50-slide magazine

Interchangeable condenser for same 37 206
● COLORPLAN f/2.5 90mm 37 005
focusing sleeve for same 37 119
Interchangeable condenser for same 37 200
● ELMARON f/2.8 120mm 37 019
Focusing sleeve for same 37 119
Interchangeable condenser for same 37 200

**Lap dissolve devices, control units, timers, for the
PRADOVIT S and S/AF:**
Lap dissolve control unit D.U. 24A
For two PRADOVIT projectors
Code number, technical description, and possibilities of combination see under "Lap dissolve projection"

Manual control unit D.U. 24M
for two projectors
Code number, technical description, and possibilities of combination see under "Lap dissolve projection"

PRADOVIT console
for lap dissolve projection
Technical description and Code number see under "Lap dissolve projection"

Infra-red remote control

Range about 20m
Detector in robust plastic housing, modern design
Connecting cable, length 60cm, with 8-pin plug
Selector with autofocus and remote focusing
Transmitter in handy, robust plastic housing
Powered by 9v IEC 6 F 22 battery
Four transmitting channels with a push-button each for slide transport forward, slide transport reverse, and focusing forward and focusing reverse
Push-button conveniently and practically arranged
IR remote control complete, but without battery 37 970

Radio control
Range: 18 – 22m (on request)

Timer

with 6-pin plug; connecting cable attached to the instrument, length 60 cm. The length of the cable permits any desired arrangement of the timer next to the projector.
Interval timer, range between about 3 and 30 seconds, figures engraved in white.
Sturdy plastic housing with black grained surface.
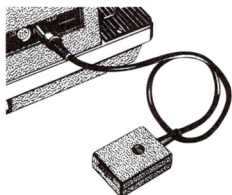
Timer connection with the
PRADOVIT S and S/AF,
PRADOVIT C/CA:
6-pin socket for slide control units
Autofocus operation with the PRADOVIT S/AF, CA 1500, CA 2500: insert dummy plug in the remote-control socket.

Dimensions of the timer: length 65mm, width 50mm, height 23.5mm

Timer complete 37 969

Daylight projection box

Stylish, robust body with rounded corners, covered with grained, matt-black foil. See PRADOVIT A.

Replacement parts:

Remote-control cable: 2m 38 955
Appliance cable 37 644

Projector, light-pointer, and AF lamps:
Replacement lamps supplied by:
Technical Service Centre, P. O. B. 2027, Leitz Wetzlar GmbH,
D-6330 Wetzlar or the National LEITZ Agency (please give
detailed data).

PRADOVIT A
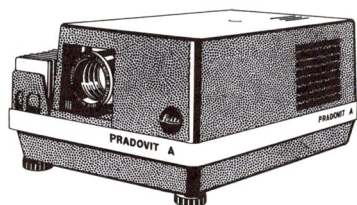
Advertising projector
With AUTOFOCUS and 24v/250W tungsten halogen lamp

Type of projector
Projection without irritating dark interval also for advertising
The well-tried new slide change with its robust mechanism, reliability of prolonged operation, optimum slide preservation and rapid, precision AUTOFOCUS device are components of the PRADOVIT A.
The magazine repeater for continuous projection is built in. One repeater plate in the magazine behind the last and in front of the first slide gives the impulse for the return of the magazine and its renewed advance.
Between 2 and 48 slides can be continuously projected
The slide change impulse is generated by the built-in timer or by a continuous tape.
The PRADOVIT A has the 250W/24v lamp, the AUTOFOCUS device, built-in timer and magazine repeater as standard equipment.
LEITZ projector lenses also from 35 to 300mm.

Outfits PRADOVIT A (adjustable 110 – 240v/50 – 60Hz), complete with 24v 250W tungsten halogen lamp, one magazine for 36 slides, mains cable, remote-control cable, and lens

ELMARON f/2.8 35mm[1])	30 280
ELMARON f/2.8 50mm[2])	30 281
ELMARON f/2.8 85mm	30 282
COLORPLAN f/2.5 90mm	**30 283**
ELMARON f/2.8 120mm	30 284
ELMARON f/2.8 150mm	30 285
ELMARON f/3.6 200mm	30 286
ELMARON f/4 250mm	30 287
EPNOR f/4.3 300mm	30 288
Body without: lens, focusing sleeve, romote-control cable, mains cable	30 208

Standard accessories:

Hood for projector with lens up to 120mm as dust protection and projector platform 37 956
Case for projector with lens up to 250mm 37 961
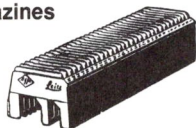
Magazines

Transparent box with two 36-slide magazines	37 863
Transparant box with two 50-slide magazines	37 835
Stacking box with two 36-slide magazines	**37 844**
Stacking box with two 50-slide magazines	**37 855**

Interchangeable projector lenses
From 35 to 300mm
With focusing sleeves
and interchangeable condensers
See under "Accessories PRADOVIT C"

Accessories for 40 x 40
See under "Accessories PRADOVIT C"

Replacement parts:

Remote-control cable: 2m 38 955
Appliance cable 37 644

Projector, light-pointer, and AF lamps:
Replacement lamps supplied by:
Technical Service Centre, P. O. B. 2027, Leitz Wetzlar GmbH,
D-6330 Wetzlar or the National LEITZ Agency (please give
detailed data).

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[1]) for 35mm slides and 30-slide magazine only
[2]) for 35mm slides only, not for 50-slide magazine

Daylight Projection Box

for the PRADOVIT A (advertising projector) – PRADOVIT C – PRADOVIT S
Stylish, robust body with rounded corners, covered with grained, matt-black foil.
Specially coated 340 x 340mm back projection plate for radiant groundglass screen
images of 10x magnification. A frame behind the projection plate provides neat
framing of the projected image. Platform insert for setting up the projector (required
focal length 50mm). No restriction to the length of magazines. The firm connection
between the projection box and the platform permits joint rearrangement of the
mounted and adjusted unit.
A hook-in hood serves as protection against stray light from the rear
Dimensions and weights:
Length 470mm
Width (without projector) 400mm
Height 405mm

Standing area with projector
Length (depth) about 550mm
Width about 650mm
Weight about 9 kg

	Code No.
Daylight projection box with projector console and antiglare hood	37 963

210

PRADOVIT R 150 and RA 150
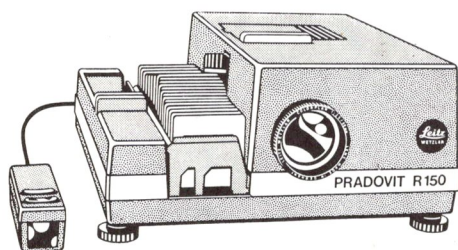
30 563

PRADOVIT R 150 (24v/150W)
PRADOVIT RA 150 (24v/150W-AUTOFOCUS)

Type of projector
Automatic 35mm slide projector for 36- or 50-slide standard magazines.
The 90mm LEITZ-COLORPLAN F/2.5 ensures high optical performance – LEITZ
projector lenses from 50 to 150mm.

Projector body
Modern design. Impact-resistant, high-quality plastic material with textured surface,
charcoal. Component group construction ensures easy servicing.
Rigid 3-point support, vertical adjustment with knurled screws up to 6°, horizontal
adjustment.
Bobbin on the projector underside for winding up the appliance cable for mains
connection.
Mains switch
Lamp economy switch
Voltage selector 110 – 240v/50 – 60Hz in the adjustable models
Standard version for 220/240v/50Hz mains
Mains cable wired to the projector (2-strand, VDE or GS, length 2.5m)
Remote-control handgrip can be inserted in the projector as a control panel.
Socket for separate remote-control cable, for tape or slide control units, timer, IR
remote control, radio control

212

Magazine guide and slide transport

Free accessibility of the magazine space of the projector. Convenient insertion of the 36-or 50-slide standard magazines Trouble-free slide transport over hard-chromed slide tracks and reliably guided claw (does not protrude beyond the projector body). Projection of all types of mount to DIN 108 standards irrespective of method. Automatic black-out during slide change and when the projector is switched on without simultaneous projection.

Rapid slide change, dark interval only about 1.4 sec

Any desired forward or reverse adjustment of the inserted slide magazine.

Quiet slide transport and change.

Removable slide stage for re-arrangement of slides or single slide projection

Slide change and focusing

with Remote-control handgrip,

optionally:

Insertable as a control panel in the projector for forward and reverse slide transport and focusing.

For hand-held operation (connecting cable, length 1.2m, wired to and can be stored in the projector) for forward and reverse slide transport, focusing. Also operation of the integrated light pointer with push-button

or

possibility of connecting a separate remote-control cable (length 3m) with light pointer. If necessary:

Extension cable (5m) for remote control.

Further possibilities

Timer, can be connected for automatic slide projection with adjustable time intervals*

Radio control, attachable, wireless (on request)

IR remote control, attachable, wireless

Lap dissolve devices,

(with or without tape control) (in preparation)*

Autofocus device

Automatic focusing with the PRADOVIT RA 150

Automatic focusing switch on the projector body. LED display of readiness

The autofocus device has its own light source (strip light) and is therefore independent of the centration of the projector lamp. High setting accuracy

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* With the PRADOVIT RA 150 with automatic focusing

Socket

Socket, 6-pin, to DIN standards for:
Separate remote-control cable (3m) with light pointer –
Extension cable (5m) can be used in addition
Connecting cable to the slide-control unit (tape coupling)
Multiple plug for joint connection of the slide conrol unit and separate remote-control cable
Timer for automatic slide shows with adjustable time intervals
Radio control (on request)
IR remote control
Lap dissolve device

Lenses and condenser system

High optical performance, optimum image quality through the 90mm
LEITZ COLORPLAN f/2.5
LEITZ lenses from 50 to 150mm
Modern condenser system for radiant, bright slide illumination (aspherical system)
Condensers interchangeable

Tungsten halogen lamp and function

24v 150W in the PRADOVIT R 150 and RA 150 (transformer built into the projector)
Projectors are supplied complete with lamps
Easy replacement of the projector lamps
Evenness of illumination more than 80 % (referred to 90 mm COLORPLAN f/2.5 and 24 x 36mm image size)
Lamp economy switch (separate switch) for double lamp life

Effective light flux
to DIN 19 021 standards, referred to 24 x 36mm image size and 90mm
COLORPLAN f/2.5 lens, with the R 150 and RA 150 = 600Lm

Slide gate temperature
measured to DIN 19 021 standards: 60° C

Blower system

Direct blower for optimum cooling of slide, lamp, and projector
Absorption through additional heat filter KGI of the infra-red rays and thereby diminished exposure of the slide to heat
Very quiet, reliable blower operation

Mains connection

For 220/240v/50Hz or, with voltage selector 110 – 240v/50 – 60Hz in the adjustable models.

Electrical safety

VDE or GS as well as interference suppression symbol, and Semko, Nemko, Demko and SEV

Dimensions and weights
Length 280mm, width 262mm, height 133mm,
Weight 4.3 kg R 150
Weight 4.4 kg RA 150

PRADOVIT R 150/RA 150
with mains cable
factory-centred tungsten halogen lamp, one 36-slide magazine
remote-control cable with light pointer
Choice of projector lenses from 50 to 150mm focal length
Other accessories optional

Outfits:

PRADOVIT® R 150 (220v/50Hz), complete with 24v/150W Code No.
tungsten halogen lamp and lens:
ELMARON® f/2.8 50mm 30 561
ELMORAN f/2.8 85mm 30 562
COLORPLAN® f/2.5 90mm **30 563**
ELMARON f/2.8 120mm 30 564
ELMARON f/3.2 150mm 30 565
Body with condenser for 60mm to 150mm and 24v/150W
tungsten halogen lamp 30 560
Body with condenser for 50mm and 24v/150W tungsten
halogen lamp 30 569

PRADOVIT R 150 (adjustable 110 – 240v/50 – 60Hz), com-
plete with 24v/150W tungsten halogen lamp and lens
ELMARON f/2.8 50mm 30 571
ELMARON f/2.8 85mm 30 572
COLORPLAN f/2.5 90mm **30 573**
ELMARON f/2.8 120mm 30 574
ELMARON f/3.2 150mm 30 575
Body with condenser for 60mm to 150mm and 24v/150W
tungsten halogen lamp 30 570
Body with condenser for 50mm and 24v/150W tungsten
halogen lamp 30 579

PRADOVIT R 150 CSA version for 120v mains
complete with 24v/150W tungsten halogen lamp and lens:
COLORPLAN f/2.5 90mm 30 583
ELMARON f/2.8 50mm 30 581
ELMARON f/2.8 85mm 30 582
ELMARON f/2.8 120mm 30 584
ELMARON f/3.2 150mm 30 585
Body with condenser for 60 to 150mm and 24v/150W tung-
sten halogen lamp 30 580
Body with condenser for 50mm and 24v/150W tungsten
halogen lamp 30 589

PRADOVIT RA 150 with autofocus (220v/50Hz)
complete with 24v/150W tungsten halogen lamp and lens:
ELMARON® f/2.8 50mm 30 531
ELMARON f/2.8 85mm 30 532
COLORPLAN® f/2.5 90mm **30 533**
ELMARON f/2.8 120mm 30 534
ELMARON f/3.2 150mm 30 535
Body with condenser for 60 to 150mm and 24v/150W tung-
sten halogen lamp 30 530
Body with condenser for 50mm and 24v/150W tungsten
halogen lamp 30 539

PRADOVIT RA 150 with autofocus (adjustable 110 –   Code No.
240v/50 – 60Hz) complete with 24v/150W tungsten halogen
lamp and lens:
ELMARON® f/2.8 50mm 30 541
ELMARON f/2.8 85mm 30 542
COLORPLAN® f/2.5 90mm **30 543**
ELMARON f/2.8 120mm 30 544
ELMARON f/3.2 150mm 30 545
Body with condenser for 60 to 150mm and 24v/150W tung-
sten halogen lamp 30 540
Body with condenser for 50mm and 24v/150W tungsten
halogen lamp 30 549

Standard accessories:

Carrying case for dustfree storage 37 954

Magazines
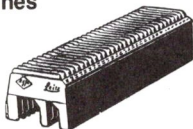
Transparent box with two 36-slide magazines 37 863
Transparant box with two 50-slide magazines 37 835
Stacking box with two 36-slide magazines **37 844**
Stacking box with two 50-slide magazines **37 855**

Interchangeable projector lenses:

ELMARON f/2.8 50mm 37 008
ELMARON f/2.8 85mm 37 003
COLORPLAN f/2.5 90mm **37 005**
ELMARON f/2.8 120mm 37 019
ELMARON f/3.2 150mm 37 031

Interchangeable condenser for 60mm to150mm (replacement)   37 222
Interchangeable condenser for 50mm (replacement) 37 221

Lap dissolve devices, control units, adapters and connecting cables for the PRADOVIT R 150/RA 150:
Lap dissolve control unit D.U. – 24A
for two PRADOVIT projectors
Code number, technical description and possibilities of combination see under "Lap dissolve projection"

Manual control unit D.U. 24M
for two projectors
Code number, technical description, and possibilities of combination see under "Lap dissolve projection".

PRADOVIT console
for lap dissolve projection
Technical description and code number see under "Lap dissolve projection"

Infra-red remote control

Range about 20m
Detector in robust plastic housing, modern design
Connecting cable, length 60cm, with 8-pin plug
Selector with autofocus and remote focusing
Transmitter in handy, robust plastic housing
Powered by 9v IEC 6 F 22 battery
Four transmitting channels with a push-button each for slide transport forward, slide transport reverse, and focusing forward and focusing reverse
Push-buttons conveniently and practically arranged

	Code No.
IR remote control complete, but without battery	37 970
Necessary for use with PRADOVIT R/RA 150:	
Adapter	37 975
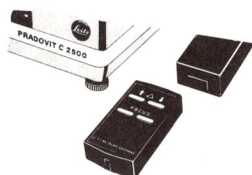
Radio control
Range: 18 – 22m (on request)

Timer

with 6-pin plug; connecting cable attached to the instrument, length 60cm. The length of the cable permits any desired arrangement of the timer next to the projector.
Interval timer, range between about 3 and 30 seconds, figures engraved in white.
Sturdy housing with black grained surface.
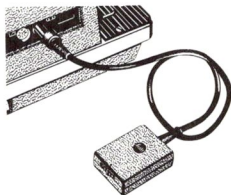
Timer connection on the PRADOVIT R 150/RA 150
6-pin socket for slide control units
Switch the PRADOVIT RA 150 to autofocus
Dimensions: length 65mm, width 50mm, height 23.5mm   Code No.
Timer complete 37 969

Multiple plug for the joint connection of tape and separate
remote-control cable 37 911
Separate remote-control cable 3m with light pointer 37 953
Extension cable for remote control 5m 37 931

Replacement parts:

Projector, light-pointer, and AF lamps
Replacements supplied by Technical Service Centre, P.O. B.
2027, Ernst Leitz Wetzlar GmbH, D-6330 Wetzlar, Germany
or the National LEITZ Agency (please give detailed data)

Accessions for the PRADOVIT-COLOR
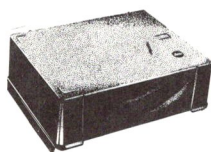
37 930

	Code No.
Hood (for lenses of up to 120mm focal length)	37 930
Light pointer for projection in the home	37 936
Carrying case for the PRADOVIT-COLOR or PRADOVIT-CO-LOR-AUTOFOCUS and lens of up to 250mm focal length (including earlier models)	37 952
Carrying case for the PRADOVIT-COLOR 250 or PRADOVIT-COLOR 250 AUTOFOCUS and lens of up to 250mm focal length	37 962
Extension cable for remote control 5m (17ft)	37 931
Extension cable for remote control 15m (50ft)	37 932
Holder for micro-attachments (see also pp. 132 – 134) . .	37 937
Accessory for showing filmstrips on request.	

Multiple plug for the simultaneous connection of tape recorder and remote-control cable to the PRADOVIT (above Serial No. 400 000), variants of the PRADOVIT COLOR, PRADOVIT RC, PRADOVIT R 150 and PRADOVIT COLOR 110 . . . . .   37 911

Magazines
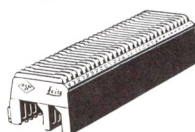
	Code No.
Transparent box with two 36-slide magazines	37 863
Transparent box with two 50-slide magazines	37 835
Stacking box with two 36-slide magazines	**37 844**
Stacking box with two 50-slide magazines	**37 855**

	Code No.
Projector lenses and optical accessories	
ELMARON f/2.8 35mm[1])	37 041
ELMARON f/2.8 50mm[2])	37 008
ELMARON f/2.8 60mm[3])	37 004
ELMARON f/2.8 85mm	37 003
COLORPLAN f/2.5 90mm (dia. 42.5mm)	**37 005**
ELMARON f/2.8 120mm	37 019
ELMARON f/2.8 150mm	37 030
ELMARON f/3.6 200mm	37 062
ELMARON f/4 250mm	37 082

[1]) up to 35mm format and 30-slide magazine only
[2]) up to 35mm format only, not for 50-slide magazine
[3]) effective format 40 x 40mm, not for 50-slide magazine

Focusing sleeves for focal lengths: Code No.
35mm – 120mm (dia. 42.5mm) 37 119
150mm 37 121
200mm 37 129
250mm 37 130

Interchangeable condensers (24 x 36):
For 35mm to 50mm 37 210
For 60mm to 120mm 37 217

Replacement accessory parts:
Remote-control cable (replacement) 3m, only for PRADOVIT-
COLOR and PRADOVIT-COLOR 250 . . . .   37 934
Remote-control cable 3m, only for PRADOVIT COLOR-AU-
TOFOCUS and PRADOVIT-COLOR 250 AUTOFOCUS . . .   37 941
Mains cable 37 656
Repeater plate for advertising projector 37 933

Projector, light-pointer, and AF lamps:
Replacements supplied by Technical Service Centre, P.O. B. 2027, Ernst Leitz
Wetzlar GmbH, D-6330 Wetzlar, Germany or the National LEITZ Agency (please
give detailed data).

Accessories for the PRADOVIT-COLOR 110

Remote-control cable with light pointer 37 949
Compact magazine 37 948
Multiple plug for the simultaneous connection of tape recorder
and remote-control cable 37 911
Extension cable for remote control 5m (17ft) 37 931
Replacement order of tungsten halogen lamps from your Leitz
agency.

Projector, light-pointer, and AF lamps:
Replacements supplied by Technical Service Centre, P.O.B. 2027, Ernst Leitz
Wetzlar GmbH, D-6330 Wetzlar, Germany or the National LEITZ Agency (please
give detailed data).

Lap dissolve projection

Contens: Page:

Lap dissolve control unit D.U. 24A

for two projectors with recording facility for cassette and tape.

Uses
Home projection, lecturing, advertising, teaching and communication.
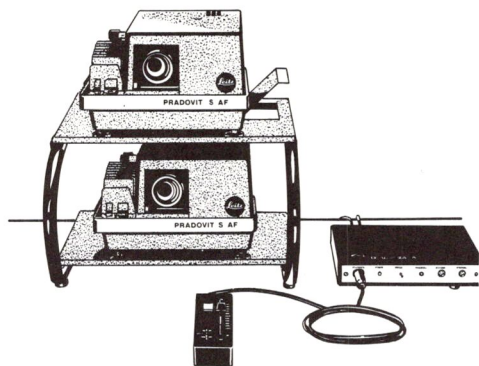
Brief technical description and function
Control unit for continuous gradual and cut lap dissolves
No time limit for gradual lap dissolves
24v supply through the modified projectors with built-in
TRIAC for lamp control, hence no heating of the control unit
Control piece with slider with integrated switches for slide change in the end position
Light change of the projectors can be repeated as often as desired, because slide transport is not coupled.
Push-button for instant light change from projector A to projector B (flip-over button).
The built-in signalling device controls the lap dissolve of the projectors through its frequency modulation. A signal of this frequency modulation can be recorded on a cassette or stereo tape recorder without difficulty.
Chromium-coloured metal housing with black front plate. All controls are arranged on the front.
6-pin socket for the connection of the control piece
6-pin socket (cannot be confused) for the connection of cassette recorders with built-in AV head or reel tape units with AV head (the slide control unit cannot be used for this purpose).
5-pin socket (for stereo plug) for the connection of stereo tape recorders for multi-play methods
Warning light to check the control signal
Warning light indicates the need for reversing a projector cable because it is out of phase
"Line-up" switch, both projectors have the same brightness for alignment.

Two 1.5m connecting cables with 10-pin plugs for the projectors at the back of the control unit

No additional mains cable required.

Control piece, with 2m connecting cable, with the following controls:

Slider switch for lap dissolve control. End position colour coded (same colour code on the connecting cables to the projectors)

Operating mode switch with 3 positions:

"Play" normal position for manual lap dissolve and tape marking

"Record" – automatic signal processing from the tape

"Erase" – erase of the recorded signal

"Flip-over button" – rapid lap dissolve without slide transport

Possibility of combining the projectors

All the automatic PRADOVIT 35mm projectors which have the auxiliary equipment with built-in TRIAC for lamp control can be used with the D.U. 24A control unit:

PRADOVIT-C-C 1500, CA 1500, C 2500, CA 2500

PRADOVIT S- and PRADOVIT S/AF

PRADOVIT R 150 – and PRADOVIT RA 150

PRADOVIT COLOR – 150 or 250W with and without autofocus

The projectors to be coupled need not be identical, but the combination of instruments of the same lamp power is recommended.

On account of operating convenience PRADOVIT projectors with AUTOFOCUS are preferable.

Code No.

Lap dissolve control unit D.U. 24A, complete **37 973**

Lap dissolve unit D.U. 24M

For 2 projectors for manual lap dissolve control

Uses
Home projection, lecturing, advertising, teaching and communication
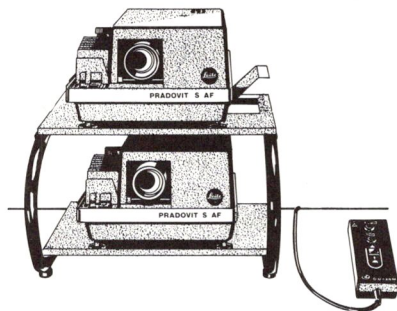
Brief technical description and function:
Control piece with all controls
Push-button for triggering the lap dissolve and slide change of the "dark" projector
Setting wheel for the pre-selection of the desired time of cut lap dissolve to up to about 5 sec
Push-button for switching on the built-in light pointer
Setting wheel for switching on the built-in timer and pre-setting of the desired interval time up to 30sec. This permits "automatic slide shows".
Connecting cable, length 3m, dividing after 2.5m for connection to the two projectors. 10-pin plugs for the projectors.

Possibility of combining the projectors
All automatic 35mm PRADOVIT projectors which have auxiliary equipment with built-in TRIAC for lamp control can be used with the control unit D.U. 24M:
PRADOVIT C 1500 CA 1500 C 2500 CA 2500
PRADOVIT S PRADOVIT S/AF
PRADOVIT R 150 PRADOVIT RA 150
PRADOVIT COLOR 150 or 250W with and without AUTOFOCUS
The projectors to be coupled need not be identical, but the combination of instruments of the same lamp power is recommended.
In the interest of operating convenience PRADOVIT projectors with AUTOFOCUS are preferable.

Code No.
Lap dissolve control unit D.U. 24M **37 971**

Projector outfits

For the use of the D.U. 24A and D.U. 24M the following projectors will be supplied ex factory in a modified version with built-in Triac:

1. PRADOVIT S/AF and CA
Body without: lens focusing sleeve, remote-control cable, mains cable, but with interchangeable condenser for 60 – 150mm and lamp

	Code No.
PRADOVIT S/AF (110–240v)	30 360
PRADOVIT CA 1500 (220v)	30 361
PRADOVIT CA 1500 (110–240v)	30 362
PRADOVIT CA 2500 (110–240v)	30 363

Projector lenses and optical accessories
ELMARON f/2.8 35mm[1])	37 041
ELMARON f/2.8 50mm[2])	37 008
ELMARON f/2.8 60mm[3])	37 004
ELMARON f/2.8 85mm	37 003
COLORPLAN f/2.5 90mm (dia. 42.5mm)	**37 005**
ELMARON f/2.8 120mm	37 019
ELMARON f/2.8 150mm	37 030
ELMARON f/3.6 200mm	37 062
ELMARON f/4 250mm	37 082

Focusing sleeves for focal lengths:
35mm – 120mm (dia. 42.5mm)	37 119
150mm	37 121
200mm	37 129
250mm	37 130
300mm	34 640

Interchangeable condensers (24 x 36) for:
35mm to 50mm	37 223
60mm to 150mm	37 224
175mm to 300mm	37 225

Remote-control cable 3m	37 955
Mains cable	37 644

2. PRADOVIT RA 150
Body without lens, with interchangeable condenser for 60 – 150mm with lamp

PRADOVIT RA 150 (220v)	30 550
PRADOVIT RA 150 (110 – 240v)	30 551

Accessories necessary for the PRADOVIT RA 150:
ELMARON f/2.8 50mm, separate	37 008
ELMARON f/2.8 85mm, separate	37 003
COLORPLAN f/2.5 90mm, separate	**37 005**
ELMARON f/2.8 120mm, separate	37 019
ELMARON f/3.2 150mm, separate	37 031
Condenser, 50mm, replacement	37 221

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[1]) for 35mm slides and 30-slide magazine only
[2]) for 35mm slides only, not for 50-slide magazine
[3]) not for 50-slide magazine

Other accessories see PRADOVIT C or PRADOVIT R 150.

PRADOVIT C/CA, S/SAF, R/RA and PRADOVIT COLOR projectors already supplied can be fitted at any time with a conversion kit with built-in triac for lamp control for the use of the D.V. 24A and D.V. 24M lap dissolve control units.
All modified versions of projectors, i.e. with 10-pin socket and built-in triac can be used as ordinary single projectors without dummy plug.

PRADOVIT console for lap dissolve projection

With this console two PRADOVIT projectors are set up vibrationfree on top of each other. This saves space and moves the optical axes of the lap dissolve projectors as closely together as possible (optimum coincidence of the projected images). A baffle deflecting the hot air of the bottom projector prevents heating of the top projector and of the upper carrier plate. Four rubber feet ensure secure installation.

Code No.

PRADOVIT console 37 972

12-pin control unit connection

For the adaptation of lap dissolve control units with built-in TRIAC for lamp control and 12-pin DIN plug for all PRADOVIT C, PRADOVIT S, and PRADOVIT A models.

consisting of:
PRADOVIT C – /S baseplate with 12-pin socket and socket strips and circuit plan, additional Code No. 37 958

PRADOVIT C/S projectors already supplied can be fitted with the 12-pin control unit connection by LEITZ Wetzlar, Technical Service Centre, or authorized workshops.

PRADO-UNIVERSAL
Micro-macro attachments

Contents:

PRADO® – UNIVERSAL for 5x5, 6x6, 7x7

Officially certified projector for schools, with VDE or GS test symbol

Type of projector
Universally extensible projector, with 24v/250W tungsten halogen lamp, for 5 x 5, 6 x 6, 7 x 7cm slides, 35mm film strips, as well as micro-, macro-, and other attachments.
Leitz projector lenses from 35 to 300mm

Projector body
Modern design. All-metal body ensures optimum stability. Two-colour enamel finish: bottom charcoal, top light grey. Very rigid 3-point support with 4-point base.
Simple vertical adjustment with knurled screws on the front
Reading light on the side, glare-free in slit with cover
Instrument socket for mains cable
Central switch with positions for blower, normal lamp power and economy running
Voltage selector 110 – 250v/50 – 60Hz

Blower system
Excellent cooling through a separately adjustable 2-cycle blower system with additional direct effect on the slide
Highly effective heat filter (KG1-glass), thickness 5.5mm for additional absorption of infra-red rays
Very quiet blower running.

Thermostatic cut-out
The temperature cut-out automatically cuts off the current during overheating (for instance obstruction of the fresh-air supply through accidental covering of the louvres in the body).

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Optional possibilities of extension
● with slide changer for
5 x 5cm slides (nominal formats 24 x 36mm and 40 x 40mm),
6 x 6cm or 7 x 7cm slides (nominal format 54 x 54mm)

● with film guide (rotatable) for
35mm film strips, with mask also 18 x 24mm

● with micro-attachments A and B
for the projection of microscopic specimens

● with macro-attachment
for low-power projection of liquid or flowing objects

● with polarizing attachment (on request)

Lenses and condenser system
Aspherical condenser system with reflector
Aspherical condenser and heat filter interchangeable for 5 x 5 and 6 x 6
Interchangeable condensers (image area lenses):

For the 5 x 5 format and lenses of:
  35 – 50mm (for 24 x 36 mm nominal format only):
  90 – 120mm
150 – 300mm

For the 6 x 6 format and lenses of:
150mm
200 – 300mm
LEITZ interchangeable lenses
From 35 to 300mm, ensuring free choice of image size and projection distance.
35 and 50mm lenses exclusively for the 24 x 36mm format
Other focal lengths for 24 x 36mm and 40 x 40mm formats.
Lenses from 150mm for the 6 x 6 or 7 x 7 format (picture size 54 x 54mm)

The tungsten halogen lamp and its function
PRADO-UNIVERSAL for the 24v/250W tungsten halogen lamp, long life and light
output at low slide gate temperature.
Universal lamp centration, easy lamp change
Lamp economy switch (doubles the life of the lamp)
Voltage selector 110 – 240v/50 – 60Hz
Transformer built into the projector
Evenness of illumination more than 80 % (referred to 90mm COLORPLAN f/2.5 and
24 x 36mm slide size)

Effective light flux:
To DIN 19 021 standards
A. With the 90mm COLORPLAN and 24 x 36mm slide size = 750 lm
B. With the 90mm COLORPLAN and 38 x 38mm slide size = 1200 lm
C. With the 150mm ELMARON and 54 x 54mm slide size = 1307 lm

Slide gate temperature:
To DIN 19 021 standards
A. With the 90mm COLORPLAN and 24 x 36mm slide size = 67° C
B. With the 150mm ELMARON and 54 x 54mm slide size 61° C

Electrical safety
VDE or GS as well as interference suppression symbol, and Semko, Nemko, Demko and SEV

Standing area:
320 – 150mm, height 195mm

PRADO-UNIVERSAL (for 5 x 5cm slides)

	Code No.
complete with 24v/250W tungsten halogen lamp and lens	
ELMARON f/2.8 35mm	31 618
ELMARON f/2.8 50mm (dia. 42.5mm)	31 643
COLORPLAN f/2.5 90mm	**31 636**
ELMARON f/2.8 120mm	31 637
ELMARON f/2.8 150mm	31 622
ELMARON f/3.6 200mm	31 638
HEKTOR f/2.5 200mm	31 624
ELMARON f/4 250mm	31 641
HEKTOR f/2.8 250mm	31 626
HEKTOR f/2.8 300mm	31 627

Longer focal lengths on request.

Projector body as basic outfit for 5 x 5 <u>with</u> 5 x 5 condenser system, 5 x 5 heat filter, 24v-250W tungsten halogen lamp, <u>but</u> <u>without</u> lens, focusing sleeve, slide changer, interchangeable condenser, 35mm attachment, mains cable 31 650

Accessories for the PRADO-UNIVERSAL 5 x 5:

Carrying case for the PRADO-UNIVERSAL and lenses except f/2.5 200, f/2.8 250 and 300mm 37 942
24 x 36mm **film strip holder** and 18 x 24mm mask 37 868
Heat filter 5x5, 5.5mm, replacement 37 869
Mains cable (replacement) 37 656

Interchangeable lenses 35 – 300mm, focusing sleeve for 5 x 5, interchangeable condensers 5 x 5 see under 6 x 6 attachment, page 239.

6 x 6 attachment

1. For the adaptation of a PRADO-UNIVERSAL(5 x 5) for 6 x 6 (2¼ x 2¼ in) slides (existing lenses of the PRADO-UNIVERSAL 5 x 5 from 150mm focal length onwards can be used).
2. For the further extension of a PRADO-UNIVERSAL (6 x 6) (according to the breakdown below, lens, focusing sleeve, and attachment with condenser are required depending on the nature of the outfit).

6 x 6 attachment complete with lens		consisting of:					
		Attach-ment with condenser	Cover-plate	Illuminat-ing system with filter	Slide changer	Focusing sleeve	Lens
Code No.	ELMARON f/2.8 150mm 37 883	32 311	37 867	37 871	37 815	37 186	37 030
Code No.	ELMARON f/3.6 200mm 37 897	32 310	37 867	37 871	37 815	37 132	37 062
Code No.	HEKTOR f/2.5 200mm 37 885	32 310	37 867	37 871	37 815	37 189	37 079
Code No.	ELMARON f/4 250mm 37 898	32 310	37 867	37 871	27 815	37 131	37 082
Code Nr	HEKTOR f/2.8 250mm 37 887	32 310	37 867	37 871	37 815	37 191	37 098
Code No.	HEKTOR f/2.8 300mm 37 888	32 310	37 867	37 871	37 815	37 192	37 093

Also required for modification from 5 x 5 to 6 x 6 version:
6 x 6 condenser system with filter 37 871

Projector lamps
Replacements supplied by
Technical Service Centre, P.O. B. 2027, Leitz Wetzlar GmbH, D-6330 Wetzlar, Germany, or the National Leitz Agency (please give detailed data)

PRADO-UNIVERSAL (for 6 x 6 or 7 x 7 slides, effective format 54 x 54mm)

	Code No.
complete with 24v-250W tungsten halogen lamps and lens:	
ELMARON f/2.8 150mm	31 628
ELMARON f/3.6 200mm	31 639
HEKTOR f/2.5 200mm	31 630
ELMARON f/4 250mm	31 642
HEKTOR f/2.8 250mm	31 632
HEKTOR f/2.8 300mm	31 633

Projector body as basic outfit for 6 x 6 with 6 x 6 condenser system, 6 x 6 heat filter, 24v-250W tungsten halogen lamp, but without lens, focusing sleeve, slide changer, interchangeable condenser, attachment, mains cable, cover plate 31 651

Accessories for the PRADO-UNIVERSAL 6 x 6:

Carrying case for the PRADO-UNIVERSAL and 150mm lens	37 942
6 x 6 slide changer (external slide dimensions 6 x 6cm (2¼ x 2¼in), effective format 54 x 54mm)	37 816
6 x 6 slide changer (external slide dimensions 5 x 5cm (2 x 2in), effective format up to 38 x 38mm)	37 865
6 x 6 slide changer (external slide dimensions 7 x 7cm (2¾ x 2¾in) (replacement), effective format 54 x 54mm) . . .	37 815
Mains cable (replacement)	37 656

Interchangeable lenses
150 – 300mm, focusing sleeve for 6 x 6 attachment, 6 x 6 attachment with condensers see under "6 x 6 attachment", page 237.

5 x 5 attachment

1. For the adaptation of a PRADO-UNIVERSAL (6 x 6) for 5 x 5 (2 x 2in) slides (additional 5 x 5 heat filter, Code No. 37 869, required; existing lenses of the PRADO-UNIVERSAL 6 x 6 can be used).
2. For the further extension of a PRADO-UNIVERSAL 5 x 5 (according to the breakdown below, lens, focusing sleeve, and interchangeable condenser are required depending on the nature of the outfit).

5 x 5 attachment complete with lens (without heat filter)		consisting of:					
		Attach-ment	Illuminat-ing system	Inter-change-able condenser	Slide changer	Focusing sleeve	Lens
Code No.	ELMARON f/2.8 35mm 37 873 (dia. 42.5mm)	32 402	37 872	37 216	37 849	37 119	37 041
Code No.	ELMARON f/2.8 50mm 37 664 (dia. 42.5mm)	32 402	37 872	37 216	37 849	37 119	37 008
Code No.	COLORPLAN f/2.5 90mm 37 892 (dia. 42.5mm)	32 402	37 872	37 218	37 849	37 119	37 005
Code No.	ELMARON f/2.8 120mm 37 894 (dia. 42.5mm)	32 402	37 872	37 218	37 849	37 119	37 019
Code No.	ELMARON f/2.8 150mm 37 877	32 402	37 872	37 214	37 849	37 121	37 030
Code No.	ELMARON f/3.6 200mm 37 896	32 402	37 872	37 214	37 849	37 129	37 062
Code No.	HEKTOR f/2.5 200mm 37 879	32 402	37 872	37 214	37 849	37 125	37 079
Code No.	ELMARON f/4 250mm 37 895	32 402	37 872	37 214	37 849	37 130	37 082
Code No.	HEKTOR f/2.8 250mm 37 881	32 402	37 872	37 214	37 849	37 126	37 098
Code No.	HEKTOR f/2.8 300mm 37 882	32 402	37 872	37 214	37 849	37 127	37 093

Also required for modification from 5 x 5 to 6 x 6 version:
6 x 6 condenser system with filter 37 872

Micro-/macro-attachments
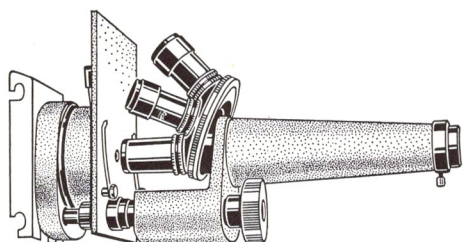
Micro-attachment A

For the projection of microscopic specimens at magnifications of up to 1400 x on the screen.
Simple rotation of the revolving nosepiece ensures the reproduction of the microscopic image at 3* graduated magnifications, starting with low power.

Code No.

Consisting of:
Microscope carrier complete with:
4 x projection eyepiece (37 301), quadruple revolving nosepiece with 4/0.12, 10/0.25, and 25/0.50 objectives, each with anti-glare protection, 1 screw cover, large object stage with 2 stage clips, diaphragm slide, adjustable condenser .. 32 823
Attachment (rotating holder) 32 850

Micro-attachment A complete **32 820**

Items required
for PRADO UNIVERSAL: cover plate 37 867
for PRADOVIT-C and PRADOVIT COLOR: holder for micro-attachments 37 937
Additional items available:
4 x projection eyepiece 37 301
2 x projection eyepiece 37 300
Projection prism for the tracing of the microscopic image on the bench, adjustable 37 889
Micro cell for liquids, depth of chamber 1mm 37 850
ditto depth of chamber 2mm 37 857
ditto depth of chamber 3mm 37 858
ditto depth of chamber 4mm 37 859

Required for conversion to Micro-attachment B:
Mirror housing with fixtures 32 824
Projection prism 37 889
PRADO UNIVERSAL outfit (5 x 5) for micro-attachments A + B or projection attachment (consisting of: 31 600, 37 656, 37 872, 37 869) 31 635
For the use of the micro-attachments and the projection attachment on the PRADO UNIVERSAL (6 x 6) the 5 x 5 illuminating system, Code No. 37 872, and the heat filter, Code No. 37 869, are required.

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* A fourth objective can be attached if desired.

Micro-attachment B
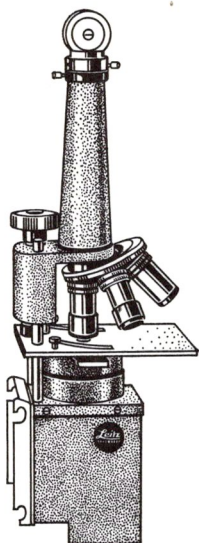
for the projection of liquid or melting objects at magnifications of up to 1400x on the screen.
Simple rotation of the revolving nosepiece ensures the reproduction of the microscopic image at 3* graduated magnifications, starting with low power.

Code No.

Consisting of:
Microscope carrier complete with:
4x projection eyepiece (37 301), quadruple revolving nosepiece with 4/0.12, 10/0.25, 25/0.50 objectives each with anti-glare projection, 1 screw cover, large object stage with 2 stage clips, diaphragm slide, adjustable condenser 32 823
Mirror housing with fixtures 32 824
Projection prism 37 889

Micro-attachment B complete **32 821**

Items required
For PRADO UNIVERSAL: cover plate 37 867
For PRADOVIT-C and PRADOVIT COLOR: holder for micro-attachments 37 937
Additional items available:
4 x projection eyepiece 37 301
2 x projection eyepiece 37 300

Required for conversion to Micro-attachment A:
Attachment (rotating holder) with fixtures 32 850
PRADO UNIVERSAL outfit (5 x 5) for micro-attachments A + B or projection attachment (consisting of: 31 600, 37 656, 37 872, 37 869) 31 635
For the use of the micro-attachments and the projection attachment on the PRADO UNIVERSAL (6 x 6) the 5 x 5 illuminating system, Code No. 37 872, and the heat filter, Code No. 37 869, are required.

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* A fourth objective can be attached if desired.

Macro-attachment
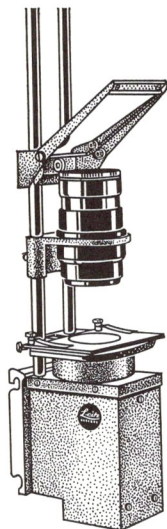
For showing general features of liquid or melting specimens at magnifications of up to about 120x on the screen and for the projection of physical and chemical experiments.

Consisting of:
Front attachment C with:
Mirror housing with long rails and deflecting mirror, object stage with 2 stage clips, lens carrier (without lens, focusing sleeve, interchangeable condenser) 32 825

Items required:
For PRADO-UNIVERSAL: cover plate 37 867
For PRADOVIT-C and PRADOVIT COLOR: holder for micro-attachments 37 937
Choice of lenses:
ELMARON f/2.8 50mm (object field diameter 34mm) 37 008
Focusing sleeve for same 37 119
Interchangeable condenser for same 37 206
COLORPLAN f/2.5 90mm (object field diameter 40mm) . . .   37 005
Focusing sleeve for same 37 119
Interchangeable condenser for same 37 200
PRADO-UNIVERSAL outfit (5 x 5) for the macro attachment or for the micro-attachments A + B (consisting of 31 600, 37 656, 37 872, 37 869) 31 635

For the use of the macro attachment and the micro-attachments on the PRADO-UNIVERSAL (6 x 6) the 5 x 5 illuminating system, Code No. 37 872, and the heat filter Code No. 37 869, are required.

Polarizing attachment for 35mm projectors
In the version as polarized-light projector birefringence and polarizing phenomena can be demonstrated in the orthoscopic and conoscopic beam (see List 310-8).

LEITZ TRINOVID binoculars

Contents

The large LEITZ range offers the correct size for every user:

TRINOVID	8 x 20 C	10 x 22 C	8 x 32 B	8 x 40 B	10 x 40 B	7 x 42 B
Magnification	8 x	10 x	8 x	8 x	10 x	7 x
Objective dia.	20mm	22mm	32mm	40mm	40mm	42mm
Exit pupil	2.5mm	2.2mm	4mm	3mm	4mm	6mm
Twilight factor	12.65	14.83	16	17.0	20	17.2
Field of view at 1000 in degrees	120m 6.9	95m 5.4	130m 7.4	120m 7.3	110m 6.3	140m 8
Approximate weight	185g	210g	520g	590g	590g	590g
Dimensions: Approximate width Approximate depth Approximate height	58mm 33mm 90mm	58mm 33mm 108mm	115mm 39mm 117mm	123mm 47mm 150mm	123mm 47mm 143mm	126mm 50mm 173mm

LEITZ TRINOVID binoculars

Technical Description:

LEITZ precision mechanism, features and advantages
Stylish LEITZ design
Trend-setting in form and construction
Modern compact design reduces the conventional volume
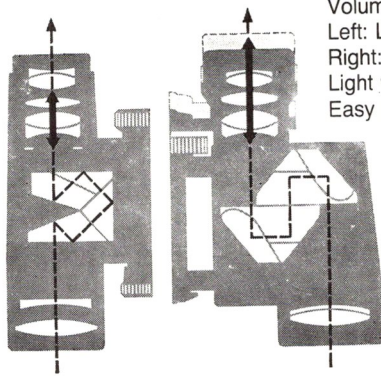
Volume comparison:
Left: LEITZ TRINOVID
Right: Conventional binoculars with Porro prisms
Light weight for strain-free observation
Easy focusing with convenient central drive

Dioptre compensation affords individual adaptation to the user's visual acuity
Solid all-metal construction guarantees optimum, lasting adjustment and best possible protection of all optical and mechanical components. Maintenance-free. Genuine internal focusing ensures complete exclusion of dust, atmospheric humidity, and spray water.

LEITZ high-performance optical equipment – features and advantages
Novel optical design; used by LEITZ with great success.
The special arrangement of the optical path has resulted in the stylish flat shape of the TRINOVID binoculars

Computation of the optical systems based on the latest knowledge and the use of high-quality glasses

Coating of all glass-air interfaces, matched to the maximum sensitivity of the eye, to ensure contrast and brightness

Maximum angular accuracy of the penta-prisms

Penta-prisms polished right to the apex (no wide dark edges)

Matt black internal finish of the TRINOVID binoculars prevents disturbing reflections.

Strict selection of all optical elements, careful matching of objectives, prisms, and eyepieces

Installation of the prism seating with precision-adjusted prisms, on shock-proof mountings

Circular pupils without secondary pupils, free from stray light

Strain-free observation even over prolonged periods (without headaches), because both optical systems have identical magnification and perfectly parallel alignment.

Widefield eyepieces produce large fields of view

The large field of view of LEITZ TRINOVID binoculars facilitates the finding and observation also of moving objects

LEITZ TRINOVID binoculars are something special, connoisseurs know this:

Fascinating brilliance; intriguing detail resolution even in weak lighting contrast; stylish appearance;

LEITZ precision and LEITZ functional reliability;

International LEITZ Warranty;

10 years' guarantee for LEITZ TRINOVID binoculars: solid proof of reliability and great practical value.

8 x 20 C TRINOVID

Compact binoculars of hight optical performance, ideal when light weight and small volume are required.

Magnification: 8x
Objective diameter: 20mm
Diameter of exit pupil: 2.5 mm
Twilight factor: 12.65
Field of view: 120m at 1000m distance, 6.9°
Central drive, internal focusing
Dioptre compensation ± 3 dioptres
Interchangeable roll-back rubber eyecups
All-metal construction
Can be folded
Adjustable to interpupillary distance
Easy-grip central part and tubes, covered with grained PVC
Other external metal parts silk-finish plating or enamel
Dimensions (folded): Width 58mm
                     Depth 33mm
                     Height 90mm
Weight 0.185 kg

	Code No.
8 x 20 C TRINOVID with carrying cord	40 302
Soft-leather case	42 196
Roll-back rubber eyecup (replacement)	42 136

10 x 22 C TRINOVID

High-power compact binoculars of high optical performance
The ideal leisure binoculars in the mini-size
Magnification: 10x
Objective diameter: 22mm
Exit pupil: 2.2mm
Twilight factor: 14.83
Field of view: 95m at 1000m distance, 5.4°
Central drive, internal focusing
Dioptre compensation $\pm$ 3 dioptres
Roll-back rubber eyecups, interchangeable
All-metal construction
Can be folded
Adjustable for interpupillary distance
Easy-grip central part and tubes, covered with grained PVC
Other external metal parts black silk-finish plating or enamel
Dimensions (folded): Width   58mm
                        Depth   33mm
                        Height 108mm
Weight 0.21 kg

	Code No.
10 x 22 C TRINOVID with carrying cord	40 303
Soft-leather case	42 197
Roll-back rubber eyecup (replacement)	42 136

8 x 32 B TRINOVID

Compact universal binoculars – the smallest among the large ones, wide-angle effect
Powerful even in waning light
Magnification: 8x
Objective diameter: 32mm
Exit pupil: 4mm
Twilight factor: 16
Field of view: 130m at 1000m distance, 7.4°
Central drive, genuine internal focusing
Dioptre compensation ± 3 dioptres
Roll-back rubber eyecups, interchangeable
All-metal construction
Hinged bridge adjustable for interpupillary distance
Easy-grip tubes and body, covered with grained PVC
Other external metal parts: black plating or enamel
Eyelets for carrying strap
Dimensions: Height: about 117mm
            Width: about 115mm
Weight: 0.52 kg

	Code No.
8 x 32 B TRINOVID with carrying strap	40 208
Flat leather case with carrying strap	42 177
Soft-leather ever-ready case	42 181
Roll-back rubber eyecup (replacement)	42 133
Rain guard (black)	42 101

8 x 40 B TRINOVID

Universal binoculars of enhanced light power in the limiting region of twilight. Its large exit pupil makes it particularly suitable for hunting, observations from an unsteady support (boat) or when it is not possible to hold the binoculars steady.

Magnification: 8x
Objective diameter: 40mm
Exit pupil: 5mm
Twilight factor 17.9
Field of view: 128m at 1000m distance, 7.3°
Central drive, internal focusing
Dioptre compensation ± 3 dioptres
Roll-back rubber eyecups, interchangeable
All-metal construction
Can be folded
Adjustable for interpupillary distance
Easy-grip central part and tubes, covered with grained PVC
Other external metal parts: black silk-finish plating or enamel
Eyelets for carrying strap
Dimensions: Height about 150mm
Width about 124mm
Weight: 0.59 kg

	Code No.
8 x 40 B TRINOVID with carrying strap	30 221
Flat leather case with carrying strap	42 173
Soft-leather ever-ready case	42 179
Roll-back rubber eyecup (replacement)	42 133
Rain guard (black)	42 101

10 x 40 B TRINOVID

Universal high-power binoculars of very high twilight performance. Particularly suitable for the observation of distant and small objects. Ideal for sports, hunting and wildlife observation

Magnification: 10x
Objective diameter: 40mm
Exit pupil: 4mm
Twilight factor: 20
Field of view: 110m at 1000m distance, 6.3°
Central drive, internal focusing
Dioptre compensation ± 3 dioptres
Roll-back rubber eyecups, interchangeable
All-metal construction
Can be folded
Adjustable for interpupillary distance
Easy-grip tubes and body, covered with grained PVC
Other external metal parts: black plating or enamel
Eyelets for carrying strap
Dimensions: Height about 143mm
Width about 122mm
Weight: 0.59 kg

	Code No.
10 x 40 B TRINOVID with carrying strap	40 228
Flat leather case with carrying strap	42 177
Soft-leather every-ready case	42 179
Roll-back rubber eyecup (replacement)	42 133
Rain guard (black)	42 101

7 x 42 B TRINOVID

Special night binoculars, of small volume and with a large exit pupil. Particularly suitable for hunting and sailing. (Observations from an unsteady support). Very large field of view.

Magnification: 7x
Objective diameter: 42mm
Exit pupil: 6mm
Twilight factor: 17.2
Field of view: 140m at 1000m distance, 8°
Central drive, internal focusing
Dioptre compensation $\pm$ 3 dioptres
Roll-back rubber eyecups, interchangeable
All-metal construction
Can be folded
Adjustable for interpupillary distance
Easy-grip tubes and body, covered with PVC
Other external metal parts: black plating or enamel
Eyelets for carrying strap
Dimensions: Height about 167mm
Width about 125mm
Weight: 0.65 kg

	Code No.
7 x 42 B TRINOVID with carrying strap	40 228
Flat leather case with carrying strap	42 173
Soft-leather ever-ready case	42 189
Roll-back rubber eyecup (replacement)	42 133
Rain guard (black)	42 101

263

Accessories for TRINOVID binoculars

Roll-back eyecup (replacement) for all TRINOVID B binoculars except 7 x 42 B 42 133

Roll-back eyecup (replacement) for the TRINOVID 7 x 42 B . 42 141

Carrying strap (replacement) adjustable (for TRINOVID binoculars with carrying bracket) 42 147

Non-slip pad (please state width and colour of strap) 14 094

Rain guard, rubber 42 101

Technical Information

Contents

Replacement batteries (button cells)

for the LEICA R 3/R 3-MOT

Manufacturer:	Designation:
UCAR	EPX 76
UCAR	No. 357
UCAR	S 76 E
MALLORY	10 L 14
MALLORY	MS 76 H
VARTA	V 76 PXS
VARTA	V 76 HS
VARTA	No. 541
EVEREADY	S 76 E
NATIONAL	G 13
RAY O VAC	RS 76 G
MAXELL	G 13 and G 13 F

for the LEICAFLEX SL/SL 2:

MALLORY	PX 625
VARTA PERTRIX	7002

for the LEICA M 5:

MALLORY	PX 625
VARTA PETRIX	7002

for the LEICA CL:

MALLORY	PX 625
VARTA PETRIX	7002
MALLORY NATIONAL	H-D

for the LEICAMETER MR:

MALLORY	PX 625

Flash setting values

LEICA R 3/R 3-MOT*		X contact	M contact
Electronic flash		X ($^1/_{90}$) 4 S → $^1/_{60}$, B	—
Flash lamps	AG 1 AG 3 flash cubes PF 1 XM 1	4 S → $^1/_{30}$, B	
	M 2	4 S → $^1/_{60}$, B	—
	PF 5 XM 5 M 3 25 GE 5	4 S → $^1/_{30}$, B	$^1/_{125}$ — $^1/_{1000}$
	FP 26 PF 6 XM 6	4 S → $^1/_{15}$, B	$^1/_{30}$ — $^1/_{1000}$
	PF 60	4 S → $^1/_{30}$, B	—
	PF 100	4 S → $^1/_{15}$, B	$^1/_{30}$

* when flash is used it is advisable to set the camera on manual

LEICAFLEX, SL and SL 2

Electronic flash		$B \rightarrow \text{⚡}$ ($= 1/100$)	**X**
Flash lamps	M 2 AG 1 AG 3 flash cubes	$1 \rightarrow 1/30$	⚡
	AG 1 AG 3 flash cubes	$1 \rightarrow 1/60$	**M** ⚱
	XM 1 PF 1 XM 5 PF 5	$1 \rightarrow 1/125$	
	GE 5 25 M 3	$1 \rightarrow 1/250$	

LEICA — M 5

Electronic flash		**X**	$B \rightarrow \bullet$ ($= 1/50$)
Flash Lamps	AG 1 AG 3 flash cubes M 2	**X**	$B \rightarrow 1/30$
	XM 1 PF 1 XM 5 PF 5	**M**	$B \rightarrow 1/60$
	M 3	**M**	$B \rightarrow 1/125$
	GE 5 25	**M**	$B \rightarrow 1/500$

X = contact bush for electronic flash and accessory shoe contact
M = contact bush for flashbulbs

LEICA — CL

Electronic flash		$B \rightarrow 1/60$
Flash Lamps	M 2 AG 1 AG 3 flash cubes	$B \rightarrow 1/30$

Flash Lamps	LEICA	M 3 up to No. 854 000		I g, III g	
	Electronic flash	⚡	B → 1/50	**B** red⚡ (= 1/30) ⚡ (= 1/50)	For T, 1 – 1/15 set the high-speed dial at ⚡ – (next to 30 – 1).
	AG 1 AG 3 flash cubes M 2 OFC 4	⚡	B → 1/25	**B** red⚡ (= 1/30)	
	XM 1 PF 1	💡	B → 1/50	B → 1/60*	
	PF 5	💡	B → 1/100	B → 1/60*	
	GE 5 25	💡	B → 1/500	B → 1/500*	
	M 3	💡	B → 1/100	B → 1/125*	

* Except the red or black arrow setting

Flash Lamps	LEICA	MD, MDa, M 1, M 2, M 3, M 4 from No. 854 001	
	Electronic flash	⚡	B → ⚡ (= 1/50)
	AG 1 AG 3 flash cubes M 2 OFC 4	⚡	B → 1/30
	XM 1 PF 1	💡	B → 1/60
	PF 5	💡	B → 1/60
	M 3	💡	B → 1/125
	GE 5 25	💡	B → 1/500

⚡ = contact bush for electronic flash
💡 = contact bush for flashbulbs

	LEICA up to No. 360 000		**LEICA** from No. 360 001		**LEICA** I f, II f, III f	
	time	contact number	time	black contact number	time	red contact number
▽ XM 1 PF 1	$1/20$ $1/30$	14 13	$1/15 - 1/20$ $1/30$	9 16	$1/15$ $1/25$ $1/50$	2 5 10
▽ PF 5	$1/20 - 1/30$ $1/40$	14 11	$1/15 - 1/30$ $1/40$	16 11	$1/15$ $1/25$ $1/50$ $1/75$	2 14 11 5
▽ AG 1 AG 3 and flash cubes	$1/20$ $1/30$ $1/40$ $1/60$	10 12 8 5	$1/15 - 1/20$ $1/30$ $1/40$ $1/60$	8 11 8 5	$1/15$ $1/25$ $1/50$ $1/75$	2 9 8 3
▽ GE 5 25	$1/20 - 1/30$ $1/40$ $1/60$ $1/100$	14 11 9 7	$1/15 - 1/30$ $1/40$ $1/60$ $1/100$ $1/200$	16 11 8 5.5 4	$1/15$ $1/25$ $1/50$ $1/75$ $1/100$ $1/200$ $1/500$	2 14 11 6 4 2 1
▽ M 3	$1/20$ $1/30$ $1/40$ $1/60$	14 13 12 10	$1/15 - 1/20$ $1/30$ $1/40$ $1/60$	9 15 11 8	$1/15$ $1/25$ $1/50$ $1/75$	2 7 10 6
▽ All	$T, 1 \rightarrow 1/8$ B	6 9	B, T $1 \rightarrow 1/10$	6	B, T $1 \rightarrow 1/10$	2
⚡ electronic flash	$1/30$ $T, 1 \rightarrow 1/20$ B	0 4 6.5	$1/30$ $T, 1 \rightarrow 1/20$ B	2 2 6	$1/50$ $T, 1 \rightarrow 1/25$ B	20 0 2

Filter sizes

for LEICA M lenses and discontinued lenses with screw thread

Examples: **A** 36 = Slip-on filter, external lens mount diam. **36**mm
E 39 = Screw-in filter, thread diameter **39**mm
7 = series filter size 7

Lens			Filter size
SUPER-ANGULON	f/3.4	**21**mm	E 48 or 7
SUPER-ANGULON	f/4	21mm	E 39
ELAMRIT	f/2.8	**28**mm	E 48 or 7
SUMMARON	f/5.6	28mm	A 36
HEKTOR	f/6.3	28mm	A 36
SUMMILUX (up to Serial No. 2 166 700)	f/1.4	**35**mm	E 41
SUMMILUX (from Serial No. 2 166 701)	f/1.4	35mm	7
SUMMICRON (from Serial No. 2 483 504	f/2	35mm	E 39 or 7
SUMMICRON (up to Serial No. 2 307 450)	f/2	35mm	E 39
SUMMICRON (from Serial No. 2 307 451)	f/2	35mm	7
SUMMARON	f/2.8	35mm	E 39
ELMAR	f/3.5	35mm	A 36
SUMMARON . . . . (screw mount up to No. 1 423 140)	f/3.5	35mm	A 36
SUMMARON . . . . (screw mount from No. 1 423 141)	f/3.5	35mm	E 39
SUMMARON (bayonet mount)	f/3.5	35mm	E 39
NOCTILUX	f/1	**50**mm	E 58
NOCTILUX	f/1.2	50mm	8
SUMMILUX	f/1.4	50mm	E 43
SUMMARIT®	f/1.5	50mm	E 41
SUMMITAR	f/2	50mm	E 36.5
SUMMICRON	f/2	50mm	E 39
SUMMAR®	f/2	50mm	A 36
HEKTOR	f/2.5	50mm	A 36
ELMAR	f/2.8	50mm	E 39
ELMAR (screw mount)	f/3.5	50mm	A 36
ELMAR (bayonet mount)	f/3.5	50mm	E 39
ELMAR	f/3.5	**65**mm	E 41
ELMAR (from Serial No. 2 378 901)	f/3.5	65mm	6
SUMMAREX®	f/1.5	**85**mm	E 58
SUMMICRON	f/2	**90**mm	E 48
ELMARIT	f/2.8	90mm	E 39
TELE-ELMARIT	f/2.8	90mm	E 39
ELMAR (screw mount, up to No. 1 573 001)	f/4	90mm	A 36
ELAMR (screw mount, from No. 1 573 000)	f/4	90mm	E 39
ELMAR (bayonet mount)	f/4	90mm	E 39
HEKTOR	f/2.5	**125**mm	E 58
ELMARIT	f/2.8	**135**mm	7
ELMARIT (from Serial No. 2 788 927)	f/2.8	135mm	E 55
ELMAR	f/4	135mm	E 39
TELE-ELMAR	f/4	135mm	E 39
ELMAR	f/4.5	135mm	A 36
HEKTOR (screw mount, up to No. 1 416 001)	f/4.5	135mm	A 36
HEKTOR (screw mount, from No. 1 416 00)	f/4.5	135mm	E 39
HEKTOR (bayonet mount)	f/4.5	135mm	E 39
TELYT	f/4	**200**mm	E 58
TELYT	f/4.5	200mm	E 48
TELYT	f/4.8	**280**mm	E 58
TELYT (from Serial No. 2 340 953)	f/4.8	280mm	8
TELYT	f/5	**400**mm	E 85
TELYT	f/6.8	400mm	7 or 8
TELYT	f/5.6	400mm	7
TELYT	f/5.6	**560**mm	7
TELYT	f/6.8	560mm	7

Dimensions of the LEITZ filter threads:

E 39	. . . .	M 39 x 0.5	E 48	M 48 x 0.75
E 41	. . . .	M 41 x 0.5	E 55	M 55 x 0.85
E 43	. . . .	M 43 x 0.5	E 58	M 58 x 0.75
			E 85	M 85 x 0.75

Projector lamps

Replacements supplied by:
Technical Service Centre, P.O. B. 2027, Ernst Leitz Wetzlar GmbH, D-6330 Wetzlar, Germany or the National Leitz Agency

(Markings: O = single circle, OO = double-circle (∞) marking. H = tungsten halogen lamps.)

Projectors	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	LP1	LP2	LP3	LP4	AF1	AF2
PRADO S/SM					OO	OO																			
PRADO 150				OO																					
PRADO 250/500/66					OO	OO	OO																		
PRADO UNIVERSAL	O																								
PRADOVIT I/f					OO	OO	OO				OO	OO													
PRADOVIT n12			O															O							
PRADOVIT n24	O																								
PRADIX								OO										O							
PRADOLUX	O	O																O							
PRADOVIT COLOR F													OO	OO						O					
PRADOVIT COLOR 150 + AF	O																			O					
PRADOVIT COLOR 250 + AF	O																			O					
PRADOVIT TA/RC	O																			O					
PRADOVIT COLOR 110		O																			O				
PRADOVIT R 150	O																			O	O				O
PRADOVIT C/CA 1500	O																				O			O	
PRADOVIT C/CA 2500	O																				O			O	
	H	H	H	H																					
Volt	24	24	12	12	220	110	220	110	220	110	220	110	220	110	220	110	220	110	12	12	12	3	12	12	
Watt	150	250	100	75	150	150	250	250	300	300	500	500	150	150	300	300	500	500	100	4	2	0.45 A / 400 mA	3	3	
Item No.	038-101.093-000	038-101.098-000	038-101.092-000	038-101.128-000	038-127.003-013	038-127.003-002	038-127.004-013	038-127.004-002	038-127.005-013	038-127.005-002	038-127.007-013	038-127.007-002	038-127.009-013	938-127.009-002	038-127.006-013	038-127.006-002	038-127.008-013	038-127.008-002	038-101.090-000	302-053.018-001	302-053.018-011	038-101.129-000 / 038-101.133-000	038-101.134-000	302-053.034-002	031-201.004-022
Base	G 6,35-15	G 6,35-15	GY 6,35	GZ 6,35	P 28	P 28	P 28	P 28	P 28	P 28	P 28	P 28	G 17 q	G 17 q	G 17 q	G 17 q	G 17 q	G 17 q	Ba 15s	Ba 9s	Ba 9s	Ba 9s	Ba 9s	Strip lamp	Strip lamp

Columns 1–19 = Projector lamps; LP1–LP4 = Light pointer lamps; AF1–AF2 = AF lamp.

H = tungsten halogen lamps

	Projectors												
Base	Item No.	Wat	Volt	DIASCRIPTOR OP 2500	DIASCRIPTOR OP 250	DIASCRIPTOR 4	EPISKOP LE 19 S	EPISKOP LE 19	EPISKOP Vz 3	EPISKOP Vz 2	EPISKOP III LH	EPISKOP Vh 2/III L2
Fc 2	038 - 101. 127 - 000	1000	220					○				
R 7s 15	038 - 127. 023 - 000	650	118				○					
R 7s 15	038 - 127. 020 - 014	800	220				○					
GY 9.5	038 - 127. 025 - 014	800	220				○					
GY 9.5	038 - 127. 025 - 019	800	115				○					
GY 9.5	038 - 127. 024 - 014	500	230					○				
GY 9.5	038 - 127. 024 - 019	500	115					○				
GY 16	038 - 127. 027 - 013	2000	220									
GX 9.5	038 - 127. 026 - 013	1000	220								○	
GX 9.5	038 - 127. 026 - 019	1000	115								○	
G 6.35	038-101. 098 - 000	250	24	○	○							
P 28	038 - 127. 012 - 002	500	110							○		○
P 28	038 - 127. 012 - 013	500	220							○		○
P 28	038 - 127. 017 - 002	1000	110									○
P 28	038 - 127. 017 - 013	1000	220									○

Projector lamp

Adaptation of lenses

Conversion of LEICAFLEX lenses for use on the LEICA R 3

Existing LEICAFLEX-R lenses can be fitted with an additional cam for the full utilization of the LEICA R 3 exposure facilities.

The use of modified lenses on all LEICAFLEX models remains unrestricted.
<u>Modification</u> through Technical Service Centre, Ernst Leitz Wetzlar GmbH, or Authorized Workshops of the Leitz National Agencies.

Existing interchangeable lenses on the LEICA M 5

All lenses with LEICA bayonet mount, and, with a suitable bayonet adapter, the earlier, screw-thread versions of LEICA lenses can be used on the LEICA M 5. With minor exceptions or restrictions they can also be fully utilized for selective light metering through the lens.

Exceptions:
1. When a lens is **collapsible,** collapsibility must be limited to the permissible amount by means of a protective tape. **The lens need not be returned to the factory.** The protective tape is available internationally in various widths from DYMO.
   The tape should surround the lens mount leaving a gap of 1mm. To obtain the right length, a paper pattern should first be cut (see p. 166).

Collapsible lenses	Required width	of tape
ELMAR	f/3.5 50mm	
ELMAR	f/2.8 50mm	
SUMMAR	f/2 50mm	
SUMMITAR	f/2 50mm	9.5mm
SUMMICRON	f/2 50mm	
ELMAR	f/4 90mm	
HEKTOR	f/2.5 50mm	12.7mm

2. **Lenses to be returned to the LEITZ Technical Service Centre, National Agency, or authorized workshop for adaptation:**
   a) 21mm and 28mm wide-angle lenses, parts of whose mounts enter too deeply into the camera body.
   A recess in the lens bayonet prevents the swinging-in of the photo resistor. The lenses can be subsequently attached – but exposre measurement through the lens is not possible.

SUPER ANGULON	f/4 21mm	(Code No. 14 097) has to be modified. Please state: for 21mm with bayonet mount
SUPER ANGULON	f/4 21mm	with bayonet mount
SUPER ANGULON	f/3.4 21mm	(below Serial No. 2 473 251) with bayonet mount
ELMARIT	f/2.8 28mm	(below Serial No. 2 314 921)

b) lenses whose detachable viewfinder attachments foul the cover plate of the LEICA M 5.
   Lens bayonet and viewfinder attachment must be re-machined.

SUMMARON	f/3.5 35mm	with **detachable** viewfinder attachment
SUMMICRON	f/2 50mm	with **near-focusing range**

In addition the VISOFLEX 1 and 3 and the Universal Focusing Bellows can be used with the LEICA M 5. With these accessories, selective light metering is also possible with photography from a tripod. The measured value is read in the measuring viewfinder of the camera when the mirror is swung out.

The VISOFLEX 2 cannot be used.
Please use only the body cover supplied with the M 5.

Attention:
In the LEICA M 5 only films in cassettes with standardized spools (to DIN 4535 or ISO 1057 standards) can be used. These spools have drive lugs on both ends. The rewind key of the LEICA M 5 (see illustration) engages in the drive lugs facing the camera baseplate.

Interchangeable LEICA M lenses on the LEICA CL

The bayonet lens mount of the LEICA® CL is identical with that of the LEICA M models. Hence numerous LEICA M lenses are usable on the LEICA CL. In addition, earlier screw-thread lenses can be used with the appropriate bayonet-screw adapter rings (Code No. 14 097 for 50mm, Code No. 14 098 for 28mm and 90mm and Code No. 14 099 for 35mm).

The LEICA CL finder incorporates bright-line frames for the 40mm, 50mm, and 90mm fields of view. The entire visible field is approximately that for 35mm lenses. 28mm lenses require the brilliant finder Code No. 12 007.

Exceptions:

1. The following lenses, when used on the LEICA CL, require removal of their lens hoods for focusing, particularly at close distances:

SUMMICRON	f/2 35mm
SUMMILUX	f/1.4 35mm
SUMMILUX	f/1.4 50mm
NOCTILUX	f/1.2 50mm
ELMARIT	f/2.8 90mm

   When used on the LEICA CL, the high-speed SUMMILUX f/1.4 and NOCTILUX f/1.2 50mm lenses should be stopped down to at least f/2. The 50mm NOCTILUX f/1 cannot be used.

2. Lenses with extended focusing range:
   The LEICA CL rangefinder covers a focusing range from infinity down to 0.8m (32″). Some LEICA M lenses focus on still nearer distances, but only with their distance scales, not the rangefinder:

ELMARIT	f/2.8 28mm	
SUMMICRON	f/2 35mm	
SUMMICRON	f/2 50mm	(Code No. 11 817)
SUMMICRON	f/2 50mm	with dual range

   Here distances shorter than 0.8m (32″) cannot be focused in the view-finder of the LEICA CL.

3. Collapsible lenses need protective tape to limit the retraction of the lens barrel. This is available internationally in various widths from DYMO.
   The tape should surround the lens barrel, leaving a gap of about 1mm. To cut the right length first make a paper pattern.
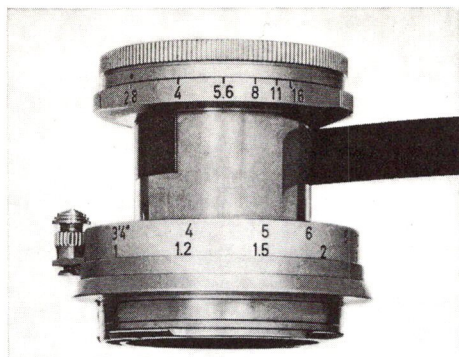
Collapsible lenses:

ELMAR	f/3.5 50mm	⎫
ELMAR	f/2.8 50mm	⎪
SUMMAR	f/2 50mm	⎬ Required tape width 9.5mm (³/₈ in)
SUMMITAR	f/2 50mm	⎪
ELMAR	f/4 90mm	⎭
HEKTOR	f/2.5 50mm	Required tape width 12.7mm (¹/₂ in)

4. The following lenses of the LEICA M range cannot be used on the LEICA CL:
   a. Lenses whose rear mount enters too far into the camera body, such as the ELMARIT f/2.8 28mm (Serial No. below 2 314 921) and the SUPER-ANGU-LON 21mm.
   b. Lenses with a finder attachment such as the 35mm wide-angle lenses for the LEICA M 3 and the ELMARIT f/2.8 135mm.
   c. The SUMMICRON f/2 90mm, TELE-ELMAR f/4 135mm.

CL Lenses on LEICA M cameras

Screw-thread LEICA lenses and lenses for the LEICA M models have a differential helical focusing movement, i. e. the rear focusing barrel bearing against the range-finder coupling roller moves only in and out. For a more compact and lightweight design, the 40mm SUMMICRON-C f/2 and 90mm ELMAR-C f/4 for the LEICA CL have instead a direct rear focusing cam. These lenses can be mounted on the LEICA M, but do not provide precise coupling with the rangefinder. For this reason we do not recommend the use of the CL lenses on the LEICA M cameras.

Tables of projection distances

35mm format

Projection distances and screen image sizes for **the 35mm format**.
A square screen is necessary when both upright and horizontal slides are to be projected; the table below contains the lengths of the screens in m, ft and in.
For the projection of 40 x 40mm slides the given values must be increased by about 10%.

Projection distances in m	Focal lengths in mm							
	35	50	90	120	150	200	250	300
1	0.95							
2	1.95	1.30						
3	2.95	1.95	1.10					
4	3.95	2.65	1.50	1.10				
5		3.30	1.85	1.40	1.10			
6		4.00	2.25	1.70	1.35			
7			2.65	1.95	1.55			
8			3.05	2.25	1.80	1.35		
9			3.45	2.55	2.05	1.50		
10			3.80	2.85	2.25	1.70	1.35	
11				3.15	2.50	1.85	1.45	
12				3.45	2.75	2.05	1.60	
13				3.70	2.95	2.20	1.75	1.45
14				4.00	3.20	2.40	1.90	1.55
15					3.45	2.55	2.05	1.70
16					3.65	2.75	2.15	1.80
17					3.90	2.90	2.30	1.90
18					4.15	3.10	2.45	2.05
19						3.25	2.60	2.15
20						3.45	2.75	2.25
21						3.60	2.85	2.40
22						3.80	3.00	2.50
25						4.30	3.45	2.85
30							4.15	3.45
35								4.00

6 x 6cm format

Projection distances and screen image sizes for the **6 x 6cm** (2¹/₄ x 2¹/₄ in) and 7 x 7 (2³/₄ x 2³/₄ in) format (transparency size 54 x 54mm).

	Focal lengths in mm						Focal lengths in mm			
	150	200	250	300			150	200	250	300
10'	3' 3"					3	0.95			
12'	4'	2'11"				4	1.35	0.95		
15'	5' 1"	3' 8"	2'11"			5	1.70	1.25	0.95	
20'	6'10"	5' 1"	4'	3' 3"		6	2.05	1.50	1.20	0.95
25'	8' 8"	6' 5"	5' ∅	4' 2"		7	2.40	1.80	1.40	1.15
30'	10' 5"	7' 9"	6' 2"	5' 1"		8	2.75	2.05	1.60	1.35
35'	12' 3"	9' 1"	7' 2"	5'11"		9	3.15	2.30	1.85	1.50
40'	14' 1"	10' 5"	8' 3"	6'10"		10	3.50	2.60	2.05	1.70
45'		11'10"	9' 4"	7' "		11	3.85	2.85	2.25	1.85
50'		13' 2"	10' 5"	8' 8"		12	4.20	3.15	2.50	2.05
55'		14' 6"	11' 6"	9' 7"		13		3.40	2.70	2.25
60'			12' 7"	10' 5"		14		3.65	2.90	2.40
65'			13' 8"	11' 4"		15		3.95	3.55	2.60
70'				12' 3"		16		4.20		2.75
75'				13' 2"		17				2.95
80'				14 1"		18			3.80	3.15
85'				14'11"		19			4.00	3.30
						20			4.20	3.50
						22				3.65
						24				3.85
						25				4.40

Micro attachments A + B

Screen image dia.	Magnification/aperture and reproduction scale			Eyepiece, and projection distances in feet, in, and m							
	4/0.12	10/0.25	25/0.50	5 x	4 x	3.2 x	2.5 x	2 x	1.6 x	1.25 x	1 x
60cm 24″	110:1	275:1	680:1				2.7 8′ 4″	3.4 11′ 4″	4.2 14′	5.5 18′ 4″	6.8 22′ 8″
85cm 34″	155:1	400:1	1000:1			3.0 10′	3.9 13′	4.8 16′	6.0 20′	7.8 26′	
125cm 50″	230:1	570:1	1400:1	2.8 8′ 8″	3.6 12′	4.4 14′ 8″	5.7 19′	7.1 23′ 8″	8.8 29′ 4″		

E x a m p l e : With the 2.5 x eyepiece at a projection distance of 2.7m (9ft) a screen image of 60cm (24 in) diameter is obtained. The reproduction scales obtainable with the objectives listed are 110:1, 275:1, and 680:1 respectively.

Projection attachment

	Projection distance		Screen image size in m, ft, in		Reproduction ratio
ELMARON f/2.8 50mm	2.00m 3.00m 4.00m 6.00m	6′ 8″ 10′ 13′ 4″ 20′	1.90m 2.85m 3.80m 5.70m	6′ 4″ 9′ 6″ 12′ 8″ 19′	39 : 1 59 : 1 79 : 1 119 : 1
COLORPLAN f/2.5 90mm	2.00m 3.00m 4.00m 6.00m	6′ 8″ 10′ 13′ 4″ 20′	1.00m 1.55m 2.10m 3.20m	3′ 4″ 5′ 2″ 7′ 10′ 8″	21 : 1 32 : 1 43 : 1 66 : 1

Episcopy
Projection distances and screen image sizes Episcope
LEITZ LE 19 and LE 19 S
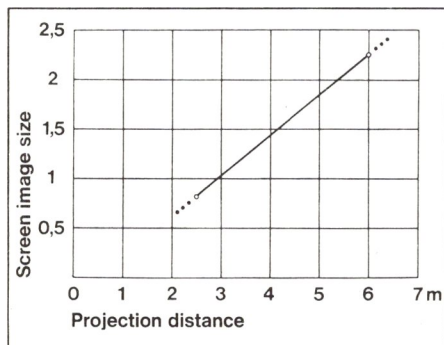
Projection distances between 2.5 and 6m at screen image sizes between 80cm and 2.5m can be obtained.

Tripod threads

New designations

New designation of the tripod threads to DIN 4503 standards:

Old Designation	New Designation
$^3/_8$ in	A $^3/_8$ DIN 4503
$^1/_4$ in	A $^1/_4$ DIN 4503

With brief details in brochures etc. DIN 4503 can be omitted.

DIN 4503 conforms to the ISO recommendation ISO/R 1222 – 1971 – photographic equipment – tripod connection.

Conversion of the LEÍCA R 3
into the LEICA R 3-MOT

LEICA R 3 cameras which according to the date on the LEITZ warranty card were sold before the LEICA R 3-MOT was announced can be converted into the LEICA R 3-MOT version within a maximum period of one year. The technical processes involved are very considerable and correspondingly expensive.

Conversion of the LEICA R 3 into the LEICA R 3-MOT model by the Technical Service Centre (TSC) of Ernst Leitz Wetzlar GmbH P.O.B. 2027, 6330 Wetzlar or authorized workshops of National Leitz Agencies.

Accessories

for discontinued products on request, from Technical Service Centre, Ernst Leitz Wetzlar GmbH, P. O. B. 2027, D-6330 Wetzlar, Germany.

List of the LEICA models

LEICA I
(non-interchangeable lens)
First basic LEICA model, black enamelled, **non-interchangeable ELMAR f/3.5
50mm lens,** with locking spring for the infinity position, slip-on rangefinder, focal
plane shutter, 1/20 to 1/500 sec and time exposure.
Available from 1925 onwards.

Compur LEICA
Black enamelled, non-interchangeable ELMAR f/3.5 50mm lens,
Compur shutter, speeds from 1–1/300 sec.
Separate shutter wind and film transport
Available from 1926 onwards.
Discontinued about 1931.
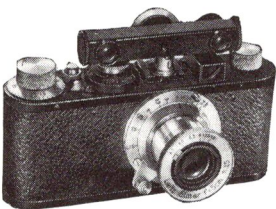
LEICA
(with changing mount)
Camera with **screw mount for interchangeable lenses.**
Lens flange and lens screw mount not yet standardized.
Available from 1930 onwards.
Lens flange and lens mount standardized in models from Serial No. 60 500 onwards.
Available from 1931 onwards.
Discontinued about 1932.

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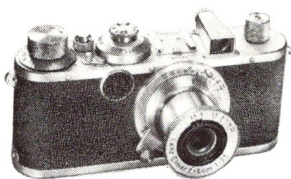
Standard LEICA
Black enamelled or chromium finished, screw mount for interchangeable lenses, slip-on rangefinder, focal plane shutter 1/20 to 1/500 sec, pull-out rewind knob.
Serial Nos. from 100 000 onwards.
Available from 1932 onwards.
Discontinued about 1941.
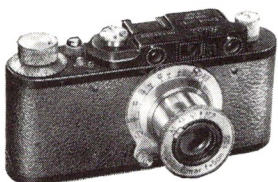
LEICA II
Black enamelled or chromium finished, with built-in coupled rangefinder, focal plane shutter 1/20 to 1/500 sec and time exposure.
Serial Nos. from 71 500 onwards.
Available from 1932 onwards.
Discontinued about 1941.
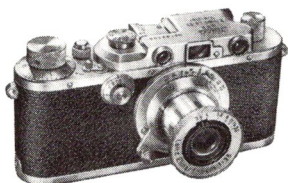
LEICA III
As model II, but with extended range of shutter speeds from 1 to 1/500 sec, rangefinder with focusing telescope (1.5x), eyelets at sides for carrying strap.
Serial Nos. from 109 000 onwards.
Available from 1933 onwards.
Discontinued about 1942.

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LEICA III a

As model III, but with additional shutter speed 1/1000 sec.
Serial Nos. from 156 201 onwards.
Available from 1935 onwards.
Discontinued about 1939.
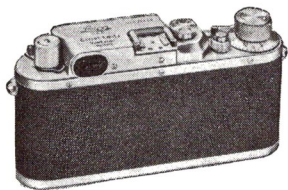
LEICA III b

As model III a, but with eye lenses for viewfinder and rangefinder close together. The lever for adjusting the rangefinder telescope is next to the rewind knob.
Serial Nos. from 240 017 onwards.
Available from 1938 onwards.
Discontinued about 1945.

LEICA 250

With enlarged cassette spaces (cassettes for 10m [33ft] film) for reporters, otherwise as III a.
Available from 1934 onwards.
Discontinued about 1942.

LEICA I c

Shutter speeds from 1/30 to 1/500 sec and time exposure, slip-on brilliant finder and rangefinder, screw mount for interchangeable lenses.
Serial Nos. from 455 000 onwards.
Available from 1949 onwards.
Discontinued about 1951.
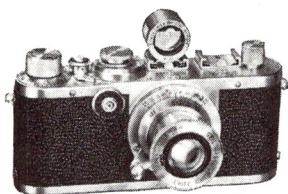
LEICA I f
(black synchronizing dial)
As model I c, but fully synchronized, film indicator built into the film winding knob.
Serial Nos. from 562 000 onwards.
Available from 1952 onwards.
Discontinued about 1957.

LEICA I f
(red synchronizing dial)
As above, but international shutter speeds 1/25, 1/50 sec etc.
Serial Nos. from 564 001 onwards.
Available from 1952 onwards.
Discontinued about 1957.
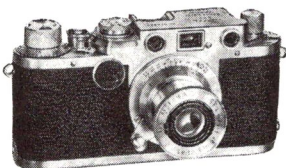
LEICA II f
(black synchronizing dial)
As model II c, but with built-in full flash synchronization, film indicator built into the film winding knob.
Serial Nos. from 451 000 onwards.
Available from 1951 onwards.
Discontinued about 1957.

LEICA II f
(red synchronizing dial)
As above, but with international shutter speeds 1/25, 1/50 to 1/1000 sec and time exposure.
Serial Nos. from 574 401 onwards.
Available from 1952 onwards.
Discontinued about 1957.

LEICA III c
As model II c, but with extended range of shutter speeds from I to 1/1000 sec and time exposure.
Serial Nos. from 360 000 onwards.
Available from 1940 onwards.
Discontinued about 1950.

LEICA III f
(black synchronizing dial without self-timer)
As model III c, but with built-in full flash synchronization and film indicator built into film winding knob.
Serial Nos. from 525 000 onwards.
Available from 1950 onwards.
Discontinued about 1957.

LEICA III f
(red synchronizing dial, without self-timer)
As above, but international shutter speeds
Serial Nos. from 615 000 onwards.
Available from 1952 onwards.
Discontinued about 1957.
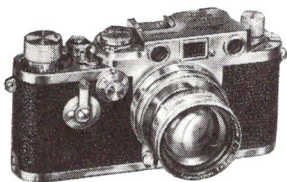
LEICA III f
(with self-timer)
As model III f with red synchronizing dial, but with self-timer of approximately 12
seconds' delay.
Serial Nos. from 685 000 onwards.
Available from 1954 onwards.
Discontinued about 1957.

LEICA III g
The LEICA III g differs from the LEICA III f in the following technical features:
1. Large bright-line viewfinder with automatic parallax compensation,
2. Shutter speeds graduated in geometrical progression.
3. Fully automatic synchronization (without contact numbers),
4. Film indicator in the back of the camera body.
Serial Nos. from 825 001 onwards.
Available from 1957 onwards.
Discontinued about 1961.
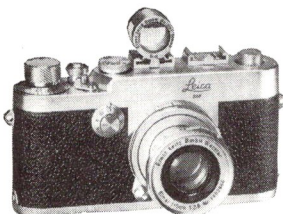
LEICA I g
basically the same design as that of the LEICA III g.
Has no rangefinder and self-timer.
Serial Nos. from 887 001 onwards.
Available from 1957 onwards.
Discontinued about 1961.
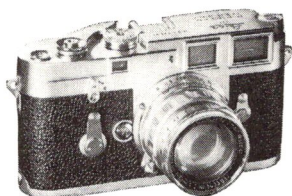
LEICA M 3

Bright-line measuring viewfinder with automatic parallax compensation, automatically faded-in image frames for 50, 90 and 135mm focal length (35mm frame obtained by use of 35mm lens with finder attachment).
Bayonet mount for rapid lens change. Shutter speed knob engages at each setting from 1 to 1/1000 sec and B.
Attachable exposure meter with direct shutter coupling.
Automatic frame counter under magnifier. Hinged back.
From 1956 onwards with field-of-view selector.
Serial Nos. from 700 001 onwards.
Available from 1954 onwards.
Discontinued about 1968.
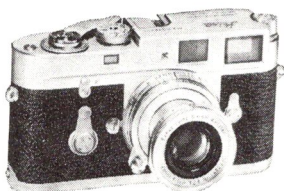
LEICA M 2

As LEICA M 3, with the following differences:
Automatically faded-in image frames for 35, 50, and 90 mm focal lengths.
Film counter must be returned to 0 by hand.
From 1959 onwards with self-timer.
Serial Nos. from 926 001 onwards.
Available from 1958 onwards.
Discontinued about 1961.
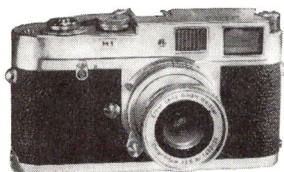
LEICA M 1

Without rangefinder. Fields of view for 35 and 50 mm lenses are shown parallax-free and permanently faded into the bright-line finder.
Otherwise as M 2.
Serial Nos. from 950 001 onwards.
Available from 1959 onwards.
Discontinued about 1965.

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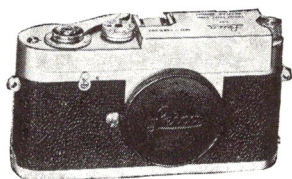
LEICA MD
As LEICA M 1, but without viewfinder, equipped for the use of the marking device.
Serial Nos. from 1 102 501 onwards.
Available from 1965 onwards.
Discontinued about 1968.
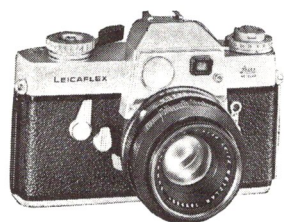
LEICAFLEX
Single-lens-reflex camera, focusing screen with micro-prism measuring field, built-in
CdS exposure meter, lens bayonet mount, focal plane shutter 1 to 1/2000 sec and B,
electronic flash 1/100 sec, automatic frame counter under magnifier.
Serial Nos. from 1 080 114 onwards.
Available from 1965 onwards.
Discontinued about 1969.

LEICA M 4
Bright-line measuring viewfinder with automatic parallax compensation.
Automatically faded-in image frames for 35, 50, 90 and 135mm focal length.
Bayonet mount for rapid lens change. Shutter speed knob from 1 to 1/1000 sec and
B. Attachable exposure meter coupled directly with the shutter knob.
Rapid film loading system for all standard 35mm films and LEICA cassettes.
Automatic film counter under magnifier. Hinged back.
Serial Nos. from 1 175 001 onwards.
Available from 1967 onwards.
Discontinued about 1972.

292
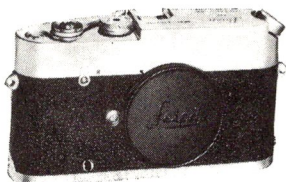
LEICA MD a
as LEICA M 4, but without viewfinder. Designed for the use of the marking device.
Serial Nos. from 1 159 001 onwards.
Available from 1967 onwards.
Discontinued about 1977.

LEICAFLEX SL
Single-lens-reflex camera with selective through-the-lens light metering.
Focusing screen with finest-ground micro-prisms for the assessment of sharpness throughout the entire viewfinder field. Central measuring field with 4-sided micro-prisms for positive focusing.
Bayonet mount for rapid lens change.
Focal-plane shutter 1 to 1/2000 sec and B. Electronic flash up to 1/100 sec.
Automatic frame counter. Rapid film change.
Serial Nos. from 1 173 005 onwards.
Available from 1968 onwards.
Discontinued about 1974.

LEICA M 5
as LEICA M 4, but with built-in CdS exposure meter for selective light metering through the lens. Focal-plane shutter 1/2 to 1/1000 sec and B.
Exposure measurement up to 30 sec coupled with the shutter speed dial.
Additional accessory-shoe contact for electronic-flash units.
Novel onesided camera suspension. Removable rapid-loading spool.
Rewind crank in detachable baseplate.
Serial Nos. from 1 287 001.
Available from 1971 onwards.
Discontinued about 1977.

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LEICA CL

Compact measuring-viewfinder camera. Brightline measuring viewfinder with auto-matic parallax compensation. Automatically faded-in image frames for 40 and 50 as well as 90mm focal length. Quick-changing lens bayonet as in LEICA-M models. Built-in CdS exposure meter for selective light metering through the lens. Vertically travelling focal-plane shutter from 1 to 1/1000 sec and B. Accessory-shoe contact for electronic flash units. One-sided camera suspension.
Entire camera back can be pulled off for conventient film insertion.
Rapid film change.
Serial Nos. from 1 300 001 onwards.
Available from 1973 onwards.
Discontinued about 1977.

LEICAFLEX SL 2

As LEICAFLEX SL but with additional split-image rangefinder for positive focusing. Combined shutter speed and lens stop indication in the viewfinder. Sensitivity of exposure meter increased by 3 steps. Illuminated measuring read-out for poor lighting conditions. Additional accessory-shoe contact.
Serial Nos. from 1 385 001 onwards.
Available from 1974 onwards.
Discontinued about 1978.

LEICA R 3

Single-lens reflex camera with electronically-controlled metal-blade focal-plane shutter. Alternative integrated (effective) or selective light metering through the lens. Automatic shutter speed determination can be switched over to manual control. Shutter speeds from 4 to 1/1000 sec, B, X = 1/90 sec (electronic-flash synchronization). Focusing screen with finest-ground micro-prisms for sharpness assessment throughout the viewfinder field. Central micro-prism ring with additional split-image rangefinder for positive focusing. Quick-changing lens bayonet. Automatic frame counter and film wind control. Film cartridge window, rapid film change.
Serial Nos. from 144 001 onwards.
Available from 1976 onwards.

LEICA M 4 – 2

As LEICA M 4, but with connection for motor winder. Additional accessory-shoe contact for electronic flash unit. Without self-timer.
Serial Nos. from 1 468 001 onwards
Available from 1977 onwards.

LEICA MD – 2
As LEICA M 4 – 2 but without viewfinder. Suitable for the use of recording strips.
Available from 1977 onwards.
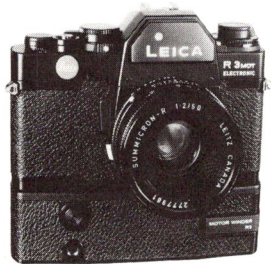
LEICA R 3-MOT
As LEICA R 3, but with connection for motor winder – R 3. Display of the selective or
integrating measuring mode in the viewfinder above the shutter speed scale.
from Serial Nos. 1492251 onwards.
Available from 1978 onwards.

Sales arguments

Contents:

LEICA R3 MOT
with MOTOR-WINDER R3

Dual measuring mode
LEITZ largefield integrating measurement
LEITZ selective measurement
Display of the chosen measuring method in the viewfinder

Bright, contrasty viewfinder image
Three different possibilities of focusing
● Micro-matt LEITZ triangular micro-prims covering the entire view-finder field
● Central square-micro-prism ring
● Split-wedge rangefinder

Very smooth LEICA shutter release
● Vibration-free mirror action
● Vertical action of the CLS metal blade shutter
● Extremely quiet film transport through MOTOR WINDER R 3

Great operating convenience
● Electronic shutter control
● Motor film transport, automatic shutter wind
● Handy camera size
● LEICA R rapid lens changing bayonet

General functional reliability
● Long life
● Rapid loading spool
● Film cartridge window
● Film transport indicator
● MOTOR-WINDER switches off at end of film

Stylish LEITZ design
● Robust LEITZ black chrome finish
● Sturdy all-metal construction
● Compact MOTOR-Winder R 3

Quietly operating attachable MOTOR-WINDER R3
- Single-frame and series release
- Compact all-metal housing
- Battery/rechargeable battery housing; easily and quickly interchangeable
- Comprehensive accessory range
- RC LEICA R electronic control unit for remote release and interval timing

High-definition LEICA lenses
- Optimum performance throughout the entire practical range
- High contrast even at full aperture
- Maximum freedom from stray light, maximum transmission through LEITZ coating

LEITZ MEANS PRECISION –
WORLDWIDE

LEICA R 3

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- LEITZ selective measurement

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Leitz **LEITZ MEANS PRECISION – WORLDWIDE**

LEICA R 3 lenses

High-quality optical glasses, some of which are produced in the LEITZ glass research laboratory with rare earth elements (for instance high refractive index and low dispersion)

LEITZ anti-reflection coating specially matched with the glasses used

Multi-coating only when technically justified

Leitz Absorban cement for uniform colour transmission

Neutral, faithful colour rendering

Almost 100 % light transmission throughout the entire spectrum, great freedom from stray light

Very high state of correction even at full aperture; in Leitz lenses maximum aperture is a fully effective standard aperture

Good contrast rendering and high colour correction even at full aperture – also an important condition for high viewfinder contrast for optimum focusing

Identical, convenient arrangement of the aperture setting rings in all lenses with automatic diaphragm

Identical rotation direction of the lens focusing mounts and aperture setting rings

Preset diaphragm running on ball bearings; functionally reliable from –25 to 60 °C

Fast closing time of the spring-back diaphragm of only 38 msec in spite of a long closing distance

Advantages:
- Short time parallax between shutter release and film exposure
- The very slight bounce of the spring-back diaphragm achieves reproducible aperture values owing to the long closing distance (tolerance only $1/8$ light value)
- Guarantee of high accuracy and therefore precise exposure with the various aperture values

Lens hood standard equipment of all LEICA R lenses

Precision-made, robust, durable and easily operated LEICA-R rapid lens changing bayonet

Front and rear elements are deeply recessed in the lens mount and therefore effectively protected

No projecting control levers or elements can be damaged when the lenses are put upside down on a table etc.

High accuracy of fit of the two parts of the helical focusing mount. Matching according to requirements: brass with brass, brass with aluminium, and aluminium with aluminium. Components are individually ground

.
The high accuracy of fit requires only a thin film of grease. LEICA lenses have no layers of thick grease which in time ooze away

The helical focusing mounts of the LEICA lenses move smoothly and positively even after prolonged use

All lens parts are corrosion-protected

Sturdy construction, blow- and impact resistant

Each lens element is individually mounted

During lens assembly the various elements are matched individually according to a mathematical model on the basis of the +/– tolerances arising during manufacture

Result: High, uniform Leitz production quality.

Leitz **LEITZ MEANS PRECISION – WORLDWIDE**

FOCOMAT V 35 AUTOFOCUS

- New Leitz colour/black-and-white enlarger for negatives up to 24 x 36mm and slides up to 50 x 50mm
- Typical, clear, attractive Leitz design
- Practical modular construction
- No dangling cables
- Precision autofocusing mechanism
- Large, quickly adjusted autofocusing range from 3 to 16x with the 40mm WA-FOCOTAR f/2.8
- 30 % more enlargement and 70 % more picture area compared with the performance of the 50mm lens
- The automatic mechanism produces formats from about 70 x 100mm to about 400 x 600mm (40mm WA FOCOTAR f/2.8) quickly and reliably
- The automatic mechanism guarantees optimum focusing throughout the entire adjustment range
- Manual faulty settings are eliminated, which saves time and money
- Extreme brightness and high optical performance
- Novel Leitz condenser system of unsurpassed brightness
- Short exposure times = shake-free enlargements
- High light utilization, even illumination, excellent colour mixing = superb results
- 40 mm WA-FOCOTAR f/2.8: an enlarger lens in the top class through the use of highly refractive Leitz glasses
- High resolving power, high contrast and excellent colour rendering = optimum results even at f/5.6
- UV rays are filtered out by the Leitz Absorban cement in the lens system
- Unsurpassed robustness
- High functional reliability even after many years of constant use
- Maintenance-free mechanism guarantees perfect function after many years
- The Leitz FOCOMAT V 35 AUTOFOCUS is even more rigid than the FOCOMAT I c
- Great operating convenience
- Quick adjustment of the desired enlargement ratio with asymmetrically arranged vertical-adjustment arm
- Effortless single-handed operation of the vertical-adjustment arm
- The controls of the colour module are easy to handle even from a sitting position
- Conveniently laid-out control knobs are arranged in the sequence Y M C
- Rapid conversion from black-and-white to colour by simple interchange of the modules

- Red filter built into the black-and-white module
- Illuminated wide-range filter scales
- Easy to see and read
- Densitometric filter values up to 200 ($\doteq$ 288 CC Kodak, = 400 Agfa densities) can be set with all **three** filters
- The high setting values are more than adequate for any type of colour work
- **No additional filters required**
- Three cams for optimum adjustment of the colours Y M C ensure uniform density proportions throughout the entire filter adjustment range
- High linearity and very good reproducibility of the filter values through dichroic filters and precision control mechanism of the colour module
- A correctly estimated filter value for the removal of a colour cast applies without major correction to the entire filter range (with the same material and lamp and correct exposure time)
- Setting of identical filter values for Y M C = neutral grey filter, whose density depends on the set filter value
- Highly effective heat dissipation:
- Through infra-red filter
- Dissipation principle (covered by Registered Design) on the lamp base (cooling ring)
- Heat baffle, registered design, on the outside of the mixing chamber
- Even with prolonged operation of the FOCOMAT V 35 AUTOFOCUS, the film in the film stage is exposed to a minimum of heat
- All hand-operated controls, including the rotary knobs for the filters, remain cool
- Reliable protection against dust and contact
- All moving mechanical parts and the entire electrical equipment are enclosed to protect them against dust and contact
- High electrical safety
- Integrated current supply, no external dangling cables
- Transformer for the low-voltage illuminator built into the foot of the enlarger. **No additional loose part – no additional cost.**
- Column in black chrome finish to ensure freedom from reflection
- Column can be rotated through 180° C for giant enlargements
- The large area of the rigid baseboard permits rapid adjustment of the masking frame.

**LEITZ MEANS PRECISION –
WORLDWIDE**

FOCOTIMER

- Digital display of the electronically controlled exposure timer can be read even in darkness – this also applies to the FOCOMETER
- If you have ever tried to set times on a mechanical timer in the darkroom you will appreciate the advantage of digital readout
- Illuminated push-buttons are found quickly and simply even in the dark
- The long-time range can be used for the timing of developing processes
- Acoustic signal at the end of the set time
- The enlarger can also be operated with a footswitch

FOCOMETER

- Exposure meter and timer combined
- **Two measuring modes** – selective and integrating
- Automatic conversion of the measured light intensity into the required exposure time
- Storage and digital display of the calculated exposure time up to the next measurement
- The long-time range can be used for the timing of developing processes
- The enlarger can also be operated with a footswitch

LEITZ MEANS PRECISION – WORLDWIDE

PRADOVIT C

Photography is fun – projection is fun
Discover the quality and detail of your slides in the large, bright projected image
The LEITZ PRADOVIT C gives better results than any other projector
It need not fear any comparison. Use the Leitz Test Slide for it.
Nobody has contested the PRADOVIT claim of optical superiority for the last ten years
The performance of the LEITZ PRADOVIT projectors is a byword:

1. **Unsurpassed image quality**
● Ne-plus-ultra with the 90mm LEITZ COLORPLAN f/2.5
● 35 to 300mm interchangeable lenses for any projection distance
● Modern aspherical condenser system
● Interchangeable condensers for optimum illumination of the projected image
● 24v/150W tungsten halogen lamp for the PRADOVIT C 1500 and CA 1500
● 24v/250W for the PRADOVIT C 2500 and CA 2500

2. **Projection without irritating dark interval**
● The method of projection that is kind to your eyes
● With a single projector, a single condenser system, a single magazine

3. **Precision and great reliability**
● Aluminium diecast construction ensures maximum stability
● Free access to the magazine space
● Perfect movement of the slide magazine in the magazine trough
● Utterly reliable slide transport through the robust mechanism and the hard-chromed slide guides
● Optimum protection of the slides through two-channel blower for best possible slide cooling and additional heat filter

4. **Precise and rapid autofocus device in the CA models**
- Extremely positive and rapid response through silicon photo-elements
- High setting accuracy
- Independent light source, unrelated to the centration of the projector lamp

5. **Facilities for universal extension**
- Through interchangeable lenses
- Through timer
- Through infra-red remote control
- Through lap-dissolve control units
- Through macro-, micro- and experimental attachments

6. **Stylish, attractive exterior**
- Modern design
- Charcoal grey enamel finish with light centre band

7. **International LEITZ Warranty**

**LEITZ MEANS PRECISION –
WORLDWIDE**

TRINOVID binoculars

The stylish Leitz design
- Reduction of volume through novel Leitz prism systems
- Large range of beautiful, compact binoculars for every taste and purpose
- Even the larger among these small models are easily carried and slip into any pocket
- Because of their stylish shape TRINOVID binoculars are never out of place – they go equally well with evening dress and leisure wear
- They are always handy – whether you want to find space on the beach or to have a close look at the heroine on the stage
- Convenient, large Leitz central drive for instant focusing
- Continuous, effortless adjustment of the central drive with the right or the left hand – even with gloves
- The image remains steady in front of the eye during focusing
- Inadvertent defocusing impossible
- Separate dioptre compensation individually adjusts the TRINOVID binoculars to each eye
- All TRINOVID binoculars have roll-back rubber eyecups

The excellent optical performance
- To resolve also the details of distant objects for close-up viewing all TRINOVID binoculars are equipped with high-quality glasses, equal in every respect to those used in Leitz camera lenses
- Fascinating resolution and brilliance produces a three-dimensional image even when the lighting contrast is poor
- Enhanced contrast and great brightness through coating of all glass-air interfaces, matched to maximum sensitivity of the eye
- The large field of view permits the observation also of the field surrounding the object and facilitates the finding and viewing of moving objects

- High manufacturing quality of objectives, prisms and eyepieces is essential to the precision adjustment of the Leitz TRINOVID binoculars. It guarantees an excellent, clear image – excellent reproduction – high contrast
- Identical magnification in both optical systems, whose axes are in absolutely parallel alignment, ensures strainfree observation.
- Even during prolonged constant use TRINOVID binoculars do not cause eye fatigue or headache.

Leitz precision
- More than 70 years' experience in the design of binoculars guarantees that even after many years of frequent use you will derive the same pleasure from observation with your TRINOVID as at the beginning
- Solid all-metal construction is subject to little wear and tear even with heavy-duty use
- Durable, robust, reliable binoculars.

Functional reliability
- **True internal focusing** – no moving objective or eyepiece components to suck in air or dust during focusing
- The optical systems are adjusted inside the sealed binoculars
- The optical components are not exposed to dirt inside the TRINOVID binoculars
- They are absolutely proaf against dust, atmospheric humidity, and spray water
- Climate proof
- Maintenance-free mechanism, shock- and impact resistant

LEITZ MEANS PRECISION – WORLDWIDE