

# Handbook of the LEICA-System



Photography. Projection. Enlargement. Reproduction. Observation.



Issue  
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# Contents:

## General Catalogue for Photographic Dealers

(Edition of 1-9-1980)

ERNST LEITZ WETZLAR GMBH  
6330 Wetzlar, P.O.B. 2020  
Telephone: (06441) 291  
Telex: 0483849  
T.A.: Leitz Wetzlar

### LEITZ Information Service

Your direct line for technical  
information:

Telephone (06441) 29-2436  
Monday to Friday 800-1200 hours  
and 1300-1600 hours

### Technical Service

After Sales Service of  
ERNST LEITZ WETZLAR GMBH  
P.O.B. 2027  
6330 Wetzlar  
Telephone (06441) 291

Contents and List  
of Agencies  
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## LEICA R4

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## LEICA R lenses

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## LEICA R near-focusing devices

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## LEICA M4-P

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## LEICA M lenses

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## Copying outfits

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## FOCOMAT

automatic enlargers

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## PRADOVIT

automatic 35 mm projectors  
Lap dissolve control units

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## PRADO-UNIVERSAL

Micro and macro attachments  
DIASCRIPTOR, overhead projector

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## TRINOVID

binoculars

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## Technical information

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Accessories for items no longer  
in the current product range.



# List of Agencies

---

## Federal Republic of Germany including West Berlin:

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**Franz Bergmann GmbH & Co. KG**

Kurfürstendamm 170  
1000 Berlin 15

Tel.: (030) 8814006

Telex: 0185769

Cable:

Laborbergmann, Berlin

---

**Ernst Leitz KG Frankfurt**

Fröbelstraße 6-8,  
P.O. Box 900620  
6000 Frankfurt/M. 90

Tel.: (06 11) 770226 and 702038

Telex: 4189100

---

**Ernst Leitz KG Hamburg**

Harvestehuder Weg 22a  
Alsterchaussee 40  
P.O. Box 132044  
2000 Hamburg 13

Tel.: (040) 449357

Telex: 0214016

(LEIHA D)

Cable:

Leicaleitz, Hamburg

---

**Ernst Leitz KG Köln**

Follerstraße 2  
P.O. Box 250327  
5000 Köln 1

Tel.: (02 21) 235005

Telex: 8883570

Cable:

Leitzwest, Köln

---

**Hans J. Bauer KG Düsseldorf**

Freytagstraße 15  
P.O. Box 140142  
4000 Düsseldorf

Tel.: (02 11) 683694/95

Telex: 08586753

Cable:

Leitzbauer, Düsseldorf

---

**Ernst Leitz KG Stuttgart**

Böheimstraße 34,  
P.O. Box 89  
7000 Stuttgart

Tel.: (07 11) 609493/95

Telex: 721515

Cable: Leitzsüdwest

---

**Ernst Leitz KG München**

Königinstraße 11,  
P.O. Box 409  
8000 München 22

Tel.: (089) 283032 and 285677

Telex: 524260

Cable:

Leitzbayern, München

---

**Ernst Leitz KG Nürnberg**

Krauss-Straße 4, 8500 Nürnberg

Tel.: (09 11) 225395 and 225884

# EUROPE

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## Andorre

### Higinio Cierco

Prada Ramon  
Edificio Cierco  
B.P. 20  
Andorra la Vieille

Tel.: 21.357  
Telex: 211 CIERCO AND

---

## Austria

### Leitz-Austria

Friedrich von Rosen & Co. KG  
Dr.-Karl-Lueger-Ring 12  
A-1014 Wien 1

Tel.: (022) 636665  
Telex: 07/5507

---

## Belgium

### Ets. F. Masson S.P.R.L.

Chaussée de Charleroi, 51  
B-1060 Bruxelles

Tel.: 5386260  
Telex: 260.36 B

---

## Denmark

### Nordisk Optisk Compagni A/S

Industriholmen 17-19  
2650 Hvidovre

Tel.: 0045 1 785511  
Telex: 15949

---

## Finland

### Elwe oy

Ahventie 4  
PL 29  
SF-02171 ESPOO 17

Tel.: 90-423455  
Telex: 123184 elwe sf

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## France

### Wild + Leitz France S.A.R.L.

86, avenue du 18 juin 1940  
B.P. 326  
F-92506 Rueil-Malmaison Cedex

Tel.: 732.92.13  
Telex: WLF 203334 F

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## Gibraltar

### William Serfaty & Co. Ltd.

66-68 and 70 Main Street  
P.O. Box 63  
GIBRALTAR

Tel.: 2188



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## Greece

**Nicolaos G. Asteriadis**  
Technical Representations  
54, Tsimiski Str.  
T.T. 18  
P.O. Box 500  
Thessaloniki

Tel.: (031) 278.692 and 278.693  
Telex: 4 11 30 ASNI GR

---

## Great Britain

**E. Leitz (Instruments) Ltd.**  
48 Park Street  
Luton LU1 3HP

Tel.: Luton (Std 0582) 413811  
Telex: 825475 Leitz g

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## Ireland

**E. Leitz (Instruments) Ltd.**  
48 Park Street  
Luton LU1 3HP

Tel.: Luton (Std 0582) 413811  
Telex: 825475 Leitz g

**Photo Distributors (Ireland) Ltd.**  
56 Grafton Street  
Dublin 2

Tel.: 777977

---

## Italy

**Polyphoto S.p.A**  
Via dei Gracchi, 8  
I-20146 Milano

Tel.: 4984941-2-3-4-5  
Telex: 332240 Pondra I

---

## Luxemburg

**OPTIQUE MOITZHEIM**  
Rue Philippe 2  
Luxembourg

Tel.: 22256

---

## Malta

**P. Cutajar & Co, Ltd.**  
12 St. Paul Street  
Valletta

Tel.: 625488-625489  
Telex: MW-248

---

## Netherlands

**N. V. Fototechn. Groothandel Odin b.v.**  
Graafseweg 66-68  
Postbus 138  
6500 AC Nijmegen

Tel.: (0031 80) 228411  
Telex: 48341

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## Norway

**Jean Mette A. S.**  
Optisk avdeling  
Viggo Hansteens vei 27  
Vinderen-Oslo 3

Tel.: (0047 2) 144590  
Telex: 18831

---

## Portugal

### **WILD + LEITZ PORTUGAL**

Importação e Comércio  
de Instrumentos de  
Precisão, Lda.  
Praça das Aguas Livres, 8  
Lisboa 2

Tel.: 6891 12  
Telex: 16544

---

## Switzerland

### **Petraglio & Co. S.A**

Silbergasse 4  
2501 Biel-Bienne

Tel.: (0132) 231277  
Telex: 34609

---

## Sweden

### **Brandt Optik A.B.**

Sandhamnsgatan 39  
P.O. Box 27053  
10251 Stockholm

Tel.: 235060  
Telex: 19852

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## Spain

### **Germán Cortés S. A.**

Consejo de Ciento, 366-368  
Barcelona 9

Tel.: 3181700  
Telex: 54098 gera e

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### **Las Palmas Jaen Optico**

Leon y Castillo, 407  
Las Palmas de Gran Canaria

Tel.: 2641 48, 2639 46, 2638 45

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### **Ceuta Casa Ros**

Camoens 1  
Ceuta

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## Turkey

### **Gantenbein Ticaret**

P. K. 1158  
Istanbul-Karaköy

Tel.: 432800  
Telex: 24659 BUGATR

---

## Yugoslavia

### **Chemcolor**

Ulica Proleterskih Brigada 37a  
P.O. Box 274  
YU-4100 Zagreb

Tel.: 577-700000  
Telex: 21236

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# AMERICA

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## Argentina

Lutz, Ferrando y Cia. S.A.

Florida 240  
1005 Buenos Aires  
Telex: 21409 Lutz ar

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## Bolivia

Casa Kavlin S.A.

Casilla 500  
Calle Potosi 1130-1136  
La Paz  
Tel.: 53221/41 530  
Telex: CWC BX 5298 ITT 3560082

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## Brazil

WILD LEITZ

Instrumental de Precisão Ltda.  
Caixa Postal, 57053  
04081 SÃO PAULO - SP

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Av. Vieira de Moraes, 45

04617 SÃO PAULO - SP  
Tel.: 240-9224, 240-9303  
Telex: 1123569 ipwl. br

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## Canada

Wild Leitz Canada Ltd.

513 McNicoll Avenue  
Willowdale, Ontario M2H 2C9  
Tel.: (416) 497-2460  
Telex: 06-98 65 60 wildleitz tor

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## Chile

CIENTEC

INSTRUMENTOS CIENTIFICOS

Barentin, Scholz y Cia. Ltda.  
Casilla 972  
Antonio Varas 754  
Santiago/Chile  
Tel.: 257350  
Telex: 94436 PBVTR KU para CIENTEC  
94260 PBVTR KU para CIENTEC

---

## Costa Rica

Agencias Goicoechea Ltda.

Apartado 713  
San José  
Tel.: 21 0050  
Cable: GOICO SAN José

---

## Colombia

Sanitas Ltda.

Apartado Aéreo 53068  
Carrera 13 No. 55-28 Ing. 2  
Bogotá 2  
Tel.: 488-875, 347-421  
Telex: 4-5403 ccal co

indicar: para Sanitas Ltda.

Bogotá Telefonos  
488875 y 357421

---

## Dominican Republic

Casa Sander  
Vittorio Levi & Co.

Apartado 753  
Arzobispo Meriño No. 502  
Santo Domingo  
Tel.: 2-4770  
Cable: Sanderco Santodomingo

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## Quimico Tecnica Industrial

Apartado de Correos No. 2058  
Ave. Rep. del Ecuador No. 20  
Santo Domingo  
Tel.: 533-4559, 532-1163  
Cable: QUITECIND, Santo Domingo

---

## Horizontes Dominicanos C. por A.

Apartado Postal 1723  
Calle 12 Esq. Lic. Virgilio  
Diaz Ordenez  
Santo Domingo  
Tel.: 566-3157  
Telex: ITT: Horidom 3460275  
RCA: 326-4153 Hordom dr

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## Ecuador

Omnia pro Medico S.A.

Casilla 575  
Quito  
Avenida Colón Nr. 1699  
Quito Tel.: 234-720, 236-610, 524-684  
Telex: 2277 Omnia Ed

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## El Salvador

Representaciones „Real“

Apartado 1817  
67 Avenida Sur  
Centro Roma 2  
San Salvador  
Tel.: 23-4336  
Telex: REAL 30159 ICS SAL  
RCN 18006

---

## Guatemala

Precisión

6a Avenida 29-03  
Zona 11  
Centro Comercial Granai + Townson  
Guatemala  
Tel.: 460178  
Telex: 5402 CAMIND GU  
At. Sr. Alfred Bran  
Casa Precisión

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## Guyana

Guyana Stores

Agencies Division  
P.O. Box 273  
Georgetown/Guyana  
Tel.: 62636-8 u. 66171  
Telex: GY 212

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## Honduras

Agencia D. Paysen, S. de R.L. de C. V.

Apartado Postal 252  
Blv. Morazan entre cine mayay  
Restaurant Kloster  
Tegucigalpa D. E.  
Tel.: 32-50-10, 32-52-51, 32-52-53  
Telex: HT 1111 Depay

---

## Mexico

Comercial Ultramar, S. A.

Apartado Postal 24346  
Colima 411  
Mexico 7, D.F.  
Tel.: 533073, 5330731, 5330732  
Telex: 1771226 dehak me  
Para Comercial Ultramar, Mexico

---

## Panama

Foto Internacional S.A.

P.O. Box 1878  
Ave. Central 151  
Panamá 1  
Tel.: 62-1333  
Telex: 3481033

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## Paraguay

Eberhard Lewkowitz

Casilla de Correo 523  
Calle Estrella 485  
Asunción  
Tel.: 43510-47024  
Telex: 378 Py Lewkowitz

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## Peru

Mario del Rio S.A.

Apartado 2923  
Lima  
José de la Torre Ugarte 140  
Lince/Lima  
Tel.: 221737  
Telex: 25277 pu cp isidr Lima  
indicar: DELRIO MARIO S.A.  
MAPELSA-Telefono 4074 87

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## Surinam

INTRACO N.V.

P.O. Box 1855  
Gravenstraat 59  
Paramaribo  
Tel.: 76751 u. 77707  
Telex: Intrac - sn - 266

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## Uruguay

Casa Stapff

Casilla Correo 640  
Calle Gral. Máximo Tajes 6493  
Montevideo  
Tel.: 503466  
Telex: P. Booth 901 UY  
Stapff 503466

---

## USA (United States)

E. Leitz, Inc.

Rockleigh, New Jersey 07647  
Tel.: (201) 767-1100  
Telex: 135356

also for:

**Bahamas**

**Barbados**

**Bermudas**

**Haiti**

**Jamaica**

**Netherlands Antilles**

**Trinidad and Tobago**

---

## Venezuela

C. Hellmund & Cia. S. A.

Apartado 589 - Carmelitas 1010  
Caracas  
Tel.: 239.71.54  
Telex: 23391 chyco ve  
Cable: Hellmund Caracas

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# AFRICA

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## Angola

**Rocha Monteiro Lda.**

R. Salvador Correia 69-1°  
Caixa Postal 28 15  
Luanda/Angola  
**Tel.: 34 394**

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## Benin

**AGENCE CENTRALE/CFAO**

Boîte Postale 908  
Cotonou  
République Populaire du Benin  
**Tel.: 31.25.38, 31.25.39**

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## Burundi

**Van Hopplynus S.A.**

Rue Royale, 101  
B-1000 Bruxelles  
**Tel.: 219.37.00**  
**Telex: 24.506 B**

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## Cameroun

**Compagnie Soudanaise**

Boîte Postale 84  
Douala  
République Unie du Caméroun  
**Tel.: 42.45.46**  
**Telex: COSOUD 5603 Kn**

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## Centrafique

**PHARMOPTIC SA**

Boîte Postale 195  
Bangui/République Centrafricaine  
**Tel.: 28.41**

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## Congo

**Monsieur Rozan**

Opticien  
Boîte Postale 876  
Brazzaville/République Populaire du Congo

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## Côte d'Ivoire

**Optique Instrumentale**

01 Boîte Postale 1265  
Abidjan 01  
**Tel.: 32.26.68, 32.58.15**  
**Telex: Sagship 2280**

**Société ETEC**

04 Boîte Postale 801  
Abidjan 04  
**Tel.: 35.28.07, 35.49.17**  
**Telex: TERTRANS 2473/Code 010**

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## Egypt

**Techno Scient**

Hussein Nagui & Co.  
13, Abdel Salam Aref St.  
(Ex-Bustan St.)  
P.O. Box 2737  
Cairo ARE  
**Tel.: 750022**  
**Telex: 93047 TS (UN)**

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## Ethiopia

**Jos. Hansen & Soehne (Ethiopia) Ltd.**

P.O. Box 1501  
Addis Ababa  
**Tel.: 447270-447273**  
**Telex: 21033**

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## Gambia

**Breckwoldt & Co.**

(Gambia) Ltd.  
P.O. Box 281  
Banjul  
**Tel.: SIK 2164**

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## Gabon

**Ceca Gadis**

Département Technique  
Boîte Postale 89  
Libreville  
République du Gabon  
**Tel.: 72.21.34**  
**Telex: 5230 GO**

**Technic Medical Service**

Boîte Postale 902  
Libreville  
République du Gabon  
**Tel. 72.33.47 u. 72.00.92**  
**Telex: 5330 GO**

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## Ghana

**Devag Ltd.**

P.O. Box M. 262  
Accra  
**Tel.: 64978**  
**Telex: 2146, Accra**

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## Guinea

**André & Cie S.A.**

Département AFRIQUE  
7, Chemin Messidor  
CH-1006 Lausannes  
**Tel.: (021) 20.11.11**  
**Telex: 2.41.01 CH**

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## Haute Volta

**Société d'Etudes & Travaux Topographiques (S.E.T.)**

Boîte Postale 888  
Ouagadougou  
République de Haute-Volta

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**Kenya****Wild Leitz East Africa Limited**

Technical Centre  
Waiyaki Way, Westlands  
P.O. Box 14993  
Nairobi  
**Tel.: 742269/70/71**  
**Telex: 22632 aatrael**

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**Liberia****Jos. Hansen & Soehne (Liberia) Ltd.**

P.O. Box 28  
Monrovia  
**Tel.: 22317**  
**Telex: 4239 HANSEN LIB**

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**Libya****Mr. Ben Othman**

P.O. Box 74232  
Tripoli

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**Madagascar****Madoptique**

C. Ranarivelo  
40, Avenue de l'Indépendance  
Antananarivo/Madagascar  
**Tel.: 204-54**  
**Telex: Manivico/tana Nr. 22356**

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**Photorama**

Boîte Postale 13  
Antananarivo  
**Tel.: 241.44**

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**Malawi****Gaskells Limited**

Chibisa House, Private Bag 39  
Blantyre  
**Tel.: 633 622/631 066/633 802**  
**Telex: 4112, Blantyre**

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**Mali****Photo-Ciné**

L. M. Rolde  
B.P. 93  
BAMAKO  
**Tel.: 225.02**

---

**Marocco****Chimilabo S.A.**

193, Avenue de l'Armée Royale  
Casablanca  
**Tel.: 27.14.86, 27.14.70**  
**Telex: 21.748 CHIMICOL**

---

**Mauritius****HALBWACHS,**

Photo-Cine LTD  
P.O. Box 155  
Port Louis  
**Tel.: 2-5235**  
**Cable: HALPHOT, PORTCOUN**

---

**Moçambique****F. Bridler & Co. Ltd.**

Caixa Postal 65  
Maputa  
**Tel.: 23031**  
**Cable: BRIDLER**

---

**Nigeria****Hagemeyer (Nigeria) Limited**

82, Murtala Muhammed Way E.B.  
P.O. Box 179  
Lagos  
**Tel.: 44925/44947/48953**  
**Cable: BEADFIRM**

---

**Niger****Optique de France et du Niger**

Boîte Postale 10102  
Niamey  
République du Niger  
**Tel.: 73.34.32**  
**Telex: TRANSCAP 5219**

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**Ruanda****Van Hopplynus S. A.**

Rue Royale, 101  
B-1000 Bruxelles  
**Tel.: 219.37.00**  
**Telex: 24.506 B**

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**Sierra Leone****Breckwold & Co. (S.L.) Ltd.**

5, Wilberforce Street  
P.O. Box 77  
Freetown  
**Tel.: 23881**  
**Telex: 3233**

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**South Africa, Republic of****Wild + Leitz RSA (PTY) Ltd.**

Lowliebenhof Building, cor. Smit and Simmonds Street  
P.O. Box 3954  
Johannesburg 2000  
**Tel.: 725-3930**  
**Telex: 4-22427**

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**BRANCHES****Wild + Leitz RSA Ltd.**

305-307 MEDICAL SQUARE  
156 MAIN ROAD  
P.O. Box 1135  
SEA Point, CP  
**Tel.: 44-9341**

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**Wild + Leitz RSA (Pty) Ltd.**

Devenport Road  
P.O. Box 18211  
Dalbridge (Natal)  
**Tel.: 21-4219**

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**Togo****Agence Centrale/CFAO**

Boite Postale 1246

Lomé

République du Togo

**Tel.: 21-60 à 62****Telex: 5217 Senafrica**

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**Tunisia****Samos**

Société d'Appareillage Médical et Hospitalier

9, Avenue Khéreddine Facha

Tunis

**Tel: 284.355****Telex: Samos 12523 TN**

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**Zaire (République du)****Van Hoplynus S.A.**

Rue Royale, 101

B-1000 Bruxelles

**Tel.: 2193700****Telex: 24 506**

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**Zambia****Jos. Hansen & Soehne (Zambia) Ltd.**

Cairo Road, Hamburg House

P.O. Box 1104

Lusaka

**Tel.: 72773/74533/74971/74972****Telex: 41521**

---

**Zimbabwe****Business Equipment Corporation**

CBH HOUSE

1 VICTORIASTREET

P.O. Box 1611

SALISBURY

ZIMBABWE

**Tel.: 702031****Telex: RH 4136**

# ASIA

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## Bahrain

**Behbehani Bros. Ltd.**

P.O. Box 168

Manama

**Tel.: 253872**

**Telex: 8921 barkat gj**

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## Bangladesh

**Haroon Enterprises**

62 Purana Paltan, 1st Floor

Dacca - 2

**Tel.: 244940, 255226, 281198**

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## Bangladesh Scientific & Surgical

Instrument Co.

Khan Mansion

107 Motijheel Commercial Area

Dacca 2

**Cable: Equipment**

**Tel.: 254967**

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## Cambodia

**Schmidt & Co. (H.K.) Ltd.**

G.P.O. Box 297

Hing Kong

**Tel.: 5-455644**

**Telex: 74766 schmc hx**

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## Cyprus

**Photo Fisher**

237 Ledra Street

P.O. Box 1349

Nicosia

**Tel.: 65455**

**Cable: LEICA**

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## Hong Kong

**Schmidt & Co. (HK) Ltd.**

28th Floor Wing On Centre

111 Connaught Road, Central

G.P.O. Box 297

Hong Kong

**Tel.: 5-455644**

**Telex: 74766 schmc hx**

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## India

**The Scientific Instrument Co. Ltd.**

6, Tej Bahadur Sapru Road

Allahabad 211 011

**Tel.: 51434**

**Telex: SICO 030-219**

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## Indonesia

**Schmidt Scientific (Pte) Ltd.**

P.O. Box 629

Singapore 9110

Telok BLANGAIT

WEST POST OFFICE

**Tel.: 2727233**

**Telex: RS 23736 schms**

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## Iran

**Owzan Company (Joint Stock)**

236, Onstad Nejatullah Ave (old Villa Ave)

P.O. Box 51-1587

Tehran

**Tel.: 009821/898353, 896326, 896237**

**Telex: 212927 okza ir**

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## Iraq

**NASRALLA ENGINEERING SERVICES**

P.O. Box 253

BAGHDAD

**Tel.: 93060, 93069**

**Telex: 2185 orpalace IK „Attn. Mr. Nasralla”**

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## Israel

**A. Berner & Sons Ltd.**

15 Rothschild Blvd.

P.O. Box 447

Tel Aviv

**Tel.: 53421, 59789**

**Telex: 0049/341667 rm ym-u**

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## Japan

**Schmidt Limited**

1-2-8, Uchikanda, Chiyoda-ku, Tokyo 101

Int'l P.O. Box 5300, Tokyo 100-31

**Tel.: (03) 2936661**

**Telex: 2223470 schmid j**

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## Jordan

**Mouasher Cousins Co.**

Scientific Division

P.O. Box 1387

Amman

**Tel.: 24907-39907**

**Telex: 1456 Sabco jo**

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## Korea (South)

**Korea Schmidt Company**

18th Floor, Sam Jung Bldg.

69-5, 2-KA Taipyung Rd.

Chung-ku

I.P.O. Box 2081 Seoul

**Tel.: 23-4961, 229714**

**Cable: KOSCHMIDT SEOUL**

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## Kuwait

**Morad Yousuf Behbehani**

P.O. Box 146

Kuwait

**Tel.: 814000**

**Telex: 2048 BEHBEHANI**

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**Laos****Schmidt & Co. (H.K.) Ltd.**

G.P.O. Box 297

Hong Kong

**Tel.: 5-455644****Telex: 74766 schmc hx**

---

**Lebanon****Société Intercontinentale  
d'Expansion Economique (Liban)**

Rue Sour - Imm. Saad &amp; Trad

B.P. 11-1045

Beyrouth

**Tel.: 366600****Telex: SATRAD 21515 LE**

---

**Malaysia****Schmidt Scientific SDN. BHD**

WISMA MIRAMA, 12th Floor

Jalan Wisma Putra

P.O. Box 592

Kuala Lumpur 08-05

**Tel.: 03-427122, 03-427089****Telex: Schmidt MA 300035**

---

**Nepal****Nepal Commercial Enterprises Pvt. Ltd.**

1/135, Pulchowk, Lalitpur

P.O. Box 148

Kathmandu

**Tel.: 21072****Telex: 257**

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**Oman****PHOTOCENTRE**

P.O. Box 3115, Ruwi

Sultanate of Oman

**Tel.: 702823****Telex: 3499 KHARUSI MB****Oman International Corporation**

Central P.O. Box 4769 Ruwi

Sheikh Ali Bin Zaher Bldg., Mutrah

**Tel.: 734211/734212****Telex: 3312 inoman MB**

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**Pakistan****Azam TRADING CORPORATION**

26, Shaheed-e-Millat Road

P.O. Box 3509

KARACHI 5

**Tel.: 412412****Cable: MAZA****Telex: 24313 AZAM PK**

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**Philippines****Edward Keller Ltd.**

Philippine Branch

2723 Pasong Tamo Extension

Makati, Rizal

CCPO Box 1469, Metro Manila 317

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**Tel.: 600-753**

**Cable: Lacklands Auckland**

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# LEICA R4



Compact, single-lens, electronically controlled 35 mm reflex camera with alternative through-the-lens metering methods: LEITZ selective measurement or LEITZ largefield integrating measurement.

Combined with multiple automatic programs: automatic shutter speed control with aperture preselection, automatic aperture control with shutter speed preselection, automatic program, automatic flash control.

Interchangeable focusing screens. Attachable data back. Rapid motor winder alternatively with attachable MOTOR-WINDER R4 or MOTOR-DRIVE R4.

Detailed description page 19

Code Number

**LEICA R4, black chromium finish**

Complete with camera cap, baseplate cap, carrying strap ..... **10043** \_\_\_\_\_

**LEICA R4, silver chromium finish**

Complete with camera cap, baseplate cap, carrying strap ..... **10041** \_\_\_\_\_

**Use of existing LEICA R lenses**

All lenses of the LEICA R4/LEICA R3-MOT range are suitable for the LEICA R4 without modification.

The 180 mm ELMARIT-R f/2.8 lenses (Code No. 11919) up to Serial No. 2939700 and 250 mm TELYT-R f/4 (Code No. 11920) up to Serial No. 3050600 can, however, be used only with automatic shutter speed control with LEITZ largefield integrating measurement, and manual operation.

Lenses of the LEICAFLEX models can be fitted with a cam for the full utilisation of the LEICA R exposure facilities. The use of modified lenses remains unrestricted on all LEICAFLEX models.



# Accessories For the LEICA R4

---

## Everready cases

for the LEICA R4  
(without motor winder or motor drive)

### Ever ready Case



Genuine leather  
with standard front for the following lenses  
21 mm f/4<sup>1)</sup>, 24 mm f/2.8<sup>1)</sup>, 28 mm f/2.8<sup>1)</sup>, 35 mm f/4<sup>1)</sup>, 35 mm f/2.8,  
35 mm f/2, 50 mm f/1.4

Code Number

**Ever ready Case** with standard front . . . . . **14569** \_\_\_\_\_

### Ever ready Case



Genuine leather  
with large front for the following lenses  
16 mm f/2.8, 19 mm f/2.8<sup>1)</sup>, 21 mm f/4<sup>1)</sup>, 24 mm f/2.8, 28 mm f/2.8,  
35 mm f/4, 35 mm f/2.8, 35 mm f/2, 50 mm f/2, 50 mm f/1.4, 60 mm f/2.8,  
80 mm f/1.4, 90 mm f/2.8, 90 mm f/2

**Ever ready Case** with large front . . . . . **14568** \_\_\_\_\_

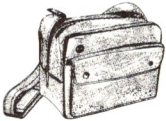
**Leather case** for lens hood . . . . . **14621** \_\_\_\_\_  
for 28 mm f/2.8 lens (Code No. 11 204)

1) Without lens hood

# Combination cases<sup>1)</sup>

## Combination case

For the LEICA R4  
(without motor-winder or motor-drive)



External dimensions: about 25 x 14 x 19 cm

Soft leather, with coupling ring

Accepts one LEICA R4 and lens in position and up to three additional lenses

**Combination case for the LEICA R4** ..... Code No. **14 832** \_\_\_\_\_

## Combination case in Safari version

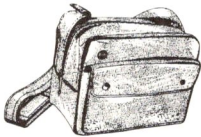
for the LEICA R4

as above, but of green, stout canvas, with coupling ring

**Safari combination case for the LEICA R4** ..... **14 548** \_\_\_\_\_

## Combination case for the LEICA R4

with motor-winder or motor-drive



External dimensions: about 31 x 18 x 23 cm

Soft leather, with coupling ring

Accepts one LEICA R4 with motor-winder or motor-drive attached with hand-grip and lens in position as well as three additional lenses

**Combination case for the LEICA R4 with motor-winder R4 or motor-drive R4** ..... **14 833** \_\_\_\_\_

## Combination case in Safari version

for the LEICA R4

with motor-winder or motor-drive

as above, but green stout canvas, with coupling ring

**Safari combination case for the LEICA R4** ..... **14 837** \_\_\_\_\_  
with motor-winder R4 or motor-drive R4

<sup>1)</sup> Table of equipment accommodated see „Technical Information“ p. 222

## Universal holdall case<sup>1)</sup>

For the LEICA R4 with and without motor-winder/motor-drive



External dimensions: about 36 x 21 X 24 cm  
Soft leather, with coupling ring  
accepts two camera bodies and up to six lenses

**Universal holdall case** .....  
Coupling (replacement) .....

Code No.  
**14 834** \_\_\_\_\_  
**14 836** \_\_\_\_\_

## Reporter case

without internal partitions



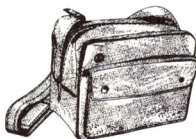
External dimensions: about 38 x 21 x 30 cm  
Soft leather  
with two additional outside front pockets

**Reporter case** .....

Code No.  
**14 830** \_\_\_\_\_

## Photo case

without internal partitions



External dimensions: about 30 x 12,5 x 18,5 cm  
Soft leather

**Photographic case** .....

Code No.  
**14 815** \_\_\_\_\_

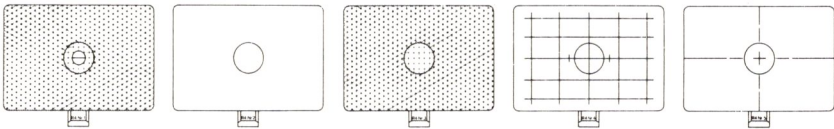
1) Possibilities of equipment accommodated see „Technical Information“ p. 222

# Correction lenses



	Code Number	
+ 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	_____

# Interchangeable focusing screens



<b>Universal screen</b> (replacement) in case with dust brush and forceps for interchange .....	<b>14 303</b>	_____
<b>Plain groundglass screen</b> in case with dust brush and forceps for interchange .....	<b>14 304</b>	_____
<b>Microprism screen</b> in case with dust brush and forceps for interchange .....	<b>14 305</b>	_____
<b>Groundglass screen with grid division</b> in case with dust brush and forceps for interchange .....	<b>14 306</b>	_____
<b>Clearglass screen with crosslines</b> in case with dust brush and forceps for interchange .....	<b>14 307</b>	_____

# Eyecup



<b>Eyecup</b> can also be used in combination with the correction lenses.....	<b>14 257</b>	_____
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## Angle finder

for viewing from above, but also for unnoticed photography "round the corner" or above people's heads.



**90° angle finder**, right-way round, upright image, focusing eyepiece. . . . . Code Number **14286** \_\_\_\_\_

## Carrying strap



**Carrying strap** with non-slip pad for heavy outfits, with two tripod screws for attachment to the universal handgrip 14188, thread A 1/4 (1/4 in) . . . . . **14130** \_\_\_\_\_

**Carrying strap** with non-slip pad (replacement) . . . . . **14258** \_\_\_\_\_

## Cable release

for all camera models with conical thread

**Cable release, length 25 cm**, with arresting screw . . . . . **14067** \_\_\_\_\_

**Cable release, length 50 cm**, with arresting screw . . . . . **14076** \_\_\_\_\_

## Adapter



**Adapter** for the use of VISOFLEX 2/3 lenses of the LEICA M range on the LEICA R (with working aperture) . . . . . **14167** \_\_\_\_\_

## Spare parts for the camera



**Camera body cover** with R-bayonet (replacement) for all R cameras . . . . . **14103** \_\_\_\_\_



## Ball-and-socket heads



**Large ball-and-socket head** with A  $\frac{3}{8}$  and A  $\frac{1}{4}$ , DIN 4503 ( $\frac{3}{8}$ " and  $\frac{1}{4}$ ") threads combined . . . . .

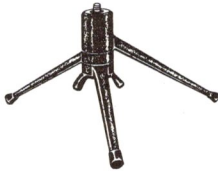
Code No.

**14 121** \_\_\_\_\_



**Small ball-and socket head** with A  $\frac{1}{4}$ , DIN 4503 ( $\frac{1}{4}$ " TRIPOD thread . . . . .

**14 119** \_\_\_\_\_



**Table-top TRIPOD** with three folding legs, TRIPOD thread A  $\frac{1}{4}$ , DIN 4503 ( $\frac{1}{4}$ " . . . . .

**14 100** \_\_\_\_\_

## Universal handgrip



**Universal handgrip** Universal adjustable for the requirements of the individual user. Thread A  $\frac{1}{4}$  DIN 4503 ( $\frac{1}{4}$ " for the carrying strap 14 130 . . . . .

**14 188** \_\_\_\_\_

Detailed description p. 30

# MOTOR-WINDER R4

---



Compact, handy motor-winder for film transport and shutter wind, for the LEICA R4 only.

Extremely quiet operation through patented, low-noise unwinding drive with load-controlled friction locking.

Single-frame and series release. Frame frequency for series up to 2FPS.

Shaped handgrip with button or serie releases as accessory. Socket<sup>1)</sup> for the Remote Control LEICA R electronic control unit and additional electric release (see accessory range).

Housing for 6 ordinary or rechargeable batteries very easily and rapidly interchangeable

Detailed description p. 23

## Motor-Winder R4

With cover .....

Code No.

14 282 \_\_\_\_\_

## Handgrip R4 for hand-held exposures



Sturdy, practical design with conveniently-placed button for series release, adjustable leather loop, screw with coin slot for attaching the handgrip to the Motor-Winder R4 or the Motor-Drive R4

Handgrip R4 for hand-held exposures .....

14 283 \_\_\_\_\_

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<sup>1)</sup> Coupling plug 302-013. 154-004 (5-pin) for same available from Technical Service, P.O.B. 2027, Ernst LEITZ Wetzlar GmbH, D-6330 Wetzlar.

# Accessories for the Motor-Winder R4

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## MW-R adapter for external supply



With 1m appliance cable and screw-type coupling plug<sup>1)</sup>  
(The MW-R adapter for external supply is inserted in the Winder in place of the housing for ordinary or rechargeable batteries).

### Possibilities of connection:

Housing for ordinary or rechargeable batteries with holder (14279), when at low temperatures the batteries have to be kept at body heat and therefore housed externally.

**MW-R adapter for external supply** . . . . . Code No. **14 278**  
Mains unit of up to 8.5v d. c.

## Holder for the MW-R housing for ordinary or rechargeable batteries



Sockets marked “+” and “-” for a 50mA battery changer  
For instance UNI 1 VARTA AG charger<sup>2)</sup>,  
for the recharging of the 6 NiCd batteries, for instance VARTA AG<sup>2)</sup>, 501 Rs in the MW-R housing for ordinary or rechargeable batteries. External current supply of the Motor-Winder R4 through the MW-R adapter for external supply, Code No. 14 278. Screw-type socket built in for this purpose.

**Holder for the MW-R housing for ordinary and rechargeable batteries. . . .** Code No. **14 279**

---

1) Either coupling plug 302-013.154-011 or built-in socket 042-813. 155-008 (2 pin) for same available from Technical Service, P.O.B. 2027 Ernst LEITZ Wetzlar GmbH, D-6330 Wetzlar.  
2) For the charging of the batteries in MW-R housing with the VARTA UNI 1 charger for 1-10 batteries, 5-100mA, set at 45mA the charging cable 0.9292022110 is required. **Obtainable only through LEITZ Agencies.**

## MW-R housing for ordinary or rechargeable batteries



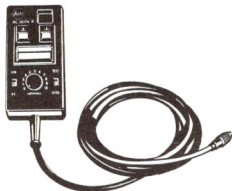
For the Motor-Winder R4, as replacement

For heavy-duty work (prolonged use, low temperatures, expeditions) a second housing, containing fresh or recharged batteries offers additional reliability. Interchangeable with a single action within seconds.

MW-R housing for ordinary or rechargeable batteries ..... Code No. **14 280** \_\_\_\_\_

## Remote Control LEICA R electronic control unit

(RC LEICA R)



Electronic control unit for remote release

Timer built-in for automatic release

Seven integrated circuits in C-MOS technology

Digital display of the exposure through feedback from the camera

For the LEICA R with motorized film transport only

Detailed description p. 29

Remote Control LEICA R (RC LEICA R) ..... Code No. **14 277** \_\_\_\_\_

## Tripod holder R4



For the use of the LEICA R4 combination with long-focal-length lenses on a photographic tripod or fitting to the universal camera holder on the REPROVIT 2A and the copying outfit.

For horizontal exposures the universal handgrip can also be attached.

Sturdy design with two conveniently placed bushes for the tripod threads of the Motor-Winder R4 or Motor-Drive R4.

Holder with thread A $\frac{1}{4}$  DIN 4503 ( $\frac{1}{4}$ " ) for photographic ..... Code No. **14 284** \_\_\_\_\_

## Electric release switch R4



for universal handgrip with 0.3 m cable and screw plug:

Practical accessory for photography with long-focal-length lenses such as the 250 mm f/4, 350 mm f/4.8, 400 mm f/6.8, 560 mm f/6.8

When inserted in the pistol grip the push button can be directly connected with the screw plug via the 0.3 m cable with the MOTOR WINDER R4 or the MOTOR DRIVE R4.

Code Number

**Electric release switch R4 0.3 m** ..... **14237** \_\_\_\_\_

## Electric cable release

for remote release, with 5 m cable and screw plug. In conjunction with extension cables of 25 m length (14274) for electric remote release up to 100 m distance.

Code Number

**Electric cable release 5 m** ..... **14272** \_\_\_\_\_

## 25 m extension cable

(for electric remote release)  
with screw plugs

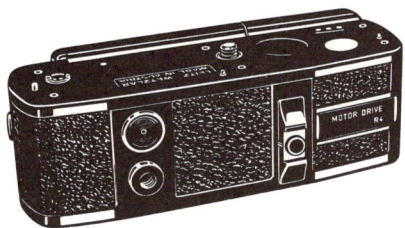
Code Number

**Extension cable 25 m** ..... **14274** \_\_\_\_\_



# MOTOR DRIVE R4

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Compact, handy Motor Drive for film transport and shutter wind, for the LEICA R4 only.

Special LEITZ gear design ensures quiet running.

Series releases of 4fps, 2fps, and single-frame release as required.

Practical handgrip with release button as accessory.

Socket<sup>1)</sup> for the Remote Control LEICA R electronic unit and other electric releases (see Accessory Range).

Very conveniently and quickly interchangeable housing, for 10 ordinary or NiCd rechargeable batteries.

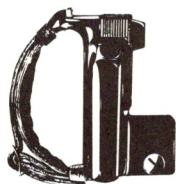
Detailed description page 26

Code Number

## MOTOR DRIVE R4

with cap ..... **14292** \_\_\_\_\_

## Handgrip R4 for handheld exposures



Sturdy, practical design with ridged button for series releases, adjustable leather loop, screw with coin slot for attaching the handgrip to the MOTOR WINDER R4 or the MOTOR DRIVE R4.

Code Number

Handgrip R4 for hand-held exposures ..... **14283** \_\_\_\_\_

---

<sup>1)</sup> Suitable for same: 5-pin plug 302-013.154-004, available from Technical Service, P.O.B. 2027, Ernst Leitz Wetzlar GmbH, D-6330 Wetzlar, Germany.

# Accessories for the Motor-Drive R4

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## Adapter for the MD-R external supply unit



with 1m appliance cable and screw-type coupling plug<sup>1)</sup>  
(MD-R adapter for external supply is inserted in the drive instead of the battery housing.)

Possibilities of connection:

Housing for ordinary or rechargeable batteries if at low temperatures the batteries have to be kept at body heat and therefore housed externally.

Mains unit for up to 15v d.c.

<b>MD-R adapter for external supply</b> .....	<b>Code No.</b> <b>14 323</b> _____
<b>5m extension cable</b> for MD-R external supply unit .....	<b>14 325</b> _____

## MD-R housing for ordinary or rechargeable batteries

for the Motor-Drive R4, replacement



for heavy-duty work (prolonged operation, low temperatures, expeditions) a second housing with fresh or recharged batteries offers additional reliability. Interchangeable with a single action within seconds.

The MD-R housing for ordinary and rechargeable batteries has sockets for the connection of a battery charger, for instance the VARTA AG UNI 1 charger<sup>2)</sup>, for the recharging of the 10 NiCd batteries, for instance the VARTA AG<sup>2)</sup> 501 RS. The MD-R external supply adapter is connected with the aid of a screw-type plug connection.

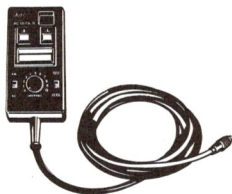
<b>MD-R housing for ordinary or rechargeable batteries</b> .....	<b>Code No.</b> <b>14 322</b> _____
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1) Coupling socket 302-013.154-011 or built-in socket 042-813.155-008 (2-pin) for same available from technical service, P.O.B. 2027 Ernst LEITZ Wetzlar GmbH, D-6330 Wetzlar

2) For the charging of the batteries in the MW-R housing with the UNI 1 VARTA charger for 1-10 batteries, 5-100mA, set at 45mA, the charging cable No. 9292022110 is required. **Available through LEITZ Agencies only.**

# Remote Control LEICA R electronic control unit

(RC LEICA R)



Electronic control unit for remote release

Timer built in for automatic release

Seven integrated circuits in C-MOS technology

Digital display of the exposure through feedback from the camera

For the LEITZ R with motorized film transport only

Detailed description p 29

## Remote Control LEICA R

(RC LEICA R) .....

Code No.

14 277 \_\_\_\_\_

## Tripod holder R4



For the use of the LEICA R4 combination with long-focal-length lenses on a photographic tripod or fitting to the universal camera holder on the REPROVIT 2A and the copying outfit. For horizontal exposures the universal handgrip can also be attached.

Sturdy design with two conveniently-placed bushes for the tripod threads of the Motor-Winder R4 or Motor-Drive R4

Holder with thread A1/DIN 4503 (1/4") for photographic tripods .....

14 284 \_\_\_\_\_

## Electric release switch R4



with trigger-slack switch for the LEICA R4 for the universal handgrip with 0.3m cable and screw-type coupling plug.

Practical accessory for photography with long-focal-length lenses such as the 250m f/4, 350mm f/4.8, 400mm f/6.8, 560mm f/6.8 lenses.

The trigger-slack switch, when inserted in the pistol grip, can be directly connected with the Motor-Winder R4 or Motor Drive R4 through the screw-type coupling plug

Electric release switch R4 .....

14 237 \_\_\_\_\_

## Electric cable release R

for remote release, with 5m cable and screw-type coupling plug.  
In conjunction with 25m extension cables (14274) for electric  
remote release up to 100m

Code No.

**Electric cable release** .....

**14 238** \_\_\_\_\_

## 25m extension cable

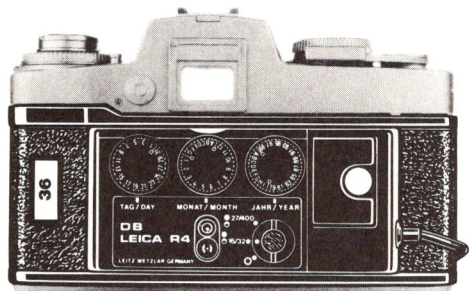
(for electric remote release)  
with screw-type coupling plugs

Code No.

**25m extension cable** .....

**14 274** \_\_\_\_\_

# Data Back DB LEICA R4



Camera back with device for exposing data on to film.

The DB LEICA R4 data back can be exchanged with the LEICA R4 camera back.

Fading-in of day, month, year (date) or figures or letters (code) through flash diode in the bottom-right-hand corner of the picture together with the exposure.

Day selector: numbers from 1 to 31 and one empty field.

Month selector: numbers from 1 to 12, letters from A to G and 2 empty fields.

Year selector: numbers from 80 to 99, letters from A to K and 2 empty fields.

Fading-in also with Motor Winder and Motor Drive operations.

Dimensions of the data field on the film about 0.7 x 4.5 mm.

On/off switch, also selector for the adjustment to films of different speed.

Fade-in exposure control by LED.

Cable connection to the flash contact of the camera.

Current supply by two silver oxide 1.5v button cells (as for LEICA R4) sufficient for more than 100 films.

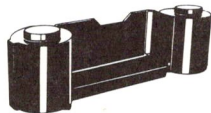
Battery test button.

Film cartridge viewing window.

Dimensions: about 137 x 54 x 30 mm.

**Data Back DB LEICA R4** ..... Code Number 14297

## Large-capacity cassette



Back for large film reserve (up to 10 m film = 250 exposures) with device for the fading-in of data.

The large-capacity cassette can be interchanged with the back of the LEICA R4, and can be operated either manually with the rapid transport lever of the LEICA R4 or with the Motor Winder/Motor Drive.

Cassette-to-cassette film transport. The special cassettes necessary are part of the outfit of the large-capacity cassette.

Data can be faded in as with the Data Back DB LEICA R4.

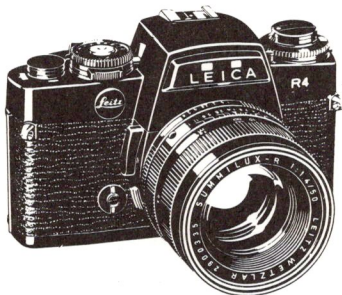
**Large-capacity cassette** ..... Code Number in preparation



# Description of the camera and technical data

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## LEICA R4



### Type of camera:

Compact, single-lens, electronically controlled 35 mm reflex camera with alternative through-the-lens metering methods: LEITZ selective measurement or LEITZ largefield integrating measurement. Combined with multiple automatic programs: automatic shutter speed control with aperture preselection, automatic aperture control with shutter-speed preselection, automatic program, automatic control. Interchangeable focusing screens. Attachable data back. Rapid motor wind alternatively with attached MOTOR WINDER R4 or MOTOR DRIVE R4.

### Body:

(All-metal aluminium die-cast) covered with textured PVC for easy handling, zinc-die-cast camera top, 1 mm gauge, baseplate made of 0.8 mm-gauge brass. Silver or black chromium finish. Mechanical fitting and electrical contacts for the MOTOR WINDER R4 and MOTOR DRIVE R4. Detachable and hinged back with film cartridge window. Tripod thread: standard A  $\frac{1}{4}$  ( $\frac{1}{4}$  in). Eyelets on both sides for carrying strap, width 16 mm. Rapid bayonet changer for LEICA R lenses and accessories.

### Lens system:

LEICA R lenses with rapid bayonet changer from 15 to 800 mm focal length. With LEITZ Absorban cementing layers and LEITZ coating or LEITZ multiple coating. Full-aperture measurement with auto-diaphragms up to 350 mm focal length. Working-aperture measurement with all lenses and accessories without auto-diaphragms.

### Viewfinder:

Bright, contrasty viewfinder image with built-in penta prism and interchangeable LEITZ focusing screens. Basic outfit with the LEITZ universal focusing screen. Shallow eyecap for spectacle wearers. 10 correction lenses from +3 to -3 dioptres, a 90°-angle finder and a rubber eyecup can be attached. Viewfinder magnification  $4.06x = 0.85$  with 50 mm lens at infinity setting. The viewfinder image shows 92% of the picture area on the film, corresponding to the picture area on the mounted transparency.

Viewfinder adjustment: - 1 dioptre. Swing-in eyepiece diaphragm.

**Five interchangeable focusing screens:**

- 1) Universal screen (part of the basic outfit),
- 2) plain groundglass screen,
- 3) Microprism screen,
- 4) Groundglass screen with grid division,
- 5) Clear-glass screen with crosslines.

**Viewfinder display:**

Display by LED: chosen program

Measured data (shutter speed or aperture).

Storage of the LEITZ selective measurement at

Long-time range or large aperture

Over- and under-exposure

Flash readiness with system-compatible flash units

± correction

Display by fading in:

Preset aperture with all R lenses with auto-diaphragms.

Chosen shutter speed with "m" and "T" programs.

**Exposure measuring methods:**

LEITZ selective measurement and LEITZ largefield integrating measurement combined with practically arranged programs. Light metering through the lens: at full aperture with all LEICA R lenses with and at working aperture for lenses and accessories without auto-diaphragm.

LEITZ selective measurement with precise measuring field outline of 7 mm Ø visible in the viewfinder. The selectively measured value can be stored, if necessary for up to 30 seconds, through slight pressure on the camera release button. The fact of the storage is displayed in the viewfinder by extinction of the program display.

Measuring range: 1 cd/sq.m to 32000 cd/sq.m at 1.4. For the 50 mm SUMMILUX-R f/1.4 this produces a working range from +3 to +19 exposure values at ISO 100/21° (ASA 100/21 DIN). This corresponds to an aperture speed combination of f/4 1/4 sec to 22 1/1000 sec.

LEITZ largefield integrating measurement (weighed measurement).

Measuring range: 1 cd/sq.m to 32000 cd/sq.m at f/1.4. For the 50 mm SUMMILUX-R f/1.4 this produces a working range from +1 to +19 exposure values at ISO 100/21° (ASA 100/21 DIN). This corresponds to an aperture/shutter speed combination of f/4 1/4 sec to 22 1/1000 sec.

**Programs:**

There are 5 choices of program:

- 1) Automatic shutter speed control with aperture preselection and LEITZ selective measurement.
- 2) Automatic shutter speed control with aperture preselection and LEITZ largefield integrating measurement.
- 3) Automatic aperture control with shutter speed preselection and LEITZ largefield integrating measurement.
- 4) Automatic program with LEITZ largefield integrating measurement.
- 5) Manual setting of shutter speed and aperture with LEITZ selective measurement.

In addition: Automatic flash control

**Film speed range:**

Film speed selector with click-stop button: range: ISO 12/12° to 3200/36° (ASA 12 DIN to 3200/36 DIN).

Click-stop positions in 1/3 exposure steps.

Exposure corrections (override) of ± 2 exposure values in half steps.

**Batteries and battery test:**

2 1.5 v silver oxide button cells, size: 11.5 m Ø : height 5 mm (replacement batteries see under Technical Information).

Battery test with push-button and LED. Battery housing with protective cap on the underside of the camera. Batteries can be exchanged also with film in the camera.

**Operating the camera:**

When the slack of the release button is taken up (applies also to the release on the MOTOR WINDER R4/MOTOR DRIVE R4 with or without handgrip) or the locking button on the program selector is pressed the camera is switched on. The exposure meter is functioning and the LED displays in the viewfinder are visible.

**Distance setting:**

Quick and precision focusing with the various focusing screens. Assessment of the depth of field is possible when the very conveniently arranged depth-of-field lever is pressed.

**Mirror:**

Semi-silvered hinged mirror with a Fresnel reflector behind it for Leitz selective measurement and Leitz largefield integrating measurement. It has been coated with 17 vapour-deposited layers. 70% of the light is directed to the viewfinder, 30% transmitted by the mirror.

**Shutter:**

Vertically-acting metal-blade focal-plane shutter for electronic continuous control from 1 to  $1/1000$  sec in the "A" and "P" programs. With manual setting and automatic aperture control electronic in full values: 1,  $1/2$ ,  $1/4$ ,  $1/8$ ,  $1/15$ ,  $1/30$ ,  $1/60$ ,  $1/125$ ,  $1/250$ ,  $1/500$ ,  $1/1000$  sec.

Mechanical shutter control with "X" setting =  $1/100$  sec, "B" = time exposures of any duration, and "100" =  $1/100$  sec, "P" and "100" can also be used when the batteries are exhausted.

All shutter settings are fully effective also with the motor winder or the motor drive attached.

Attention: Immediately remove exhausted batteries.

**Release:**

Smooth shutter release with pressure point for measured value storage with selective exposure measurement. International conical thread for the cable release.

**Electronic selftimer (delay mechanism):**

Operates with all shutter speeds. Move it to standby position by turning the switch knob. Release with the camera release button. Operation can be stopped by return of the switch knob to its rest position. Delay time about 8 sec.

**Flash synchronisation:**

Automatic flash mode: system-compatible flash units automatically switch the shutter speed to  $1/100$  sec with all programs via additional contact in the accessory shoe when the flash unit is ready for action.

Standard contact bush (X) on the front of the camera for flashbulbs and electronic flash units. Centre contact (X) in the accessory shoe. The two contacts cannot be used simultaneously.

Flash units with centre contact are connected to the "X" flash contact in the accessory shoe. For work with electronic flash units the shutter ring is as a rule set at "X" ( $1/100$  sec). With manual setting flash synchronisation is ensured also with slower shutter speeds and at "B".

This applies to automatic mode only when modern thyristor-fired flash units are used.



**Film loading:**

Detachable camera back can be hinged. Instead of the ordinary back, the data back or the large-capacity cassette can be attached. Rapid loading system for all commercial 35 mm films: simple film insertion by means of pushing the film under the tongues of the take-up spool. The film plane is marked on the camera top. Film cartridge window in the camera back.

**Film transport:**

Angled rapid lever for film transport and shutter wind. Its standby position is favourable for photographers who use their left eye in front of the viewfinder. Travel of the rapid winding lever 130°. Motorised film transport with the MOTOR WINDER R4 or MOTOR DRIVE R4 attached. With motor operation the rapid winding lever remains in the parked position. Viewing window for film transport. Automatic switch-off with motor wind after 36 exposures (end of film). Automatic frame counter (counting forwards) with automatic return to "S" (-2 frames) when the camera back is opened. For shorter length of film "20" and "24" are marked in red.

Folding film rewind crank, when pulled out serves for opening the camera back. Push-button for film rewind release and multiple exposures with automatic return on the camera baseplate.

Multiple exposures also possible with MOTOR WINDER R4 and MOTOR DRIVE R4 operation.

**Carrying strap:**

Black perlon tissue, width 16 mm.

When an everready case is used the carrying strap remains on the camera.

**Dimensions:**

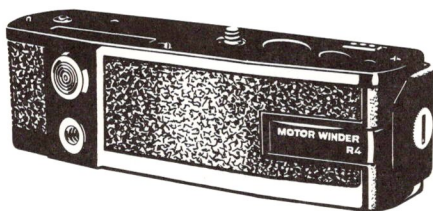
Height: 88.1 mm, length 138.5 mm, total depth 60 mm (depth of body 32.2 mm).

**Weight:**

Body without lens 0.63 kg.

Body with 50 mm SUMMICRON-R f/2 0.88 kg

# Motor-Winder R4



## Type of instrument: winder

Compact, handy motor winder for film transport and shutter wind, for the LEICA R4 only. Extremely quiet operation through patented, low-noise unwinding gear with load-controlled friction locking  
Single-frame and series release. Frame frequency for series to 2 FPS  
Shaped handgrip with button for series release as accessory.  
Socket<sup>1)</sup> to the Remote Control electronic control unit and other electric releases (see Accessory Range).  
Housing for ordinary and rechargeable batteries very easily and rapidly interchangeable.

## Current supply:

6 standard alkali-manganese 1.5v batteries in the housing. Capacity to LEITZ test specifications: about 150 36 exposure films at 20° C  
or

6 NiCd rechargeable batteries, for instance, VARTA AG 501 RS in the housing. Capacity to LEITZ specifications: about 150 36-exposure films at 20° C. During recharging the batteries remain in the housing through its MW-R-holder see p. 11) or adapter for external supply 14278 with 1m appliance cable and screw-type plug. The adapter for external supply is inserted in the winder instead of the housing for ordinary or rechargeable batteries.

When the Motor-Winder R4 is attached to the LEICA R4, its battery charge takes over the current supply of the camera. The camera batteries are automatically switched off.

## Winder-housing:

All-metal (magnesium diecast) covered with textured PVC.

LEITZ development, LEITZ design, manufactured to LEITZ quality standards.

Couplings and connections between the camera and the winder are covered or protected on the camera underside/winder top.

Locating pins simplify attachment to the baseplate of the R4.

Precise, reliable attachment of the winder through screw with folding toggle with the tripod bush of the LEICA R4-MOT.

Electronic control, hybrid integrated circuit (HIC) specially developed for LEITZ IN C-MOS technology.

Electric release switch with protective ring for series release on the front winder.

Precision location for attachable handgrip.

Drive motor: DC micro-motor with coreless rotor.

1) Coupling plug 302-013.154-004 (5-pin) for same available from Technical Service P.O.B. 2027 Ernst LEITZ Wetzlar GmbH, D-6330 Wetzlar.



Convenient quick change with locking button for insertable battery housing.  
2 A 1/4 (1/4in) tripod threads, preferably for the attachment of the tripod holder 14 284 (available as accessory).

Button for multiple exposures and for rewind release.

#### **Winder functions:**

The MOTOR WINDER R4 is controlled by the camera electronics. This ensures very high functional reliability.

The film is transported and the shutter wound automatically after exposure.

Automatic switch-off of the Motor at the "36" position of the frame counter of the LEICA R4 (end of film). In addition the film can be transported and the shutter wound by means of the rapid winding lever.

Multiple exposures possible with single-frame and series release.

Acoustic warning against accidental multiple exposures.

Automatic switch-off when the battery performance drops below the required level.

#### **Available shutter speeds:**

1. With single-frame release on the camera:

All speeds 1 to 1/1000 sec, "X" and "100" setting, as well as "B" = time exposure of any duration (as long as the camera release button remains pressed).

2. With series release on the MOTOR WINDER R4:

All speeds from 1 to 1/1000 sec, "X".

#### **Operation:**

The combination of the LEICA R4 with the MOTOR WINDER R4 is switched on either by means of pressing (taking up the slack) of the camera release button or of the release switch on the MOTOR-WINDER R4.

The Motor-Winder R4 can be used with all programs of the LEICA R4.

Important: With winder operation the rapid winding lever of the LEICA R4 must be in its parked position.

#### **Release facilities:**

On the MOTOR-WINDER R4

Series release via release switch on the MOTOR WINDER R4

or

with handgrip R4 14 283

or

through socket for external supply on the MOTOR WINDER R4.

Series exposures are made as long as the above-mentioned release buttons are pressed or the related control pulses are transmitted.

On the LEICA R4

single-frame release via camera release for selected exposures.

or

single-frame exposures with measured-value storage with LEITZ selective measurement via camera release.

When after release the finger is taken off the release button of the LEICA R4, the film is transported and the shutter wound automatically.

Even with the MOTOR WINDER R4 attached, intermediate camera release and manual winding are possible. This is particularly important when the winder switches off at "36" and a few frames are still left on the film for exposure.

Film insertion and removal are easy even with the MOTOR WINDER R4 attached.

**Dimensions:**

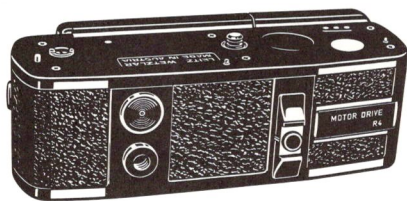
Height 40 mm, length 140 mm, depth 50 mm (depth of housing alone 46 mm).

**Weight:**

MOTOR WINDER R4 without batteries: 0.225 kg

MOTOR WINDER R4 with batteries: 0.4 kg

# Motor-Drive R4



## Type of instrument: Drive

Compact, handy motor drive for film transport and shutter wind, for the LEICA R4 only.

Special LEITZ gear design ensures quiet running

Series releases of 4 fps 2 fps, and single frame, adjustable.

Shaped handrip with release button as accessory.

Socket<sup>1)</sup> for the Remote Control LEICA R electronic control unit and other electric releases (see accessory range).

Housing for ordinary or rechargeable batteries very easily and quickly interchangeable.

## Current supply:

10 standard 1.5v alkali-manganese batteries in the housing. Capacity to LEITZ test specifications: about 150 36-exposure films at 20° C

or

10 NiCd rechargeable batteries, for instance VARTA AG 501 RS, in the housing. Capacity to LEITZ test specifications: about 150 36-exposure films at 20° C.

During recharging the batteries remain in the housing, which has sockets for the connection of a charger

or

adapter for external supply 14323 with 1m appliance cable and plug, which can be screwed onto the housing for ordinary or rechargeable batteries. The adapter for external supply is pushed into the drive instead of the battery housing.

When the Motor-Drive is attached to the LEICA R4, its battery charge takes over the current supply of the camera. The camera batteries are automatically switched off.

## Drive housing:

All-metal (magnesium diecast housing) covered with textured PVC.

LEITZ development, LEITZ design, manufactured to LEITZ quality standards.

Couplings and connection between the camera and drive are covered or protected on the underside of the camera and top of the drive.

Locating pins simplify the attachment to the baseplate of the LEICA R4.

Precise, secure attachment of the Motor-Drive R4 to the tripod bush of the LEICA R4 with a screw with folding toggles.

Electronic control, integrated circuit in C-MOS technology Electric release switch with protective ring for series exposures on the front of the drive.

Precision location for the attachable handgrip.

Drive motor: DC micromotor with coreless rotor.

Easy and rapid interchange with locking button for insertable housing for ordinary or rechargeable batteries

1) Coupling plug 302-013.154-004 (5-DIN) available from Technical Service, P.O.B. 2027 Ernst LEITZ Wetzlar GmbH, D-6330 Wetzlar

Two tripod bushes A  $\frac{1}{4}$  ( $\frac{1}{4}$ " ), preferably for attaching the tripod holder 14 284 (available as accessory).

Conveniently operated slider on the front of the housing for switch-over to 4fps, 2fps, or single-frame.

Knob for multiple exposures and rewind release.

#### **Drive functions:**

The MOTOR DRIVE R4 is controlled by the camera electronics. This ensures very high functional reliability.

The film is transported and the shutter wound automatically after exposure. Automatic switch-off the drive at the "36" position of the frame counter of the LEICA R4 (end of film). In addition the film can be transported and the shutter wound by means of the rapid winding lever.

Multiple exposures possible with single-frame and series release.

Acoustic warning against accidental multiple exposures.

Automatic switch-off when the battery performance drops below the required level.

#### **Available shutter speeds:**

1. With single-frame release on the camera:

All speeds from 1 to  $\frac{1}{1000}$  sec, "X" and "100" setting as well as "B" = time exposure of any duration (as long as the camera release button remains pressed).

With single-frame release on the MOTOR DRIVE R4:

All speeds from 1 to  $\frac{1}{1000}$  sec and "X".

2. With series release on the MOTOR DRIVE R4:

All speeds from 1 to  $\frac{1}{1000}$  sec "X".

#### **Operation:**

The combination of the LEICA R4 with the MOTOR DRIVE R4 is switched on either by means of taking up the slack of the camera release button with the release switch on the MOTOR DRIVE R4.

The MOTOR DRIVE R4 can be used with all programs of the LEICA R4.

Important: With DRIVE operation the rapid winding lever of the LEICA R4 must be in its parked position.

With a slider the MOTOR DRIVE R4 is switched to series release, 4fps, 2fps, and single-frame release. Switch-over is possible even during exposures.

#### **Release facilities**

on the MOTOR DRIVE R4

Series release, 4fps or 2fps, as well as single-frame via release switch on the MOTOR DRIVE R4

or

with handgrip R4

or

socket for external supply on the MOTOR DRIVE R4.

Series exposures are made as long as the above-mentioned release buttons are pressed or the related control pulses transmitted.

on the LEICA R4

single-frame release via camera release for selective exposures.

or

single-frame exposures with measured-value storage with Leitz selective measurement via camera release.

When after release the finger is taken off the release button of the LEICA R4 the film is transported and the shutter wound automatically.

Even with the MOTOR DRIVE R4 attached, camera release and manual winding are intermediately possible. This is particularly important when the winder switches off at "36" and a few frames are still left on the film for exposure.

Film insertion and removal are easy even with the MOTOR DRIVE R4 attached.

**Dimensions:**

Height 45 mm, length 140 mm, depth 61 mm (depth of housing only: 55.5 mm).

**Weight:**

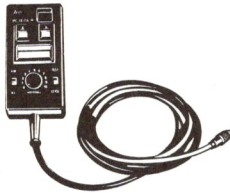
MOTOR DRIVE R4 without batteries: 0.32 kg

MOTOR DRIVE R4 with batteries: 0.62 kg



# Remote Control LEICA R4 control unit

(RC LEICA R)



## Type of instrument:

Electronic control unit for remote release  
Built-in timer for automatic releases  
7 integrated circuits in C-MOS technology  
Digital display of the completed exposure through feedback of the camera.  
For the LEICA R only with motorised film transport.

## Housing:

Screw-coupled plastic diecast parts.  
All controls and function displays are readily accessible and clearly arranged on the top.  
Appliance cable, 2m, with screw plug for the socket on the MOTOR WINDER R4/  
MOTOR DRIVE R4.  
Brief instructions embossed in the back of the housing.

## Functions:

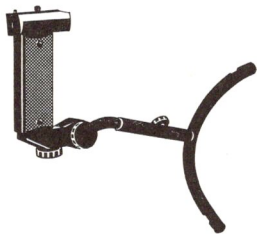
Broad push-button for single-frame and series release.  
Digital display of completed exposures on 2mm high, 2-digit red 7-segment display. The segments light up for about 2 seconds after the exposure.  
Reading button for the display, whenever required, of the number of completed exposures. After slight touch the digital display lights up for about 2 seconds.  
Input button for the correction of the digital display when some exposures had already been made without the RC LEICA R (only when the slider is set at "TEST").  
Zero return of the digital display by simultaneous pressure on the reading and input buttons  
Rotary INTERVAL switch for automatic single-frame releases at various time intervals.  
Operational display by the decimal point of the digital display on the left lighting up.  
Slider "x1/x10" for interval ranges:  
The switch-over "x1" and "x10" respectively is digital and therefore very exact:  
Setting "x1" = about 1 frame per 0.5sec – about 1 frame per 1 minute.  
Setting "x10" = about 1 frame per 5sec – about 1 frame per 10 minutes.  
Slider "LEICA/TEST" for various functions:  
Setting "LEICA" = camera is released by push-button or interval setting.  
Setting "TEST" = release functions blocked  
with the aid of a rotary switch the interval setting can be programmed. The release pulse is indicated by the right-hand decimal point of the digital display lighting up, but the LEICA R4 is not released. This permits the exact determination of time intervals. After switch-over from "TEST" to "LEICA" the camera is released at the preselected interval.

Range with extension cables (14274): up to 100m

## Dimensions and weight:

Height 120mm, width 60mm, depth 30mm,  
weight including cable 220g

## Universal handgrip with shoulder stock



Code No. 14 188

Can be dismantled into two parts for transport. Can be individually adjusted.

The universal handgrip with shoulder stock forms part of the 400 mm TELYT-R f/6.8 and 560 mm TELYT-R f/6.8 follow-focus lenses.

It is also recommended for use with the 250 mm TELYT-R f/4 the 350 mm TELYT-R f/4.8, and the Universal Focusing Bellows-R, both without and with the Motor-Winder R4 and Motor-Drive R4 rapid winding units.

With motorized operation of the LEICA R4 the electric release switch (Code No. 14 237) available as an accessory facilitates operation.

The camera is released on the handgrip.

Via twin cable release (Code No. 16 494) the reset auto-diaphragm is operated also in the Universal Focusing Bellows-R.

A special carrying strap with anti-slip protection (Code No. 14 130) is available as accessory for heavy equipment.



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# The range of LEICA R lenses

## Table of available LEICA-R lenses

Designation of lens	Speed	Focal length mm	Filter Ø	Code No.
SUPER-ELMAR-R	f/3.5	15	built-in	11213
Fisheye-ELMARIT-R	f/2.8	16	built-in	11222
ELMARIT-R	f/2.8	19	–	11225
SUPER-ANGULON-R	f/4	21	S 8.5	11813
ELMARIT-R	f/2.8	24	S 8	11221
ELMARIT-R	f/2.8	28	S 7	11204
PA-CURTAGON-R	f/4	35	S 8	11202
ELMARIT-R	f/2.8 q	35	E 55 or S 7	11231
SUMMICRON-R	f/2	35	E 55 or S 7	11115
SUMMICRON-R	f/2	50	E 55 or S 7	11215
SUMMICRON-R <sup>1)</sup>	f/2	50	E 55 or S 7	11216
SUMMILUX-R	f/1.4	50	E 55 or S 7	11776
MACRO-ELMARIT-R	f/2.8	60	E 55 or S 7	11212
ANGENIEUX-ZOOM	f/2.8	45 – 90	E 67 or S 8	
VARIO-ELMAR-R	f/4.5	75 – 200	E 55 or S 7	11226
SUMMILUX-R	f/1.4	80	E 67 or S 8	11880
ELMARIT-R	f/2.8	90	E 55 or S 7	11239
SUMMICRON-R	f/2	90	E 55 or S 7	11219
MACRO-ELMAR-R	f/4	100	E 55 or S 7	11232
MACRO-ELMAR <sup>2)</sup>	f/4	100	E 55 or S 7	11230
ELMARIT-R	f/2.8	135	E 55 or S 7	11211
ELMAR-R	f/4	180	E 55 or S 7	11922
APO-TELYT-R	f/3.4	180	E 60 or S 7.5	11242
ELMARIT-R	f/2.8	180	E 67 or S 8	11923
TELYT-R	f/4	250	E 67 or S 8	11925
TELYT-R	f/4.8	350	E 77	11915
TELYT-R	f/6.8	400	S 7 or S 8	11960
MR-TELYT-R	f/8	500	E 77 <sup>3)</sup>	11243
TELYT-R	f/6.8	560	S 7	11865
TELYT-S	f/6.3	800	S 7	11921
<b>Extender R-2x</b>				
<b>Accessories for LEICA R-lenses</b>				
Filters, lens hoods				

<sup>1)</sup> for LEICA R-models only

<sup>2)</sup> for Universal Focusing Bellows-R only

<sup>3)</sup> 5 special filters are part of the outfit



# 15 mm SUPER-ELMAR-R f/3.5



High-speed lens of extremely large angle of view

Angle of view: 110°

Number of elements: 13 (12 components)

Correction of optical aberrations by means of floating elements

Built-in turret with 4 filters: UV., yellow, orange, blue (conversion filter)

Fully-automatic preset diaphragm with click-stops (including 1/2 values)

Smallest aperture: f/22

Combined feet-metre scale

Focusing range: ∞ to 0.16 m (6.3 in)

Smallest object field: 70 x 106 mm (2.75 x 4.2 in (about 1:2.9))

Rubberised focusing ring

Non-rotating focusing mount

Hard-chrome LEICA R rapid bayonet changer

Black finish

Built-on lens hood

Lens cap Ø: A 83.5 mm

Length from bayonet flange: 92.5 mm

Maximum diameter: 83.5 mm

Weight: 0.815 kg

Code Number

## 15 mm SUPER-ELMAR-R f/3.5

with lens hood, lens cap and rear cover. . . . . **11213** \_\_\_\_\_

(Replacement lens caps see from page 65)



# 16 mm FISHEYE-ELMARIT-R f/2.8



Fisheye lens for special pictorial effects  
(only for the LEICA R models 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 80B (conversion)

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: 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

Code Number

## 16 mm FISHEYE-ELMARIT-R f/2.8

with built-on lens hood, lens cap and rear cover ..... 11 222 \_\_\_\_\_

(Replacement lens caps see from page 65)

# 19 mm ELMARIT-R f/2.8



Fast ultra-wide-angle lens

Angle of view: 97.5°

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 (about 1:10))

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

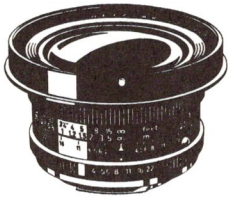
Code Number

## 19 mm ELMARIT-R f/2.8

with lens hood, lens cap and rear cover. . . . . **11 225** \_\_\_\_\_

(Replacement lens caps see from page 65)

# 21 mm SUPER-ANGULON® -R f/4



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 1/2 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 8.75 in 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

Code Number

## 21 mm SUPER-ANGULON f/4

with lens hood, lens cap and rear cover..... **11813** \_\_\_\_\_

(Replacement lens hood, lens caps, Series 8.5 filters see from page 65)

# 24 mm ELMARIT-R f/2.8



Lens of very wide angle of view  
(only for the LEICA R models and for LEICAFLEX SL 2/SL 2 MOT)  
Angle of view: 84°  
Number of elements: 9 (7 components)  
Correction of aberrations through floating elements.  
Filter size: 8  
Internal thread: M 60 x 0.75  
Fully automatic pre-set diaphragm with click-stops (including 1/2 values)  
Smallest aperture: f/22  
Combined "feet-metre" scale  
Focusing range: ∞ to 0.3 m (12 in)  
Non-rotating focusing mount  
Smallest object field:  
250 x 374 mm (10 x 15 in (about 1:10.5))  
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: 0.429 kg

Code Number

## 24 mm ELMARIT-R f/2.8

with lens hood, lens cap and rear cover. . . . . **11221** \_\_\_\_\_

(Lens hood, lens caps as replacement, Series 8 filters,  
see from page 65)

# 28 mm ELMARIT® -R f/2.8



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 (about 1:8))

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: A51 mm

Length from bayonet flange: 40 mm

Diameter: 63 mm

Weight: 0.275 kg

Code Number

## 28 mm ELMARIT-R f/2.8

with lens hood, lens cap and rear cover. . . . . **11204** \_\_\_\_\_

(Replacement lens hood, lens caps, Series 7 filters see page 65)



## 35 mm PA-CURTAGON-R f/4

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 aligned the camera cannot be symmetrically.

In addition, special perspective exaggeration effects which are popular in the modern pictorial concept can also be obtained.



Wide-angle lens without pre-set diaphragm with perspective compensation

Displacement from the optical axis:

7 mm to the left and right, top and bottom

Radial adjustment: at 90° click-stop 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 (about 1:6))

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: 0.29 kg

Code Number

### 35 mm PA-CURTAGON-R f/4

with lens hood, lens cap and rear cover..... **11 202**

(Replacement lens hood and lens caps, Series 8 filters see page 65)

## 35 mm ELMARIT-R f/2.8



### Wide-angle lens

Angle of view: 64°

Number of elements: 7 (6 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 1/2 values)

Smallest aperture: f/22

Combined "feet-metre" scale

Focusing range: ∞ to 0.3 m (12 in)

Smallest object field:

140 x 210 mm (5 3/4 x 8 1/2 in (about 1:6))

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: 41,5 mm

Diameter: 66 mm

Weight: 0.34 kg

For Series 7 filters the adapter 14 225 is required.

Code Number

### 35 mm ELMARIT-R f/2.8

with lens hood, lens cap and rear cover. . . . . **11 231** \_\_\_\_\_

(Replacement lens caps, E 55 or Series 7 filters, filter adapter 14 225,  
see from page 65)

# 35 mm SUMMICRON® -R f/2



Fast wide-angle lens

Angle of view: 64°

Number of elements: 6 (6 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 1/2 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 (about 1:6))

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 Number

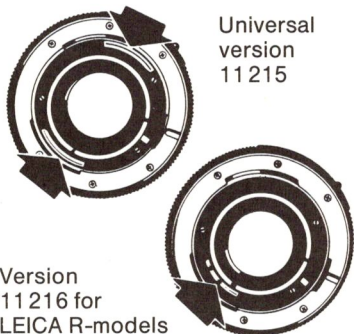
## 35 mm SUMMICRON-R f/2

With lens hood, lens cap and rear cover ..... **11115**  
(Replacement lens caps, E 55 or Series 7 filters,  
filter adapter 14 225, see from page 65)

# 50 mm SUMMICRON-R f/2



Rear of lens:



Fast universal lens

Angle of view: 45°

Number of elements: 6 (4 components)

Filter size: E 55 or Series 7

For Series 7 filters the adapter 14225 is required

Internal thread: M 55 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 0.5 m (20 in)

Smallest object field:

180 x 270 mm (7.5 x 10.75 in) (about 1:7.5)

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

Version  
11216 for  
LEICA R-models

Code Number

## 50 mm SUMMICRON-R f/2

With lens hood, lens cap and rear cover

1. Version for LEICA R-models only ..... **11216** \_\_\_\_\_
2. Universal version for all LEICA R and LEICAFLEX models ..... **11215** \_\_\_\_\_

(Replacement lens caps, E 55 or Series 7 filters, filter adapter 14225 see from page 65)

## ELPRO (achromats) near-focusing attachments

- ELPRO 1 ..... **16541** \_\_\_\_\_
- ELPRO 2 ..... **16542** \_\_\_\_\_
- Leather case for 1 near-focusing attachment ..... **14553** \_\_\_\_\_

50 mm SUMMICRON-R f/2	ELPRO	Distance scale at	Distance in cm		Object field size in mm	Repro- duction scale
			object to film	object to front lens		
	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

# 50 mm SUMMILUX® -R f/1.4



## Ultra-fast lens

Angle of view: 45°

Number of elements: 7 (6 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 1/2 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) (about 1:7.5)

Rubberised focusing ring

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

Code Number

## 50 mm SUMMILUX-R f/1.4

with lens hood, lens cap and rear cover. .... 11776 \_\_\_\_\_

(Replacement lens caps, E 55 or Series 7 filters, filter adapter 14 225, see from page 65)



# 60 mm MACRO-ELMARIT® -R f/2.8



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: 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, also with Macro Adapter R
- click-stops (including 1/2 values)
- Smallest aperture: f/22
- Combined "feet-metre" scale, reproduction scales are also engraved
- Focusing range: ∞ to 27 cm
- Free working distance: 15 cm
- With Macro Adapter R: 27 to 24 cm
- Free working distance: 16 to 10 cm
- Smallest object field: 48 x 72 mm (1.9 x 2.9 in) (1:2)
- with Macro Adapter R: 24 x 36 mm (0.9 x 1.4 in) (1:1)
- Non-rotating focusing mount
- Hard-chrome LEICA-R rapid bayonet changer
- Black finish
- Built-on lens hood
- Lens cap dia: A 63 mm
- Length from bayonet flange: 62.3 mm
- Diameter: 67.5 mm
- Length of the Macro adapter: 30 mm
- Diameter of the Macro adapter: 62 mm
- Weight: 0.39 kg
- Weight of the Macro adapter R: 0.13 kg

Code Number

## 60 mm MACRO-ELMARIT-R f/2.8

With lens hood, lens cap and rear cover ..... **11 212** \_\_\_\_\_

**MACRO-ADAPTER-R** ..... **14 256** \_\_\_\_\_

For use with automatic shutter speed control and manual setting of shutter speed and aperture

Cover for the Macro Adapter-R:

Front cap (= body cover of the camera) ..... **14 103** \_\_\_\_\_

Rear cap (= rear cover of the lens) ..... **14 162** \_\_\_\_\_

(Replacement lens caps, E 55 or Series 7 filters, and filter adapter 14 225 see from page 65)

## 45-90 mm ANGENIEUX-Zoom f/2.8



Angle of view: 54° to 27°

Number of elements: 15 (12 components)

Filter size: E 67 or Series 8

Internal thread: M 67 x 0.75

Fully automatic pre-set diaphragm with click-stops (including 1/2 values)

Smallest aperture: f/22

Combined "feet-metre scale

Focusing range: ∞ to 1 m (40 in)

Smallest object field:

Focal length 45 mm: 485 x 727 mm (19.1 x 28.6 in) (about 1:20)

Focal length 90 mm: 216 x 324 mm (8.5 x 11.8 in) (about 1:9)

Non-rotating focusing mount

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

Diameter: 69 mm (with lens hood 78 mm)

Weight: 0.774 kg

Supply on request through local LEITZ Agency

Manufacturer, warranty, and service: Pierre Angenieux, F-42570 Saint-Héand.

# 75-200 mm VARIO-ELMAR-R f/4.5



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 14225 is required  
 Internal thread: M 55 x 0.75  
 Fully automatic pre-set diaphragm with click-stops (including 1/2 values)  
 Smallest aperture: f/22  
 Combined "feet-metre" scale  
 Focusing range: ∞ to 1.2 m (48 in)  
 Smallest object field:  
     Focal length 75 mm: 270 x 405 mm (10.6 x 15.9 in) (about 1:11)  
     Focal length 200 mm: 107 x 160 mm (4.2 x 6.3 in) (about 1:4.5)  
 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

Code Number

## 75-200 mm VARIO-ELMAR-R f/4.5

with lens hood, lens cap and rear cover. . . . . **11226** \_\_\_\_\_

(Replacement lens caps, E 55 or Series 7 filters and filter adapter 14225 see page 65)

## ELPRO (achromats) near-focusing attachments

ELPRO 3 . . . . . 16543 \_\_\_\_\_

ELPRO 4 . . . . . 16544 \_\_\_\_\_

Leather case for one rear-focusing attachment . . . . . 14553 \_\_\_\_\_

75-200 mm VARIO-ELMAR-R f/4.5	ELPRO	Distance scale at	Distance in cm		Object field size in mm	Reproduction scale
			object to film plane	object to front lens		
	4	75 mm/∞	156	135	414 x 621	1:17,3
		200 mm/1.2	80	58	62 x 93	1:2.6
	3	75 mm/∞	82	61	187 x 281	1:7.8
		200 mm/1,2	61	38	41 x 62	1:1.7

# 80 mm SUMMILUX-R f/1.4



Ultra-high-speed lens of long focal length  
Angle of view: 30°  
Number of elements: 7 (5 components)  
Filter size: E 67 or Series 8  
For Series 8 filters the adapter  
14264 is required  
Internal thread: M 67 x 0.75  
Fully automatic preset diaphragm with  
click-stops (including 1/2 values)  
Smallest aperture: f/16  
Combined "feet-metre" scale  
Focusing range: ∞ to 0.8 m (32 in)  
Smallest object field: 192 x 288 mm  
(7.6 x 11.3 in) (about 1:8)  
Rubberised focusing ring  
Non-rotating focusing mount  
Hard-chrome LEICA-R rapid bayonet changer  
Black finish  
Built-on, extensible lens hood  
Lens cap dia: A 75 mm  
Length from bayonet flange: 69 mm  
Diameter: 75 mm  
Weight: 0.625 kg

Code Number

## 80 mm SUMMILUX-R f/1.4

With lens hood, lens cap and rear cover ..... **11880** \_\_\_\_\_  
(Replacement lens caps, E 67 or Series 8 filters, filter adapter 14264,  
see from page 65)

# 90 mm ELMARIT-R f/2.8



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  
 14255 is required  
 Internal thread: M 54 x 0.75\*  
 Fully automatic pre-set diaphragm with  
 click-stops (including 1/2 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) (about 1:6)  
 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: 72 mm  
 Diameter: 65 mm  
 Weight: 0.515 kg

Code Number

## 90 mm ELMARIT-R f/2.8

with lens hood, lens cap and rear cover. . . . . **11 239** \_\_\_\_\_

(Replacement lens caps, E 55 or Series 7 filters and filter adapter  
 14226 see page 65)

## ELPRO (achromat) near-focusing attachment

ELPRO 3 . . . . . **16543** \_\_\_\_\_

Leather case for one near-focusing attachment. . . . . **14553** \_\_\_\_\_

\* up to No. 2809000 internal thread of lens M 54 x 0.75

90 mm ELMARIT-R f/2.8	ELPRO	Distance scale at	Distance in cm		Object field size in mm	Repro- duction scale
			object to film	object to front lens		
	3	∞	74	61	161 x 241	1:6.7
		0.7	44	30	72 x 108	1:3.0



# 90 mm SUMMICRON-R f/2



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 14225 is required  
 Internal thread: M 55 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 0.7 m (28 in)  
 Smallest object field:  
 140 x 210 mm (5.5 x 8.3 in) (about 1:6)  
 Non-rotating focusing mount  
 Hard-chrome LEICA-R rapid bayonet changer  
 Black finish  
 Built-on, extensible lens hood  
 Lens cap dia: A 70 mm  
 Length from bayonet flange: 62.5 mm  
 Diameter: 70 mm  
 Weight: 0.56 kg

Code Number

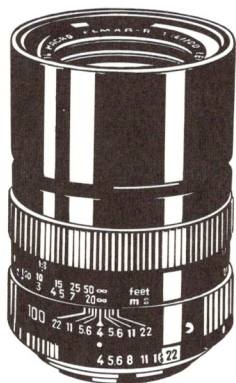
**90 mm SUMMICRON-R f/2**  
 with lens hood, lens cap and rear cover. . . . . **11219** \_\_\_\_\_  
 (Replacement lens caps, E 55 or Series 7 filters and filter adapter 14225 see page 65)

**ELPRO (achromat) near-focusing attachment**  
 ELPRO 3 . . . . . 16543 \_\_\_\_\_  
 Leather case for one near-focusing attachment. . . . . 14553 \_\_\_\_\_

\* up to No. 2770950 internal thread of lens M 54 x 0.75

90 mm SUMMICRON-R f/2	ELPRO	Distance scale at	Distance in cm		Object field size in mm	Reproduction scale
			object to film	object to front lens		
	3	∞	74	61	161x245	1:6.7
		0.7	44	30	72x108	1:3.0

# 100 mm MACRO-ELMAR-R f/4



Universal lens of medium-long-focal length for work from  $\infty$  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 Macro Adapter-R with click-stops (including 1/2 values)

Smallest aperture: f/22

Combined "feet-metre" scale, reproduction scales are also engraved

Focusing range:  $\infty$  to 60 cm

Free working distance: 39 cm

With Macro Adapter-R 60-42 cm

Free working distance: 39-25 cm

Smallest object field: 72 x 108 mm

(2.8 x 4.25 in) (about 1:3)

With Macro Adapter-R: 38 x 57 mm

(1.5 x 2.25 in) (about 1:1.6)

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: 90 mm

Maximum diameter: 67.5 mm

Weight: lens 540 g

Length of the Macro Adapter-R: 30 mm

Diameter of the Macro Adapter-R: 62 mm

Weight of the Macro Adapter-R: 0.13 kg

Code Number

## 100 mm MACRO-ELMAR-R f/4

With lens hood, lens cap and rear cover ..... **11 232** \_\_\_\_\_

**MACRO ADAPTER-R** ..... **14 256** \_\_\_\_\_

For use with automatic shutter speed control and manual setting of aperture and shutter speed

Covers for the Macro-Adapter-R:

Front cap (= body cover of the camera) ..... 14 103 \_\_\_\_\_

Rear cap (= rear cover of the lens) ..... 14 162 \_\_\_\_\_

(Replacement lens caps, E 55 or Series 7 filters, and filter adapter 14 225 see from page 65)

**ELPRO (achromats near-focusing attachments)**

ELPRO 3 ..... 16543 \_\_\_\_\_  
 ELPRO 4 ..... 16544 \_\_\_\_\_  
 Leather case for one-near-focusing attachment ..... 14553 \_\_\_\_\_

100 mm MACRO-ELMAR-R f/4	ELPRO	Distance scale at	Distance in cm		Object field size in mm	Repro- duction scale
			object to film plane	object to front lens		
With close-up focusing ring 14262	4	∞	150.5	136	323x484	1:13
		0.6	48.6	31	61 x 92	1:2.5
	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

# 135 mm ELMARIT-R f/2.8



Telephoto lens

Angle of view: 18°

Number of elements: 5 (4 components)

Filter size: E 55 or Series 7

For Series 7 filters the adapter

14225 is required

Internal thread: M 55 x 0.75\*

Fully automatic pre-set diaphragm with click-stops (including 1/2 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) (about 1:9)

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: 67 mm

Weight: 0.73 kg

## 135 mm ELMARIT-R f/2.8

with lens hood, lens cap and rear cover. . . . . **Code Number** **11211** \_\_\_\_\_

(Replacement lens caps, E 55 or Series 7 filters and filter adapter 14225 see page 45)

## ELPRO (achromats) near-focusing attachments

ELPRO 3 . . . . . **16543** \_\_\_\_\_

ELPRO 4 . . . . . **16544** \_\_\_\_\_

Leather case for one near-focusing attachment. . . . . **14553** \_\_\_\_\_

\* up to No. 2772618 internal thread of lens M 54 x 0.75

135 mm ELMARIT-R f/2.8	ELPRO	Distance scale at	Distance in cm		Object field size in mm	Reproduction scale
			object to film	object to front lens		
	4	∞	150	135	237 x 355	1:9.9
		1.5	84	68	106 x 159	1:4.4
	3	∞	76	61	107 x 160	1:4.5
		1.5	58	42	66 x 99	1:2.8

# 180mm ELMAR-R f/4



Handy telephoto lens  
Angle of view 14°  
Number of elements: 5 (4 components)  
Filter size: E55 or series 7  
For series 7 the adapter 14225 iS required  
Internal thread: M55 X0.75  
Fully automatic preset diaphragm with click-stop (including half values)  
Smallest aperture: f/22  
Combined feet/metre scale  
Focusing range: ∞ to 1.8m  
Smallest object field: 175 x 262mm (about 1:7)  
Non-rotating focusing mount  
Hard-chrome LEICA R rapid bayonet changer  
Black finish  
Built-on, extensible lens hood  
Lens cap dia: A65.5mm  
Weight: 0.54 kg

Code No.

## 180 ELMAR-R f/4,

With lens hood, lens cap and rear cover. . . . .  
(replacement lens cover, E55 or Series 7 filter and filter adapter  
14225 see from p. 65

**11 922** \_\_\_\_\_



# 180mm APO (R)-TELYT-R f/3.4



Special lens of extended spectral range  
Angle of view: 14°  
Number of elements: 7 (4 components)  
Filter size: E60 or Series 7.5  
For Series 7.5 filters the adapter 14 263 is required  
Internal thread: M60 x 0.35  
Fully automatic preset diaphragm with click-stops (including half values)  
Smallest aperture: f/22  
Combined feet – metre scale  
Focusing range  $\infty$  to 2.5m  
Smallest object field: 276 x 414mm (about 1:11.5)  
Non-rotating focusing mount  
Hard-chrome LEICA R rapid bayonet changer  
Black finish  
Built-on, extensible lens hood  
Lens cap dia: A66mm  
Length from bayonet flange: 135mm  
Diameter: 68mm  
Weight: 0.75ag

**180mm APO-TELYT-R f/6.4,**  
with lens hood, lens cap and rear cover . . . . .  
(replacement lens cap, E60 filter and filter adapter 14263, see from p. 65)

Code No. **11 242** \_\_\_\_\_

# 180 mm ELMARIT-R f/2.8



Fast telephoto lens

Angle of view: 14°

Number of elements: 5 (4 components)

Filter size: E 67 or Series 8

For Series 8 filters the adapter 14 264 is required

Internal thread: M 67 x 0.75

Fully automatic pre-set diaphragm with click-stops (including 1/2 values)

Smallest aperture: f/22

Combined "feet-metre" scale

Focusing range: ∞ to 1.8 m (6ft)

Smallest object field: 193 x 290 mm (7.6 x 11.4 in) (about 1:8)

Non-rotating focusing mount

Hard-chrome LEICA-R rapid bayonet changer

Black finish

Built-on, extensible lens hood

Lens cap dia: A 75 mm

Tripod thread A 1/4 (DIN 4503) (1/4 in)

Length from bayonet flange: 121 mm

Diameter: 75 mm

Weight: 0.755 kg

Code Number

## 180 mm ELMARIT-R f/2.8

with lens hood, lens cap and rear cover.....

**11 923** \_\_\_\_\_

(Replacement lens caps, E 67 or Series 8 filters, filter adapter 14 264 see from page 65)

## 250 mm TELYT® -R f/4



Telephoto lens

Angle of view: 10°

Number of elements: 7 (6 components)

Filter size: E 67 or Series 8

For Series 8 filters the adapter 14 164 is required

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: ∞ 1.7 m (5 ft 8 in)

Smallest object field: 124 x 186 mm  
(4.9 x 7.3 in) (about 1:5.2)

Rubberised focusing ring

Non-rotating focusing mount

Hard-chrome LEICA-R rapid bayonet changer

Black finish

Built-on, extensible lens hood

Tripod thread A ¼ (DIN 4503), (¼ in), with  
click-stops, tilting for upright and  
horizontal format.

Leather case

Lens cap Ø: A 75 mm

Length from bayonet flange: 195 mm

Diameter: 75 mm

Weight: 1.23 kg

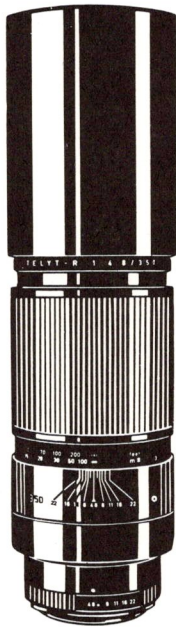
Code Number

### 250 mm TELYT-R f/4

With lens hood, lens cap and rear cover, as well as leather case. . . . . **11925** \_\_\_\_\_

(Replacement lens caps, E 67 or Series 8 filters and filter adapter  
14264, see from page 65)

# 350 mm TELYT-R f/4.8



## Telephoto lens

Angle of view: 7°

Number of elements: 7 (5 components)

Filter size: E 77

Internal thread: M77 x 0.75

Fully automatic pre-set diaphragm with click-stops (including 1/2 values)

Smallest aperture: f/22

Combined "feet-metre" scale

Focusing range: ∞ to 3 m (10 ft)

Smallest object field: 171 x 257 mm  
(6.75 x 10.1 in) (about 1:7.1)

Rubberised focusing ring

Non-rotating focusing mount

Hard-chrome LEICA-R rapid bayonet changer

Black finish

Built-on, extensible lens hood

Tripod thread, A 1/4, DIN 4503; with click-stops, tilting for upright and horizontal format

Leather case

Lens cap dia: A 83.5 mm

Length from bayonet flange: 286 mm

Diameter: 83.5 mm

Weight: 1.82 kg

Code Number

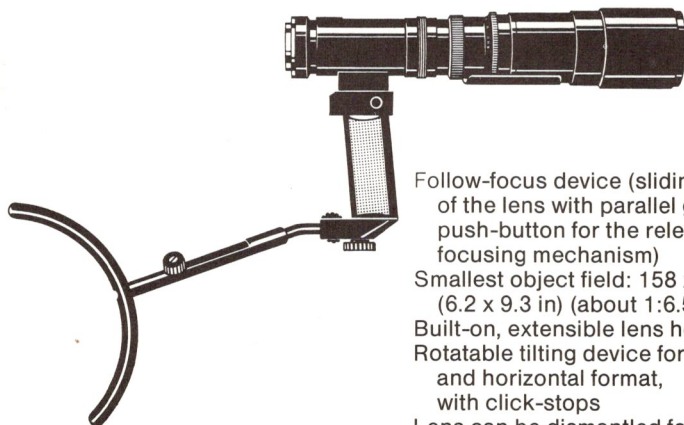
## 350 mm TELYT-R f/4.8

With lens hood, lens cap and rear cover, as well as leather case. . . . . **11915**

(Replacement lens caps, see from page 65)

**in preparation**

# 400 mm TELYT-R f/6.8



Follow-focus device (sliding front part of the lens with parallel guide, push-button for the release of the focusing mechanism)  
 Smallest object field: 158 x 236 mm (6.2 x 9.3 in) (about 1:6.5)  
 Built-on, extensible lens hood  
 Rotatable tilting device for upright and horizontal format, with click-stops  
 Lens can be dismantled for convenient transport  
 Hard-chrome LEICA-R rapid objective changer  
 Slot with cover for Series 7 filters  
 Black finish  
 Tripod thread A<sup>1</sup>/<sub>4</sub> and A<sup>3</sup>/<sub>8</sub> (DIN 4503) (1/4in and 3/8in)  
 Universal handgrip with shoulder stock, detachable  
 Lens cap dia: A 78 mm  
 Length from bayonet flange: 384 mm  
 Diameter: 78 mm  
 Weight: 1.83 kg

Follow-focus lens of long focal length  
 Angle of view: 6°  
 Number of elements: 2 (1 component)  
 Filter size: Series 7 (in filter slot) or Series 8  
 Internal thread: M 72 x 0.75  
 For Series 8 filters the adapter 14 165 is required  
 Click-stops (between 8 and 16 also 1/2 values)  
 Smallest aperture: f/32  
 Focusing range: ∞ to 3.6 m (12 ft)

Code Number

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

**400 mm TELYT-R f/6.8**, complete, with lens hood and lens cap and rear cover ..... **11 960** \_\_\_\_\_  
 (Replacement lens caps and Series 7 or 8 filters and adapter 14 165 see from page 65)

## Accessories recommended for the 400 mm TELYT-R f/6.8

Code Number

Extension tube (60 mm) for the 400 mm TELYT-R f/6.8 (also for the 560 mm TELYT-R f/6.8) to extend the operating range (near focusing) .	14 182 _____
Focusing distances with 1 extension tube: 353-226 cm (11 ft 7 in-21 ft 2 in)	Smallest object field with 1 extension tube: 8 x 12 cm (3.1 x 4.7 in)
Carrying strap for heavy equipment .....	14 130 _____
Electric cable release for insertion in the universal handgrip for the LEICA R4-MOT with MOTOR WINDER R4/MOTOR DRIVE R4 .....	14 237 _____



# 500 mm MR-TELYT-R f/8



Catoptric telephoto lens  
(reflecting lens design)

Angle of view: 5°

Number of elements: 6 (5 components)

Including 2 mirrors and one special filter

Filter size on the front ring of the lens: E 77

Internal thread: M 77 x 0.75

Combined "feet-metre" scale

Focusing range: ∞ to 4 m (13ft 4 in)

Smallest object field: 180 x 270 mm

(7.1 x 10 x 6 in) (about 1:7.5)

Cradled helical focusing mount for hand support

Rubberised focusing ring

Hard-chrome LEICA-R rapid bayonet changer

Black finish

Screw-on lens hood

5 special screw-in filters: UV, neutral density 4x,  
yellow, orange, red (M 32 x 0.5)

Leather case

Lens cap dia: A 83.5 mm

Length from bayonet flange: 121 mm

Diameter: 87 mm

Weight: 0.75 kg

Code Number

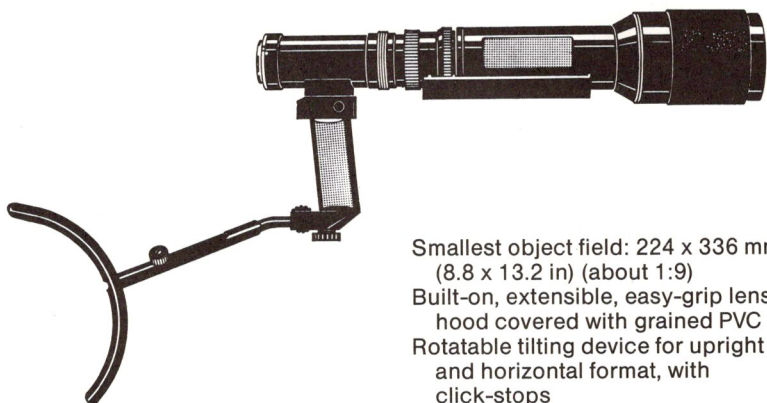
## 500 mm MR-TELYT-R f/8

With lens hood, lens cap and rear cover

**5 special filters and leather case** ..... **11 243** \_\_\_\_\_

(Replacement lens caps, special filters, leather case see from page 65)

# 560 mm TELYT-R f/6.8



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 1/2 values)  
 Smallest aperture: f/32  
 Focusing range: ∞ – 6.4 m (21 ft)  
 Follow-focus device (sliding front  
 part of the lens with parallel guide,  
 push-button for the release of the  
 focusing mechanism)

Smallest object field: 224 x 336 mm  
 (8.8 x 13.2 in) (about 1:9)  
 Built-on, extensible, easy-grip lens  
 hood covered with grained PVC  
 Rotatable tilting device for upright  
 and horizontal format, with  
 click-stops  
 Lens can be dismantled for convenient  
 transport  
 Hard-chrome LEICA-R rapid bayonet  
 changer  
 Slot with cover for Series 7 filters  
 Black finish  
 Tripod thread A 1/4 and 3/8 (DIN 4503)  
 (1/4 and 3/8 in)  
 Universal handgrip with shoulder stock,  
 detachable  
 Lens cap. dia: A 98 mm  
 Length from bayonet flange: 530 mm  
 Diameter: 98 mm  
 Weight: 2.33 kg

Code Number

## 560 mm TELYT-R f/6.8, consisting of:

560 mm TELYT-R f/6.8 lens unit.....	11 907	_____
Lens tube .....	11 906	_____
Universal handgrip with shoulder stock.....	14 188	_____

## 560 mm TELYT-R f/6.8, complete

with lens hood and lens cap and rear cover .....	11 865	_____
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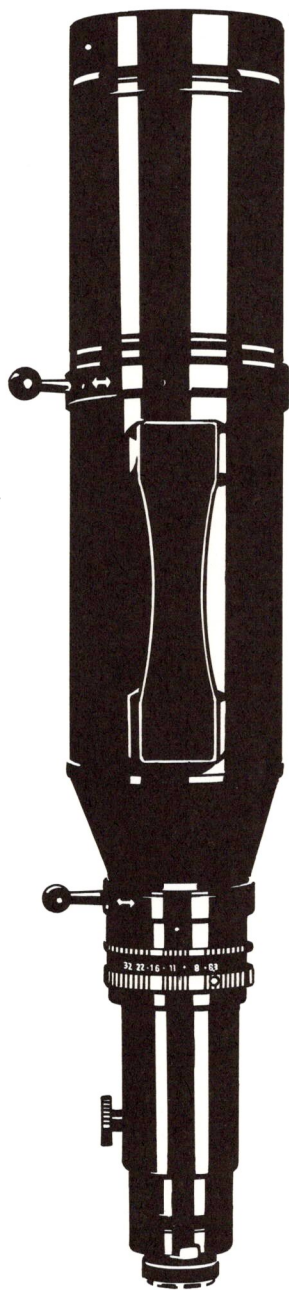
(Replacement lens caps and Series 7 filters see from page 65)

## Recommended accessories for the 560 mm TELYT-R f/6.8

Code Number

Extension tube (60 mm) for the 560 mm TELYT-R f/6.8 (also for the 400 mm TELYT-R f/6.8) to extend the operating range (near focusing).....	14 182	_____
Focusing distances with 1 extension tube 641 – 391 cm (21 ft – 13 ft)	Smallest object field with 1 extension tube 11.2 x 16.8 cm (4.4 x 6.6 in)	
Carrying strap for heavy equipment .....	14 130	_____
Electric cable release for insertion in the universal handgrip for the LEICA R4 with MOTOR WINDER R4/MOTOR DRIVE R4.....	14 237	_____

# 800 mm TELYT-S f/6.3



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 f/6.3 and 22 also 1/2 values)

Pre-set diaphragm

Smallest aperture: f/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) (about 1:13)

Rapid focusing by means of an easy-grip drive 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 handle

Detachable and lockable lens hood

Slot with cover for Series 7 filters

Tripod thread A 1/4 and A 3/8, DIN 4503 (1/4 in and 3/8 in) for robust tripods.

Support ring, rotatable with tripod thread A 1/4 (DIN 4503) (1/4 in) for additional monopod

Black finish

LEICA R rapid bayonet changer

Rotatable tilting device for upright and horizontal format, with click-stops

Lens cap dia: A 152 mm

Length from bayonet flange: 790 mm

Diameter: 152 mm

Weight: 6.86 kg

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

Code Number

11921

# EXTENDER-R 2x

for the LEICA R



- Focal-length-extending lens attachment
- Number of elements: 5 (4 components)
- Aperture range from f/2 to f/22
- Fully automatic pre-set diaphragm transfer
  - for automatic shutter speed control
  - and manual setting of shutter speed and aperture
- Focal length suitable for use from 50 and more\*
- Hard chrome LEICA R rapid bayonet changer
- Black finish
- Length from bayonet flange: 30 mm
- Diameter: 62 mm
- Weight: 0.18 kg

Code Number

## EXTENDER-R 2x for LEICA R

With 2 caps .....	<b>11 236</b> _____
Replacement caps:	
Rear cover (= rear cover for lens) .....	14 162 _____
Front cap (= camera body cover) .....	14 103 _____

EXTENDER-R 2x for LEICAFLEX models see page 262.

\* from 560 mm onwards slight vignetting occurs.



# Accessories for LEICA R-lenses

LEICA R-lens :	Code No.	External dia. in mm	Lens hood replacement	Lens cap replacement	Rear cover replacement	Filters <sup>2)</sup>		Adapter for series filters
						screw thread	or Series size	
3.5/15	11 213	83.5	built on	14 294	14 162	built-in		–
2.8/13	11 222	65	built on	14 089	14 162	built-in		–
2.8/19	11 225	88	12 529	14 221	14 162	–		–
4/21	11 813	75	12 506	14 162	14 162	–	8.5	lens hood
2.8/24	11 221	63.7	12 523	14 290	14 162	–	8	lens hood
2.8/28	11 204	51	12 509	14 172	14 162	–	7	lens hood
4/35	11 202	63.7	12 514	14 200	14 162	–	8	lens hood
2.8/35 Code No. 2 928 901	11 231	63	built on	14 289	14 162	E 55 or 7		14 225
2/35 Code No. 2 791 417	11 115	63	built on	14 289	14 162	E 55 or 7		14 225
2/50 Code No. 2 777 651	11 215 11 216	63	built on	14 289	14 162	E 55 or 7		14 225
1.4/50 Code No. 2 806 501	11 776	63	built on	14 289	14 162	E 55 or 7		14 225
2.8/60 Code No. 3 013 651	11 212	63	built on	14 289	14 162	E 55 or 7		14 225
1.4/80	11 880	75	built on	14 291	14 162	E 67 or 8		14 264
2.8/90 Code No. 2 809 001	11 239	65	built on	14 289	14 162	E 55 or 7		14 225
2/90 Code No. 2 770 951	11 219	70	built on	14 289	14 162	E 55 or 7		14 225
4/100	11 232	63	built on	14 289	14 162	E 55 or 7		14 225
4/100 for bellows Code No. 2 933 351	11 230	65	built on	14 289	14 162	E 55 or 7		14 225
2.8/135 Code No. 2 772 619	11 211	65	built on	14 089	14 162	E 55 or 7		14 225
4/180	11 922	65	built on	14 289	14 162	E 55 or 7		14 225
3.4/180 Code No. 2 947 024	11 242	66	built on	14 290	14 162	E 60 or 7.5		14 263
2.8/180 Code No. 2 939 701	11 923	75	built on	14 291	14 162	E 67 or 8		14 264
4.5/75 – 200	11 226	70	built on	14 289	14 162	E 55 or 7		14 225
4/250 Code No. 3 050 601	11 925	75	built on	14 291	14 162	E 67 or 8		14 264
4.8/350	11 915	83.5	built on	14 294	14 162	E 77 or 8.5 <sup>5)</sup>		14 201
6.8/400	11 960	78	built on	14 152 <sub>1)</sub>	14 162	–	7	filter slot <sup>3)</sup>
8/500	11 243	83.5	built on	14 294	14 162	E 77 or 8.5 <sup>4)</sup> <sup>5)</sup>		lens hood
6.8/560	11 865	98	built on	14 295 <sub>1)</sub>	14 162	–	7	filter slot
6.3/800	11 291	152	built on	<sup>6)</sup>	14 162	–	7	filter slot

<sup>1)</sup> Front cover for lens tube 11 906 of the 400 mm f/6.8 and 560 mm f/6.8 available from Technical Service, P.O. B 2027, Ernst LEITZ Wetzlar GmbH, D-6330 Wetzlar

<sup>2)</sup> Filters see table 9

<sup>3)</sup> Or Series 8 with adapter 14 165

<sup>4)</sup> 5 special filters M 32 x 0.5 part of the item (to be screwed into the rear element mount of the lens)

<sup>5)</sup> Does not apply to Series 8.5 filters of the LEITZ range

<sup>6)</sup> Available from Technical Service, P.O. B 2027, Ernst LEITZ Wetzlar GmbH, D-6330 Wetzlar



## Filters

	Screw-in filters			
	E 32 <sup>1)</sup>	E 55	E 60	E 67
U.V.	13 400	13 373	13 381	13 386
Circular polarising filter	–	13 357	13 376	13 377
Polarising filter	–	13 374	–	–
Yellow	13 403	13 236	–	–
Yellow-green	–	13 391	13 392	13 393
Orange	13 402	13 312	13 383	13 388
Red	13 401	–	–	–
Neutral grey 4x	13 405	–	–	–

	Series filters			
	6	7	8	8.5 <sup>2)</sup>
U.V.	13 012	13 009	13 018	13 024
Circular polarising filter	–	13 370	13 372	–
Polarising filter	–	–	–	–
Yellow	13 013	13 006	13 019	–
Yellow-green	13 014	13 007	13 021	–
Orange	13 011	13 008	13 017	13 023
Red	–	–	–	–
Neutral grey 4x	–	–	–	–

Filter attachment see page 65

- 1) E32 as replacement for the 500mm MR-TELYT-R f/8  
 2) For the 21mm SUPER-ANGULON-R f/4 only

## Leather containers

250mm TELYT-R f/4 (replacement) . . . . .	<b>14 578</b> _____
500mm MR-TELYT-R f/8 (replacement) . . . . .	<b>14 559</b> _____
350mm TELYT-R f/4.8 6 replacement) . . . . .	<b>14 579</b> _____

## Lens Hood for the

	Code Number	
19 mm f/2.8 lens (replacement) .....	<b>12529</b>	_____
21 mm f/4 lens (replacement) .....	<b>12506</b>	_____
24 mm f/2.8 lens (replacement) .....	<b>12523</b>	_____
28 mm f/2.8 lens (replacement) .....	<b>12509</b>	_____
35 mm f/4 lens (replacement) .....	<b>12514</b>	_____

## Leather cases for the

	Code Number	
250 mm TELYT-R f/4 (replacement) .....	<b>14578</b>	_____
500 mm MR-TELYT-R f/8 (replacement) .....	<b>14559</b>	_____

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# Near-focusing devices for the LEICA R system

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## There are 4 ways into the near-focusing range

### 1) Universal lenses which are also corrected for the close-up range

The very long focusing range permits their use for both long-distance and close-up objects. Merely by rotating the focusing ring you can focus the lens continuously from infinity to the close-up range (see page 46 and 52).

### 2) Near-focusing attachments to be screwed in front of the lens

extend the focusing range optically: through shortening the focal length of the lens they permit photography in the close-up range. LEITZ near-focusing attachments are achromats which further improve the optical performance of the lens especially in the near-focusing range.

### 3) Extension rings to be inserted between the camera and the lens

extend the focusing range of the lens mechanically by increasing the camera extension. The exposure time is precisely measured and controlled by the automatic exposure control of the LEICA R.

### 4) The universal Focusing Bellows, which increases the camera extension like the extension tubes

It offers the advantage of continuous focusing for all LEICA R lenses from 50 to 250 mm focal length, for instance with the 100 mm MACRO-ELMAR® f/4 specially designed for it from  $\infty$  to 1:1. In addition the LEITZ PHOTAR® Macro lenses can be attached for the extreme close-up range.



# ELPRO near-focusing attachments for LEICA R lenses



ELPRO near-focusing attachments (achromats)

- maintain the excellent optical performance of the lenses also in the near-focusing range
- are easy to handle
- extend the possibilities of pictorial composition
- do not demand any exposure factors

	Code Number	
ELPRO 1 .....	16541	_____
ELPRO 2 .....	16542	_____
ELPRO 3 .....	16543	_____
ELPRO 4 .....	16544	_____
<b>Leather case</b> for one near-focusing attachment .....	<b>14553</b>	_____

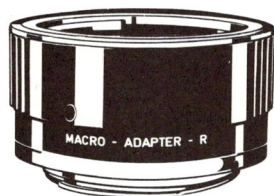


## ELPRO near-focusing attachments for LEICA-R lenses

Lens	ELPRO	Focusing scale at	Distance in cm		Object field size in mm	Reproduction scale
	Code No.		object to film	object to front lens		
50 mm SUMMICRON-R f/2 (E 55) from No. 2770651 11215/11216	1 16541	$\infty$ 0.5	50 31	41 21	184x276 91x137	1:7.7 1:3.8
	2 16542	$\infty$ 0.5	30 24	21 14	94x141 62x93	1:3.9 1:2.6
90 mm ELMARIT-R f/2.8 from No. 2809001 (E 55) 11239	3 16543	$\infty$ 0.7	74 44	61 30	161x241 72x108	1:6.7 1:3.0
90 mm SUMMICRON-R f/2 from No. 2770951 (E 55) 11219	3 16543	$\infty$ 0.7	74 44	61 30	161x241 72x108	1:6.7 1:3.0
100 mm MACRO-ELMAR-R f/4 (E 55) 11232	3 16543	$\infty$ 0.6	75.5 41.6	61 24	145x218 48x72	1:6 1:2
	+ MACRO- ADAP.-R. 14256	$\infty$ 0.6	42 37.4	24 17	49x73 29x44	1:2 1:1.2
	4 16544	$\infty$ 0.6	150.5 48.6	136 31	323x484 61x92	1:13 1:2.5
	+ MACRO- ADAP.-R. 14256	$\infty$ 0.6	48.8 40.4	31 20	63x94 34x51	1:2.9 1:1.4
135 mm ELMARIT-R f/2.8 from No. 2772619 (E 55) 11211	3 16543	$\infty$ 1.5	76 58	61 42	107x160 66x99	1:4.5 1:2.8
	4 16544	$\infty$ 1.5	150 84	135 68	237x355 106x159	1:9.9 1:4.4
180 mm ELMAR-R f/4 (E 55) 11922	3 16543	$\infty$ 1.8	77 63	61 45	80x120 48x72	1:3.3 1:2
	4 16544	$\infty$ 1.8	151 93	135 75	176x267 80x120	1:7.4 1:3.3
75-200 mm VARIO-ELMAR-R f/4.5 (E 55) 11226	3 16543	75 mm/ $\infty$ 200 mm/1.2	82 60	61 38	187x281 41x62	1:7.8 1:1.7
	4 16544	75 mm/ $\infty$ 200 mm/1.2	156 80	135 58	414x621 62x93	1:17.3 1:2.6

all values round

# MACRO-ADAPTER-R



## MACRO-ADAPTER-R

for LEICA R lenses with the automatic pre-set diaphragm transfer for automatic shutter control and manual setting of time and aperture for the use of LEICA R cameras.

Length of bayonet flange: 30 mm

Diameter: 62 mm

Weight: 0.13 kg

**MACRO-ADAPTER** ..... Code Number **14256** \_\_\_\_\_

Covers for the Macro-Adapter-R:

Front cover (= camera body cover) ..... 14103 \_\_\_\_\_

Rear cover (= rear cover of lens) ..... 14162 \_\_\_\_\_

**MACRO-ADAPTER-R für LEICA R-lenses**

Lenses	Focusing scale at	Object-front element distance in cm	Reproduction scale	Object-field in mm
50 mm SUMMICRON-R f/2	$\infty$ 0.5	11.6 9.9	1:1.75 1:1.42	42x63 34x51
60 mm MACRO-ELMARIT-R f/2.8	$\infty$ 1:2	16 9.7	1:2 1:1	48x72 24x36
90 mm ELMARIT-R f/2.8 90 mm SUMMICRON-R f/2	$\infty$ 0.7	32 23	1:3 1:2	72x108 48x72
100 mm MACRO-ELMAR-R f/4	$\infty$ 0.6	42 25	1:3.3 1:1.6	80x120 39x59
135 mm ELMARIT-R f/2.8	$\infty$ 1.5	75 55	1:4.5 1:3	108x162 72x108
180 mm APO-TELYT-R f/3.4	$\infty$ 2.5	133 95.6	1:6 1:3.9	144x216 95x142
180 mm ELMARIT-R f/2.8	$\infty$ 1.8	124 78.4	1:6 1:3.4	144x216 82x123
250 mm TELYT-R f/4	$\infty$ 1.7	256 99.1	1:8.4 1:2.9	202x303 70x105
350 mm TELYT-R f/4.8	$\infty$ 3.0	477 178	1:11.6 1:4.1	278x417 97x146

All values rounded

# Ring combination for the near-focusing range



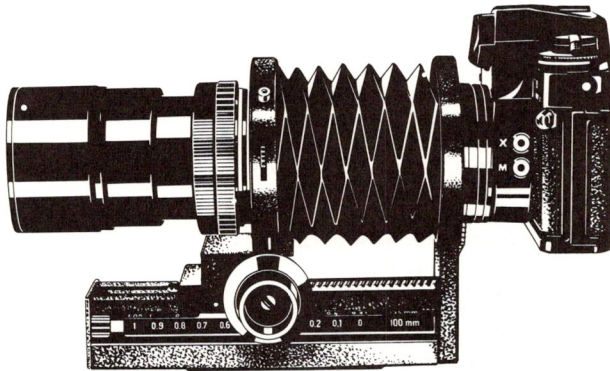
## Ring combination for the near-focusing range with semi-automatic preset diaphragm

	Code Number	
2-part ring (height 25 mm).....	<b>14 158</b>	_____
Middle ring (25 mm height) for the increase of the reproduction scale .	<b>14 135</b>	_____
<b>Combination, complete, weight: 0.175 kg</b> .....	<b>14 159</b>	_____
<b>Twin cable release</b> for same.....	<b>16 494</b>	_____

Lens	Dis- tance scale at	Ring combination					
		2-part (height 25 mm) 14 158			3-part (height 50 mm) 14 159		
		Dis- tance in cm object - front lens	Repro- duction scale	Object field size in mm	Dis- tance in cm object - front lens	Repro- duction scale	Object field size in mm
50 mm SUMMI- CRON-R f/2	∞ 0.5	13.5 11,2	1:2.1 1:1.6	50x75 38x58	8.1 7.5	1:1.04 1.09:1	25x37 22x33
90 mm ELMARIT-R f/2.8 90 mm SUMMI- CRON-R f/2	∞ 0.7	37.6 25.2	1:3.6 1:2.2	86 x 130 53x79	21.4 17.6	1:1.8 1:1.4	43x65 34x50
135 mm ELMARIT-R f/2.8	∞ 1.5	87.2 59.7	1:5.4 1:3.4	130x195 81x121	50.7 42.3	1:2.7 1:2.1	65x97 50x75
180 mm ELMARIT-R f/4	∞ 1.8	161 97.2	1:7.2 1:3.6	172x258 87 x 130	96.6 75.4	1:3.6 1:2.4	86x129 58x87
180 mm APO- TELYT-R f/3.4	∞ 2.5	154 104	1:7.2 1:4.4	172x258 106x159	89.4 74.0	1:3.6 1:2.7	86x129 66 x 99
180 mm ELMARIT-R f/2.8	∞ 1.8	146 84.9	1:7.2 1:3.8	172x258 91x137	81.2 61.3	1:3.6 1:2.5	86x129 60x90
250 mm TELYT-R f/4	∞ 1.7	299 104	1:10.1 1:3.2	242x363 76x114	172 85.8	1:5.0 1:2.3	121x181 55x82
350 mm TELYT-R f/4.8	∞ 3.0	558 187	1:13.9 1:4.4	334x501 105x157	316 153	1:7.0 1:3.2	167x250 76x114

all values round

# Universal Focusing Bellows-R for all LEICA R and LEICAFLEX cameras



## Universal Focusing Bellows-R

Very robust, variable extension for continuous settings in conjunction with all LEICA R and LEICAFLEX Models.

Maximum extension 100 mm.

Rotatable scale rod engraved with the reproduction scales for 90, 100 and 135 mm LEICA R lenses.

Additional mm scale, length 100 mm.

Additional, clampable adjustment facility for the maintenance of a preset reproduction scale.

Closure of the lens aperture to the preselected value with twin cable release or by pressure on the sliding knob, (spring-back diaphragm).

Can be used for upright and horizontal format

Tripod thread A 1/4 and A 3/8 DIN 4503 (1/4 in and 3/8 in)

Weight: 0.78 kg

Code Number

## Universal Focusing Bellows-R

(without lens) ..... **16860** \_\_\_\_\_

Twin cable release for same ..... **16494** \_\_\_\_\_

With special 100 mm MACRO-ELMAR f/4 lens for work in the focusing range from infinity to 1:1.

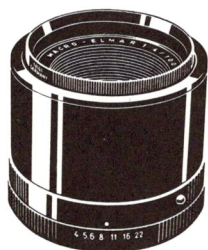
## Universal handgrip

with shoulder stock for hand-held exposures with the Universal Focusing Bellows-R

Universal handgrip with shoulder stock. .... **14188** \_\_\_\_\_



# 100 mm MACRO-ELMAR f/4



Lens for use on the Universal Focusing Bellows-R

Angle of view: 25°

Number of elements: 4 (3 components)

Filter size: E 55 or Series 7

For Series 7 the adapter

14225 is required

Internal thread: M55 x 0.75

Click-stops, including 1/2 values

Smallest aperture: f/22

Focusing range with Universal

Focusing Bellows R: ∞ to 1:1

Smallest object field: 24 x 36 mm

(1 x 1.5 in)

Hard-chrome LEICA R rapid bayonet changer

Black finish

Built-on, extensible lens hood

Lens cap dia: A 65 mm

Length from bayonet flange: 62.5 mm

Diameter: 68 mm

Weight: 0.365 kg

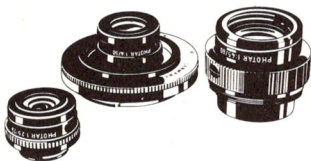
Code Number

## 100 mm MACRO-ELMAR f/4

with lens hood, lens cap and rear cover. . . . . **11230** \_\_\_\_\_

(Replacement lens caps, E 55 or Series 7 filters, filter adapter 14225, see from page 65)

# PHOTAR lenses for the Universal Focusing Bellows-R



Lens	Code No.	Short extension		Long extension	
		Repro- duction scale	Working distance	Repro- duction scale	Working distance
12.5 mm PHOTAR f/2.4	549025	7.5:1	8 mm	15.5:1	7 mm
25 mm PHOTAR f/2	549026	3:1	22 mm	7:1	17 mm
25 mm PHOTAR f/1.4	549027	1:1	88 mm	3:1	59 mm

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

Code Number

PHOTAR® lenses (thread: W 0.8 in x 1/36 in) attachable with the PHOTAR-Adapter-R. . . . . **14259** \_\_\_\_\_

**Possibilities of combination with LEICA R-lenses on the Universal Focusing Bellows-R**

Lens	Reproduction scale	Object-front element distance in cm	Object field in mm
50 mm SUMMICRON-R f/2	1:1.2 – 2.9:1	9.1 – 4.5	29.6x44.4 to 8.4x12.5
60 mm MACRO-ELMARIT-R	1:1.5 – 2.8:1	12.5 – 5.7	35x53 to 8.5x12.8
90 mm ELMARIT-R f/2.8 90 mm SUMMICRON-R f/2	1:2.1 – 1.8:1	24.5 – 10.4	51.1x76.6 to 13.7x20.6
100 mm MACRO-ELMAR f/4	$\infty$ – 1:1	$\infty$ – 18.7	24.0x36.0
100 mm MACRO-ELMAR f/4	1:2.4	32.6 – 14.7	57.1x85.7 to 14.2x21.3
135 mm ELMARIT-R f/2.8	1:3.2	57.7 – 25.9	77.2x115.8 to 20.6x30.9
180 mm APO-TELYT-R f/3.4	1:4.3 – 1.4:1	101.8 – 45.3	102.7x154.0 to 27.4x41.1
180 mm ELMARIT-R f/2.8	1:4.3 – 1:1.9	93.5 – 36.3	102.7x154.0 to 26.2x39.4
250 mm TELYT-R f/4	1:6 – 1:1.1	195.9 – 62.2	144.0x216.0 to 27.4x41.1
350 mm TELYT-R f/4.8/35	1:8.3 – 1:1.6	362.0 – 107.0	199.0x298.0 to 38.0x57.0

All values rounded

**Ring adapter** for the use of the following M lenses on the Universal Focusing Bellows R.

65mm ELMAR-M f/3.5 lens ( $\infty$  – 1.5:1)

Lens unit of the 90mm ELMARIT-M f/2.8 ( $\infty$  – 1.1-1)

Lens unit of the 135mm TELE-ELMAR-M f/4 ( $\infty$  – 1:1.3)

Code No.

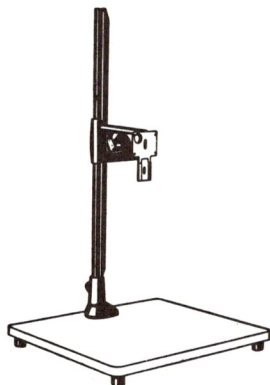
**16 863**

Ring adapter .....

other LEICA M lenses can be used with be adapter 14167

# Accessories for close-up photography

## Copying Stand



For the attachment of:

- The LEICA R and all LEICAFLEX models with or without
- Universal Focusing Bellows R  
All LEICA models with VISOFLEX 3, with or without Universal Focusing Bellows 2

Code Number

### Copying stand

consisting of:

46 x 50 cm baseplate, 80 cm column, with non-rotating guide and flange, carrier with coarse and fine adjustment .....

Weight: 6.26 kg

**16707** \_\_\_\_\_

## Angle finder

For the LEICA R4



For observation from above but also for work with the copying stand and photography "round the corner" or above the heads of a crowd

Code Number

**90° angle finder**, right-way-round, upright image, focusing eyepiece . . . **14326** \_\_\_\_\_



# Contents

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# LEICA M4-P

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35 mm measuring-viewfinder camera. Interchangeable lenses from 21 to 135 mm (with VISOFLEX 3 attachment from 65 to 800 mm). Rangefinder and field-of-view frames for 28\* and 90 mm, 35 and 135 mm, 50 and 75 mm. Split-image and coincident image rangefinder. Rapid motor wind with attachable MOTOR WINDER M4-2. Attachable coupled exposure meter.

Detailed description page 91

Code Number

**LEICA M4-P, black chromium finish**

Complete with camera body cover, flash socket covers and carrying strap.....

**10415** \_\_\_\_\_

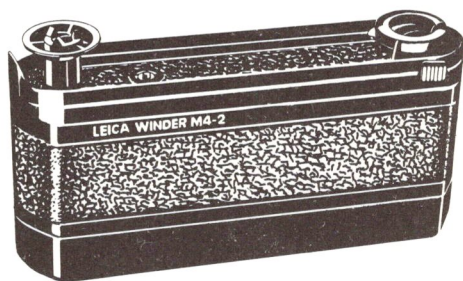
LEICA MD-2 see page 129

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\* 28 mm lenses from Serial No. 2314921 on.



## LEICA WINDER M4-2

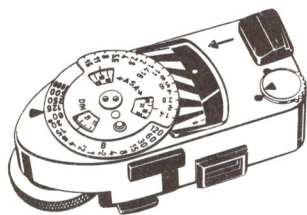


Compact, handy winder for the LEICA M4-P, LEICA M4-2, and LEICA MD-2. Single-frame exposures and series\* with the camera release. Frame frequency up to 3fps. Extremely quiet running of gear and motor.

Detailed description page 93

	Code Number	
<b>LEICA WINDER M4-2</b> .....	<b>14400</b>	_____
Connecting cable for external supply (replacement) .....	14229	_____
Housing for ordinary or rechargeable batteries (replacement).....	14227	_____

## LEICAMETER MR exposure meter



	Code Number	
<b>LEICAMETER MR, black chromium finish</b> .....	<b>14218</b>	_____
Leather case for the LEICAMETER .....	14213	_____

\* With LEICA-WINDER M4-2 under serial No. 10350 a series release is not possible.

# Accessories for the LEICA M4-P

## Ever ready case

For the LEICA M4-P (whithout LEICA Winder) with LEICAMETER MR



Code No.

Soft leather  
for the 21mm, 28mm, 35mm, 50mm f/2 or 50mm f/4 lenses . . . . . **14 571**

## Universal holdall case<sup>1)</sup>

For the LEICA M4-P



suitable for all LEICA M models (except LEICA M5)

External dimensions: about 31 x 18 x 23cm

Soft leather, with coupling ring

Accepts one LEICA M4-P with LEICAMETER MR with or without Leica-Winder attached and lens in position, and up to four additional lenses.

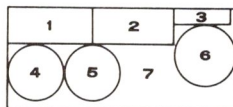
Code No.

Universal holdall case for the LEICA M4-R. . . . . **14 827** \_\_\_\_\_  
Coupling ring (replacement) . . . . . **14 838** \_\_\_\_\_

<sup>1)</sup> List of possibilities of accommodating equipment see „Technical Information“, p. 222

# Photographic case without internal partitions

External dimensions: about 30 x 12.5 x 18.5 cm



Photographic case .....

Code No.

14 815

## Correction lenses

for LEICA M models (spherical)

+ 0.5 .....  
+ 1.0 .....  
+ 1.5 .....  
+ 2 .....  
+ 3 .....  
- 0.5 .....  
- 1 .....  
- 1.5 .....  
- 2 .....  
- 3 .....

Code No.

14 061 \_\_\_\_\_  
14 362 \_\_\_\_\_  
14 363 \_\_\_\_\_  
14 364 \_\_\_\_\_  
14 365 \_\_\_\_\_  
14 366 \_\_\_\_\_  
14 367 \_\_\_\_\_  
14 368 \_\_\_\_\_  
14 369 \_\_\_\_\_  
14 370 \_\_\_\_\_

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

## Ball-and-socket heads



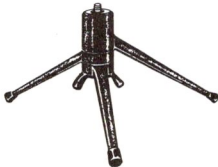
Code Number

**Large ball-and-socket head with tripod thread A 1/4 and A 3/8 DIN 4503**  
(1/4 and 3/8 in) ..... **14121** \_\_\_\_\_



**Small ball-and-socket head with tripod thread A 1/4 (1/4 in)** ..... **14119** \_\_\_\_\_

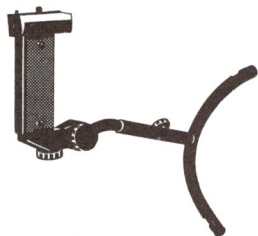
## Table-top tripod



Code Number

**Table-top tripod with 3 folding legs, tripod thread A 1/4 DIN 4503 (1/4 in)** . **14100** \_\_\_\_\_

## Universal handgrip



Universal handgrip with shoulder stock, universally adjustable to suit all users. Thread A ¼ DIN 4503 (¼ in) for attachment of the carrying strap 14 130

	Code Number	
<b>Universal handgrip</b> with shoulder stock .....	<b>14 188</b>	_____
<b>Carrying strap for heavy outfits</b> , with non-slip pad, with 2 tripod screws, thread A ¼ (¼ in) see also Universal handgrip 14 188 .....	<b>14 130</b>	_____

## Cable releases

for all camera models with conical thread.

	Code Number	
Cable release, length 25 cm, with arresting screw .....	14 067	_____
Cable release, length 50 cm, with arresting screw .....	14 076	_____

## Bayonet adapter rings

for the use of LEICA lenses  
with screw mount on the  
LEICA M4-P and MD-2

	Code Number	
21 and 50 mm focal length .....	14 097	_____
35, 135 mm focal length and VISOFLEX attachment I .....	14 099	_____

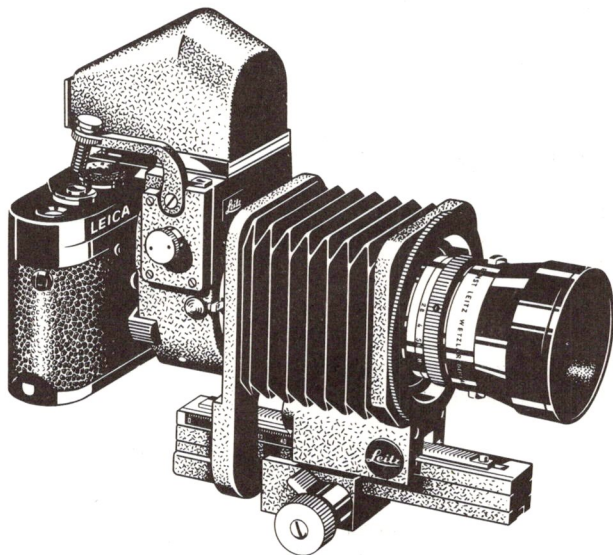
## Spare parts for cameras

	Code Number	
<b>Carrying strap</b> with non-slip pad (replacement) .....	14 226	_____
<b>Flash socket cover</b> (replacement) .....	15 526	_____
<b>Camera body cover M bayonet</b> (replacement) .....	14 195	_____



# Accessories for the near-focusing range

## Universal Focusing Bellows 2



Variable extension for continuous focusing in conjunction with the VISOFLEX 3 Mirror Reflex attachment.

Permits photography within the range of  $\infty$  to 1:1 with the lens units of the 90 mm ELMAR-M and ELMARIT-M and the 65 mm ELMAR-M.

Additional adjustment for reproduction at a preset scale.

For upright and horizontal format.

Tripod thread A  $\frac{1}{4}$  and A  $\frac{3}{8}$ , DIN 4503 ( $\frac{1}{4}$  in and  $\frac{3}{8}$  in).

Weight: 0.56 kg

Code Number

### Universal Focusing Bellows 2

Outfit for the 65 mm ELMAR-R ( $\infty$  to 1.4:1) and lens unit of the 90 mm ELMAR or ELMARIT-M ( $\infty$  to 1:1) and 135 mm TELE-ELMAR-M ( $\infty$  to 1:1.3).....

16556

## Accessories for the Universal Focusing Bellows 2

### Adapter ring for:

M lenses with screw thread

Focal length 50 mm 1.4:1 - 3.2:1

Focal length 35 mm 2.1:1 - 4.7:1

### Adapter ring .....

16596

### Adapter ring for:

Lenses with screw thread

Focal length 50 mm 1.1:1–3:1

Focal length 35 mm 1.7:1–4.3:1

25 mm REPRO-PHOTAR f/2 4:1–8:1

12.5 mm\* PHOTAR f/2.4 9:1–17:1

50 mm\* PHOTAR f/4 1.3:1–3:1

Code Number

**Adapter ring** ..... **16590** \_\_\_\_\_

Lens unit of the SUMMICRON-M up to Serial No. 2915801

(1.4:1–3.2:1)

Adapter ring ..... 16590 \_\_\_\_\_

+ adapter ring ..... 17672 \_\_\_\_\_

Lens unit of the 90 mm SUMMICRON-M up to Serial No. 2997000

(1:9–1:1.2)

Lens unit of the 135 mm ELMARIT-M (1:18.5–1:1.32)

Lens unit of the 200 mm TELYT-M f/4 ( $\infty$ –1:3)

Lens unit of the 280 mm TELYT-M f/4.8 ( $\infty$ –1:6)

**Adapter ring** ..... **16598** \_\_\_\_\_

Lens unit of the 135 mm TELYT-ELMAR-M ( $\infty$ –1:1.3), of the

90 mm ELMAR-M and ELMARIT-M ( $\infty$ –1:1) and of the

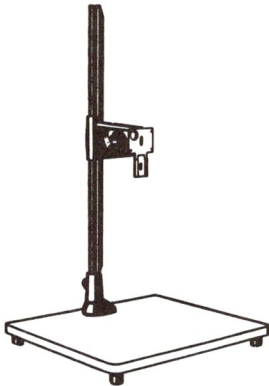
65 mm ELMAR-M f/3.5 ( $\infty$ –1.4:1)

**Adapter ring (replacement)** ..... **16558** \_\_\_\_\_

## Copying Stand

For the attachment

- of the LEICA R and all LEICAFLEX models with or without Universal Focusing Bellows R
- all LEICA models with VISOFLEX 3, with or without Universal Focusing Bellows 2



### Copying Stand

consisting of:

46 x 50 cm baseplate, 80 cm column, with parallel guide

and flange, carrier with coarse and fine adjustment

Weight: 6.26 kg

**16707** \_\_\_\_\_

\* Adapter ring (Item No. 042-716.041). This adapter ring is part of the 25 mm REPRO-PHOTAR f/2 and can be obtained as a space part from the Technical Service, Ernst Leitz Wetzlar GmbH, or the national Leitz Agency only.

# Description and technical data of the instruments

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## The LEICA M4-P



### Type of camera:

35 mm measuring viewfinder camera. Interchangeable lenses. Rapid motor wind with attachable MOTOR WINDER M4-2. Attachable coupled exposure meter.

### Body:

Compact, all-metal body with hinged back, easy-grip, covered with grained PVC. Camera top and baseplate made of brass, black chromium finish. Measuring viewfinder. Stainless steel carrying eyelets on both sides. Mechanical connection for the LEICA WINDER M4-2. Tripod thread: standard A 1/4, (1/4in). Rapid bayonet changing mount for LEICA M lenses and accessories. Accessory shoe with centre contact. Separate flash contacts for X and M. Field-of-view selector.

### Lens system:

LEICA M lenses with rapid bayonet changing mount from 21 to 135 mm. With VISO-FLEX 3 attachment from 65 to 800 mm. All lenses with LEITZ Absorban cementing layers and LEITZ coating.

### Measuring viewfinder:

- Bright and contrasty finder image with bright field-of-view frame for 28 mm and 90 mm, 35 mm and 135 mm or 50 mm and 75 mm

and automatic parallax compensation. When a lens is inserted its related field-of-view frame is automatically faded into the viewfinder image\*. Any desired pair of frames can be preselected with the field-of-view selector. The image area corresponds to the image field of the lens at a short focusing position. Spectacle wearers, too, are able to observe the image field fully. A range of 10 correction lenses from +3 to -3 dioptres can be attached.

- Split-image and coincident image rangefinder standing out as a bright field in the centre of the finder image. Long effective measuring base of 48 mm (measuring base 69 mm x 0.7 viewfinder magnification). This ensures quick and reliable focusing even in poor lighting conditions and with all lenses up to 135 mm focal length.

\* 28 mm lenses from serial No. 2314921 on.

**Shutter:**

Horizontally acting rubber-blind focal-plane shutter, extremely quiet. Mechanically determined speeds: 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000 sec, and B=time exposures of any desired duration.

**Release:**

Smooth shutter release: international conical thread for cable releases in the release button.

**Flash synchronisation:**

Automatic flash synchronisation for flash bulbs (M contacts) from "B" to 1/500 sec, for electronic flashes (X contact) from "B" to 1/50 sec. Two separate standard sockets for M and X as well as separate centre contact (X) in the accessory shoe. 3 flash units can be fired simultaneously through all 3 contacts.

Flash table see "Technical Information".

**Film loading:**

Remove the baseplate and turn up the centre part of the camera back. Rapid film loading system for all commercial 35 mm films and LEICA cassettes.

**Film transport:**

Angled lever with movable end piece for rapid film transport and shutter wind. Its standby position is favourable for persons using their left eye for focusing. Travel of the rapid winding lever 120°. Facility for interval winding. Double exposure block. Forward-counting automatic frame counter read through a magnifier. Automatic return to Start (-2 frames) as the camera is being opened. Lever for rewind release with automatic return when the winder lever is operated.

Angled, folding crank for convenient and rapid rewind of the film.

**Carrying strap:**

Black perlon tissue, width 16 mm, adjustable length. Always soft and pliable irrespective of temperature and weather. 20 mm wide anti-slip section. When the ever-ready case is used, the carrying strap remains on the camera.

**Dimensions:**

Height: 77 mm, Length: 138 mm, Depth: 36 mm

**Weight:**

Body without lens: 0.545 kg

Body with the 50 mm SUMMICRON-M f/2: 0.74 kg

**Exposure measurement:**

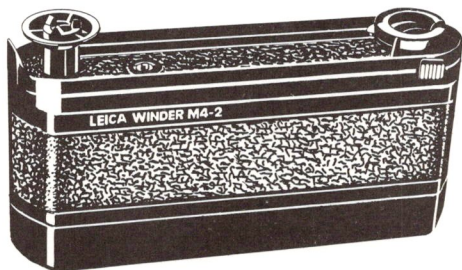
With the LEICAMETER MR exposure meter, which is inserted in the accessory shoe and coupled with the shutter speed dial.

The measuring angle corresponds to the 90 mm field of view, therefore selective measurement when the 90 mm frame is faded in. Measured-value storage. Measuring range from 0.5 to 16000 cd/sq.m (1.6 - 50000 asb). Current supply from a 1.5v mercuric oxide button cell, for instance Mallory PC 625.

LEICA MD-2 see page 129



# LEICA Winder M4-2



## Instrument type: Winder

Compact, handy winder for the LEICA M4-P, M4-2, and LEICA-MD-2.  
Single-frame release with the release button of the camera.  
From Serial No. 10.350 onward series exposures are also possible.  
With normal continuous pressure on the release button the camera takes a succession of exposures.  
Frame frequency up to 3fps.  
Extremely quiet running of gear and motor.

### Body:

Robust, fibre glass reinforced plastic housing, covered with textured PVC.  
Drive motor: D.C. micro motor with coreless rotor.  
The winder is attached to the camera in place of the baseplate.  
It is mechanically controlled exclusively from the camera.  
The housing for ordinary or rechargeable batteries is attached to the bottom of the Winder.

### Current supply:

4 alkali-manganese 1.5 v batteries in the housing. Capacity to LEITZ test specifications: about 150 36-exposure films at 20 °C  
or  
4 NiCd rechargeable batteries, for instance VARTA AG DEAC 501 RS in the housing. Rechargeable batteries remain in the housing during charging  
or  
External supply through the connecting cable provided. At low temperatures, for instance, the housing for ordinary or rechargeable batteries can be detached and connected with the winder through the connecting cable. The housing can now be maintained at body heat close to the body.

### Range of possible shutter speeds:

1/1000 to 1 sec, and "B".

### Release:

through the release button of the camera

### Dimensions:

height including battery housing: 56 mm, length 138 mm, depth 34 mm.

### Weight:

0.37 kg



# Contents:

---

## Product range, description and technical data of the lenses

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35 mm SUMMILUX-M f/1.4 .....	101
50 mm SUMMICRON-M f/2.....	102
50 mm SUMMILUX-M f/1.4 .....	103
50 mm NOCTILUX-M f/1 .....	104
75 mm SUMMILUX-M f/1.4 .....	105
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## Accessories for M lenses

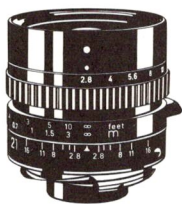
Lens hoods, screw-in  
and Series filters  
Brilliant finders

# The range of the LEICA M lenses

## Table of the LEICA M lens range

Designation	Maximum aperture	Focal length in mm	Filter dia.	Code No.
ELMARIT-M	f/2.8	21	E 49	11 134
ELMARIT-M	f/2.8	28	E 49	11 804
SUMMICRON-M	f/2	35	E 39	11 310
SUMMILUX-M	f/1.4	35	S 7	11 870
SUMMICRON-M	f/2	50	E 39	11 819
SUMMILUX-M	f/1.4	50	E 43	11 114
NOCTILUX-M	f/1	50	E 58	11 821
SUMMILUX-M	f/1.4	75	E 60	11 814
TELE-ELMARIT-M	f/2.8	90	E 39	11 800
SUMMICRON-M	f/2	90	E 49	11 136
TELE-ELMAR-M	f/4	135	E 39	11 851
ELMARIT-M	f/2.8	135	E 55	11 829
Lenses for VISOFLEX 3 and Universal Focusing Bellows				
ELMAR-V	f/3.5	65	S 6	11 162
TELE-ELMAR-M	f/4	135	E 39	11 852
ELMARIT-M	f/2.8	135	E 55	11 827
ELMARIT-M-head	f/2.8	135	E 55	11 828
TELYT-V	f/4	200	E 58	11 063
TELYT-V	f/4.8	280	S 8	11 914
TELYT-V	f/6.8	400	S 7	11 966
TELYT-V	f/6.8	560	S 7	11 864
TELYT-S	f/6.3	800	S 7	on request

## 21 mm ELMARIT-M f/2.8



Lens of extremely wide angle of view

Angle of view: 92°

No. of elements: 8 (6 components)

Filter size: E 60

Internal thread: M 60 x 0.75

Clickstops (including half values)

Smallest aperture: f/16

Combined feet/meter scale

Focusing range: ∞ to 0.7 m

Smallest object field: 705 x 1.058 mm (about 1:30)

Non-rotating focusing mount

Brilliant finder required

Hard-chrome LEICA-M rapid bayonet changer

Black finish

Push-on lens hood

Lens cap dia: A 62 mm

Length from bayonet flange: 46.5 mm

Diameter: 62 mm

Weight: 0.26 kg

### 21 mm ELMARIT-M f/2.8

with lens hood, lens cap and rear cover . . . . .

Brilliant finder with case . . . . .

Replacement case . . . . .

(Replacement lens cap and lens hood see from p. 120)

Code No.

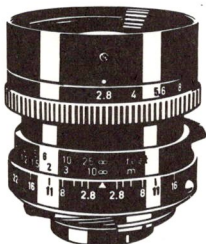
**11 134** \_\_\_\_\_

12 012 \_\_\_\_\_

14 628 \_\_\_\_\_



# 28 mm ELMARIT-M f/2.8



Wide angle lens

Angle of view: 76°

Number of elements: 8 (6 components)

Filter size: E 49

Internal thread: M 49 x 0.75

Click-stops (including 1/2 values)

Smallest aperture: f/22

Combined "feet-metre" scale

Focusing range: ∞ to 0.7 m (28 in)

Smallest object field: 533 x 800 mm

(21 x 32.5 in) (about 1:22)

Non-rotating focusing mount

Built-in camera finder

Hard-chrome LEICA-M rapid bayonet changer

Black finish

Push-on lens hood

Lens cap dia.: A 51 mm

Length from bayonet flange: 48 mm

Diameter: 53 mm

Weight: 0.25 kg

Code Number

## 28 mm ELMARIT-M f/2.8

with lens hood, lens cap and rear cover. . . . . **11804** \_\_\_\_\_

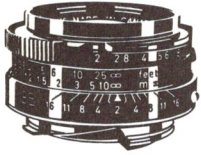
Brilliant finder with case\* . . . . . **12017** \_\_\_\_\_

Replacement case. . . . . **14628** \_\_\_\_\_

(Replacement lens caps and lens hood, see page 120)

\* Brilliant finder not necessary for LEICA M4-P

# 35 mm SUMMICRON-M f/2



High-speed wide angle lens

Angle of view: 64°

Number of elements: 7 (5 components)

Filter size: E 39

Internal thread: M39 x 0.5

Click-stops (including 1/2 values)

Smallest aperture: f/16

Combined "feet-metre" scale

Focusing range: ∞ to 0.7 m (28 in)

Smallest object field: 430 x 640 mm  
(17 x 25 in) (about 1:18)

Non-rotating focusing mount

Built-in camera finder

Hard-chrome LEITZ M rapid bayonet changer

Black finish

Push-on lens hood

Lens caps dia.: A 42 mm

Length from bayonet flange: 26 mm

Diameter: 52 mm

Weight: 0.19 kg

Code Number

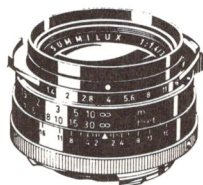
## 35 mm SUMMICRON-M f/2

with lens hood, lens cap, and rear cover ..... **11310** \_\_\_\_\_

(Replacement lens caps and lens hood, filter E39 see from page 120)



## 35 mm SUMMILUX-M f/1.4



Ultra-high-speed wide-angle lens

Angle of view: 64°

Number of elements: 7 (5 components)

Filter size: Series 7, for insertion in the lens hood

Click-stops (including 1/2 values)

Smallest aperture: f/16

Combined "feet-metre" scale

Focusing range: ∞ to 1 m (40 in)

Smallest object field: 630 x 950 mm

(25 x 37 in) (about 1:26)

Non-rotating focusing mount

Built-in camera finder

Hard-chrome LEICA M rapid bayonet changer

Black finish

Lens hood functions as filter holder,

to be unscrewed for insertion

of Series 7 filters

Lens cap dia.: A 42 mm

Length from bayonet flange: 28 mm

Diameter: 53 mm

Weight: 0.245 kg

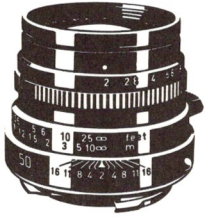
Code Number

### 35 mm SUMMILUX-M f/1.4

with lens hood, lens cap and rear cover. . . . . **11870** \_\_\_\_\_

(Replacement lens caps and lens hood, Series 7 filters, see from page 120)

# 50 mm SUMMICRON-M f/2



High-speed universal lens

Angle of view: 45°

Number of elements: 6 (4 components)

Filter size: E 39

Internal thread: M39 x 0.5

Click-stops (including 1/2 values)

Smallest aperture: f/16

Combined "feet-metre" scale

Focusing range: ∞ to 0.7 m (28 in)

Smallest object field: 277 x 416 mm  
(11 x 16.4 in approx.) (about 1:11.5)

Non-rotating focusing mount

Built-in camera finder

Hard-chrome LEICA-M rapid bayonet  
changer

Black finish

Push-on lens hood

Lens cap dia.: A 42 mm

Length from bayonet flange: 42 mm

Diameter: 52 mm

Weight: 0.195 kg

Code Number

## 50 mm SUMMICRON-M f/2

with lens hood, lens cap and rear cover. . . . .

**11819** \_\_\_\_\_

(Replacement lens caps and lens hood, E 39 filters, see from page 120)

# 50 mm SUMMILUX-M f/1.4



- Ultra-high speed lens
- Angle of view: 45°
- Number of elements: 7 (5 components)
- Filter size: E 43
- Internal thread: M 43 x 0.45
- Click-stops (from No. 2048701 including 1/2 values)
- Smallest aperture: f/16
- Combined "feet-metre" scale
- Focusing range: ∞ to 1 m (40 in)
- Smallest object field: 410 x 620 mm (16 x 24.5 in approx.) (about 1:17)
- Non-rotating focusing mount
- Built-in camera finder
- Hard-chrome LEICA-M rapid bayonet changer
- Black finish
- Push-on lens hood
- Lens cap dia.: A 45 mm
- Length from bayonet flange: 46 mm
- Diameter: 53 mm
- Weight: 0.36 kg

Code Number

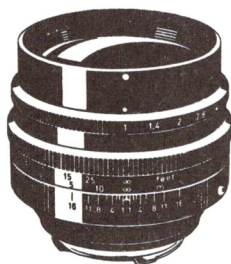
## 50 mm SUMMILUX-M f/1.4

with lens hood, lens cap and rear cover. ....

**11114** \_\_\_\_\_

(Replacement lens caps and lens hood, E 43 filters see from page 120)

# 50 mm NOCTILUX-M f/1



Top-quality lens of extreme speed

Angle of view: 45°

Number of elements: 7 (6 components)

Filter size: E 58

Internal thread: M58 x 0.75

Click-stops (including 1/2 values)

Smallest aperture: f/16

Combined "feet-metre" scale

Focusing range: ∞ to 1 m (40 in)

Smallest object field: 410 x 620 mm  
(11 x 16.4 in approx.) (about 1:17)

Non-rotating focusing mount

Built-in camera finder

Hard-chrome LEICA-M rapid bayonet  
changer

Black finish

Lockable lens hood

Lens cap dia.: A 61 mm

Length from bayonet flange: 62 mm

Diameter: 69 mm

Weight: 0.58 kg

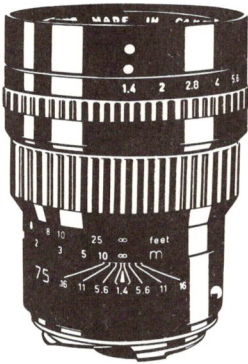
Code Number

## 50 mm NOCTILUX-M f/1

with lens hood, lens cap and rear cover..... **11821**\_\_\_\_\_

(Replacement lens caps and lens hood, E 58 filters see from page 120)

# 75 mm SUMMILUX-M f/1.4



Ultra-high-speed lens of medium focal length

Angle of view: 31°

Number of elements: 7 (5 components)

Filter size: E 60

Internal thread: M 60 x 0.75

Click-stops (including 1/2 values)

Smallest aperture: f/16

Combined "feet-metre" scale

Focusing range: ∞ to 1 m (40 in)

Smallest object field: 300 x 450 mm  
(11.8 x 17.7 in) (about 1:12.5)

Non-rotating focusing mount

Built-in camera finder

Hard-chrome LEICA-M rapid bayonet  
changer

Black finish

Lockable lens hood

Lens cap dia.: A 62 mm

Length from bayonet flange: 80 mm

Diameter: 63 mm

Weight: 0.49 kg

Code Number

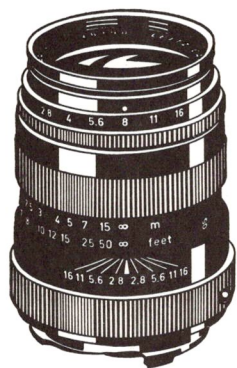
## 75 mm SUMMILUX-M f/1.4

with lens hood, lens cap and rear cover..... **11814** \_\_\_\_\_

(Replacement lens caps and lens hood, E 60 filters, see from page 120)



## 90 mm TELE-ELMARIT-M f/2.8



Handy press and snapshot lens

Angle of view: 27°

Number of elements: 4 (4 components)

Filter size: E 39 or Series 5.5

For Series 5.5 filters the adapter

11 251 is required

Internal thread: M 39 x 0.75

Click-stops (including 1/2 values)

Smallest aperture: f/16

Combined "feet-metre" scale

Focusing range: ∞ to 1 m (40 in)

Smallest object field: 220 x 330 mm

(8.7 x 13 in approx.) (about 1:9)

Non-rotating focusing mount

Built-in camera finder

Hard-chrome LEICA-M rapid bayonet

changer

Black finish

Screw-on lens hood

Lens cap dia.: A 42 mm

Length from bayonet flange: 62 mm

Diameter: 51.5 mm

Weight: 0.225 kg

Code Number

### 90 mm TELE-ELMARIT-M f/2.8

with lens hood, lens cap and rear cover. .... **11 800** \_\_\_\_\_

(Replacement lens caps, adapter ring 11 251 for Series filters and lens hood, E 39 filters, see from page 120)

# 90 mm SUMMICRON-M f/2

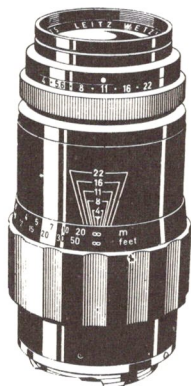


- High-speed lens for press work
- Angle of view: 27°
- Number of elements: 5 (4 components)
- Filter size: E 49
- Internal thread: M 49 x 0.75
- Click-stops (including 1/2 values)
- Smallest aperture: f/16
- Combined "feet-metre" scale
- Focusing range: ∞ to 1 m (40 in)
- Smallest object field: 220 x 330 mm  
(8.7 x 13 in approx.) (about 1:9)
- Non-rotating focusing mount
- Built-in camera finder
- Hard-chrome LEICA-M rapid bayonet  
changer
- Black finish
- Built-on, extensible lens hood
- Lens cap dia.: A 63.7 mm
- Length from bayonet flange: 79 mm
- Diameter: 67 mm
- Weight: 0.41 kg

Code Number

**90 mm SUMMICRON-M f/2**  
with lens hood, lens cap and rear cover. .... **11136** \_\_\_\_\_  
(Replacement lens caps see from page 120)

# 135 mm TELE-ELMAR-M f/4



Telephoto lens

Angle of view: 18°

Number of elements: 5 (3 components)

Filter size: E 39

Internal thread: M 39 x 0.5

Click-stops (including 1/2 values)

Smallest aperture: f/22

Combined "feet-metre" scale

Focusing range: ∞ to 1.5 m (60 in)

Smallest object field: 220 x 330 mm

(8.7 x 13 in approx.) (about 1:9)

Non-rotating focusing mount

Built-in camera finder

Hard-chrome LEICA-M rapid bayonet  
changer

Black finish

Lens unit can be unscrewed

Push-on lens hood

Lens cap dia.: A 42 mm

Length from bayonet flange: 105 mm

Diameter: 55 mm

Weight: 0.55 kg

Code Number

## 135 mm TELE-ELMAR-M f/4

with lens hood, lens cap and rear cover. .... **11851** \_\_\_\_\_

(Replacement lens caps and lens hood, E 39 filters, see from page 120)

## Lens unit of the 135 mm TELE-ELMAR-M f/4 separate

for use on the Universal Focusing Bellows 2 and VISOFLEX 3 with lens

hood. .... **11852** \_\_\_\_\_

# 135 mm ELMARIT-M f/2.8

with viewfinder front attachment



High-speed telephoto lens

Angle of view: 18°

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: M55 x 0.75

Click-stops (including 1/2 values)

Smallest aperture: f/32

Combined "feet-metre" scale

Focusing range: ∞ to 1.5 m (60 in)

Smallest object field: 220 x 330 mm

(8.7 x 13 in approx.) (about 1:9)

Non-rotating focusing mount

Built-in camera finder

Hard-chrome LEICA M rapid bayonet

changer

Black finish

Lens unit can be unscrewed

Built-on, extensible lens hood

Lens cap dia.: A 63.7 mm

Length from bayonet flange: 114 mm

Diameter: 66 mm

Weight: 0.735 kg

Code Number

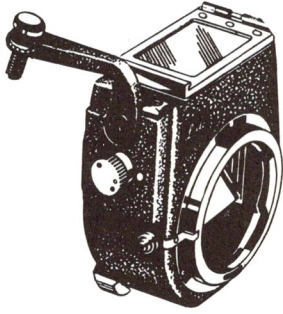
## 135 mm ELMARIT-M f/2.8

with lens hood, lens cap and rear cover. . . . . **11 829** \_\_\_\_\_

(Replacement lens caps and E 55 or Series 7 filters and adapter ring  
14 225, see from page 120)

Lens unit of the 135 mm ELMARIT-M f/2.8 separate for use on the  
Universal Focusing Bellows 2. . . . . **11 828** \_\_\_\_\_

# Mirror-reflex attachment



## VISOFLEX® 3\*

Mirror reflex device for lenses from 65 to 800 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 4x viewing magnifier.

Vertical 5x magnifier (reversed image), adjustable for the correction of deficient eyesight from +1.75 to -2.5 dioptries. The magnifiers can be left in position when the camera body is interchanged.

1/4" tripod thread A 1/4

Weight: 0.48 kg

Code Number

### VISOFLEX 3

without magnifier .....	16497	_____
4x magnifier (90°), also for VISOFLEX 2 .....	16499	_____

<b>VISOFLEX 3 with 4x magnifier, complete</b> .....	<b>16498</b>	_____
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5x magnifier (vertical), also for VISOFLEX 2 .....	16461	_____
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## Accessories for the VISOFLEX 3

Code Number

**Correction lenses** (spherical) for the 4x magnifier (also for the LEICA-  
(also for the LEICAFLEX SL)

+0.5 .....	14118	_____
+1.0 .....	14371	_____
+1.5 .....	14372	_____
+2.0 .....	14373	_____
+3.0 .....	14374	_____
-0.5 .....	14375	_____
-1.0 .....	14376	_____
-1.5 .....	14377	_____
-2.0 .....	14378	_____
-3.0 .....	14379	_____

\* cannot be used on the LEICA CL





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

16464 \_\_\_\_\_



**Extension tube** for extending the reproduction scales of the universal focusing mount (height: 26.5 mm) .....

16471 \_\_\_\_\_



**Short tube** for the use of the 90 mm SUMMICRON-M f/2 (up to No. 2997 000) and of the 135 mm ELMARIT-M f/2.8 on the VISOFLEX 3 .....

16462 \_\_\_\_\_



**Extension ring** for extending the reproduction scale of the short tube (height: 14.5 mm) .....

16474 \_\_\_\_\_



**Extension ring** for the use of the 125 mm HEKTOR®, and 135 mm ELMAR and HEKTOR in short mount, 200 mm, 280 mm (up to Serial No. 2340 952) TELYT-M and 400 mm f/5 (normal focusing range) .....

16466 \_\_\_\_\_

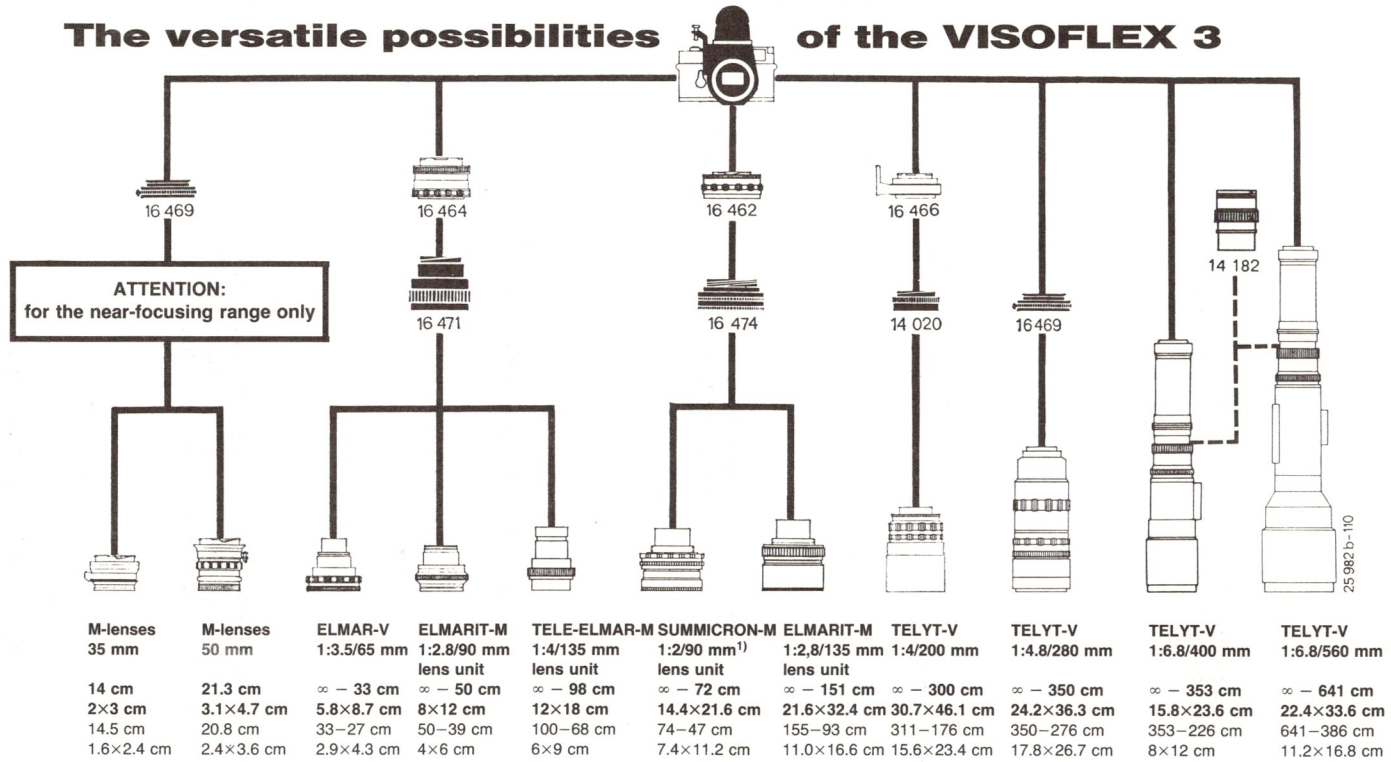


**Extension ring** for the use of the 50 mm and 35 mm\* M lenses on the VISOFLEX 3 .....

16469 \_\_\_\_\_

\* For lenses with screw thread a bayonet adapter 14097 is required

# The versatile possibilities of the VISOFLEX 3



**Bold type** = normal working range  
 Lean type = ring adapters required for the near-focusing and macro range  
 Format details = object size at minimum camera distance  
 1) Up to No. 2 997 000

# 65 mm ELMAR-V f/3.5

for the VISOFLEX 3



Universal lens of the shortest focal length

Angle of view: 36°

Number of elements: 4 (3 components)

Filter size: Series 6

For Series 6 filters the adapter

14 160 is required

Internal thread: M 44 x 0.75

Click-stops (including 1/2 values)

Aperture preselection

Smallest aperture: f/22

Use on the VISOFLEX 3:

With universal helical focusing mount

16464: ∞ to 0.35 m (14 in) = 1:2.5

with additional ring 16471:

0.33 m (13 in) to 0.27 m (11 in) = 1:1.25

Smallest object field: 30 x 45 mm

(1.2 x 1.8 in approx.)

(ELPRO 2 near-focusing attachment can be used for reproduction scales from 1:3.2 to 1:1.4)

Black finish

Built-on lens hood

Lens cap dia.: A 56 mm

Length from bayonet flange: 55 mm

Diameter: 58 mm

Weight: 0.13 kg

Code Number

## 65 mm ELMAR-V f/3.5

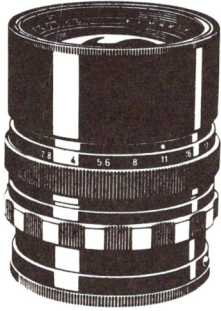
with lens hood, lens cap and rear cover. . . . . **11 162** \_\_\_\_\_

Universal helical focusing mount required for use on the VISOFLEX 3 . . . . . **16 464** \_\_\_\_\_

(Replacement lens caps and adapter ring 14 160 for Series 6 filters, see from page 120)

# 135 mm ELMARIT-M f/2.8

for the VISOFLEX 3



High-speed telephoto lens

Angle of view: 18°

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: M55 x 0.75

Click-stops (including 1/2 values)

Smallest aperture: f/32

Focusing range: ∞ to 1.55 mm (62 in)

Smallest object field: 220 x 330 mm

(8.7 x 13 in approx.) (about 1:9)

(ELPRO 3 and 4 near-focusing attachments can be used for reproduction scales

from 1:10 to 1:2.8)

Non-rotating focusing mount

Hard-chrome LEICA-M rapid bayonet changer

Black finish

Lens unit can be unscrewed

Built-on, extensible lens hood

Lens cap dia.: A 63.7 mm

Length from bayonet flange: 77 mm

Diameter: 66 mm

Weight: 0.55 kg

Code Number

## 135 mm ELMARIT-M f/2.8 for the VISOFLEX 3

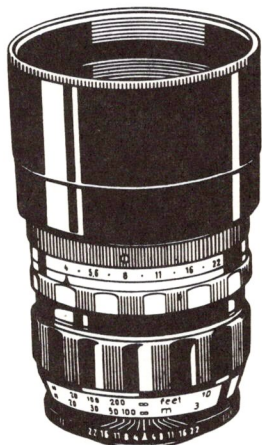
with lens hood, lens cap and rear cover. . . . . **11 827** \_\_\_\_\_

(Replacement lens caps and E 55 or Series 7 filters and adapter ring for Series filters see from page 120)

Lens unit of the 135 mm ELMARIT-M f/2.8 separate for use on the Universal Focusing Bellows 2. . . . . **11 828** \_\_\_\_\_

# 200 mm TELYT-V f/4

for VISOFLEX 1, 2, 3



Telephoto lens

Angle of view: 12°

Number of elements: 4 (4 components)

Filter size: E 58

Internal thread: M 58 x 0.75

Click-stops (including 1/2 values)

Aperture preselection

Smallest aperture: f/22

Combined "feet-metre" scale

Focusing range: ∞ to 3 m (10 ft)

Smallest object field: 310 x 460 mm

(12.2 x 18.1 in) (about 1:13)

Non-rotating focusing mount

LEICA thread

Black finish

Chromium-plated scale rings

Built-on, extensible lens hood

Lens cap dia.: A 72 mm

Length from the end of the mount: 97 mm

Diameter: 72 mm

Weight: 0.64 kg

Code Number

## 200 mm TELYT-V f/4

with lens hood, lens cap and rear cover..... **11 063** \_\_\_\_\_

Adapter rings required for the use on the VISOFLEX 2 and 3 ..... **16 466** \_\_\_\_\_

(Replacement lens caps and E 58 filters see from page 120)

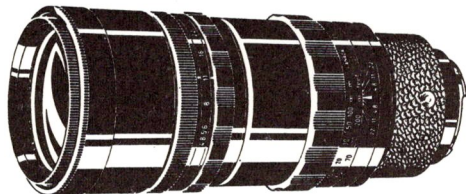
Extension ring 15 mm for photography in the near-focusing range. .... **14 020** \_\_\_\_\_

Lens unit of the 200 mm TELYT-V f/4 separate for use on the Universal  
Focusing Bellows 2..... **11 069** \_\_\_\_\_



# 280 mm TELYT-V f/4.8

for VISOFLEX 3



## Telephoto lens

Angle of view: 8.5°

Number of elements: 4 (4 components)

Filter size: Series 8

For Series 8 filters the adapter

14 169 is required

Internal thread: M66 x 0.75

Click-stops (including 1/2 values)

Aperture preselection

Smallest aperture: f/22

Combined "feet-metre" scale

Focusing range: ∞ to 3.5 m (11 ft 8 in)

Smallest object field: 242 x 363 mm

(9.5 x 14.3 in) (about 1:10)

Non-rotating focusing mount

Hard-chrome LEICA M rapid bayonet  
changer

Black finish

Built-on, extensible lens hood

Lens cap dia.: A 76 mm

Length from bayonet flange: 184 mm

Diameter: 76 mm

Weight: 1.2 kg

## 280 mm TELYT-V f/4.8

Code Number

with lens hood, lens cap and rear cover. . . . . **11 914** \_\_\_\_\_

(Replacement lens caps and adapter ring 14 169 for Series 8 filters see  
from page 120)

Adapter ring 10 mm for photography in the 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 267 mm (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 212 mm (5.6 x 8.3 in);

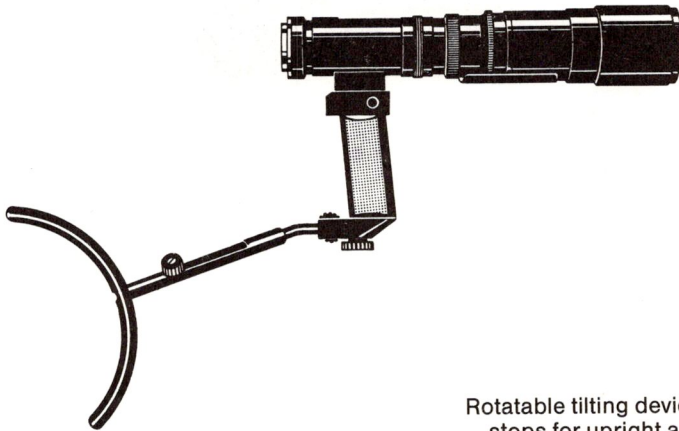
3 rings – 2.33 m to 2.06 m (7 ft 5 in to 6 ft 10 in),  
smallest object field 117 x 176 mm (4.6 x 6.9 in).

(Data refer to the distance between object and film plane.)

Lens unit of the 280 mm TELYT-V f/4.8 separate for use on the Universal Focusing Bellows 2 or on the TELEVIT follow-focus device. . . . . **11 904** \_\_\_\_\_

# 400 mm TELYT-V f/6.8

for the VISOFLEX 3



Rapid-action lens of long focal length

Angle of view: 6°

Number of elements: 2 (1 component)

Filter size: Series 7 (in filter slot)

Internal thread: M72 x 0.75

Click-stops (between f/8 and f/16  
also 1/2 values)

Smallest aperture: f/32

Focusing range: ∞ to 3.6 m (11 ft 10 in)

Follow-focus device (sliding front part of  
the lens in parallel guide, push-button  
for releasing the focusing mechanism)

Smallest object field: 158 x 236 mm  
(6.2 x 9.3 in approx.) (about 1:6.5)

Rotatable tilting device with click-  
stops for upright and horizontal  
format

Lens can be dismantled for transport  
Hard-chrome LEICA-M rapid  
bayonet changer

Black finish

Filter slot with cover, for Series 7  
filters

Built-on, extensible lens hood

Tripod thread: A 1/4 and A 3/8 and  
DIN 4503 (1/4 in and 3/8 in)

Universal handgrip with shoulder  
stock, detachable

Lens cap dia.: A 78 mm

Length from bayonet flange: 365 mm

Diameter: 78 mm

Weight: 1.83 kg

Code Number

## 400 mm TELYT-V f/6.8 consisting of

Lens unit of the 400 mm TELYT-V f/6.8.....	11 903	_____
Lens tube .....	11 905	_____
Universal handgrip with shoulder stock.....	14 188	_____

## 400 mm TELYT-V f/6.8 complete

with lens hood, lens cap and rear cover.....	11 966	_____
--	--------	-------

(Replacement lens covers and Series 7 filters, see from page 120)

## Recommended accessories:

Extension tube (60 mm) for the 400 mm TELYT-V f/6.8 to extend the focusing range (near focusing) .....	14 182	_____
---	--------	-------

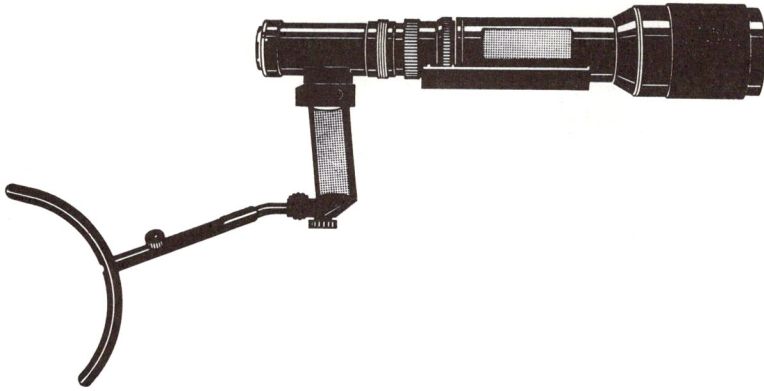
With one extension tube: nearest focusing distance 353-226 cm  
(11 ft 7 in – 8 ft 7 ft 5 in)

Smallest object field: 8 x 12 cm (3.1 x 4.7 in)

Carrying strap for heavy equipment .....	14 130	_____
--	--------	-------

# 560 mm TELYT-V f/6.8

For the VISOFLEX 3



Rapid-action lens of long focal length

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 1/2 values)

Smallest aperture: f/32

Focusing range: ∞ to 6.4 m (21 ft)

Follow-focus device (sliding front part of  
the lens in parallel guide, push-button  
for releasing the focusing mechanism)

Smallest object field: 224 x 336 mm

(8.8 x 13.2 in) (about 1:9)

Rotatable tilting device with click-stops  
for upright and horizontal format

Lens can be dismantled for transport

Hard-chrome LEICA-M rapid

bayonet changer

Black finish

Filter slot with cover,

for Series 7 filters

Built-on extensible lens hood

Tripod thread: A 1/4 and A 3/8 and

DIN 4503 (1/4 in and 3/8 in)

Universal handgrip with shoulder

stock, detachable

Lens cap dia.: A 98 mm

Length from bayonet flange: 510 mm

Diameter: 98 mm

Weight: 2.3 kg

## 560 mm TELYT-V f/6.8 consisting of:

	Code Number
Lens unit 560 mm TELYT-V f/6.8 .....	11 903 _____
Lens tube .....	11 905 _____
Universal handgrip with shoulder stock.....	14 188 _____

## 560 mm TELYT-V f/6.8 complete

With lens hood, lens cap and rear cover .....	11 864 _____
---	--------------

(Replacement lens covers and Series 7 filters see from page 120)

## Recommended accessories:

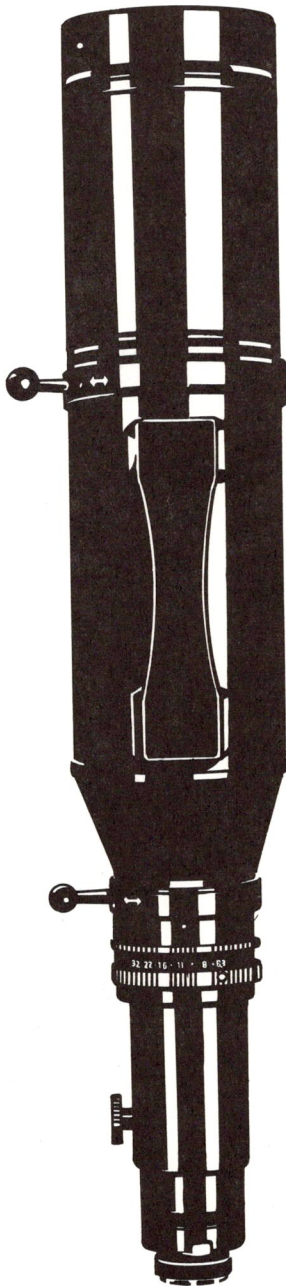
Extension tube (60 mm) for the 560 mm TELYT-V f/6.8 to extend the focusing range (near focusing) .....	14 182 _____
---	--------------

With one extension tube: nearest focusing distance 641-396 cm  
(21-13ft)

Smallest object field: 11.2 x 16.8 cm (4.4 x 6.6 in)

Carrying strap for heavy equipment .....	14 130 _____
--	--------------

## 800 mm TELYT-S f/6.3



Extreme telephoto lens with LEITZ special glasses for optimum optical performance

Angle of view: 3°

Number of elements: 3 (1 component)

Filter size: Series 7 (in filter slot)

Click-stops (between f/6.3 and f/22 also ½ values)

Preset diaphragm

Smallest aperture: f/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) (about 1:13)

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 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 damage by integration with the carrying handle.

Detachable and lockable lens hood.

Slot with cover for Series 7 filters

Tripod thread A ¼ and A ¾, DIN 4503  
(¼ in and ¾ in) for robust tripods.

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

Black finish

Hard-chrome LEICA R rapid bayonet changer

Rotatable tilting device for upright and horizontal format, with click-stops.

Lens cap dia.: A 152 mm

Length from bayonet flange: 768 mm

Diameter: 152 mm

Weight: 6.86 kg

Code Number

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



# Accessories for the LEICA M lenses

## Brilliant finders and cases

Right-way-round brilliant image.  
Bright field-of-view frame faded in.

### Brilliant finder for 21 mm lenses



Code Number

Reproduction scale 0.3, with case ..... **12012** \_\_\_\_\_  
Case (replacement) ..... **14628** \_\_\_\_\_

### Brilliant finder for 28 mm lenses



Reproduction scale 0.5 with line marking for  
parallax compensation below about 2 m, with case ..... **12017** \_\_\_\_\_  
Case (replacement) ..... **14628** \_\_\_\_\_

### Brilliant finder for 90 mm lenses

Object area at natural size, parallax compensation and  
marking for reduction of field of view below about 2 m ..... **12025** \_\_\_\_\_

### Leather case for viewfinders

Brilliant finders for 21 mm and 28 mm focal length ..... **14617** \_\_\_\_\_



## Accessories for LEICA M-lenses

LEICA M-lenses	Code No.	External dia in mm	Lens hood (replacement)	Cover for lens hood (replacement)	Lens cap (replacement)	Rear cover (replacement)	Filters <sup>1)</sup>	
							screw-in thread	Series size
2.8/21 from No. 2 993 701	11 134	62	42 537	–	14 290	14 269	E 60	
2.8/28 from No. 2 977 551	11 804	51	12 536	–	14 172	14 269	E 49	
2/35 from No. 2 974 251	11 310	42	12 524	–	14 268	14 269	E 39	
1.4/35 from No. 2 166 701	11 870	42	12 504	–	14 143	14 269	Series 7 in lens unit	
2/50 from No. 2 915 801	11 819	42	12 538	–	14 268	14 269	E 39	
1.4/50	11 114	45	12 586	14 037	14 123	14 269	E 43	
1/50 from No. 2 919 657	11 821	62	12 539	–	14 290	14 269	E 60	
1.4/75	11 814	62	12 539	–	14 290	14 269	E 60	
Tele- 2.8/90	11 800	42	11 250	11 252	14 268	14 269	E 39 or S. 5.5 with adapter 11 251	
2/90 from No. 2 813 501 to No. 2 813 900 and from No. 2 907 001	11 136	63.7	built on	–	14 133	14 269	E 49	
Tele- 4/135	11 851	42	12 575	14 033	14 268	14 269	E 39	
2.8/135	11 829	63.7	built on	–	14 289	14 269	E 55	
3.5/65 from No. 2 378 901	11 162	56	built on	–	14 153	14 074	Series 6 with adaptor 14 160	
4/200	11 063	72	built on	–	14 261	14 050	E 58	
4.8/280 from No. 2 340 953	11 914	76	built on	–	14 079	14 269	Series 8 with adaptor 14 169	
6.8/400	11 966	78	built on	–	14 152 <sup>2)</sup>	14 269	Series 7 in filter slot	
6.8/560	11 864	98	built on	–	14 295 <sup>2)</sup>	14 269	Series 7 in filter slot	
6.3/800	on request	152	built on	–	<sup>3)</sup>	14 269	Series 7 in filter slot	

<sup>1)</sup> Filters (see table page 122)

<sup>2)</sup> Front covers for mounts 11906 of the 400 m f/6.8 and 560 mm f/6.8 available from Technical Service P.O. B 2027 Ernst LEITZ Wetzlar GmbH, D-6330 Wetzlar

<sup>3)</sup> Available from Technical Service P.O. Box 2027 Ernst LEITZ Wetzlar GmbH, D-6330 Wetzlar

## Filters

Filters	Screw-in filters					
	E 39	E 41	E 43	E 44	E 48	E 55
U.V.	13 131	13 205	13 206	—	13 330	13 373
Yellow	—	13 160	13 161	—	13 295	13 236
Yellow green	13 096	—	13 171	—	13 305	13 391
Orange	13 101	—	13 176	—	—	13 312
Red	—	13 190	13 191	—	—	—
Infra red	—	—	13 196	—	—	—
Blue	—	—	13 173	—	13 301	—
Circularly polarising	—	—	—	—	—	13 357
Polarising filter	13 352 A 42	—	—	13 358	—	13 374

	Screw-in filters		Series filters		
	E 58	E 60	6	7	8
U.V.	13 270	13 381	13 012	13 009	13 018
Yellow	13 235	—	13 013	13 006	13 019
Yellow green	13 245	13 392	13 014	13 007	13 021
Orange	—	13 383	13 011	13 008	13 017
Red	13 255	—	—	—	—
Infra red	—	—	—	—	—
Blue	—	—	—	—	—
Circularly polarising	—	—	—	13 370	13 372
Polarising filter	—	—	—	—	—

## Lens hoods (replacement)

	Code Number	
For the 21 mm f/2.8 lens .....	<b>12537</b>	_____
For the 28 mm f/2.8 lens from Serial No. 2977551 .....	<b>12536</b>	_____
For the 35 mm f/2 lens from Serial No. 2974251 .....	<b>12524</b>	_____
For the 35 mm f/1.4 lens from Serial No. 2166701 .....	<b>12504</b>	_____
For the 50 mm f/2 lens from Serial No. 2915801 .....	<b>12538</b>	_____
For the 50 mm f/1.4 lens .....	<b>12586</b>	_____
Cover for same.....	14037	_____
For the 50 mm f/1 lens .....	<b>12519</b>	_____
For the 75 mm f/1.4 lens .....	<b>12539</b>	_____
For the 90 mm f/2.8 lens, rubber, E 39 .....	<b>11250</b>	_____
Cover for same.....	11252	_____
For the 135 mm f/4 lens.....	<b>12575</b>	_____
Cover for same.....	14033	_____



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Light box	
Other accessories	
<b>Illumitran-D</b> .....	<b>133</b>

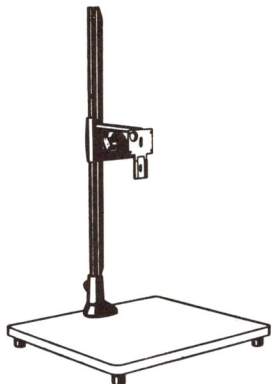
## 2. Description and technical data for the instrument

<b>REPROVIT IIa</b> .....	<b>135</b>
---------------------------	------------

# Copying outfits

---

## Copying stand



Suitable for:

LEICA M cameras in conjunction with the VISOFLEX 3, with or without Universal Focusing Bellows 2, with or without winder.

All LEICAFLEX and LEICA R models with or without Universal Focusing Bellows R. LEICA R4-MOT with Motor Winder R4, Motor Drive R4 and Tripod holder 14 284, with or without Universal Focusing Bellows R. 35 mm s.l.r. cameras and medium-format cameras with tripod bush A ¼ DIN 4503 (¼ in).

Consisting of:

46 x 50 cm baseplate, 80 cm column with parallel guide and flange, carrier with coarse and fine adjustment.

Weight: 6.26 kg

Code Number

**Copying stand** ..... **16707** \_\_\_\_\_

### Accessories:

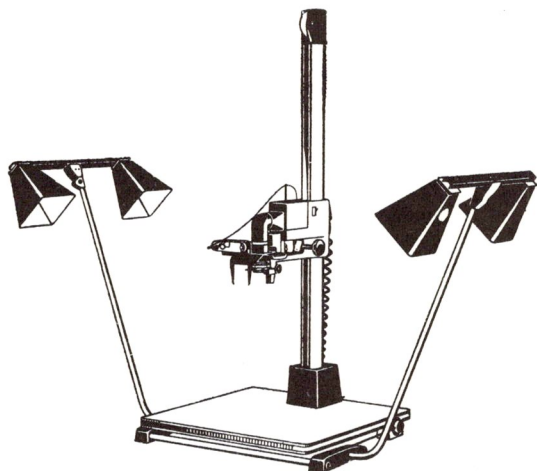
Near-focusing devices see page 69

Illumitran see page 133

Object table see page 132



# REPROVIT IIa



Universal copying outfit for the reproduction of flat or three-dimensional objects, designed for the use of the LEICA MD-2 special camera.

Detailed description page 135.

## REPROVIT IIa

Consisting of:

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

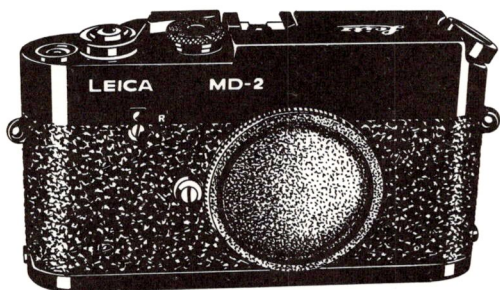
Special changing slide with scale, settings from DIN A2 to 1:1. Extension of the range with the column rotated through 180°. Designed for the LEICA MD-2. Drive fork and aperture lever for the automatic stopping-down of the 50 mm FOCOTAR® lens.

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

Code Number

<b>Basic outfit of the REPROVIT IIa complete (220 v)</b> .....	<b>16788</b> _____
<b>Ditto, for 110 v a.c.</b> .....	<b>16789</b> _____
Dust cover for the REPROVIT IIa.....	16608 _____

# The LEICA MD-2



Special 35 mm camera for copying and microphotography.

Technical data as for the LEICA M4-P

But without: viewfinder  
rangefinder  
field-of-view selector

Possibility of fitting with the recording device through the special baseplate for the body of the LEICA MD-2 with light-tight slot for the introduction of recording strips for the photographic identification of exposures directly on the film. Strip, width 5.5 mm, accepting handwriting (numbers and symbols). The strip can be introduced into the camera. Covers a field of about 3.5 mm width along the length of the 24 x 36 mm film format, on which the identifying text will appear after the exposure.

Dimensions: height: 77 mm, length: 138 mm, depth: 36 mm

Weight: 0.48 kg

Code Number

## LEICA MD-2, Black chromium finish

Complete with body cover and flash socket cover ..... **10105** \_\_\_\_\_

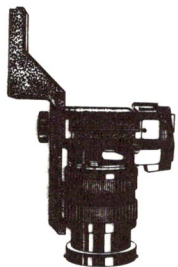
Recording device consisting of:

Special baseplate for the LEICA MD-2 (including 10 marking strips) ... 14142 \_\_\_\_\_

1 packet of 100 marking strips..... 14170 \_\_\_\_\_

# Accessories for the REPROVIT® Ila

## Universal camera holder



For attachment remove the changing slide and cover of the illuminator from the REPROVIT Ila, attach the camera holder and the new cover.

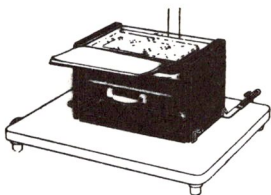
Suitable for:

LEICA M cameras in conjunction with the VISOFLEX 3, with or without Universal Focusing Bellows 2, with or without winder.

All LEICAFLEX and LEICA R models with or without Universal Focusing Bellows R. LEICA R4-MOT with Motor Winder R4 and tripod holder 14 284, with or without Universal Focusing Bellows R. 35 mm s.l.r. cameras and medium-format cameras with tripod bush A 1/4 DIN 4503 (1/4 in).

Universal camera holder for the REPROVIT Ila ..... Code Number **16798** \_\_\_\_\_

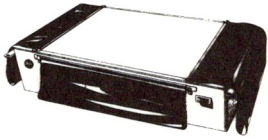
## Framing box



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

Framing box ..... Code Number **16761** \_\_\_\_\_

# Light box



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 614 mm illuminated area (adequate for instance for 96 50 x 50 mm slides).
- 2 strip lights such as Philips TL-D 18W/83 or Osram L-18W/31, low heat generation on the working plate, brightness about 9000 lux, colour temperature about 3200° K. Because strip lights do not have a continuous spectrum the light box cannot be recommended for reproductions in colour if faithful colour rendering is essential. For colour reproductions in transmitted light (duplicating of colour transparencies) the Illumitran is particularly well suited (see page 133).
- 420 x 437 mm glass sheet for keeping the originals flat.
- 2 built-in carrying handles
- on/off switch
- 4 black cloths for the elimination of stray light

Code Number

**Light box** ..... **16792** \_\_\_\_\_

## Other accessories

### Accessories for shadowless photography with the light box

Four spacing rods, can be screwed into the threads M8 of the carrying handles for the use of a glass plate.

Spacing rod available from our Technical Service Department, Item No. 042-721.020.

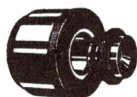
The glass plate for same can be obtained by the customer to our dimensions from a glazier.



**Object stage** for the production of slide copies and photography within the magnification range .....

Code Number

**16786** \_\_\_\_\_



**25 mm REPRO-PHOTAR® f/2** with special ring for up to 4x magnification (with 3 extension rings 16615 about 7x) .....

**16787** \_\_\_\_\_



**REPRO extension ring** (height 26 mm)

(2 REPRO rings in conjunction with the 50 mm FOCOTAR permits settings within the range from 1:1 to 2:1) .....

**16615** \_\_\_\_\_



**5x low-power magnifier**, straight (image inverted and reversed) .....

**16486** \_\_\_\_\_

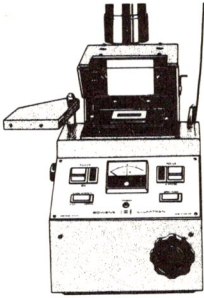


**90° 5x angled magnifier** (image inverted) (replacement) .....

**16488** \_\_\_\_\_



# Illumitran-D\*



Code Number

Semi-automatic slide copier

ILLUD \_\_\_\_\_

Universal holder for all film formats up to 6 x 6 cm

UNIHA \_\_\_\_\_

9 x 12 cm sheet-film attachment

PFASZ \_\_\_\_\_

With extension cable for photo cell

VERLE \_\_\_\_\_

Accepts:

LEICA R4-MOT with Focusing Bellows-R and 100 mm MACRO-ELMAR f/4  
as well as the copying stand for same.

Contrast control unit

\_\_\_\_\_

Filter

\_\_\_\_\_

Flash firing button

\_\_\_\_\_

Flash tube

\_\_\_\_\_

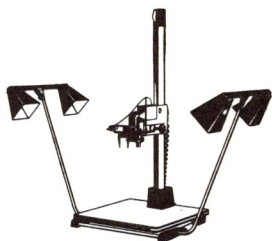
1 pair of lamps for ILLUD

\_\_\_\_\_

\* Manufacturers: Bowens, London  
Distribution: Leitz agencies (on request)

# Description and technical data of the instruments

## REPROVIT IIa



### Type of instrument:

Universal copying outfit for the reproduction of flat or three-dimensional objects, designed for the use of the LEICA MD-2 special camera.

Consisting of:

67 x 68 cm baseplate: with electrical installation, and four non-slip rubber feet.

4 spacing rods for shadowless photography.

Column with parallel guide and counterweight.

Carrying arm with self-locking vertical adjustment (coarse and fine) on the column, built-in projection device for 150W 220v projector lamp with pin-type base (such as Osram No. 58.8295, base G 17 q), built-in magnet release for vibration-free release of the camera shutter by the electric exposure timer.

Special changing slide with bellows and rack-and-pinion drive for the continuous adjustment of the lens for object sizes from DIN A 2 (about 420 x 594 mm) to the reproduction scale 1:1, 50 mm FOCOTAR-2 f/4.5 lens; drive fork and lever for the automatic aperture adjustment when the changing slide is used; series 6 filters can be attached to the aperture lever with the aid of an adapter (thread M 44 x 0.75); automatic switch-over from projection illumination to 4-lamp illumination and back when the changing slide is being operated. The exposure is locked when the changing slide is not in the exposure position; mirror housing for deflecting the projection light onto the focusing screen and through the lens, interchangeable with 5x angled magnifier.

4-lamp illuminator (200W frosted lamps), attached to two carrier arms for uniform illumination; anti-reflection cloth.

Electric timer for exposures from 0.5 to 60 sec, can be switched to exposure times from 5 seconds to 6 minutes.

### Function:

The instrument is switched on with a rocker switch on the baseplate.

Lock the LEICA MD-2 onto the changing slide in the projection position, set the shutter speed dial of the LEICA MD-2 at "B", attach the cable release to the camera. Determine the object field size with the aid of the projection illumination. Simultaneously focus by changing the bellows extension.

Push the changing slide into the exposure position. This switches the projection illumination off, the 4-lamp illumination on, and at the same time closes the aperture to the preselected value.

Set the shutter speed on the exposure timer and release the shutter.

# Contents:

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## 1. Product range

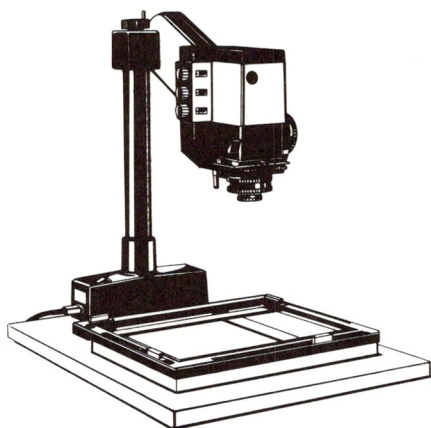
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# FOCOMAT V35 AUTOFOCUS



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

## FOCOMAT V35 AUTOFOCUS

Complete with  
 built-in transformer, mains cable, 75W 12v tungsten halogen lamp, cold-light mirror, 24 x 36 mm negative holder, adjusted lens, interchangeable LEITZ module.

Detailed description see page 149.

Code Number

### With 40 mm WA-FOCOTAR f/2.8

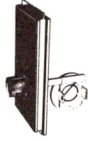
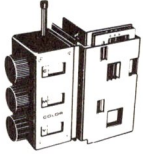
Black-and-white version	
- 220v (with black-and-white module) .....	17405 _____
- 110/250v (with black-and-white module) .....	17407 _____
Colour version	
- 220v (with colour module) .....	17409 _____
- 110/250v (with colour module) .....	17411 _____

### with 50 mm YSARON f/3.5

black-and-white version	
- 220v (with black-and-white module) .....	17404 _____
Colour version	
- 220v (with colour module) .....	17408 _____

# Accessories for the FOCOMAT V35 AUTOFOCUS

## Modules:



Colour module

black-and-white module

	Code Number
Colour module.....	17428 _____
Black-and-white module.....	17427 _____
Vario-contrast module.....	in preparation _____

## Negative/transparency holder:



Code Number

24 x 36 mm negative holder (replacement, one-sided glass pressure..)	17420 _____
28 x 28 mm negative holder.....	17423 _____
13 x 17 mm negative holder.....	17424 _____
Glassless 24 x 36 mm negative holder.....	17431 _____
24 x 46 mm negative holder with two-sided glass pressure.....	in preparation _____



Code Number

Holder for 35 mm slides (50 x 50 mm external dimensions).....	17419 _____
Film troughs (2) for the enlarging of uncut films.....	17425 _____



## Diffusion disc:



Diffuse disc for integrating exposure measurement. To be swung in front of the lens before measurement.

Code Number

**Diffusion disc** ..... **17430** \_\_\_\_\_

## Other accessories:

Code Number

**Red filter** (to be swung in front of the lens, can also be used together with the diffusion disc) ..... **17440** \_\_\_\_\_

**Dust cover** for the instrument ..... **17429** \_\_\_\_\_

**Adapter ring** for 1:1 reproduction scale (26 mm) ..... **16615** \_\_\_\_\_

**Adapter ring** for 1:1.3 reproduction scale (8 mm) ..... **17439** \_\_\_\_\_

(up to 3 adapter rings can be combined, reproduction scale down to 1.15:1).

## Replacement lamps:

Obtainable from:

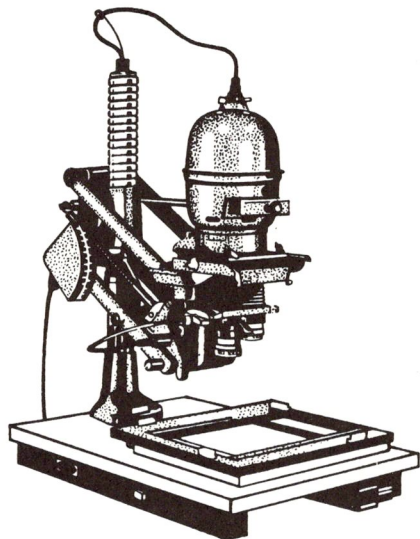
Technical Service Centre, POB 2027, Ernst Leitz Wetzlar GmbH, D-6330 Wetzlar, Germany, or the national Leitz agency.

Specifications: 75W/12v, base GZ 6,35, 038.101.128.000

Conversion of an existing instrument from the 50 mm YSARON f/3.5 to the 40 mm LEITZ-WA-FOCOTAR f/2.8 high-quality lens by Technical Service Centre Ernst Leitz Wetzlar GmbH, or authorised workshops of the Leitz agencies.

# FOCOMAT IIc

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## **Type of instrument:**

Universal enlarger für colour and black-and-white

For Formats from 13 x 17 mm to 60 x 90 mm

For electron micrographs, holder up to format 79 x 93 mm.

Two automatic focusing ranges, adjustable:

up to 40 x 40 m format: 2 to 11x with the 60 mm FOCOTAR f/4.5, from the 45 x 60 to

the 60 x 90 mm format: 1.5–6x with the 100 mm FOCOTAR-2 f/5.6.

With 150 W high-voltage enlarger lamp

## **Manual settings:**

Up to 1:1 enlarging scale, reductions to 1:2.5

Through raising of the lamp housing on the column with the 60 mm FOCOTAR 16x

and with the 100 mm FOCOTAR-2 up to 8.6x.

**FOCOMAT IIc**

Complete with 53.5 x 59 cm baseplate, 80 cm column, dia. 6 cm, parallelogram guide, lamp housing, double condenser,

60 mm FOCOTAR f/4.5 and 100 mm FOCOTAR f/5.6 special enlarging lenses with lens changing slide with automatic switch-over of the automatic focusing mechanism,

24 x 36 mm and 6 x 6 cm negative masks,

150W lamp ready for mains connection, swivelling red filter

Without masking frame

Detailed description: see page 155.

Code Number

**FOCOMAT IIc, 220v version**

**IIc 17860** \_\_\_\_\_

In CSA (Canadian Standard Association)

Safety Version (100v) ..... 17613 \_\_\_\_\_

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

**17870** \_\_\_\_\_

In CSA version (Canadian Standard

Association safety regulations) ..... 17614 \_\_\_\_\_

**Variants of the instrument**

FOCOMAT IIc for the attachment of the **Agfa Color Head (220v)** .. on request \_\_\_\_\_

In CSA version (110v) ..... on request \_\_\_\_\_

Adapter ..... 17775 \_\_\_\_\_

60 mm dia. adapter ring ..... 17633 \_\_\_\_\_

For the use of the Agfa VARIOMAT

FOCOMAT IIc for attachment of the **Super-Chromea D**

Dichroic II (220v) ..... on request \_\_\_\_\_

In CSA version (110v) ..... on request \_\_\_\_\_

Adapter PSL Hamburg

FOCOMAT IIc for the attachment of the **Durst CSL 450 (220v)** ... on request \_\_\_\_\_

In CSA version (110v) ..... on request \_\_\_\_\_

FOCOMAT IIc for the attachment of the **Wallner Color Head (220v)** on request \_\_\_\_\_

Adapter Wallner

In CSA version (110v) ..... on request \_\_\_\_\_

# Accessories for the FOCOMAT IIc

## Negative masks for format:

	Code Number	_____
13 x 17 mm.....	17897	_____
18 x 24 mm.....	17899	_____
24 x 24 mm.....	17887	_____
28 x 28 mm.....	17898	_____
24 x 38 mm (replacement) .....	17888	_____
3 x 4 cm .....	17889	_____
4 x 4 cm .....	17890	_____
4.5 x 6 cm .....	17891	_____
4 x 6.5 cm .....	17892	_____
6 x 6 cm (replacement).....	17893	_____
14 x 20 mm "F 16".....	17857	_____
32 x 45 mm "M".....	17858	_____
22.5 x 32 mm "M 1/2".....	17859	_____

## Accessories for single negatives

Insert for the fitting of the double-glass plate and additional helical mount click-stop .....	17712	_____
10 x 22 cm double-glass plate for same.....	17710	_____

## Electron micrographs

● Effective format 62 x 65 mm		
Insert with enlarged recess for the double-glass plate and additional helical focusing mount click-stop .....	17716	_____
10 x 22 cm double-glass plate for same.....	17710	_____
62 x 65 mm negative mask for same.....	17803	_____

● Effective format 79 x 93 mm		
Insert with enlarged recess and graduated filter for the double-glass plate and additional helical mount click-stop .....	17808	_____
10 x 22 cm double-glass plate for same.....	17710	_____

● Effective format 76 x 95 mm		
Insert for plates in the 3 1/2 x 4 in (83 x 102 mm) format with graduated filter and helical focusing mount click-stop.....	17717	_____

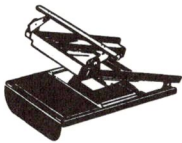
## Glass negative holder



Glass negative holder for the 6.5 x 9 and 7 x 7 cm format.....	17869	_____
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Graduated filter for the FOCOMAT IIc-COLOR from 6 x 6 .....	17855	_____
(Also recommended for black-and-white contrasty paper)		

## Film pressure device



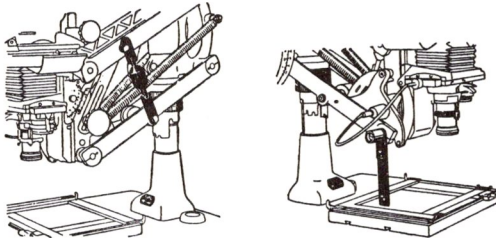
Code Number

### Film pressure device

With one-sided glass pressure (specially treated for the 24 x 36 mm format) .....

17876 \_\_\_\_\_

## Additional setting device for the extension of the reproduction scale



**Additional setting device** for 1:1 and reductions (without 16617 and 16615) .....

17861 \_\_\_\_\_

## Adapter tubes for extending the reproduction scale



**Adapter tube** for the 60 mm FOCOTAR for reductions down to 1:2.5, i.e. from the 6 x 9 cm to the 24 x 36 mm format .....

16617 \_\_\_\_\_

**Adapter tube** for the 100 mm FOCOTAR-2 for the 1:1 reproduction scale .....

16615 \_\_\_\_\_

### Device for correcting converging verticals

Film holder tilting device with additional bellows, film holder (specially treated) .....

17884 \_\_\_\_\_

**Dust cover** for the FOCOMAT IIc or IIc-COLOR .....

17606 \_\_\_\_\_



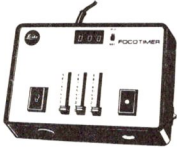
High-voltage enlarger lamps (available from Technical Service Centre,  
E. Leitz Wetzlar GmbH, P.O.B. 2027, D-6330 Wetzlar, Germany, under  
the following order numbers):

Lamp	Code Number
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. ....	39 127 002-014 _____

# Accessories for enlargers

## FOCOMAT V35 AUTOFOCUS/FOCOMAT IIc

### LEITZ FOCOTIMER

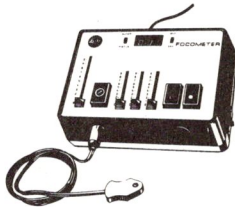


Electronically controlled exposure timer with digital display. The long-time range can also be used for the control of developing processes.

Code Number

<b>FOCOTIMER 110v</b> version .....	<b>17432</b> _____
<b>FOCOTIMER 220v</b> version .....	<b>17433</b> _____
<b>Foot switch</b> for the FOCOTIMER and FOCOMETER .....	<b>17434</b> _____

### LEITZ-FOCOMETER



Automatic electronic exposure meter for black-and-white and colour with timer. Electronic light measurement with automatic conversion into the associated exposure time.

Storage and digital display of the calculated exposure time.

Choice of selective and integrating measurement.

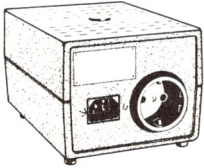
Integrating measurement with the FOCOMAT V35 AF through diffusion disc (Code No. 17 430) in front of the lens.

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

Code Number

<b>FOCOMETER 110v</b> version .....	<b>17435</b> _____
<b>FOCOMETER 220v</b> version .....	<b>17436</b> _____
<b>Foot switch</b> for FOCOMETER and FOCOTIMER .....	<b>17434</b> _____

## Voltage stabiliser

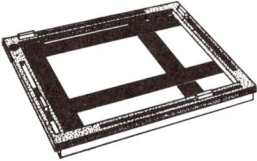


Recommended for colour enlarging in the event of mains fluctuations.  
For the FOCOMAT V35 AF only.

	Code Number	
<b>Voltage stabiliser: 115v version</b> .....	<b>17437</b>	_____
<b>Voltage stabiliser: 230v version</b> .....	<b>17438</b>	_____

## Masking frames

(For all FOCOMAT models)

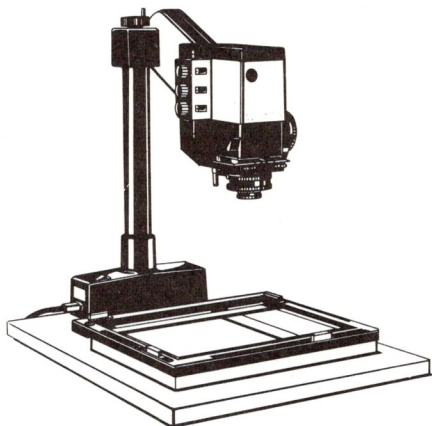


	Code Number	
<b>24 x 30 cm (10 x 12 in) universal masking frame</b> (height 25 mm), 4 adjustable masking strips, combined feet/metre scale	<b>17584</b>	_____
<b>30 x 40 cm (12 x 16 in) masking frame</b> , (height 30 mm) with adjustable masking strips and adapter ring for the column (for FOCOMAT Ic only) to compensate for the greater thickness of the frame .....	<b>17586</b>	_____
<b>Masking frame for the English system (inch):</b> 12 x 16 in masking frame (height 1.18 in) .....	<b>17630</b>	_____

# Description and technical data of the instruments

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## FOCOMAT V35 AUTOFOCUS



### **Type of instrument:**

Compact enlarger for colour and black-and-white  
with automatic focusing

and 40 mm WA-FOCOTAR f/2.8 wide-angle lens.

for negative formats 24 x 36 mm,

28 x 28 mm,

13 x 17 mm and

35 mm transparencies (external format 50 x 50 mm)

with 12v/75W tungsten halogen lamp with cold-light mirror

Extremely large automatic enlarging range 3 - 16x

with the 40 mm WA-FOCOTAR f/2.8

30% more enlargement and

70% more picture area (compared with a 50 mm lens), at the same working distance to the base board

### **Negative stage:**

For negative holder with glassless support and one-sided glass pressure (with anti-Newton treated surface), interchangeable for the formats:

24 x 36 mm\* (part of the basic outfit).

28 x 28 mm

13 x 17 mm

For the 24 x 36 mm glassless negative holder

For the 24 x 36 mm glass negative holder (two-sided glass pressure)

For 35 mm transparency holders (external format 50 x 50 mm). Convenient, quick colour enlarging of slides. After once-for-all determination of sharpness, automatic focusing within the 3 - 16x enlarging range.

Screw-on film troughs.

### **Technical description of the film stage:**

Diecast part fixed to the frame of the enlarger head, film stage alignment parallel to the baseplate, at right angles to the optical axis.

Maximum width 28 x 36 mm.

Spring-loaded pressure on the negative and slide holder through oscillating pressure plate.

Quick and easy insertion of the negative or slide holders in the enlarger head through raising the pressure plate.

When the pressure plate is raised, film strips can be easily moved to the next frame.

Convenient arrangement of the controls on the right and left.

Integrated format masking, continuously adjustable through rotary knobs on the front: adjustment range:

from about 36 mm to 3 mm in the x direction

and

from about 28 mm to 6 mm in the y direction

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

When the anti-Newton disc is damaged, the upper pressure plate can be interchanged.

\* With frame number windows



### **Automatic precision focusing mechanism**

High-precision, durable AUTOFOCUS device.

Wrong/imprecise focusing prevented by automation.

Quick, continuous focusing within the automatic enlarging range without manual refocusing.

Long AUTOFOCUS range with the 40 mm WA-FOCOTAR f/2.8 for enlargements from 72 x 108 mm to 384 x 576 mm, i.e. focusing range of 3x to 16x enlargement. Enlargement display between the vertical-adjustment arm and the enlarger head illuminated by means of fibre optics. Can be switched for separate display of the enlarging ratios of 40 and 50 mm lenses. Convenient arrangement of this display permits reading of the scale also in a sitting position.

Adjustment range of the focal plane from 0 to 60 mm for the adaptation of the automatic focusing mechanism to various heights of masking frames. When the column is raised to 60 mm = 17.5x magnification (manual on the baseboard).

Large area of the baseboard permits easy and convenient movement of the masking frame.

"Giant enlargements" through swivelling the column (floor projection).

The AUTOFOCUS mechanism saves time and material.

Ideal for part-enlargements.

The lens focusing mechanism consists of a stainless-steel precision cam adjusted in the factory.

### **40 mm WA-FOCOTAR f/2.8 lens**

High-performance wide-angle enlarger lens in the top quality class (WA = wide angle).

Enlarger lens of the world-famous FOCOTAR series: specially computed for the FOCOMAT V35 AUTOFOCUS, incorporating highly refractive LEITZ glasses.

Number of elements: 5, modified Gauss type, UV absorption.

f/2.8 to f/16 click-stops at full aperture values, can be switched over to continuous adjustment. Illuminated aperture scale can be read from the front.

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

Optimum correction at 11x enlargement.

Optimum reproduction already from f/5.6, which means shorter exposure times and with giant enlargements reduced danger of enlarger shake.

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

### **FOCOMAT V35 AUTOFOCUS**

Also available with the 50 mm YSARON F/3.5 lens, fully adjusted.

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

Automatic focusing range 3 x to 12x.

Subsequent modification for the 40 mm WA-FOCOTAR f/2.8 is possible.

### **Enlarger head**

LEITZ illuminating system developed according to the latest standard of illuminating technique.

Light deflection on the principle of Ulbricht's Globe in the mixing chamber of neutral polyalkene foam ensures: high light utilisation  
optimum illumination  
unsurpassed colour homogeneity

The diffused illuminating system with soft illumination is eminently suitable for black-and-white and for colour work.

### **LEITZ modules for colour and black-and-white**

In the black-and-white version of the FOCOMAT V35 AUTOFOCUS the red filter forms part of the module, which is inserted in the enlarger head between the lamp and the light chamber.

The red filter can be inserted into and removed from the optical path with a rotary knob.

Quick and simple exchange of the black-and-white module against the colour module.

Colour module with dichroic filters controlled with cams.

The subtractive colour correction filters can be continuously adjusted.

The filters (Y, M, C) can be simultaneously removed from the optical path with preservation of the programmed filter values, and, needless to say, reintroduced in the programmed state.

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

Controls with display scale for density values of the dichroic filters.

The scales are colour coded, illuminated, and arranged in the sequence Y, M, C from bottom to top.

When the colour module is inserted the controls are on the left of the enlarger head. Convenient operation from a sitting position.

High linearity of the density curves permits accurate adjustment of the filter values throughout the entire range.

Vario-contrast module for the processing of Multigrade Paper (in preparation).

Gradation setting from soft to hard.

Simple handling with "single-knob" control, identical exposure times when the gradation is changed.

### **Excellent cooling system**

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

Optimum heat dissipation already at the lamp mount by means of a special working principle (cooling ring).

This cooling ring prolongs the life of the lamp.

In addition, infra-red suppression filter on the front of the mixing chamber – reflects heat rays.

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

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

### **High stability**

The FOCOMAT V35 AUTOFOCUS is even more robust than the existing FOCOMAT 1c.

Rigid steel column of circular cross section in reflection-reducing black finish, can be rotated in the large foot of the instrument. Dia.: 60 mm. Total height from baseboard to the vertical-adjustment arm: 600 mm.

Asymmetrically arranged aluminium diecast vertical-adjustment arm, can be rotated on needle bearings round the column.

Lamp housing can be rotated (needle bearing) on the vertical-adjustment arm.

Fully enclosed vertical-adjustment arm. Rolling-band mechanism and diagonal spring ensure rigid parallel guidance of the lamp housing and counter-balance during vertical adjustment throughout the entire range.

A brake, also integrated in the arm, is operated by turning the handgrip. After release of the knob quick and positive adjustment of the vertical-adjustment arm. After the clamping knob has been arrested, the lamp housing remains in the chosen position, absolutely rigidly and free from vibration.

Diecast column foot.

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

Large, robust baseboard.

Professional baseboard with white 540 x 590 mm effective area.

Shock-absorbing 4-point support.

Additional stabilisation of the baseboard by means of a profile steel on the underside.

Space for a large packet of enlarging paper under the 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 100W

Input voltage/frequency depending on the instrument version:

220 v – 50 Hz or

110 – 220 v/60 – 60 Hz

Fuses:

220 v            version T 315 mA

110 – 250 v version T 630 mA

Tungsten halogen lamp:

12 v 75 W with cold-light mirror.

Test symbols: VDE-GS, interference suppression symbols, CSA, Demko, Nemko, Semko, and SEV safety symbol.

### **Dimensions and weights**

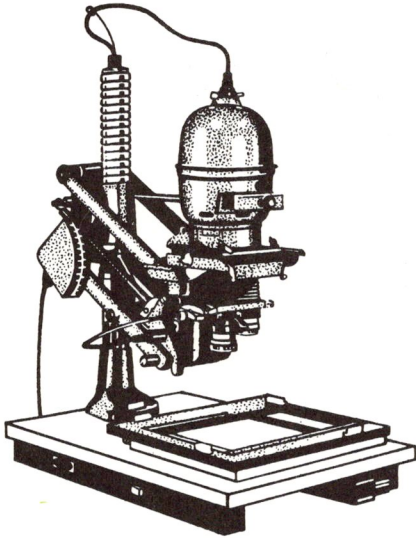
Height: 600 mm; width: 540 mm; depth: 700 mm

FOCOMAT V35 AUTOFOCUS: 21.8 kg

Colour module: 0.475 kg



# FOCOMAT IIc



## Type of instrument:

Universal enlarger for colour and black-and-white

For formats from 13 x 17 mm to 60 x 90 mm

For electron micrographs, holder up to format 79 x 93 mm

Two automatic focusing ranges, adjustable:

up to 40 x 40 mm format: 2 to 11x with the 60 mm FOCOTAR f/4.4, from the 45 x 60 to

the 60 x 90 mm format: 1.5–6x with the 100 mm FOCOTAR-2 f/5.6

With 150W high-voltage enlarger lamp

## Manual settings:

Up to 1:1 enlarging scale, reductions to 1:2.5

Through raising of the lamp housing on the column with the 60 mm FOCOTAR 16x and with the 100 mm FOCOTAR-2 up to 8.6x.

## Film stage

The film stage is aligned parallel to the baseboard and at right angles to the optical axis.

Maximum clearance 60 x 90 mm

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 90 mm negative format. The top glass plate has been specially treated for the prevention of Newton's rings.

Negative masks from the 13 x 17 mm format onwards for insertion in the negative holder.

Negative holder exerting one-sided glass pressure (anti-Newton surface) for the 35 mm format.

Holders for electron micrographs:

Negative holder for 62 x 65 mm effective format

Negative holder for 79 x 93 mm effective format with graduated filter

and 100 x 220 mm double-glass plate

Glass negative holder for the 65 x 90 mm 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:

60 mm FOCOTAR f/4.5 from about 2 to 11x  
100 mm FOCOTAR-2 f/5.6 from about 1.5 to 6x  
Precise, durable autofocus mechanism.

Saving of time and material through autofocus mechanism

Raising facility of the focal plane up to 30 mm for adjustment of the automatic mechanism to different heights of the masking frame.

Swivelling of the column for giant enlargements (floor projection) possible.

60 mm FOCOTAR f/4.5

For formats up to 40 x 40 mm

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.

100 mm FOCOTAR-2 f/5.6

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 90 mm 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.



### **Enlarger head**

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 90 mm 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: Enlarger head + filter slide for the insertion of the 120 x 120 mm correction filters. Easy interchange of the filters with a raiser.

Transilluminated ratio indicator for colour enlargements (additionally available).

Possibility of attaching well-known colour heads, e.g. Agfa, Super-Chrome 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 60 mm, height 800 mm.

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

Enlarger head can be safety - clamped at any desired level within the entire adjustment 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.

Large professional baseboard, white, effective area 535 x 590 mm. High immobility owing to solid construction on two wooden strips, width 5 cm, 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 enlarger head.

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

### **Dimensions and weights**

Height: 920 mm; width: 535 mm; depth: 740 mm

FOCOMAT IIc in black-and-white version:

37.6 kg

FOCOMAT IIc in colour version:

38.3 kg

# 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.

## **Type of instrument:**

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 time different from the measured time is set manually, the set time will be operative.

The previously measured time will be stored and will reappear 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 programmed.

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.

## **Controls**

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

### Technical Data

The electronics of the instrument are designed according to MOS technique and specially filtered against mains interference.

The housing and other plastic parts are made of acid-resistant and not easily flammable materials.

VDE-GS test symbol, interference suppression symbol, CAS, Demko, Nemko, Semko and SEV safety symbol.

Mains connection: 220v  
110v

The instrument is independent of the mains frequency.

Power: 440W

Instrument socket: 2-pin, with switch, fused circuit 2A slow fuse

Time range: 0.1 to 99.9sec adjustable in steps of 0.1 sec.

Switch-over to 0.01 to 9.99 min in steps of 0.01 min

Light range: linear measurement from 0.04 to 10Lux

Error limits: reproducible time error  $\pm 1\%$

Absolute time error  $\pm 1\%$

Measuring error  $\pm 1.5\%$

# LEITZ-FOCOTIMER



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

## **Type of instrument:**

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 shortly in advance.

Illuminated button for continuous light  
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

## **Technical Data**

The electronics of the instrument are designed according to MOS technique and specially filtered against mains interference.

The housing and other plastic parts are made of acid-resistant and not easily flammable material.

VDE-GS test symbol, interference suppression symbol, CSA, Demko, Nemko, Semko, and SEV safety symbol.

Mains connection: 220v

110v

The instrument is independent of the mains frequency.

Power: 440W

Instrument socket: 2-pin, with switch

Fused circuit 2A slow

Time range: 0.1 to 99.9sec adjustable in steps of 0.1 sec

Switch over from 0.01 to 9.99 min in steps of 0.01 min

Error limits: reproducible time error:  $\pm 1\%$

absolute time error:  $\pm 1\%$



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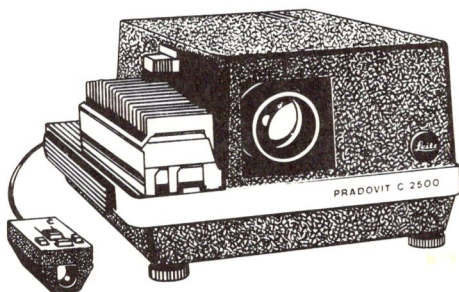
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# PRADOVIT C/CA



**PRADOVIT CA 1500 (24 v/150 W AUTOFOCUS)**  
**PRADOVIT C 2500 (24 v/250 W)**  
**PRADOVIT CA 2500 (24 v/250 W AUTOFOCUS)**  
**PRADOVIT CA 1500/CA 2500 FOR LAP DISSOLVE PROJECTION**

Officially certified school projector, with VDE or GS test symbol.

Automatic 35 mm slide projector with smooth slide change = projection without irritating dark intervals, the method of projection that is kindest to your eyes. Standard magazines for 36 or 50 slides.

Optimised for the 35 mm format

For projection of the 40 x 40 mm format, a special condenser and aspherical 40 x 40 mm illuminating lens must be used.

High optical performance with:

the 90 mm LEITZ COLORPLAN f/2.5 for glass-mounted slides,  
 the 90 mm LEITZ COLORPLAN CF f/2.5 (curved field) for unglazed slides  
 LEITZ projector lenses from 35 to 300 mm

Detailed description page 179

## Outfits with 24 v/150 W tungsten halogen lamp

### **PRADOVIT CA 1500 (250 v/50 Hz) with AUTOFOCUS,**

Complete with 24 v/150 W lamp, 1 magazine for 36 slides, mains cable and remote-control cable, **and lens:**

			Code Number
35 mm*	ELMARON	f/2.9 .....	30 226 _____
50 mm**	ELMARIT-P	f/2.8 .....	30 393 _____
60 mm***	ELMARON	f/2.8 .....	30 385 _____
85 mm	ELMARON	f/2.8 .....	30 228 _____
<b>90 mm</b>	<b>COLORPLAN</b>	<b>f/2.5 .....</b>	<b>30 229 _____</b>
<b>90 mm</b>	<b>COLORPLAN-CF</b>	<b>f/2.5 .....</b>	<b>30 295 _____</b>
120 mm	ELMARON	f/2.8 .....	30 258 _____
150 mm	ELMARON	f/2.8 .....	30 231 _____
200 mm	ELMARON	f/3.6 .....	30 232 _____
250 mm	ELMARON	f/4 .....	30 233 _____
Body without lens, focusing sleeve, remote-control cable, mains cable, but with interchangeable condenser for 60-150 mm .....			30 202 _____

\* only up to 35 mm format and 30-slide magazine

\*\* only up to 35 mm format, not for 50-slide magazine

\*\*\* up to effective format 40 x 40 mm, not for 50-slide magazine.

● **PRADOVIT CA 1500 (220v/50Hz) for lap dissolve with AUTOFOCUS (with built-in TRIAC and 10-pin socket,**

complete with 24 v/150W lamp, 1 magazine for 36 slides, Mains cable and remote-control cable **and lens:**

			Code Number
35 mm*	ELMARON	f/2.8 .....	30364 _____
50 mm**	ELMARIT-P	f/2.8 .....	30298 _____
60 mm***	ELMARON	f/2.8 .....	30366 _____
85 mm	ELMARON	f/2.8 .....	30367 _____
<b>90 mm</b>	<b>COLORPLAN</b>	<b>f/2.5 .....</b>	<b>30368</b> _____
<b>90 mm</b>	<b>COLORPLAN-CF</b>	<b>f/2.5 .....</b>	<b>30383</b> _____
120 mm	ELMARON	f/2.8 .....	30369 _____
150 mm	ELMARON	f/2.8 .....	30370 _____
200 mm	ELMARON	f/3.6 .....	30371 _____
250 mm	ELMARON	f/4 .....	30372 _____
Body without lens, focusing sleeve, remote-control cable, mains cable but with interchangeable condenser for 60-150 mm .....			30361 _____

**Outfits with 24 v/250W tungsten halogen lamp**

**PRADOVIT C 2500 (adjustable 110-240v/50-60Hz)**

complete with: 24v/250W lamp, 1 magazine for 36 slides, mains cable and remote-control cable, **and lens:**

			Code Number
35 mm*	ELMARON	f/2.8 .....	30242 _____
50 mm**	ELMARIT-P	f/2.8 .....	30394 _____
60 mm***	ELMARON	f/2.8 .....	30386 _____
85 mm	ELMARON	f/2.8 .....	30244 _____
<b>90 mm</b>	<b>COLORPLAN</b>	<b>f/2.5 .....</b>	<b>30245</b> _____
<b>90 mm</b>	<b>COLORPLAN-CF</b>	<b>f/2.5 .....</b>	<b>30296</b> _____
120 mm	ELMARON	f/2.8 .....	30291 _____
150 mm	ELMARON	f/2.8 .....	30247 _____
200 mm	ELMARON	f/3.6 .....	30248 _____
250 mm	ELMARON	f/4 .....	30249 _____
300 mm	EPNOR	f/4.3 .....	30279 _____
Body without lens, focusing sleeve, remote-control cable, mains cable, but with interchangeable condenser for 60-150 mm .....			30204 _____

\* only up to 35 mm format and 30-slide magazine  
 \*\* only up to 35 mm format, not for 50-slide magazine  
 \*\*\* up to effective format 40 x 40 mm, not for 50-slide magazine

**PRADOVIT CA 2500 (adjustable 110-240 v/50-60Hz)****with AUTOFOCUS**

complete with 24v/250W lamp, 1 magazine for 36 slides, mains cable and remote-control cable, **and lens:**

			Code Number
35 mm*	ELMARON	f/2.8 .....	30 250 _____
50 mm**	ELMARIT-P	f/2.8 .....	30 395 _____
60 mm***	ELMARON	f/2.8 .....	30 387 _____
85 mm	ELMARON	f/2.8 .....	30 252 _____
<b>90 mm</b>	<b>COLORPLAN</b>	<b>f/2.5</b> .....	<b>30 253</b> _____
<b>90 mm</b>	<b>COLORPLAN-CF</b>	<b>f/2.5</b> .....	<b>30 297</b> _____
120 mm	ELMARON	f/2.8 .....	30 292 _____
150 mm	ELMARON	f/2.8 .....	30 255 _____
200 mm	ELMARON	f/3.6 .....	30 256 _____
250 mm	ELMARON	f/4 .....	30 257 _____
300 mm	EPNOR	f/4.3 .....	30 278 _____
Body without lens, focusing sleeve, remote-control cable, mains cable but with interchangeable condenser for 60-150 mm .....			30 205 _____

**● PRADOVIT CA 2500 (adjustable 110-240 v/50-60Hz)****With AUTOFOCUS for lap dissolve (with built-in TRIAC and 10-pin socket)**

Complete with: 24v/150W lamp, 1 magazine for 36 slides, mains cable and remote-control cable, **and lens:**

			Code Number
35 mm*	ELMARON	f/2.8 .....	30 373 _____
50 mm**	ELMARIT-P	f/2.8 .....	30 299 _____
60 mm***	ELMARON	f/2.8 .....	30 375 _____
85 mm	ELMARON	f/2.8 .....	30 376 _____
<b>90 mm</b>	<b>COLORPLAN</b>	<b>f/2.5</b> .....	<b>30 377</b> _____
<b>90 mm</b>	<b>COLORPLAN-CF</b>	<b>f/2.5</b> .....	<b>30 384</b> _____
120 mm	ELMARON	f/2.8 .....	30 278 _____
150 mm	ELMARON	f2.8 .....	30 379 _____
200 mm	ELMARON	f/3.6 .....	30 380 _____
250 mm	ELMARON	f/4 .....	30 381 _____
300 mm	EPNOR®	f/4.3 .....	30 382 _____
Body without lens, focusing sleeve, remote-control cable, mains cable but with interchangeable condenser for 60-150 mm .....			30 363 _____

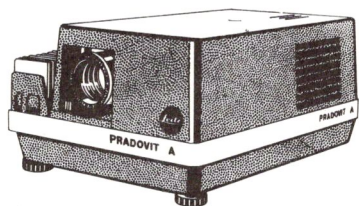
\* only up to 35 mm format and 30-slide magazine

\*\* only up to 35 mm format, not for 50-slide magazine

\*\*\* up to effective format 40 x 40 mm, not for 50-slide magazine

# PRADOVIT A Advertising Projector

Projection without irritating dark interval also in advertising



with **AUTOFOCUS** and  
**24 v/250 W**  
**tungsten halogen lamp**

Detailed description see page 183

**Outfits PRADOVIT A** (adjustable 110-240 v/50-60 Hz),  
complete with 24 v/250 W lamp, 1 magazine for 36 slides,  
mains cable and remote-cable,  
built-in mechanism for continuous projection,  
2 magazine repeaters,  
built-in timer  
and lens:

			Code Number	
35 mm*	ELMARON	f/2.8	30280	_____
50 mm**	ELMARIT-P	f/2.8	30389	_____
60 mm***	ELMARON	f/2.8	30388	_____
85 mm	ELMARON	f/2.8	30282	_____
<b>90 mm</b>	<b>COLORPLAN</b>	<b>f/2.5</b>	<b>30283</b>	_____
120 mm	ELMARON	f/2.8	30284	_____
150 mm	ELMARON	f/2.8	30285	_____
200 mm	ELMARON	f/3.6	30286	_____
250 mm	ELMARON	f/4	30287	_____
300 mm	EPNOR	f/4.3	30288	_____
Body without lens, focusing sleeve, remote-control cable, mains cable.			30208	_____

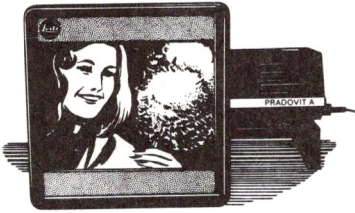
\* Only for 35 mm format and 30-slide magazine

\*\* Only up to 35 mm format, not for 50-slide magazine

\*\*\* Up to effective format 40 x 40 mm, not for 50-slide magazine.

These limitations on the length of the magazine do not apply to the PRADOVIT-A with Daylight Projection Box.

# Daylight Projection Box



**For the PRADOVITA A (Advertising Projector) – PRADOVITA C/CA –**

Body covered with matt black foil.

340 x 340 mm back projection screen (required focal length 50 mm).

No restriction on length of magazine.

Detailed description see page 184.

Code Number

**Daylight Projection Box**

Projector console and anti-glare hood ..... **37963** \_\_\_\_\_



# Standard accessories

## For the PRADOVIT C 1500, CA 1500, C 2500, CA 2500 PRADOVIT-A Advertising Projector

### Hood



**Hood** for the projector with lenses of up to 120 mm focal length, as dust protection and projector base with projection area ..... **37956** \_\_\_\_\_

Code Number

### Carrying case



**Carrying case** for the PRADOVIT C 1500/2500 and CA 1500/2500, A (Advertising Projector) With lenses of up to 250 mm focal length. .... **37961** \_\_\_\_\_

**Extension cable**, 8-pin for remote-control (10 m) ..... **37957** \_\_\_\_\_  
**Holder** for micro attachments. .... 37937 \_\_\_\_\_  
**Remote-control cable** (replacement) 3 m. .... 37955 \_\_\_\_\_  
**Appliance cable** (replacement) ..... 37644 \_\_\_\_\_

### Film guide on the PRADOVIT C/CA/A:

1. **Holder** for the PRADOVIT. .... 37937 \_\_\_\_\_  
 2. **Rotation facility** with rod part ..... 32850 \_\_\_\_\_  
 3. **Lens carrier** ..... 32404 \_\_\_\_\_  
 4. **Film guide** ..... 37868 \_\_\_\_\_  
 5. **Optionally:**  
 ● **50 mm ELMARIT-P f/2.8** ..... 37011 \_\_\_\_\_  
   **Focusing sleeve** for same. .... 37119 \_\_\_\_\_  
   **Interchangeable condenser** for same ..... 37206 \_\_\_\_\_  
 ● **90 mm COLORPLAN f/2.5** ..... 37005 \_\_\_\_\_  
   **Focusing sleeve** for same. .... 37119 \_\_\_\_\_  
   **Interchangeable condenser** for same ..... 37200 \_\_\_\_\_  
 ● **120 mm ELMARON f/2.8** ..... 37022 \_\_\_\_\_  
   **Focusing sleeve** for same. .... 37119 \_\_\_\_\_  
   **Interchangeable condenser** for same ..... 37200 \_\_\_\_\_

# Interchangeable projector lenses with accessories

			Code Number
35 mm*	ELMARON	f/2.8	37 041
50 mm**	ELMARIT-P	f/2.8	37 011
60 mm***	ELMARON	f/2.8	37 004
85 mm	ELMARON	f/2.8	37 003
<b>90 mm</b>	<b>COLORPLAN</b>	<b>f/2.5 (Ø 42.5 mm)</b>	<b>37 005</b>
<b>90 mm</b>	<b>COLORPLAN-CF</b>	<b>f/2.5</b>	<b>37 015</b>
120 mm	ELMARON	f/2.8	37 022
150 mm	ELMARON	f/2.8	37 030
200 mm	ELMARON	f/3.6	37 062
250 mm	ELMARON	f/4	37 082
300 mm	EPNOR		34 837

## Focusing sleeves for the following focal lengths:

35 mm – 120 mm (dia. 42.5 mm)	37 119
150 mm	37 121
200 mm	37 129
250 mm	37 130
300 mm	34 640

## Interchangeable condensers (24 x 36) for:

35 mm to 50 mm	37 223
60 mm to 150 mm	37 224
175 mm to 300 mm	37 225

## Accessories for 40 x 40:

Interchangeable condensers for:

60 mm to 120 mm	37 227
150 mm to 300 mm	37 228
Aspherical lens for 40 x 40	37 226

## Projector, light-pointer and AF lamps:

Replacement lamps supplied by:

Technical Service Center, POB 2027, Ernst Leitz Wetzlar GmbH,  
D-6330 Wetzlar, or the national Leitz Agency.

\* Only for 35 mm format and 30-slide magazine

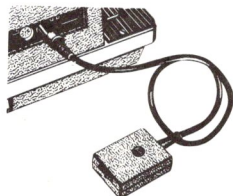
\*\* Only up to 35 mm format, not for 50-slide magazine

\*\*\* Up to effective format 40 x 40 mm, not for 50-slide magazine

# Universal accessories

For the PRADOVIT C/CA, PRADOVIT A, PRADOVIT R/RA

## Timer



For universal use with all PRADOVIT models with 6-pin DIN 45322 socket.

Robust plastic body.

Connecting cable, length 60 cm, with 6-pin plug.

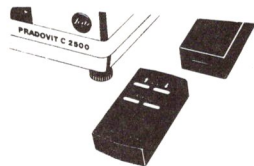
Interval timer, adjustable between about 3 and 30sec, figures engraved in white.

Detailed description page 188.

Code Number

**Timer, complete** ..... **37969** \_\_\_\_\_

## Infra-red remote-control



Range about 20 m.

Connecting cable, length 0.6 m, with 8-pin plug.

Powered by 9v IEC 6F 22 battery.

Detailed description see page 188

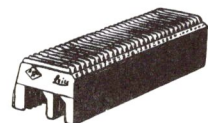
Code Number

**Infra-red remote control complete, but without battery** ..... **37970** \_\_\_\_\_

Additionally necessary for the PRADOVIT R/RA 150:

Infra-red remote-control adapter ..... **37975** \_\_\_\_\_

## Magazines



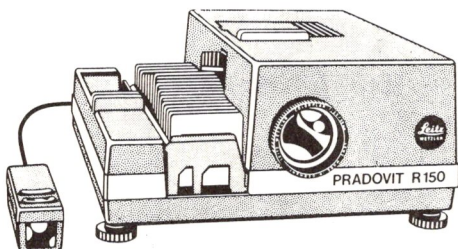
Transparent box with two 36-slide magazines ..... **37863** \_\_\_\_\_

Transparent box with two 50-slide magazines ..... **37835** \_\_\_\_\_

**Stacking box with two 36-slide magazines** ..... **37844** \_\_\_\_\_

**Stacking box with two 50-slide magazines** ..... **37855** \_\_\_\_\_

# PRADOVIT R/RA 150



Officially certified school projector with GS text symbol.

PRADOVIT R 50 with 24 v/150W tungsten halogen lamp.  
 PRADOVIT RA 150 with 24 v/150W tungsten halogen lamp and AUTOFOCUS

Automatic 35 mm slide projector for standard 36 or 50-slide magazines.  
 High optical performance through the  
 90 mm LEITZ-COLORPLAN f/2.5 for glass-mounted slides,  
 90 mm LEITZ-COLORPLAN-CF f/2.5 (curved field) for unglazed slides,  
 LEITZ projector lenses from 50 to 150 mm focal length,  
 Appliance cable, length 2.5 m, VDE or GS test symbol,  
 The remote-control handgrip can be inserted in the projector as control panel.  
 Detailed description see page 185

## Outfits:

**PRADOVIT® R 150** (220 v/50Hz),  
 complete with 24 v/150W lamp, 1 36-slide magazine, **and lens:**

		Code Number	
50 mm* ELMARIT-P®	f/2.8 .....	30590	_____
85 mm ELMARON	f/2.8 .....	30582	_____
<b>90 mm COLORPLAN</b>	<b>f/2.5 .....</b>	<b>30563</b>	_____
<b>90 mm COLORPLAN-CF</b>	<b>f/2.5 .....</b>	<b>30567</b>	_____
120 mm ELMARON	f/2.8 .....	30566	_____
150 mm ELMARON	f/3.2 .....	30565	_____
Body, with condenser for 60 to 150 mm focal length and 24v/150W tungsten halogen lamp.....		30560	_____

\* Not for 50-slide magazine



<b>PRADOVIT R 150</b> (adjustable 110-240v/50-60Hz), complete with 24v/150W lamp, 1 36-slides magazine, <b>and lens:</b>	Code Number
50 mm* ELMARIT-P f/2.8 .....	30591 _____
85 mm ELMARON f/2.8 .....	30572 _____
<b>90 mm COLORPLAN f/2.5 .....</b>	<b>30573</b> _____
<b>90 mm COLORPLAN-CF f/2.5 .....</b>	<b>30577</b> _____
120 mm ELMARON f/2.8 .....	30576 _____
150 mm ELMARON f/3.2 .....	30575 _____

Body with condenser for 60 to 150 mm focal length and 24v/150W tungsten halogen lamp. .... 30570 \_\_\_\_\_

<b>PRADOVIT RA 150 with AUTOFOCUS</b> (220v/50Hz) complete with 24v/150W lamp, 1 36-slide magazine, <b>and lens:</b>	
50 mm* ELMARIT-P f/2.8 .....	30592 _____
85 mm ELMARON f/2.8 .....	30532 _____
<b>90 mm COLORPLAN f/2.5 .....</b>	<b>30533</b> _____
<b>90 mm COLORPLAN-CF f/2.5 .....</b>	<b>30538</b> _____
120 mm ELMARON f/2.8 .....	30537 _____
150 mm ELMARON f/3.2 .....	30535 _____

Body with condenser for 60 to 150 mm focal length and 24v/150W tungsten halogen lamp. .... 30530 \_\_\_\_\_

<b>PRADOVIT RA 150 with AUTOFOCUS</b> (adjustable 110-240v/50-60Hz) complete with 24v/150W lamp, 1 36-slide magazine, <b>and lens</b>	
50 mm* ELMARIT-P f/2.8 .....	30593 _____
85 mm ELMARON f/2.8 .....	30542 _____
<b>90 mm COLORPLAN f/2.5 .....</b>	<b>30543</b> _____
<b>90 mm COLORPLAN-CF f/2.5 .....</b>	<b>30547</b> _____
120 mm ELMARON f/2.8 .....	30546 _____
150 mm ELMARON f/3.2 .....	30545 _____

Body with condenser for 60 to 150 mm focal length and 24v/150W tungsten halogen lamp. .... 30540 \_\_\_\_\_

<b>● PRADOVIT RA 150</b> (adjustable 110-240v/50-60Hz), <b>for LAP DIS-</b> <b>SOLVE with AUTOFOCUS, built-in TRIAC and 10-pin socket,</b> complete with 24v/150W lamp, 1 36-slide magazine, mains cable and remote-control cable <b>and lens:</b>	
50 mm* ELMARIT-P f/2.8 .....	30548 _____
85 mm ELMARON f/2.8 .....	30553 _____
<b>90 mm COLORPLAN f/2.5 .....</b>	<b>30554</b> _____
<b>90 mm COLORPLAN-CF f/2.5 .....</b>	<b>30557</b> _____
120 mm ELMARON f/2.8 .....	30555 _____
150 mm* ELMARON f/3.2 .....	30556 _____

Body without lens, with interchangeable condenser for 60 to 150 mm. . . 30551 \_\_\_\_\_

**PRADOVIT R 150-CSA version**  
for 120v mains  
on request

\* Not for 50-slide magazines

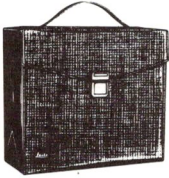


# Standard accessories

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## For the PRADOVIT R 150, RA 150

### Carrying case



	Code Number
<b>Carrying case</b> for dust-free storage .....	<b>37954</b> _____
<b>Multiple plug</b> for the connection of tape and separate remote-control cable .....	37911 _____
<b>Separate remote-control cable</b> , length 3 m, with light pointer .....	37953 _____
<b>Extension cable</b> for remote-control, length 5 m .....	37931 _____

### Interchangeable projector lenses

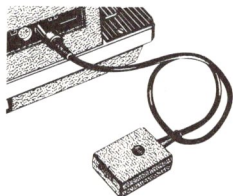
	Code Number
50 mm* ELMARIT-P f/2.8 .....	37011 _____
85 mm ELMARON f/2.8 .....	37003 _____
90 mm COLORPLAN f/2.5 .....	37005 _____
90 mm COLORPLAN-CF f/2.5 .....	37015 _____
120 mm ELMARON f/2.8 .....	37022 _____
150 mm ELMARON f/3.2 .....	37031 _____
Interchangeable condenser for 60 to 150 mm .....	37222 _____
Interchangeable condenser for 50 mm .....	37221 _____

\* Not for 50-slide magazine

# Universal accessories

For the PRADOVIT C/CA, PRADOVIT R, PRADOVIT R/RA

## Timer



For universal use with all PRADOVIT models with 6-pin DIN 45322 socket.

Robust plastic body.

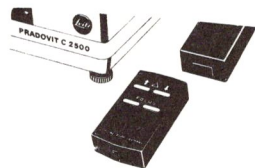
Connecting cable, length 60 cm, with 6-pin plug.

Interval timer, adjustable between about 3 and 30 sec, figures engraved in white.

Detailed description page 188

**Timer, complete** ..... Code Number **37969** \_\_\_\_\_

## Infra-red remote control



Range about 20 m.

Connecting cable, length 0.6 m, with 8-pin plug.

Powered by 9v IEC 6F 22 battery.

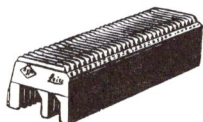
Detailed description see page 188

**Infra-red remote-control complete, but without battery** ..... Code Number **37970** \_\_\_\_\_

Additionally necessary for the PRADOVIT R/RA 150:

Infra-red remote-control adapter ..... **37975** \_\_\_\_\_

## Magazines



Transparent box with two 36-slide magazines ..... Code Number **37863** \_\_\_\_\_

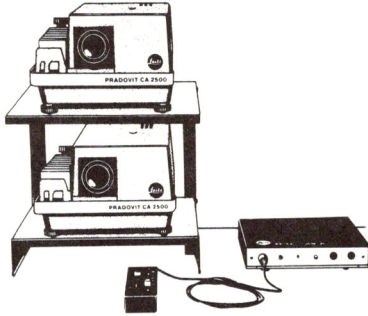
Transparent box with two 50-slide magazines ..... **37835** \_\_\_\_\_

**Stacking box with two 36-slide magazines** ..... **37844** \_\_\_\_\_

**Stacking box with two 50-slide magazines** ..... **37855** \_\_\_\_\_

# Lap dissolve control units

## D.U. 24A lap dissolve control unit



For two projectors, with recording facility for cassette and tape.

**Uses:**

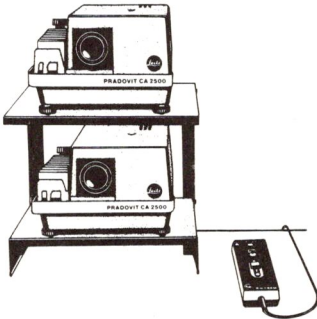
Projection in the home, lecturing, advertising, teaching and communication.  
Detailed description see page 189

Code Number

**D.U. 24A lap dissolve control unit**, with hand piece and connecting cable, length 2 m, coupling cable for "free head" and connecting pieces 1 and 2 . . . . .  
Extension cable, length 5 m, for the hand piece of the control unit . . . . .

**37973** \_\_\_\_\_  
**37931** \_\_\_\_\_

## D.U.-24M lap dissolve control unit



For two projectors for manual lap dissolve control.  
Detailed description see page 191

**Uses:**

Projection in the home, lecturing, advertising, teaching and communication.

Code Number

**D.U.-24M lap dissolve control unit** . . . . .

**37971** \_\_\_\_\_

# PRADOVIT projectors for lap dissolve

Modified versions with built-in TRIAC, ready for connection to the D.U.-24A or D.U.-24M:

● **PRADOVIT CA 2500** (adjustable 110 to 240v/50-60Hz) **with AUTOFOCUS, with built-in TRIAC and 10-pin socket,**

complete with 24v/250W lamp, 1 36-slide magazine, mains cable and remote-control cable, **and lens:**

			Code Number
35 mm*	ELMARON	f/2.8 .....	30373 _____
50 mm**	ELMARIT-P	f/2.8 .....	30299 _____
60 mm***	ELMARON	f/2.8 .....	30375 _____
85 mm	ELMARON	f/2.8 .....	30376 _____
<b>90 mm</b>	<b>COLORPLAN</b>	<b>f/2.5 .....</b>	<b>30377</b> _____
<b>90 mm</b>	<b>COLORPLAN-CF</b>	<b>f/2.5 .....</b>	<b>30384</b> _____
120 mm	ELMARON	f/2.8 .....	30378 _____
150 mm	ELMARON	f/2.8 .....	30379 _____
200 mm	ELMARON	f/2.6 .....	30380 _____
250 mm	ELMARON	f/4 .....	30381 _____
300 mm	EPNOR	f/4.3 .....	30382 _____
Body without lens, focusing sleeve, remote-control, mains cable, but with interchangeable condenser for 60-150 mm .....			30363 _____

● **PRADOVIT CA 1500** (220v/50Hz) **with AUTOFOCUS,**

**built-in TRIAC and 10-pin socket,**

complete with: 24v/150W lamp, 1 magazine for 36 slides, mains cable and remote-control cable, **and lens:**

			Code Number
35 mm*	ELMARON	f/2.8 .....	30364 _____
50 mm**	ELMARIT-P	f/2.8 .....	30298 _____
60 mm***	ELMARON	f/2.8 .....	30366 _____
85 mm	ELMARON	f/2.8 .....	30367 _____
<b>90 mm</b>	<b>COLORPLAN</b>	<b>f/2.5 .....</b>	<b>30368</b> _____
<b>90 mm</b>	<b>COLORPLAN-CF</b>	<b>f/2.5 .....</b>	<b>30383</b> _____
120 mm	ELMARON	f/2.8 .....	30369 _____
150 mm	ELMARON	f/2.8 .....	30370 _____
200 mm	ELMARON	f/3.6 .....	30371 _____
250 mm	ELMARON	f/4 .....	30372 _____
Body without lens, focusing sleeve, remote-control cable, mains cable but with interchangeable condenser for 60-150 mm .....			30361 _____

● **PRADOVIT RA 150** (adjustable 110-240v/50-60Hz) **with AUTOFOCUS,**

**with built-in TRIAC and 10-pin socket,**

complete with 24v/150W lamp, 1 36-slide magazin, mains cable and remote-control cable **and lens:**

			Code Number
50 mm*	ELMARIT-P	f/2.8 .....	30548 _____
85 mm	ELMARON	f/2.8 .....	30553 _____
<b>90 mm</b>	<b>COLORPLAN</b>	<b>f/2.5 .....</b>	<b>30554</b> _____
<b>90 mm</b>	<b>COLORPLAN-CF</b>	<b>f/2.5 .....</b>	<b>30557</b> _____
120 mm	ELMARON	f/2.8 .....	30555 _____
150 mm	ELMARON	f/3.2 .....	30556 _____
Body without lens, with interchangeable condenser for 60 to 150 mm..			30551 _____

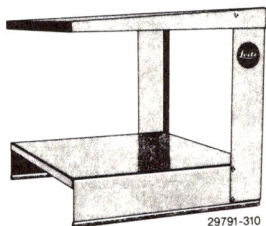
\* only up to 35 mm format and 30-slide magazine

\*\* only up to 35 mm format, not for 50-slide magazine

\*\*\* up to effective format 40 x 40 mm, not for 50-slide magazine

# Accessories for lap dissolve projection

## Console for lap dissolve projection



With this console, 2 PRADOVIT projectors are set up vibration-free on top of each other. Detailed description see page 192.

<b>PRADOVIT console</b>	Code Number <b>37972</b> _____
<b>Hood</b> for the PRADOVIT C/CA/A projectors with lenses up to 120 mm focal length, as dust protection, with projection area .....	<b>37956</b> _____
<b>Carrying case</b> for PRADOVIT C 1500/2500 and CA 1500/2500, A (advertising projector) with lenses of up to 250 mm focal length ...	<b>37961</b> _____
<b>Carrying bag</b> for the PRADOVIT R/RA 150, for dust-free storage .....	<b>37954</b> _____

Other accessories see under PRADOVIT C or PRADOVIT R

### Possibility of combining the projectors

All automatic 35 mm PRADOVIT projectors which have auxiliary equipment with built-in TRIAC for lamp control can be used with the D.U.-24A control unit:

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.

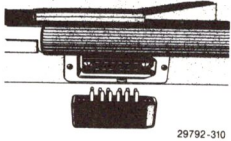
In the interest of operating convenience PRADOVIT projectors with AUTOFOCUS are preferable.

Existing PRADOVIT C/CA, S/SAF, R/RA, and PRADOVIT COLOR projectors can be modified at any time by Ernst Leitz Wetzlar, GmbH, Technical Service Centre, or authorised Leitz Workshops for use of the D.U.-24A and D.U.-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.



# 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 plug strips, instructions and circuit plan.

**Control unit connection, 12-pin** ..... Code Number **37958** \_\_\_\_\_

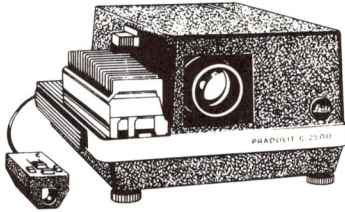
PRADOVIT C/S projectors already supplied can be fitted with the 12-pin control unit connection by LEITZ WETZLAR, Technical Service Centre, or authorized workshops.

# Description and technical data of the instruments

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## PRADOVIT C/CA

### Projection without irritating dark interval



**PRADOVIT CA 1500 (24 v/150 W AUTOFOCUS)**

**PRADOVIT C 2500 (24 v/250 W)**

**PRADOVIT CA 2500 (24 v/250 W AUTOFOCUS)**

**PRADOVIT CA 1500/CA 2500 for lap dissolve projection**

Officially certified school projector, with VDE or GS test symbol.

#### **Type of instrument:**

Automatic 35 mm slide projector with smooth slide change = projection without irritating dark intervals, the method of projection that is kindest to your eyes. Standard magazines for 36 or 50 slides.

Optimised for the 35 mm format

For projection of the 40 x 40 mm format, a special condenser and aspherical 40 x 40 mm illuminating lens must be used.

High optical performance with:

the 90 mm LEITZ COLORPLAN f/2.5 for glass-mounted slides,

the 90 mm LEITZ COLORPLAN-CF f/2.5 (curved field) for unglazed slides

LEITZ projector lenses from 35 to 300 mm

#### **Projector Housing:**

Stylish design and optimum stability through high-quality aluminium diecasting. Charcoal enamel finish and bright central decorative band for pleasing appearance.

LEITZ manufacture and more than 20 years' experience in the design of PRADOVIT projectors guarantee durability and high reliability.

Quiet, precise projector running.

Very rigid 3-point support.

Vertical adjustment with knurled screws for precision horizontal alignment.

Appliance plug for mains cable.

Mains switch.

Lamp economy switch

Voltage selector 110-240v/50-60Hz in the adjustable models.

Standard version of the models CA 1500 for 220/240v/50Hz mains.

Connection for remote control (8-pin)

Connection for slide control units (6-pin)

Remote-control with built-in light pointer (cable length 3m)

Slide changing button

Folding carrying handle

### **Magazine guide and slide transport**

Free access to the magazine chamber of the projector

Convenient insertion of the standard magazines to 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 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 is removed.

### **Slide change and focusing**

Remote-control handgrip with 3 m 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

In the CA models: switch for automatic focusing

Light pointer built into the remote-control handgrip, with switch button

Extension cable of up to 50 m length for remote control or permanently installed remote-control cables (as accessories)

or

Slide changing button on the projector (forward and reverse)\*

### **Further possibilities:**

Timer, can be connected for automatic showing with adjustable time intervals\*

Radio control, attachable, wireless (on request)

IE remote-control, attachable, wireless

Lap dissolve devices,

(with or without tap 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

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

**Lenses and condenser system:**

High optical performance, optical image quality through the  
90 mm LEITZ-COLORPLAN f/2.5 for glass-mounted slides  
90 mm LEITZ-COLORPLAN-CF f/2.5 (curved field) for unglazed slides  
Adaptation to all requirements from wide-angle projection to the bridging of long  
projection distances through LEITZ lenses of 35 to 300 mm focal length  
Modern, aspherical condenser system, specially computed for the 35 mm format  
Interchangeable condensers –  
For the 35 mm format:  
35 mm lens  
50 – 150 mm lenses  
175 – 300 mm lenses  
On request also 40 x 40 format through interchange of the aspherical condenser  
system and the interchangeable condenser for: 60 – 120 mm lenses and 150 – 300  
mm lenses.

**Tungsten halogen lamps and their function:**

24v/150W for CA 150  
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 90 mm COLORPLAN f/2.5 and  
24 x 36 mm film size)  
Effective light flux:  
To DIN 19021 standards, referred to 24 x 36 mm film size and 90 mm COLORPLAN f/  
2.5 lens:  
PRADOVIT CA 1500: 550 lm  
PRADOVIT CA 2500: 800 lm  
Slide gate temperature  
Measured to DIN 19021 standards  
PRADOVIT CA 1500: 55°C  
PRADOVIT 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 5.5 mm (KG 1-glass for the absorption of IR rays).  
Remarkably quiet running of the blower.

## **PRADOVIT CA 1500/CA 2500 for lap dissolve projection**

In addition:

10-pin socket for the connection of the D.U.-24 A or D.U.-24 M lap dissolve control units.

Built-in TRIAC for lamp modulation.

### **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 334 mm; width 268 mm; height 166 mm.

Weight: depending on the model and equipment, between 7 and 10 kg

### **Outfit including:**

Projector with carrying handle

Detachable mains cable, length 2.5 m

Factory-centred tungsten halogen lamp.

1 36-slide magazine

Detachable remote-control cable, length 3 m, with light pointer

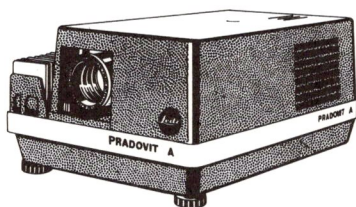
Choice of projector lenses from 35 to 300 mm focal length with cap

Other accessories optional



# PRADOVIT A

## Advertising projector



**with AUTOFOCUS and  
24v/250W  
tungsten halogen lamp**

### **Type of instrument:**

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 pulse for the return of the magazine and its renewed advance.

Between 2 and 48 slides can be continuously projected

The slide change pulse 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 300 mm.

**Outfit PRADOVIT A** (adjustable 110–240v/50–60Hz),  
complete with 24 v 250W tungsten halogen lamp,  
one magazine for 36 slides,  
mains cable,  
remote-control cable,  
built-in mechanism for continuous projection,  
two repeater plates,  
built-in timer,  
and lens.

### **Dimensions and weight:**

Standing area: length 334 mm; width 268 mm; height 166 mm.

Weight: about 10 kg

# Daylight Projection Box



## for the PRADOVIT A (advertising projector – PRADOVIT C

Stylish, robust body with rounded corners, covered with grained, matt-black foil. Specially coated 340 x 340 mm back projection screen for radiant groundglass screen images of 10x magnification. A frame behind the projection screen provides neat framing of the projected image.

Platform insert for setting up the projector (required focal length 50 mm). Unrestricted 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 470 mm

Width (without projector) 400 mm

Height 405 mm

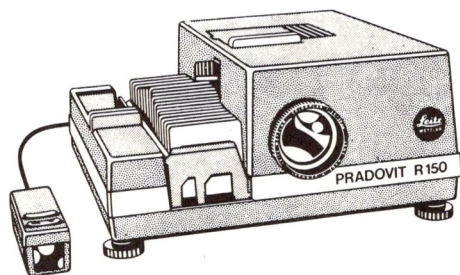
### Standing area with projector

Length (depth) about 550 mm

Width about 650 mm

**Weight** about 9 kg

# PRADOVIT R 150 and RA 150



**PRADOVIT R 150 (24 v/150 W)**

**PRADOVIT R 150 (24 v/150 W) with AUTOFOCUS**

**PRADOVIT R/RA 150 for lap dissolve**

**Officially certified school projector with VDE or GS test symbol**

## **Type of instrument:**

Automatic 35 mm slide projector for standard 36 or 50-slide magazines.

High optical performance through the

90 mm LEITZ COLORPLAN f/2.5 for glass-mounted slides,

90 mm LEITZ COLORPLAN-CF f/2.5 (curved field) for unglazed slides

LEITZ projector lenses from 50 to 150 mm focal length.

## **Projector housing**

Modern design. Impact-proof, high-quality plastics with textured surface, charcoal colour. Modular construction facilitates servicing.

Rigid 3-point support. Vertical adjustment with knurled screws through up to about 6%, levelling facility.

Special bobbin in the base of the projector for the appliance cable.

Mains switch

Lamp economy switch

Voltage selector 110-240v/50-60Hz in the adjustable models

Standard version for 220v/240v/50Hz mains

Appliance mains cable (2-strand, VDE or GS, length 2.5 m).

Remote-control handgrip can be inserted in the projector as control panel.

Socket for separate remote-control cable, for tape or slide control units, timer, infra-red remote-control, radio control.

## **Magazine guide and slide transport:**

Free access to the magazine chamber of the projector.

Convenient insertion of the 36 or 50-slide standard magazines.

Trouble-free slide transport through hard-chromed slide tracks and firmly guided claw (does not protrude beyond the projector housing).

Projects all types of slide mounts (to DIN 108 standards).

Automatic blanking during slide change or when the instrument is switched on without projection.

Rapid slide change, dark interval only 1.4 sec.

Forward and reverse adjustment of the inserted slide magazine as required.

Quiet slide transport and change

The slide stage can be taken out for rearrangement of slides or single-frame projection.

**Slide change and focusing with:**

Remote-control handgrip

Alternatively:

Can be inserted as control panel in the projector for forward and reverse slide change and focusing.

For hand-held use (connecting cable, length 1.2 m, fixed to the projector, where it can be stored) for and reverse slide transport, focusing.

The built-in light pointer is operated with a push-button.

or

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

If required:

Extension cable (5m) for remote-control.

**Further possibilities:**

Timer, can be connected for automatic showing with adjustable time intervals.

Infra-red remote control, attachable, wireless.

Lap dissolve devices

With or without tape control.

**AUTOFOCUS device:**

Automatic focusing with the PRADOVIT RA 150.

Switch for automatic focusing on the projector housing.

LED indicates operational readiness.

The AUTOFOCUS device has its own light source (strip lamp) which makes it independent of the centration of the projector lamp. High setting accuracy.

**Lenses and illuminating system:**

High optical performance through the

90mm LEITZ COLORPLAN f/2.5 for glass-mounted slides,

90mm LEITZ COLORPLAN-CF f/2.5 (curved-field) for unglazed slides,

LEITZ projector lenses from 50 to 150mm focal length.

Modern condenser system for brilliantly bright slide illumination (aspherical system)

Condensers interchangeable

**Socket:**

Socket, 6-pin, to DIN standards for:

separate remote-control cable (3m) with light pointer

Extension cable (5m) can also be used

Connecting cable for the slide-control unit (tape coupling)

Multiple plug for the connection of slide-control unit and separate remote-control cable

Timer for automatic slide showing with adjustable time intervals (in preparation)

Infra-red remote control

Lap dissolve device

**Tungsten halogen lamp and its function:**

24v/150W in the PRADOVIT R 150 and RA 150

(Transformer built into the projector)

Transformers supplied complete with lamp

Easy change of projector lamps

Uniformity of illumination more than 80% (referred to the 90 mm COLORPLAN f/2.5 and 24 x 36 mm film size).

Separate lamp economy switch, doubles the life of the lamp.

**Effective light flux**

To DIN 19021 standards, referred to 24 x 36 mm film size and the 90 mm COLORPLAN f/2.5 lens: 600lm

**Slide gate temperature:**

to DIN 19021 standards: 60°C

**Blower system:**

Direct blower for optimum cooling of slide, lamp, and projector.

Absorption of the infra-red radiation and thereby reduction of the heat load on the slide by means of additional KG 1 heat filters.

Remarkably quiet, trouble-free blower running.

**Mains connection:**

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

**Electrical safety:**

VDE or GS symbol, Semko, Nemko, Demko and SEV

**Dimensions and weights:**

Length 280mm, width 262 mm, height 133mm

Weight: R 150 4.3 kg

Weight: RA 150 4.4 kg

**Outfit:****PRADOVIT R 150 and RA 150**

with mains cable,

factory-centred tungsten halogen lamp

1 36-slide magazine

Remote-control cable with light pointer

Choice of projector lenses from 50 to 150 mm focal length

Other optional accessories.

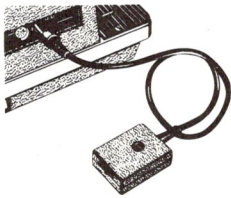
**PRADOVIT RA 150 for lap dissolve projection**

In addition:

10-pin socket for the connection of the D.U.-24A or D.U.-24M lap dissolve control units. Built-in TRIAC for lamp modulation.



## Timer



can be universally used for all PRADOVIT models with 6-pin socket to DIN 45 322, for instance PRADOVIT C, PRADOVIT S, PRADOVIT RC, PRADOVIT 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.

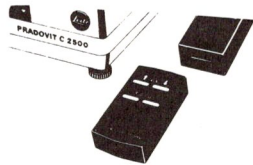
Connecting cable, length 60 cm, with 6-pin plug. The length of the cable permits any desired set-up next to the projector. The 6-pin plug is inserted in the "tape" socket in the PRADOVIT C models. With AUTOFOCUS models of this series the remote-control socket is closed with the dummy plug if AUTOFOCUS is to be operated.

Interval timer, adjustable between about 3 and 30sec, figures engraved in white.

### Dimensions:

Length 65 mm; width 50 mm; height 23.5 mm

## Infra-red remote control



Range about 20 m

Detector in robust plastic housing, modern design

Connecting cable, length 60 cm, with 8-pin plug, adapter for PRADOVIT R/RA 150

Selector with autofocus and remote focusing

Transmitter in handy, robust plastic housing

Powered by 9v IEC 6F22 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

Infra-red remote-control complete, but without battery

### Dimensions and weight:

IR detector

Length 120 mm, width 65 mm, height 42 mm

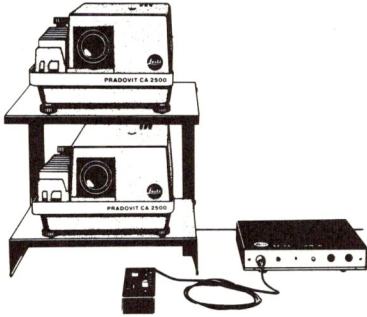
Weight 0.0182 kg

IR transmitter

Length 115 mm, width 60 mm, height 23 mm

Weight: 0.092 kg

# D.U.-24 A lap dissolve control unit



For two projectors, with recording facility for cassette and tape.

## Uses:

Projection in the home, 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.

Black metal housing with bright 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:

"Record" normal position for manual lap dissolve and tape marking

"Play" – automatic signal processing from the tape

"Erase" – erase of the recorded signal

"Flip-over button" – rapid lap dissolve without slide transport

Extension of the handpiece-control unit cable up to 30 m with 5 m extension cables (Code No. 37 539)

Coupling cable "Free Hand" and connecting pieces 1 and 2 are part of the outfit

### **Possibility of combining the projectors**

All the automatic PRADOVIT 35 mm 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 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.

### **Dimensions and weights:**

Control unit

Length 230 mm, width 215 mm, height 55 mm

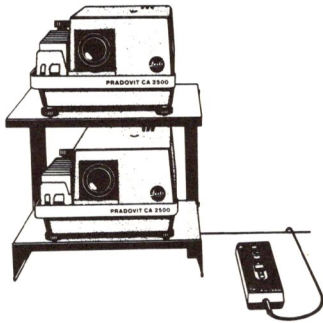
Weight: 2.14 kg

Handpiece

Length 150 mm, width 55 mm, height 43 mm

Weight: 0.29 kg

# D.U.-24M lap dissolve control unit



**For two projectors** for manual lap dissolve control.

**Uses:**

Projection in the home, 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 from cut lap dissolve to gradual lap dissolve 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 30 sec. This permits "automatic slide shows".

Connecting cable, length 3m, dividing after 2.5 m 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.

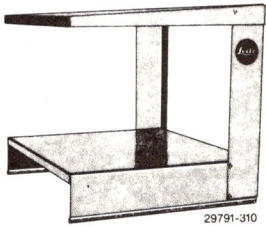
In the interest of operating convenience PRADOVIT projectors with AUTOFOCUS are preferable.

**Dimensions and weight:**

Length 155 mm, width 65 mm, height 35 mm

Weight: 0.39 kg

## 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). Two rubber strips ensure firm setting up.

### **Dimensions and weight:**

Length 325 mm, width 355 mm, height 300 mm

Weight 4.2 kg



# Contents

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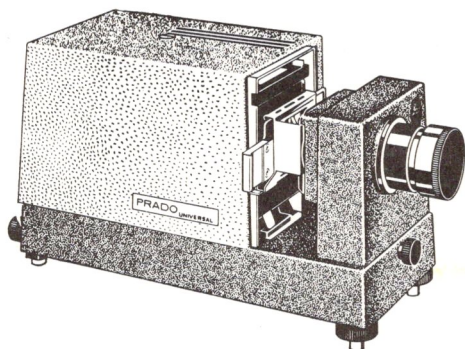
## 1. Product range

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# PRADO® -UNIVERSAL for 5x5, 6x6, 7x7



Officially certified school projector, with VDE or GS test symbol

Universally extensible projector, with 24v/250W tungsten halogen lamp, for 5x5, 6x6, 7x7 cm slides, 35 mm film strips, as well as micro-, macro-, and other attachments.

Leitz projector lenses from 35 to 300 mm

Detailed description see page 203

## PRADO-UNIVERSAL (5x5 cm slides)

Complete with 24v/250W tungsten halogen lamp and lens:

		Code Number
35 mm ELMARON	f/2.8 .....	31 618 _____
50 mm ELMARIT-P	f/2.8 .....	31 649 _____
<b>90 mm COLORPLAN</b>	<b>f/2.5 (Ø 42.5 mm)</b> .....	<b>31 636</b> _____
<b>90 mm COLORPLAN-CF</b>	<b>f/2.5</b> .....	<b>31 646</b> _____
120 mm ELMARON	f/2.8 .....	31 644 _____
150 mm ELMARON	f/2.8 .....	31 622 _____
200 mm ELMARON	f/3.6 .....	31 638 _____
250 mm ELMARON	f/4 .....	31 641 _____
300 mm EPNOR	f/4.3 .....	31 647 _____

Longer focal lengths on request

Projector housing as basic outfit for 5x5 with 5x5 condenser system, 5x5 heat filter, 24v/250W tungsten halogen lamp; but without lens, focusing sleeve, slide changer, interchangeable condenser, 35 mm attachment, mains cable, .....

31 650 \_\_\_\_\_

### Accessories for the PRADO UNIVERSAL 5x5:

<b>Carrying case</b> for the PRADO UNIVERSAL and lenses except 200 mm f/2.5, 250 mm f/2.8 and 300 mm .....	37 942 _____
<b>35 mm film strip guide</b> and 18x24 mm mask .....	37 868 _____
<b>5x5 heat filter</b> (5.5 mm), replacement .....	37 869 _____
<b>Mains cable</b> , replacement .....	37 644 _____

**LEITZ projector lenses** 35-300 mm focal length, focusing sleeves for 5x5, 5x5 interchangeable condensers see under "5x5 Attachment"

### 6x6 attachment

1. For the adaptation of a PRADO-UNIVERSAL (5x5) for 6x6 (2¼ x 2¼in) slides (existing lenses of the PRADO-UNIVERSAL 5x5 from 150mm focal length onwards can be used).
2. For the further extension of a PRADO-UNIVERSAL (6x6) (according to the breakdown below, lens, focusing sleeve, and attachment with condenser are required depending on the nature of the outfit).

6x6 attachment complete with lens			consisting of				
			Attach- ment with condenser	Cover- plate	Slide changer	Focusing sleeve	Lens
Code No.	ELMARON 37883	2.8/150 mm	32311	37867	37815	37186	37030
Code No.	ELMARON 37897	3.6/200 mm	32310	37867	37815	37132	37062
Code No.	ELMARON 37898	4/250 mm	32310	37867	37815	37131	37082
Code No.	EPNOR 37977	4.3/300 mm	32310	37867	37815	37128	34837

Also required for modification from 5x5 to 6x6 version:

6x6 condenser system with filter ..... 37871 \_\_\_\_\_

### Projector lamps:

#### Replacement supplied by:

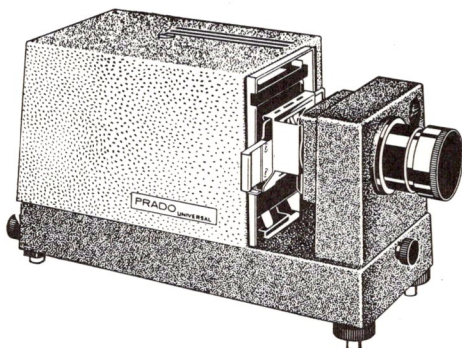
Technical Service Centre, P.O.B. 2027, Ernst Leitz Wetzlar GmbH,  
D-6330 Wetzlar, Germany, or the national Leitz Agency (please give  
detailed data).



# PRADO-UNIVERSAL

(for 6x6 cm or 7x7 cm slides,  
effective format 54x55 mm)

Complete with 24v/250W tungsten halogen lamp and lens:



Detailed description see page 203

	Code Number
150 mm ELMARON f/2.8.....	31 628 _____
200 mm ELMARON f/3.6.....	31 639 _____
250 mm ELMARON f/4 .....	31 642 _____
300 mm EPNOR f/4.3.....	31 648 _____
Longer focal lengths on request.	

Projector body as basic outfit for 6x6 with 6x6 condenser system, 6x6 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 6x6:

Carrying case for the PRADO-UNIVERSAL and 150mm lens .....	37 942 _____
6x6 slide changer (external slide dimensions 5x5 cm, effective format up to 38x38 mm).....	37 865 _____
6x6 slide changer (external slide dimensions 7x7 cm (2¾ x 2¾in) (replacement), effective format 54 x 54 mm).....	37 815 _____
Mains cable (replacement) .....	37 644 _____

**LEITZ projector lenses** 150-300mm, focusing sleeve for 6x6, 6x6 attachment with condensers see under "6x6 attachment".

### 5x5 attachment

1. For the adaptation of a PRADO-UNIVERSAL (6x6) for 5x5 (2x2in) slides existing lenses of the PRADO-UNIVERSAL 6x6 can be used).
2. For the further extension of a PRADO-UNIVERSAL 5x5 (according to the breakdown below, lens, focusing sleeve, and interchangeable condenser are required depending on the nature of the outfit).

5x5-attachment complete with lens			consisting of:				
			Attachment with condenser	Inter-changeable condenser	Slide changer	Focusing sleeve	Lens
Code No.	35 mm ELMARON 37 873 (Ø 42.5 mm)	f/2.8	32402	37 216	37 849	37 119	37 041
Code No.	50 mm ELMARIT-P 37 978 (Ø 42.5 mm)	f/2.8	32402	37 216	37 849	37 119	37 011
Code No.	90 mm COLORPLAN 37 892 (Ø 42.5 mm)	f/2.5	32402	37 218	37 849	37 119	37 005
Code No.	90 mm COLORPLAN-CF 37 967 (Ø 42.5 mm)	f/2.5	32402	37 218	37 849	37 119	37 015
Code No.	120 mm ELMARON 37 968 (Ø 42.5 mm)	f/2.8	32402	37 218	37 849	37 119	37 022
Code No.	150 mm ELMARON 37 877	f/2.8	34402	37 214	37 849	37 121	37 030
Code No.	200 mm ELMARON 37 896	f/3.6	32402	37 214	37 849	37 129	37 062
Code No.	250 mm ELMARON 37 895	f/4	32402	37 214	37 849	37 130	37 082
Code No.	300 mm EPNOR 37 976	f/4.3	32402	37 214	37 849	34 640	34 837

Also required for modification from 6x6 to 5x5 version:

5x5 condenser system with filter ..... 37 872 \_\_\_\_\_

### Projector lamps

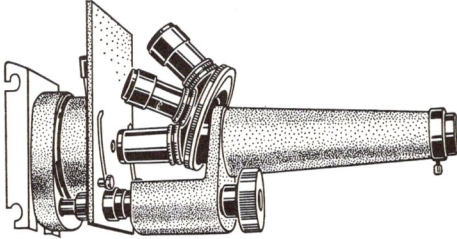
Replacements supplied by:

Technical Service, P.O.B. 2027, Ernst Leitz Wetzlar GmbH,  
D-6330 Wetzlar, Germany, or the national Leitz Agency (please give detailed data).



# Micro-/macro attachments

## Micro attachment A



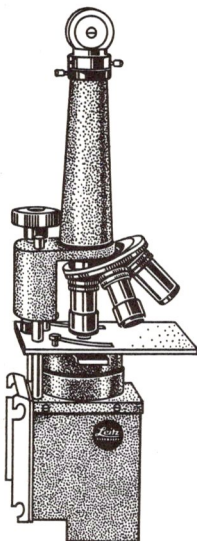
For the projection of microscopic specimens at magnifications of up to 1400x on the screen.  
Simple rotation of the revolving nosepiece ensures the reproduction of the microscopic image at 3\* graduated magnifications, starting with low power.

Microscope carrier	Code Number
comprises:	
4x 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 _____
<b>Micro-attachment A complete</b> .....	<b>32 820</b> _____
<b>Items required</b>	
for PRADO UNIVERSAL: cover plate .....	37 867 _____
for PRADOVIT S, PRADOVIT-C and PRADOVIT COLOR: holder for micro-attachments .....	37 937 _____
<b>Additional items available:</b>	
2x projection eyepiece .....	37 300 _____
Projection prism for the tracing of the microscopic image on the bench, adjustable .....	37 889 _____
Micro cell for liquids, depth 3 mm .....	37 858 _____
<b>Required for conversion to Micro attachment B:</b>	
Mirror housing with fixtures .....	32 824 _____
Projection prism .....	37 889 _____
PRADO UNIVERSAL outfit (5x5) for micro attachments A+B or macro attachment (consisting of 31 650 and 37 656) .....	31 635 _____

For the use of the micro-attachments and the macro attachment on the PRADO UNIVERSAL (6x6) the 5x5 illuminating system, Code No. 37 872, is required.

\* 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.

Microscope carrier comprising:

Code Number

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. ....	32823 _____
Mirror housing with fixtures .....	32824 _____
Projection prism. ....	37889 _____
<b>Micro-attachment B complete</b> .....	<b>32821</b> _____
<b>Items required:</b>	
For PRADO UNIVERSAL: cover plate. ....	37867 _____
For PRADOVIT S, PRADOVIT-C and PRADOVIT COLOR: holder for micro-attachments .....	37937 _____

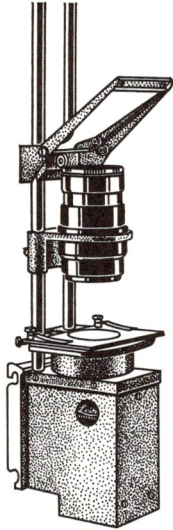
Additional items available:

4x projection eyepiece. ....	37301 _____
2x projection eyepiece. ....	37300 _____
<b>Required for conversion to Micro-attachment A:</b>	
Attachment (rotating holder) with fixtures .....	32850 _____
PRADO-UNIVERSAL outfit (5x5) for micro-attachments A+B or Macro-attachments (consisting of: 31 650, 37 656) .....	31635 _____

For the use of the micro-attachments and the macro-attachment on the PRADO-UNIVERSAL (6x6) the 5x5 illuminating system, Code No. 37872 is required.

\* A fourth objective can be attached if required.

# 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.

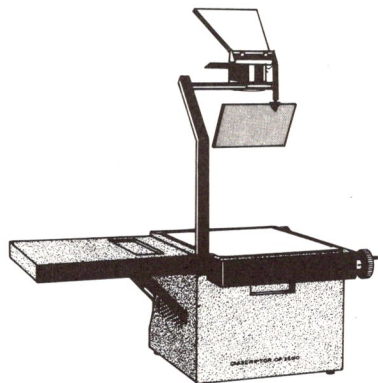
Attachment comprising:	Code Number
Mirror housing with long rails and deflecting mirror, object stage with 2 stage clips, lens carrier (without lens, focusing sleeve, interchangeable condenser) .....	32 825 _____
 <b>Items required:</b>	
For PRADO-UNIVERSAL: cover plate .....	37 867 _____
For PRADOVIT S, PRADOVIT C, and PRADOVIT COLOR: holder for micro-attachments .....	37 937 _____
Choice of lenses:	
50 mm ELMARIT-P f/2.8 (object field dia. 34 mm) .....	37 011 _____
Focusing sleeve for same .....	37 119 _____
Interchangeable condenser for same .....	37 200 _____
90 mm COLORPLAN f/2.5 (object field diameter 40 mm) .....	37 005 _____
Focusing sleeve for same .....	37 119 _____
Interchangeable condenser for same .....	37 200 _____
PRADO-UNIVERSAL outfits (5x5) for the macro-attachment or for the micro-attachments A+B (consisting of 31 650 and 37 656) .....	37 635 _____

For the use of the macro-attachment and the micro-attachments on the PRADO UNIVERSAL (6x6) the 5x5 illuminating system, Code No. 37872, is required.

### Polarizing attachment for 35 mm projectors

In the version as polarized-light projector birefringence and polarizing phenomena can be demonstrated in the orthoscopic and conosopic beam (see List 310-8).

# DIASCRIPTOR OP 2500



24 v/250W tungsten halogen lamp)

Officially certified school projector, with VDE or GS test symbol.

Universal daylight overhead and demonstration projector. Object area 285x285 mm (DIN A4 upright and horizontal format) with corners cut at 45°.

Detailed description page 205

## Outfits:

Code Number

**DIASCRIPTOR OP 2500** including:  
285 mm SCRIPTAR, 24 v/250W  
tungsten halogen lamp, mains cable. .... **33409** \_\_\_\_\_

**DIASCRIPTOR OP 2500** including  
340 mm SCRIPTAR, 24 v/250W  
tungsten halogen lamp, mains cable. .... **33410** \_\_\_\_\_

**Scroll roller device** consisting of. .... 33457 \_\_\_\_\_  
Holder 1 (replacement) ..... 33465 \_\_\_\_\_  
Holder 2 (replacement) ..... 33466 \_\_\_\_\_  
Scroll-type foil (replacement) ..... 33458 \_\_\_\_\_  
Anti-glare shield ..... 33834 \_\_\_\_\_  
Dust cover ..... 33835 \_\_\_\_\_  
Accessory case ..... 33852 \_\_\_\_\_  
Scroll-type foil 10 m (including flange) ..... 33461 \_\_\_\_\_  
Scroll-type foil 25 m (including flange) ..... 33460 \_\_\_\_\_  
25 sheets of foil ..... 33464 \_\_\_\_\_  
Shelf attachment ..... 33459 \_\_\_\_\_  
Fresnel lens, glare-free ..... 33451 \_\_\_\_\_

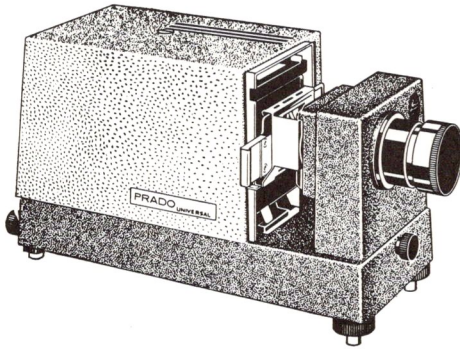
## Projector lamps:

Replacement supplied by:  
Technical Service, P.O.B. 2027, Ernst Leitz Wetzlar GmbH, D-6330 Wetzlar,  
Germany or the national Leitz Agency (please give detailed data)



# Description and technical data of the instrument

## PRADO<sup>®</sup> -UNIVERSAL for 5x5/6x6/7x7



Officially certified school projector, with VDE or GS test symbol

### **Type of projector**

Universally extensible projector, with 24 v/250W tungsten halogen lamp, for 5x5, 6x6, 7x7 cm slides, 35 mm film strips, as well as micro-, macro-, and other attachments.

Leitz projector lenses from 35 to 300 mm

### **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.

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 (KG 1-glass), thickness 5.5 mm 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).



### **Optional possibilities of extension**

with slide changer for

5x5 cm slides (nominal formats 24x36 mm and 40x40 mm),

6x6 or 7x7 cm slides (nominal format 54x54 mm)

with film guide (rotatable) for

35 mm film straps, with mask also 18x24 mm

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 5x5 and 6x6

Interchangeable condensers

For the 5x5 format and lenses of:

35 – 50 mm (for 24x36 mm nominal format only):

90 – 120 mm

150 – 300 mm

For the 6x6 format and lenses of:

150 mm

200 – 300 mm

LEITZ projector lenses

From 35 to 300 mm, ensuring free choice of image size and projection distance.

35 and 50 mm lenses exclusively for the 24x36 mm format

Other focal lengths for 24x36 mm and 40x40 mm formats.

Lenses from 150 mm for the 6x6 or 7x7 format (picture size 54x54 mm)

### **The tungsten halogen lamp and its function**

PRADO-UNIVERSAL for the 24v/250W tungsten halogen lamp, long life and high 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 90 mm COLORPLAN f/2.5 and 24x36 mm slide size)

Effective light flux:

To DIN 19021 standards

A. With the 90 mm COLORPLAN and 24x26 mm slide size = 750 lm

B. With the 90 mm COLORPLAN and 38x38 mm slide size = 1200 lm

C. With the 150 mm ELMARON and 54x54 mm slide size = 1307 lm

Slide gate temperature:

To DIN 19021 standards

A. With the 90 mm COLORPLAN and 24x36 mm slide size = 67°C

B. With the 150 mm ELMARON and 54x54 mm slide size = 61°C

### **Electrical safety**

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

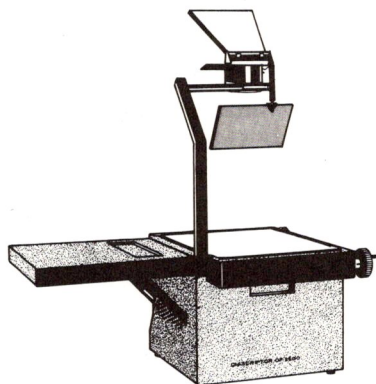
### **Standing area:**

320 – 150 mm, height 195 mm

# Description and technical data of the instrument

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## DIASCRIPTOR OP 2500



24v/250W tungsten halogen lamp

Officially certified school projector, with VDE or GS test symbol.

### **Type of projector**

Universal daylight overhead and demonstration projector

Object area 285 x 285 mm (DIN A 4 upright and horizontal format) with corners cut at 45°.

### **Projector body**

Sturdy metal body, enamelled in two colours with two integrated carrying handles. Rigid 4-point support with one levelling foot.

Rotary knob on the front for focusing and simultaneous adjustment of the lens and the illuminating system. This ensures optimum image illumination free from colour fringes independently of the projection distance.

Top part attached to the bottom part with strong hinges, can be raised and is fixed in the raised position. Retractable locating pins to DIN 108 standard for foils and transparencies.

Shelf for working utensils (crayons) on the operating side of the projector, which also serves as a space for storing the cable during transport.

Connecting cable in orange signal colour, length 5m, permanently connected with the instrument

Double rocker switch for on/off, economy switch and full power

Warning light (lights up when lamp is on full power)

VDE standard disconnecting plug, which interrupts mains supply when the top of the instrument is raised.

**Lenses and illuminating system:**

High optical quality

Choice of two projector lenses:

285 mm SCRIPTAR for projection distances from 1 to 4 m

Raised projection angle about 35°

340 mm SCRIPTAR, high-quality triplet projector lens for projection distances from 1.3 to 4 m up to the front edge of the projector.

Raised projection angle 35°

Illuminating unit, consisting of cold-light reflector, lamp, condenser, heat filter made of well-trying KG-1 glass and Fresnel lens.

Fresnel lens in two versions (clear Fresnel lens, glare-free Fresnel lens as accessory). Easy removal for cleaning when the top is raised.

**Lamp and function:**

24 v/250 W tungsten halogen lamp, mean life 50 operating hours. Instrument fuse 2 amp (T-2A).

Lamp economy switch, which trebles lamp life (more than 150 operating hours).

"Long-life lamp" (life 300 hours) can also be inserted

Effective light flux about 1900 lumen with lamp economy

about 2550 lumen at full power

Evenness of illumination about 48%

Temperature on the working surface about 55°C

All values measured to standards of the Institute for Film and Picture, 8022 Gruenwald

**Blower system:**

Efficient, quietly-running tangential blower for cooling the housing and the working top.

The blower starts up immediately the lamp is switched on.

**Thermostatic cut-out:**

Automatic thermostatic cut-out, switches the instrument off on overheating (for instance when the louvres are covered).

**Mains connection:**

For 220 v/50 Hz

**Electrical safety**

VDE or GS as well as interference suppression symbol

**Dimensions and weights:**

Standing area 364 x 364 mm

Weight of the DIASCRIPTOR OP2500: 14.3 kg

Scroll roller device: 1 kg



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## The range of the LEITZ TRINOVID binoculars

<b>TRINOVID BC</b>	<b>8 x 20</b>	<b>10 x 25</b>		
Magnification	8 x	10 x		
Objective dia.	20mm	25mm		
Exit pupil	2.5mm	2.5mm		
Twilight factor	12.65	15.81		
Field of view at 1000 in degrees	115m 6.3	95m 5.4		
Approximate weight	220 g	240 g		
Dimensions:				
Approximate width	60mm	60mm		
Approximate depth	35mm	36mm		
Approximate height	92mm	110mm		

<b>TRINOVID B/BA</b>	<b>7 x 42</b>	<b>8 x 32</b>	<b>8 x 40</b>	<b>10 x 40</b>
Magnification	7x	8x	8x	10x
Objective dia.	42mm	32mm	40mm	40mm
Exit pupil	8mm	4mm	5mm	4mm
Twilight factor	17.2	16	17.9	20
Field of view at 1000m in degrees	140m 8	130m 7.4	128m 7.3	110m 6.3
Approximate weight	650 g (B) 660 g (BA)	483 g (B) 493 g (BA)	490 g (B) 600 g (BA)	590 g (B) 600 g (BA)
Dimensions:				
Approximate width	126mm	115mm	123mm	123mm
Approximate depth	50mm	39mm	47mm	47mm
Approximate height	173mm	117mm	150mm	143mm



## TRINOVID 8 x 20 BC



Compact binoculars of high optical performance,  
ideal when light weight and small volume are required  
All-metal construction

Magnification: 8x

Objective diameter: 20mm

Diameter of exit pupil: 2.5mm

Twilight factor: 12.65

Field of view: 115m at 1000m distance, 6.3°

Central drive, internal focusing

Dioptre compensation  $\pm 3.5$  dioptres

Adjustable eyecups with soft rubber ring the latter interchangeable

Adjustable to interpupillary distance 32-38mm can be folded

Easy-grip central part and tubes, covered with grained PVC, other external metal  
parts silk-finish plating or enamel

Dimensions (folded): Width 60mm

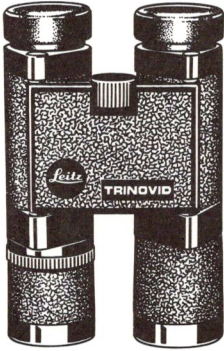
Depth 35mm

Height 92mm

Weight: 0.220 kg

<b>TRINOVID 8 x 20 BC</b> with carrying cord .....	<b>40.305</b> _____
Soft-leather case .....	42 198 _____

# TRINOVID 10 x 25 BC



High-power compact binoculars of high optical performance.

The ideal leisure binoculars in the mini-size.

All-metal construction

Magnification: 10x

Objective diameter: 2.5mm

Diameter of exit pupil: 2.5mm

Twilight factor: 15.81

Field of view: 95m at 1000m distance, 5.4°

Central drive, internal focusing

Dioptre compensation  $\pm 3.5$  dioptres

Adjustable eyecups with soft rubber ring the latter interchangeable.

Adjustable for interpupillary distance 32-83mm, can be folded

Easy-grip central part and tubes, covered with grained PVC, other external metal parts black silk-finish plating or enamel

Dimensions (folded): Width 60mm

Depth 36mm

Height 110mm

Weight: 0.240 kg

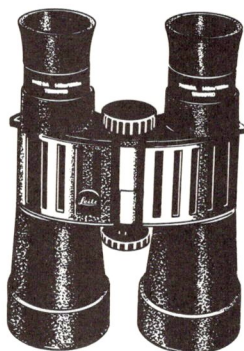
Code Number

**TRINOVID 10 x 25 BC** with carrying cord ..... **40 306** \_\_\_\_\_  
Soft-leather case ..... 42 197 \_\_\_\_\_

# 7x42B/BA TRINOVID



TRINOVID 7x42B



TRINOVID 7x42BA

Special night binoculars, large exit pupil and very large field of view. Particularly suitable for hunting and sailing. (Observation from an unsteady support), because the object of observation can be kept within the field of view. BA version noise suppressing and non-slip.

All-metal construction

Magnification: 7x

Objective diameter: 42 mm

Diameter of exit pupil: 6 mm

Twilight factor: 17.2

Field of view: 140 m at 1000 m distance, 8°

Central drive, internal focusing

Dioptre compensation  $\pm 3$  dioptres

Roll-back rubber eyecups, interchangeable

Hinged bridge, adjustable for interpupillary distance

Easy-grip tubes and body, covered with PVC (B) or green rubber (BA), other external metal parts: black or green plating or enamel.

Eyelets for carrying cord

Dimensions: Height about 173 mm

Width about 125 mm

Weight: 7x42B, 0.65 kg

7x42BA, 0.66 kg

**7x42B TRINOVID** with carrying cord ..... **40218** \_\_\_\_\_

**7x42BA TRINOVID** with rubber reinforcement,  
with carrying cord (technical data as 7x42B TRINOVID) ..... **42234** \_\_\_\_\_

## Accessories for the 7x42B/BA TRINOVID

Flat leather case with carrying cord ..... 42 173 \_\_\_\_\_

Soft-leather ever-ready case ..... 42 189 \_\_\_\_\_

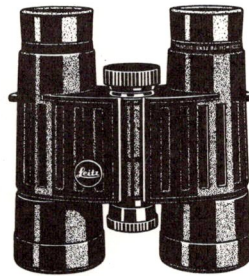
Rain guard (black) ..... 42 101 \_\_\_\_\_

Rain guard (green) ..... 42 137 \_\_\_\_\_

# 8x32B/BA TRINOVID



TRINOVID 8x32B



TRINOVID 8x32BA

Compact universal binoculars –  
 the smallest among the large ones, wide-angle effect  
 Powerful even in waning light  
 In BA version noise suppressing and non-slip  
 All-metal construction

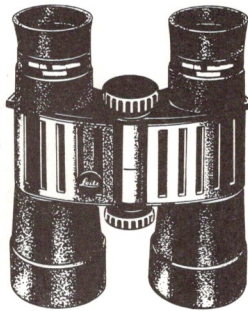
Magnification: 8x  
 Objective diameter: 32 mm  
 Diameter of exit pupil: 4 mm  
 Twilight factor: 16  
 Field of view: 130m at 1000m distance, 7.4°  
 Central drive, genuine internal focusing  
 Dioptre compensation  $\pm 3$  dioptres  
 Roll-back rubber eyecups, interchangeable  
 Hinged bridge, adjustable for interpupillary distance  
 Easy-grip tubes and body, covered with grained PVC or with green rubber (BA).  
 Other external metal parts: black or green plating or enamel  
 Eyelets for carrying cord  
 Dimensions: Height: about 117 mm  
                   Width: about 115 mm  
 Weight: 8x32B 0.483 kg  
           8x32BA 0.493 kg

	Code Number
<b>8x32B TRINOVID</b> with carrying cord .....	<b>40208</b> _____
<b>8x32BA TRINOVID</b> with rubber reinforcement with carrying cord (technical data as 8x32B TRINOVID) .....	<b>40237</b> _____
<b>Accessories for the 8x32B/BA TRINOVID</b>	
Flat leather case with carrying cord .....	42177 _____
Soft leather ever-ready case .....	42181 _____
Rain guard (black) .....	42101 _____
Rain guard (green) .....	42137 _____

# 8x40 B/BA TRINOVID



TRINOVID 8x40B



TRINOVID 8x40BA

Universal binoculars of enhanced light power in the limiting region of twilight. Their large exit pupil make them particularly suitable for hunting, observation from an unsteady support (boat) or when it is not possible to hold the binoculars steady. In BA version noise suppressing and non-slip.

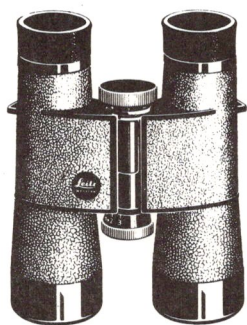
All-metal construction

- Magnification: 8x
- Objective diameter: 40 mm
- Diameter of exit pupil: 5 mm
- Twilight factor: 17.9
- Field of view: 128 m at 1000 m distance, 7.3°
- Central drive, internal focusing
- Dioptre compensation  $\pm 3$  dioptres
- Roll-back rubber eyecups, interchangeable
- Hinged bridge, adjustable for interpupillary distance
- Easy-grip central part and tubes, covered with grained PVC (B) or green rubber (BA)
- Other external metal parts: black or green plating or enamel
- Eyelets for carrying cord
- Dimensions: Height about 150 mm  
Width about 124 mm
- Weight: 8x40B 0.59 kg  
8x40BA 0.6 kg

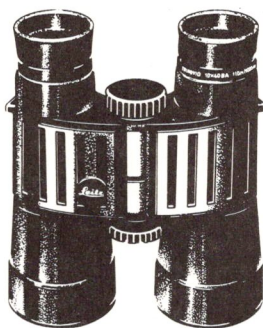
	Code Number	
<b>8x40B TRINOVID</b> with carrying cord .....	<b>40221</b>	_____
<b>8x40BA TRINOVID</b> with rubber reinforcement, with carrying cord (technical data as 8x40B TRINOVID) .....	<b>40235</b>	_____
<b>Accessories for the 8x40B/BA TRINOVID</b>		
Flat leather case with carrying cord .....	42173	_____
Soft-leather ever-ready case .....	42179	_____
Rain guard (black) .....	42101	_____
Rain guard (green) .....	42137	_____



# 10x40B/BA TRINOVID



TRINOVID 10x40B



TRINOVID 10x40BA

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.

All-metal construction.

Magnification: 10x  
 Objective diameter: 40mm  
 Diameter of exit pupil: 4mm  
 Twilight factor: 20  
 Field of view: 110m at 1000m distance, 6.3°

Central drive, internal focusing

Dioptre compensation  $\pm 3$  dioptres

Roll-back rubber eyecups, interchangeable

Hinged bridge, adjustable for interpupillary distance

Easy-grip tubes and body, covered with grained PVC (B) or green rubber (BA)

Other external metal parts: black or green plating or enamel

Eyelets for carrying cord

Dimensions: Height about 143 mm

Width about 122mm

Weight: 10x40B 0.59 kg

10x40BA 0.6 kg

Code Number

**10x40B TRINOVID** with carrying cord ..... **40228** \_\_\_\_\_

**10x40BA TRINOVID** with rubber reinforcement,  
 with carrying cord (technical data as 10x40B TRINOVID) ..... **40236** \_\_\_\_\_

## Accessories for the 10x40B/BA TRINOVID

Flat leather case with carrying cord ..... 42177 \_\_\_\_\_

Soft leather ever-ready case ..... 42179 \_\_\_\_\_

Rain guard (black) ..... 42101 \_\_\_\_\_

Rain guard (green) ..... 42137 \_\_\_\_\_

## Accessories for the TRINOVID binoculars

	Code Number
Roll-back rubber eyecup, black (replacement) for 8x20C and 10x22C TRINOVID binoculars .....	42 136 _____
Roll-back rubber eyecup, black (replacement) for all TRINOVID B binoculars except 7x42B .....	42 133 _____
Roll-back rubber eyecup, black (replacement) for the 7x42B TRINOVID .....	42 141 _____
Roll-back rubber eyecup, green (replacement) for all TRINOVID BA binoculars except 7x42BA .....	42 138 _____
Roll-back rubber eyecup, green (replacement) for the 7x42BA TRINOVID .....	42 139 _____
Rubber rain guard (black) for the TRINOVID B .....	42 101 _____
Rubber rain guard (green) for the TRINOVID BA .....	42 137 _____
Black perlon tissue carrying cord (replacement for TRINOVID B/BA binoculars) .....	42 148 _____

Non-slip pad, black, (item no. 028.790.510-011).

Available from Technical Service Centre, Ernst Leitz Wetzlar GmbH,  
P.O.B. 2027, D-6330 Wetzlar, or your national LEITZ Agency.

# Description and technical data of the binoculars

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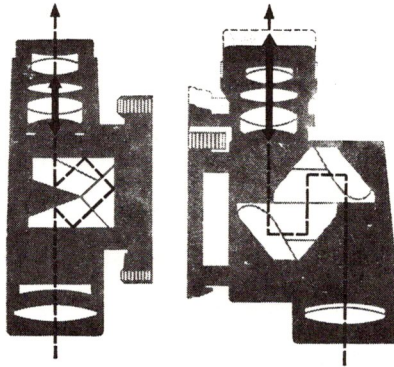
## LEITZ TRINOVID binoculars

### 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.

BA version also noise damping and non-slip.

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 eyepiece produce large fields of view

Even in weak lighting contrast the resolving power of the LEITZ TRINOVID binoculars is fascinating.

LEITZ TRINOVID binoculars differentiate the smallest detail also in twilight.

LEITZ TRINOVID binoculars make the finest colour nuances visible (fascinating brilliance).

Because of their large field of view LEITZ TRINOVID binoculars facilitate the finding and observation also of moving objects.

LEITZ TRINOVID binoculars are something special, connoisseurs appreciate this.

LEITZ TRINOVID BA binoculars for heavy-duty work.

Rubber-reinforced LEITZ binoculars are extremely robust and therefore suitable for roughest use.

The rubber reinforcement acts as a noise suppressor.

The rubber reinforcement does not slip.

The rubber reinforcement offers additional protection against the weather.

The rubber reinforcement – an even more effective additional protection against shock and impact.

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.



# Contents

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## **Batteries (button cells)**

(replacement)

Manufacturer:            designation:

### **For the LEICA R4-MOT and LEICA R3/R3-MOT:**

UCAR	EPX 76
UCAR	No. 357
UCAR	S 76 E
MALLORY	10 L 14
MALLORY	MS 76 H
VARTA	V 76 PX
VARTA	V 76 HS
VARTA	No. 541
EVEREADY	S 76 E
NATIONAL	G 13
RAY O VAC	RS 76 G
MAXELL	ST 44 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:**

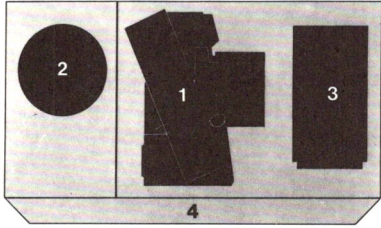
MALLORY	PX 625
VARTA PETRIX	7002
MALLORY NATIONAL	H-D

### **for the LEICAMETER MR:**

MALLORY	PX 625
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# Lay out of camera cases

Combination case for the LEICA R4-MOT/R4 .....	14 832 _____
Combination case for the LEICA R3/R3-MOT .....	14 829 _____



The following combinations are accepted:

### Compartment 1:

for the LEICA R4-MOT/R4 **without** Motor Winder/Motor Drive with one of the following lenses: 3.5/15<sup>2</sup>), 2.8/16, 2.8/19<sup>2</sup>), 4/21<sup>2</sup>), 2.8/24<sup>2</sup>), 2.0/28<sup>2</sup>), 4/35<sup>2</sup>), 2.8/35, 2/35, 2/50, 1.4/50, 2.8/60<sup>3</sup>), 1.4/80, 2.8/90, 2/90, 4/100, 2.8/135, 4/180, or extender R with 2/50, 2.8/60, 2.8/90, 2/90

### Compartment 2:

for one of the following lenses each:

2.8/16, 4/21<sup>1</sup>), all lenses from 24 to 180 mm (including the zoom lenses, 2.8/60<sup>3</sup>), 4/100<sup>3</sup>), 4/250 to No. 3 050 600 or extender R with 2/50, 2.8/60<sup>3</sup>), 2.8/90, 2/90, 4/100, 2.8/135, 4/180

### Compartment 3:

with coupling ring 14 836 added for two of the following lenses each:

2.8/16 4/21 <sup>1</sup> )	all lenses from 21 to 90 mm 2.8/16, 2.8/24 <sup>1</sup> ), 2.8/28 <sup>1</sup> ), 4/35 <sup>1</sup> ), 2.8/35, 2/35, all lenses from 50 to 135 mm
2.8/24 4/35 <sup>1</sup> )	2.8/16, 4/21 <sup>1</sup> ), all lenses from 28 to 90 mm 4/21
2.8/35 2/35	2.8/16 all lenses from 21 to 90 mm as "4/35" as "4/35"

2/50	2.8/16, all lenses from 21 to 100 mm
2/50 with Extender R	2.8/16, 4/21 <sup>1)</sup> , 2.8/24 <sup>1)</sup> , 2.8/28, 4/35 <sup>1)</sup> , 2.8/35, 2/35, 2.8/60, 1.4/80, 2/90
1.4/50	as "4/35"
2.8/60	as "4/35"
2.8/60 with Extender R	2.8/35, 2/50
1.4/80	2.8/16, all lenses from 21 to 60 mm (4/35 <sup>1)</sup> )
2.8/90	as "1.4/80"
2/90	as "1.4/80"
2/90 with Extender R	2.8/35, 2/50
4/100	2/50

**Compartment 3:**

for films, filters etc., or one of the following lenses:

4/21<sup>1)</sup>, 2.8/24<sup>1)</sup>, 2.8/28, 4/35<sup>1)</sup>, 2.8/35, 2/35, 2/50, 1.4/50, 2.8/60, 2.8/90,  
Extender R

**Compartment 4:**

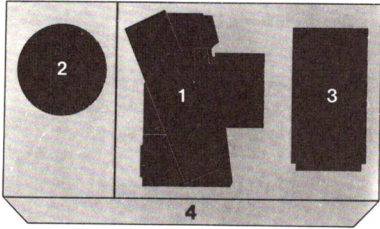
Outside compartment for lens hoods, films, filters, etc.

1) = without lens hood

2) = no other lens fits in the compartment below the camera

3) = also with adapter

Combination case for the LEICA R4 with Motor Winder/Motor Drive  
and handgrip attached ..... 14833 \_\_\_\_\_  
and Safari case ..... 14837 \_\_\_\_\_



The following combinations can be carried:

#### Compartment 1:

for LEICA R4 (also with Data Back) with Motor Winder/Motor Drive and handgrip attached with one of the following lenses:

3.5/15<sup>2</sup>), 2.8/16, 2.8/19<sup>2</sup>), 4/21<sup>2</sup>, 2.8/24<sup>2</sup>), 2.8/28<sup>2</sup>), 4/35<sup>2</sup>), 2.8/35, 2/35, all lenses from 50 to 135 mm (2.8/60<sup>3</sup>), 4/180, 2.8/180 from No. 2939701, or Extender with 2/50, 2.8/60<sup>3</sup>), 2.8/90, 2/90, 4/100, 2.8/135

#### Compartment 2:

for one each of the following lenses:

2.8/16, 4/21<sup>1</sup>), all lenses from 24-180 mm (including the zoom lenses 2.8/60<sup>3</sup>), 4/100<sup>3</sup>), 4/250 to No. 3050600, or Extender R with 2/50, 2.8/60<sup>3</sup>), 2.8/90, 2/90, 4/100<sup>3</sup>), 2.8/135, 4/180, 3.4/180, 2.8/180 from No. 2939701

#### Compartment 2:

With added coupling ring 14836 for two each of the following lenses:

2.8/16	all lenses from 21 to 135 mm (2.8/60 <sup>3</sup> )
4/21 <sup>1</sup> )	2.8/16, 2.8/24 <sup>1</sup> ), 2.8/28 <sup>1</sup> ), 4/35 <sup>1</sup> ), 2.8/35, 2/35, all lenses from 50 to 135 mm (2.8/60 <sup>3</sup> ), 4/180
2.8/24	2.8/16, 4/21 <sup>1</sup> ), all lenses from 28 to 135 mm as "4/21"
2.8/28	2.8/16, 4/21 <sup>1</sup> ), 2.8/24 <sup>1</sup> ), all lenses from 35 to 135 mm as "4/21"
4/35 <sup>1</sup> )	2.8/16, all lenses from 21 to 135 mm (2.8/60 <sup>3</sup> ), 4/180
2.8/35as "4/35"	
2/35	as "4/35"

2/50	as "4/35"
2/50 with Extender R	2.8/16, 4/21 <sup>1)</sup> , 2.8/24 <sup>1)</sup> , 2.8/28, 4/35 <sup>1)</sup> , 2.8/35, 2/35, all lenses from 60 to 90 mm
1.4/50	as "4/35"
2.8/60	as "4/35"
2.8/60 with Extender R	4/21 <sup>1)</sup> , 2.8/24 <sup>1)</sup> , 2.8/28 <sup>1)</sup> , 4/35 <sup>1)</sup> , 2.8/35, 2/35, 2/50, 1.4/50
1.4/80	2.8/16, all lenses from 21 to 60 mm (4/35 <sup>1)</sup> )
2.8/90	as "1.4/80"
2.8/90 with Extender R	2.8/35, 2/35, 2/50, 1.4/50
2/90	2.8/16, all lenses from 21 to 80 mm, 4/100
2/90 with Extender R	2.8/16, 4/21 <sup>1)</sup> , 2.8/24 <sup>1)</sup> , 2.8/28 <sup>1)</sup> , 4/35 <sup>1)</sup> , 2.8/35, 2/35, 2/50, 1.4/50
4/100	2.8/16, all lenses from 21 to 50 mm
2.8/135	as "4/100"
4/180	4/21 <sup>1)</sup> , 2.8/35, 2/35, 2/50, 1.4/50

#### Compartment 3:

for films, filters, etc., or one of the following lenses:

4/21<sup>1)</sup>, 2.8/24, 2.8/28, 4/35<sup>1)</sup>, 2.8/35, 2/35, 2/50, 1.4/50, 2.8/60<sup>3)</sup>, 2.8/90, 4/100, 2.8/135, 4/180, Extender R, or Extender R with 2/50, 2.8/60, 2.8/90

#### Compartment 4:

Outside compartment for lens hoods, films, filters, etc.

1) = without lens hood

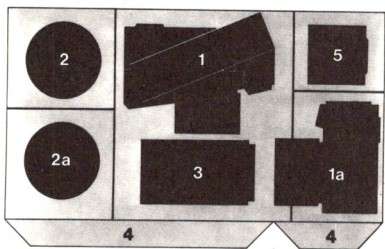
2) = no other lens fits in the compartment below the camera

3) = also with adapter



Universal case for the LEICA R4 ..... Code Number **14834** \_\_\_\_\_

Universal case for the LEICA R3/R3-MOT ..... **14835** \_\_\_\_\_



The following combinations can be carried:

**Compartment 1:**

for the LEICA R4 (also with Data Back) or LEICA R3-MOT respectively with Motor Winder/Motor Drive and handgrip attached with one of the following lenses: 3.5/15, 2.8/16, 2.8/19<sup>2</sup>), all lenses from 21 to 135 mm (2.8/60<sup>3</sup>), 4/180, or Extender R with 2/50, 2.8/60, 2/90

**Compartment 1a:**

For the LEICA R4 (LEICA R3/R3-MOT) without Motor Winder/Motor Drive with one of the following lenses: 2.8/35, 2/50

**Compartment 2:**

**Compartment 2a:**

for one of the following lenses each:

2.8/60<sup>3</sup>), 1.4/80, 2.8/90, 4/100<sup>3</sup>), 2.8/135, 4/180, 3.4/180, 2.8/180, 4/250 to No. 3050600, 2.8/45-90, 4.5/75-200 or Extender R with 2/50, 2.8/60<sup>3</sup>), all lenses from 90 to 180 mm (4/100<sup>3</sup>), 2.8/45-90, 4.5/75-200

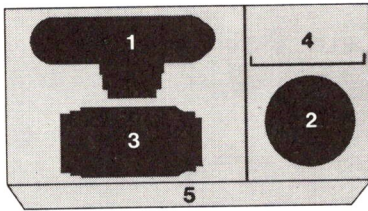
Smaller lenses (shorter focal lengths) can hardly be lifted from the depth of the compartment.

**Compartment 2:**

**Compartment 2a:**

With added coupling ring 14836 for two each of the following lenses:

2.8/16	4/21 <sup>1</sup> ), all lenses from 24 to 135 mm (2.8/60 <sup>3</sup> ), 4/180
4/21 <sup>1</sup> )	2.8/16, all lenses from 24 to 135 mm (2.8/60 <sup>3</sup> ), 4/100 <sup>3</sup> ), 4/180, 2.8/180 from No. 2939701
2.8/24	2.8/16, 4/21 <sup>1</sup> ), all lenses from 28 to 136 mm (2.8/60 <sup>3</sup> ), 4/180
2.8/28	2.8/16, 4/21 <sup>1</sup> ), 2.8/24, all lenses from 35 to 135 mm (2.8/60 <sup>3</sup> ), 4/180
4/35	2.8/16, all lenses from 21 <sup>1</sup> ) to 135 mm (2.8/60 <sup>3</sup> ), 4/180
2.8/35	2.8/16, all lenses from 21 <sup>1</sup> ), to 135 mm (2.8/60 <sup>3</sup> ), 4/100 <sup>3</sup> ), 4/180, 2.8/180 from No. 2939701
2/35	as "2.8/35"



The following combinations are accepted:

1. For LEICA M cameras (except LEICA M5) with the LEICAMETER in position with or without Winder with one of the following lenses:

2.8/21, 2.8/28, 2/35, 1.4/35, 2/50, 1.4/50, 1/50, 1.4/75, 2.8/90, 2/90<sup>1)</sup>

2. For one of the following lenses each:

2.8/21, 2.8/28, 2/35, 1.4/35, 2/50, 1.4/50, 1/50, 1.4/75, 2.8/90, 2/90, 4/135, 2.8/135

or

with the coupling ring 14 838 added for two each of the following lenses:

2/35 – 2/50, 1.4/50, 1/50, 1.4/75, 2.8/90

1.4/35 – 2/50, 1.4/50, 1/50, 1.4/75, 2.8/90, 2/90, 4/135

2/50 – 2/35, 1.4/35, 1/50, 1.4/75, 2.8/90, 2/90, 4/135<sup>2)</sup>

1.4/50 – 2/35, 1.4/35, 1.4/75, 2.8/90, 2/90<sup>1)</sup>

1/50 – 2/35, 1.4/35

1/50<sup>2)</sup> – 1.4/75, 2.8/90, 2/90

1.4/75 – 2/35, 1.4/35, 2/50, 1.4/50, 1/50<sup>2)</sup>

2.8/90 – 2/35, 1.4/35, 2/50, 1.4/50, 1/50<sup>2)</sup>

2/90 – 2/35, 1.4/35, 2/50

2/90<sup>1)</sup> – 1.4/50, 1/50<sup>2)</sup>

4/135 – 2/35, 1.4/35, 2/50<sup>2)</sup>

2.8/135 – 2/35<sup>2)</sup>, 1.4/35<sup>2)</sup>

3. For films, filters etc. or one of the following lenses:

2.8/21<sup>2)</sup>, 2.8/28, 2/35, 1.4/35, 2/50, 1.4/50, 1/50<sup>2)</sup>, 1.4/75, 2.8/90, 2/90, 4/135

or

with the coupling ring 14 838 added for two each of the following lenses:

2/35 – 2/50, 1.4/50<sup>2)</sup>, 1/50<sup>2)</sup>, 2.8/90, 2/90<sup>1)</sup>, 4/135

1.4/35 – 2/50, 1.4/50<sup>2)</sup>, 1/50<sup>2)</sup>, 2.8/90, 2/90<sup>1)</sup>, 4/135

2/50 – 3/35, 1.4/35, 1/50<sup>2)</sup>, 2.8/90, 2/90<sup>1)</sup>, 4/135

1.4/50<sup>2)</sup> – 2/35, 1.4/35, 2.8/90, 2/90<sup>1)</sup>, 4/135

1/50<sup>2)</sup> – 2/35, 1.4/35, 2/50, 2.8/90

2.8/90 – 2/35, 1.4/35, 2/50, 1.4/50<sup>2)</sup>, 1/50<sup>2)</sup>

2/90<sup>1)</sup> – 2/35, 1.4/35, 2/50, 1.4/50<sup>2)</sup>

4/135 – 2/35, 1.4/35, 2/50, 1.4/50<sup>2)</sup>

4. Of variable size with a partition with velcro attachment for Winder and general accessories such as filters, lens hoods, etc.

5. Outside front pocket for lens hoods, filters, films etc.

For the VISOFLEX outfit:

1. LEICA M camera (except LEICA M5) with the VISOFLEX 3 or 2 attached, without lens, with 65 mm f/3.5

2. VISOFLEX 3 or 2 with magnifier or VISOFLEX lenses of up to 200 mm focal length

<sup>1)</sup> = from No. 2 997 001

<sup>2)</sup> = without lens hood

# Flash synchronisation

Type of flash		R 4-MOT*	R3 and R3-MOT*		all LEICAFLEX-MODELS	
		X-Contact	X-Contact	M-Contact	⚡= X-Contact	💡= M-Contact
Electronic		X, 100 (1/100) 1 → 1/60, B	X (1/90) 4 S → 1/60, B	—	B → ⚡ (= 1/100)	—
Flash bulbs	AG 1 AG 3 Cube	1 → 1/30, B	4 S → 1/30, B	—	1 → 1/30	1 → 1/60
	PF 1 XM 1	1 → 1/30, B	4 S → 1/30, B	—	—	1 → 1/125
	M 2	1 → 1/60, B	4 S → 1/60, B	—	—	—
	PF 5 XM 5	1 → 1/30, B	4 S → 1/30, B	1/125 – 1/1000	—	1 – 1/125
	M 3 25 GE 5	1 → 1/30, B	4 S → 1/30, B	1/125 – 1/1000	—	1 → 1/250
	FP 26 PF 6 XM 6	1 → 1/15, B	4 S → 1/15, B	1/30 – 1/1000	—	—
	PF 60	1 → 1/30, B	4 S → 1/30, B	—	—	—
	PF 100	1 → 1/15, B	4 S → 1/15, B	1/30	—	—

\*With flash exposures the camera must be set at "manual".









With automatic flash control of the LEICA R4:

System-compatible electronic flash units automatically switch the camera electronics to "X" (1/100 sec), when the flash unit is charged. Effective with all programs. With automatic aperture and program control the aperture is not determined automatically. It closes to the set value.

Type of flash		all M-Models from Nr. 854001	M 3 to Nr. 854000	CL
Electronic	X ⚡	B → ● (= 1/50) B → ⚡ (= 1/50]	B → 1/50	B → 1/60
Flash bulbs	AG 1 AG 3 Cube M 2	⚡	B → 1/30	B → 1/30
	XM 1 PF 1	M 💡	B → 1/60	B → 1/50
	XM 5	M 💡	B → 1/60	—
	PF 5	M 💡	B → 1/60	B → 1/100
	M 3	M 💡	B → 1/125	—
	GE 5 25	M 💡	B → 1/500	B → 1/500

⚡ or X = contact bush for electronic flash units and centre contacts

💡 or M = contact bush for flashbulbs

Type of flash		I g, III g,		If, II f, III f		from No. 360 001		to No. 360 000			
				red contact number		black contact number		contact number			
Electronic		B		$1/50$	<b>20</b>	$1/30$	<b>2</b>	$1/30$	<b>0</b>		
		red $\downarrow$ (= $1/30$ )		T, 1 $\rightarrow 1/25$		T, 1 $\rightarrow 1/20$		T, 1 $\rightarrow 1/20$			
		$\downarrow$ (= $1/50$ )		B		B		B			
								6,5			
Flashbulbs	AG 1 AG 3 Cube M 2		B		-		-		-		
	red $\downarrow$ (= $1/30$ )										
	AG 1 AG 3 Cube		-		$1/15$	<b>2</b>	$1/15 - 1/20$	<b>8</b>	$1/20$	<b>10</b>	
					$1/25$	<b>9</b>	$1/30$	<b>11</b>	$1/30$	<b>12</b>	
					$1/50$	<b>8</b>	$1/40$	<b>8</b>	$1/40$	<b>8</b>	
					$1/75$	<b>3</b>	$1/60$	<b>5</b>	$1/60$	<b>5</b>	
	XM 1 PF 1		B $\rightarrow 1/60^*$		$1/15$	<b>2</b>	$1/15 - 1/20$	<b>9</b>	$1/20$	<b>14</b>	
					$1/25$	<b>5</b>	$1/30$	<b>3</b>	$1/30$	<b>13</b>	
					$1/50$	<b>10</b>					
	PF 5		B $\rightarrow 1/60^*$		$1/15$	<b>2</b>	$1/15 - 1/30$	<b>16</b>	$1/20 - 1/30$	<b>14</b>	
					$1/25$	<b>14</b>	$1/40$	<b>11</b>	$1/40$	<b>11</b>	
					$1/50$	<b>11</b>					
					$1/75$	<b>5</b>					
GE 5 25		B $\rightarrow 1/500^*$		$1/15$	<b>2</b>	$1/15 - 1/30$	<b>16</b>	$1/20 - 1/30$	<b>14</b>		
				$1/25$	<b>14</b>	$1/40$	<b>11</b>	$1/40$	<b>11</b>		
				$1/50$	<b>11</b>	$1/60$	<b>8</b>	$1/60$	<b>9</b>		
				$1/75$	<b>6</b>	$1/100$	<b>5,5</b>	$1/100$	<b>7</b>		
				$1/100$	<b>4</b>	$1/200$	<b>4</b>				
				$1/200$	<b>2</b>						
				$1/500$	<b>1</b>						
M 3		B $\rightarrow 1/125^*$		$1/15$	<b>2</b>	$1/15 - 1/20$	<b>9</b>	$1/20$	<b>14</b>		
				$1/25$	<b>7</b>	$1/30$	<b>15</b>	$1/30$	<b>13</b>		
				$1/50$	<b>10</b>	$1/40$	<b>11</b>	$1/40$	<b>12</b>		
				$1/75$	<b>6</b>	$1/60$	<b>8</b>	$1/60$	<b>10</b>		
All		-		B, T		B, T		T, 1 $\rightarrow 1/8$	<b>6</b>		
				1 $\rightarrow 1/10$	<b>2</b>	1 $\rightarrow 1/10$	<b>6</b>	B	<b>9</b>		
		*Except setting red or black arrow									



## Adaptation of lenses

### Conversion of lenses

#### Conversion of LEICAFLEX lenses for use on the LEICA R4, LEICA R3-/R3-MOT

For the full utilisation of the LEICA R exposure facilities, existing LEICAFLEX lenses can be fitted with a cam.

#### The use of converted lenses on all LEICAFLEX models is unrestricted.

Modification by Technical Service, Ernst Leitz Wetzlar GmbH, or authorised workshop of the LEITZ agencies.

#### Conversion of LEICA-R lenses with filter thread E54 to filter thread E55:

90 mm ELMARIT-R f/2.8	up to Serial No. 2809000
90 mm SUMMICRON-R f/2	up to Serial No. 2770950
100 mm MACRO-ELMAR f/4 (for Focusing Bellows R)	up to Serial No. 2933350
135 mm ELMARIT-R f/2.8	up to Serial No. 2772618

By Technical Service Centre, Ernst Leitz Wetzlar GmbH, or authorised workshop of the LEITZ Agencies.

### 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 rangefinder coupling roller moves only in and out. For a more compact and lightweight design, the 40 mm SUMMICRON-C f/2 and 90 mm ELMAR-C/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.

### Existing 28 mm lenses on the LEICA M4-P

28 mm lenses from Serial No. 24314921 on switch in the 28 mm field-of-view frame when used on the LEICA M4-P. A correct switch of the field-of-view is not given when older lenses are used. In the case we recommended the use of the 28 mm brilliant finder (Code-No. 12017). These lenses cannot be modified.



# 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 50 mm, Code No. 14 098 for 28 mm and 90 mm and Code No. 14 099 for 35 mm).

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 35 mm lenses. 28mm lenses require the brilliant finder Code No. 12017.

## Exceptions:

1. The following lenses, when used on the LEICA CL, require removal of their lens hoods for focusing, particularly at close distances:

35 mm SUMMICRON	f/2
35 mm SUMMILUX	f/1.4
50 mm SUMMILUX	f/1.4
50 mm NOCTILUX	f/1.2
90 mm ELMARIT	f/2.8

When used on the LEICA CL, the high-speed 50 mm SUMMILUX f/1.4 and NOCTILUX f/1.2 lenses should be stopped down to the least f/2. The 50 mm NOCTILUX f/1 cannot be used.

2. Lenses of extended focusing range:

The LEICA CL rangefinder covers a focusing range from infinity down to 0.8 m (32"). Some LEICA M lenses focus on still nearer distances, but only with their distance scales, not the rangefinder:

28 mm ELMARIT	f/2.8
35 mm SUMMICRON	f/2
50 mm SUMMICRON	f/2 (Code No. 11 817)
50 mm SUMMICRON	f/2 with dual range

Here distances shorter than 0.8 m (32") cannot be focused in the viewfinder of the LEICA CL.

3. Collapsible lenses need protective tape to limit retraction of the lens barrel. This is available internationally in various widths from DYMO. (The lens does not have to be returned to the factory).

The tape should surround the lens barrel, leaving a gap of about 1 mm. To cut the right length first make a paper pattern.

### Collapsible lenses:

50 mm ELMAR	f/3.5	
50 mm ELMAR	f/2.8	
50 mm SUMMAR	f/2	Required tape width 9.5 mm ( <sup>3</sup> / <sub>8</sub> in)
50 mm SUMMITAR	f/2	
90 mm ELMAR	f/4	
50 mm HEKTOR	f/2.5	Required tape width 12.7 mm ( <sup>1</sup> / <sub>2</sub> 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 28 mm ELMARIT f/2.8 (Serial No. below 2314921) and the SUPER-ANGULON 21 mm.
  - b) Lenses with a finder attachment such as the 35 mm wide-angle lenses for the LEICA M3 and the 135 mm ELMARIT f/2.8.
  - c) The 90 mm SUMMICRON f/2, 135 mm TELE-ELMAR f/4.

## Existing interchangeable lenses on the LEICA M5

All lenses with the LEICA bayonet changer, and with a bayonet adapter also the LEICA lenses of older production, i. e. with screw thread, can be used on the LEICA M5.

With minor exceptions or limitations they are also suitable for the full utilisation of selective light metering through the lens.

### Exceptions:

1. Collapsible lenses need protective tape to limit the retraction of the lens barrel.  
**The lenses need not be returned to the factory.**

Collapsible lenses:

50 mm ELMAR	f/3.5	
50 mm ELMAR	f/2.8	
50 mm SUMMAR	f/2	Required tape width 9.5 mm (3/8 in)
50 mm SUMMITAR	f/2	
50 mm SUMMICRON	f/2	
90 mm ELMAR	f/4	
50 mm HEKTOR	f/2.5	Required tape width 12.7 mm (1/2 in)

2. **Lenses that have to be returned to the factory for adaptation:**

(LEITZ Technical Service, your National Leitz Agency or Authorised After Sales Service Workshop.

- a) Wide-angle lenses of 21 and 28 mm focal length, whose rear mount enters too far into the camera body.

Through a recess in the lens bayonet, engagement of the photo resistor is prevented. The lenses can now be attached – but light metering through the lens is not possible.

21 mm SUPER-ANGULON	f/4	with screw thread only the <b>bayonet adapter</b> (Code No. 14 097) must be changed.
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Please state: for 21 mm

21 mm SUPER-ANGULON	f/4	with bayonet changer
21 mm SUPER-ANGULON	f/3.4	with bayonet changer, (below Serial No. 2473251)
28 mm ELMARIT	f/2.8	with bayonet changer below Serial No. 2314921)

- b) Lenses whose detachable viewfinder front attachments make contact with the cap of the LEICA M5.

Lens bayonet and finder attachment must be remachined.

32 mm SUMMARON	f/3.5	with <b>detachable</b> viewfinder front attachment
50 mm SUMMICRON	f/2	With <b>close-up range</b>

In addition, the VISOFLEX 1 and 3 mirror reflex attachments and the Universal Focusing Bellows can be used on the LEICA M5. With these instruments selective light metering is also possible when a tripod is used. Here, the measurement is displayed in the measuring viewfinder of the camera when the mirror has been swung out.

The VISOFLEX 2 cannot be used.

On the LEICA M5 please use only the body cover supplied with it.

### Attention:

In the LEICA M5 only films in cartridges with standard spools (to DIN 4535 or ISO standard 1057) can be used. These spools have drive lugs on both ends. The rewind key of the LEICA M5 (see illustration) engages in the lugs facing the camera baseplate.

## Filter sizes

For the LEICA M and C lenses and for earlier lenses with screw thread

Examples: A 36 = push-on filters; push-on dia. 36 mm  
 E 39 = screw-in filters; screw thread dia. 39 mm  
 7 = Series 7 filters.

Lens	Filter size
21 mm SUPER-ANGULON	4
21 mm SUPER-ANGULON	3,4
21 mm ELMARIT-M	2,8
28 mm HEKTOR	6,3
28 mm SUMMARON	5,6
28 mm ELMARIT	2,8
28 mm ELMARIT-M (from Serial No. 2977551)	2,8
35 mm ELMAR	3,5
35 mm SUMMARON (screw thread)	3,5
35 mm SUMMARON	
(screw thread, from Serial No. 1423141)	3,5
35 mm SUMMARON (bayonet changer)	3,5
35 mm SUMMARON	2,8
35 mm SUMMICRON	2
35 mm SUMMICRON (from Serial No. 2307451)	2
35 mm SUMMICRON (from Serial No. 2483504)	2
35 mm SUMMICRON (from Serial No. 2974251)	2
35 mm SUMMILUX	1,4
35 mm SUMMILUX (from Serial No. 2166701)	1,4
40 mm SUMMICRON-C	2
50 mm ELMAR (screw thread)	3,5
50 mm ELMAR (bayonet changer)	3,5
50 mm ELMAR	2,8
50 mm HEKTOR	2,5
50 mm SUMMAR <sup>®</sup>	2
50 mm SUMMITAR	2
50 mm SUMMICRON-M	2
50 mm SUMMARIT <sup>®</sup>	1,5
50 mm SUMMILUX	1,4
50 mm NOCTILUX	1,2
50 mm NOCTILUX	1
65 mm ELMAR	3,5
65 mm ELMAR (from Serial No. 2378901)	3,5
75 mm SUMMILUX-M	1,4
85 mm SUMMAREX <sup>®</sup>	1,5
90 mm ELMAR (screw thread)	4
90 mm ELMAR	
(screw thread, from Serial No. 1573001)	4
90 mm ELMAR (bayonet changer)	4
90 mm ELMAR-C	4
90 mm ELMARIT	2,8
90 mm TELE-ELMARIT	2,8
90 mm SUMMICRON	2
90 mm SUMMICRON-M (from Serial No. 2813801)	2
125 mm HEKTOR	2,5
135 mm ELMAR	4,5
135 mm HEKTOR (screw thread)	4,5
135 mm HEKTOR	
(screw thread, from Serial No. 1416001)	4,5
135 mm HEKTOR (bayonet changer)	4,5
135 mm ELMAR	4
135 mm TELE-ELMAR	4
135 mm ELMARIT	2,8
135 mm ELMARIT (from Serial No. 2788927)	2,8
200 mm TELYT	4,5
200 mm TELYT	4
280 mm TELYT	4,8
280 mm TELYT (from Serial No. 2340953)	4,8
400 mm TELYT	6,8
400 mm TELYT	5,6
400 mm TELYT	5
560 mm TELYT	6,8
560 mm TELYT	5,6

### Dimensions of the LEITZ filter threads

E 39	M 39 x 0.5	E 55	M 55 x 0.75
E 41	M 41 x 0.5	E 58	M 58 x 0.75
E 43	M 43 x 0.5	E 60	M 60 x 0.75
E 48	M 48 x 0.75	E 85	M 85 x 0.75
E 49	M 49 x 0.75		









# Projection distances and screen image size

## 35 mm format

Projection distances and screen image sizes for **the 35 mm 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.

For the projection of 40 x 40 mm slides the given values must be increased by about 10%.

		Focal lengths in mm								
		35	50	60	90	120	150	200	250	300
Projection distances in m	1	0,95								
	2	1,95	1,30	1,15						
	3	2,95	1,95	1,75	1,10					
	4	3,95	2,65	2,30	1,50	1,10				
	5		3,30	2,90	1,85	1,40	1,10			
	6		4,00	3,50	2,25	1,70	1,35			
	7			4,00	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 6 cm format**

Projection distances and screen image sizes for the **6x6 cm** (2¼ x 2¼in) and 7x7 (2¾ x 2¾ in) format (transparency size 54 x 54 mm).

		Focal lengths in mm			
		150	200	250	300
Projection distances in m	3	0,95			
	4	1,35	0,95		
	5	1,70	1,25	0,95	
	6	2,05	1,50	1,20	0,95
	7	2,40	1,80	1,40	1,15
	8	2,75	2,05	1,60	1,35
	9	3,15	2,30	1,85	1,50
	10	3,50	2,60	2,05	1,70
	11	3,85	2,85	2,25	1,85
	12	4,20	3,15	2,50	2,05
	13		3,40	2,70	2,25
	14		3,65	2,90	2,40
	15		3,95	3,15	2,60
	16		4,20	3,35	2,75
	17			3,55	2,95
	18			3,80	3,15
	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 ratio			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
60 cm	110 : 1	275 : 1	680 : 1				2,7	3,4	4,2	5,5	6,8
85 cm	155 : 1	400 : 1	1000 : 1			3,0	3,9	4,8	6,0	7,8	
125 cm	230 : 1	570 : 1	1400 : 1	2,8	3,6	4,4	5,7	7,1	8,8		

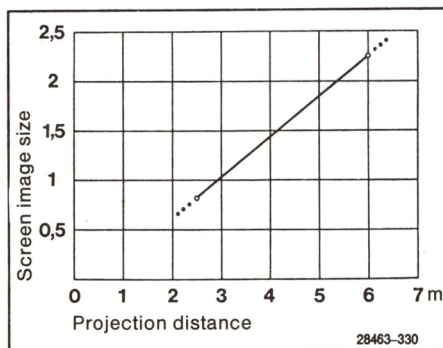
Example: With the 2.5 x eyepiece at a projection distance of 2.7 m (9ft) a screen image of 60 cm (24 in) diameter is obtained. The reproduction scales obtainable with the objectives listed are 110:1, 275:1, and 680:1 respectively.

## Macro attachment

	Projection distance	Screen image size in m, ft, in	Reproduction ratio
50 mm ELMARON f/2.8	2,00 m	1,90 m	39 : 1
	3,00 m	2,85 m	59 : 1
	4,00 m	3,80 m	79 : 1
	6,00 m	5,70 m	119 : 1
90 mm COLORPLAN f/2.5	2,00 m	1,00 m	21 : 1
	3,00 m	1,55 m	32 : 1
	4,00 m	2,10 m	43 : 1
	6,00 m	3,20 m	66 : 1

## Episcopy

Projection distances and screen image sizes Episcopo LEITZ LE 19 and LE 19S

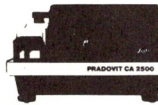


Projection distances between 2.5 and 6 m at screen image sizes between 80 cm and 2.5 m can be obtained.

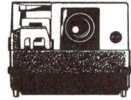
# The versatile possibilities of combinations of the PRADOVIT range in lap dissolve projection



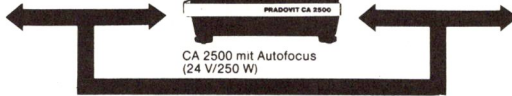
C 2500  
(24 V/250 W)



CA 2500 mit Autofocus  
(24 V/250 W)



COLOR 250  
COLOR 250  
AUTOFOCUS  
(24 V/250 W)



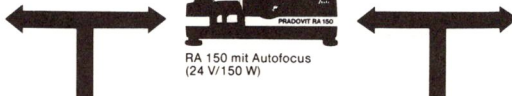
R 150  
(24 V/150 W)



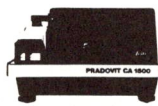
RA 150 mit Autofocus  
(24 V/150 W)



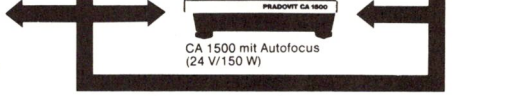
COLOR 150  
COLOR 150  
AUTOFOCUS  
(24 V/150 W)



C 1500  
(24 V/150 W)



CA 1500 mit Autofocus  
(24 V/150 W)

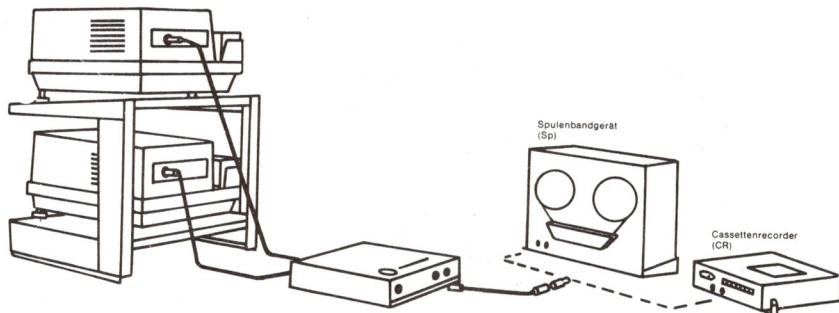


Two PRADOVIT projectors and a D.U.-24 A or D.U.-24 M control unit form a projection unit. LEITZ PRADOVIT models fitted with the 10-pin socket and built-in TRIAC for lamp control can be coupled as desired. In the interest of operating convenience PRADOVIT projectors with AUTOFOCUS device should be chosen.

The models RA, CA 1500, CA 2500 can be ordered with the 10-pin socket. Other PRADOVIT models can be fitted with the 10-pin socket and a TRIAC without difficulty whenever required.

All projectors that have been modified, i.e. with the 10-pin socket and built-in TRIAC, can be normally used as single projectors without additional shorting plug.

# Connection of the lap dissolve control unit to the tape or cassette recorder



Projector	Lap Dissolve Control Unit	Connection	Tape Recorder
2 PRADOVIT projectors in modified version with built-in TRIAC and 10-pin socket	D.U.-24A 37973	6-pin* connecting cable 031-049.159	ITT 740 AV (CR) Philips 2209 AV (CR) Philips 2229 AV (CR) Metz Mecasound Studio 4920 (CR) Uher CR 240 AV Grundig TS 925/ TS 945 (Sp) Philips N 4520 with impulse head (Sp)
as above	as above	6-pin* connecting cable 031-049.159 and connecting piece 1*	Grundig C 420 (CR), CN 1000 (CR) TK 845, TK 847, TS 1000 (Sp) Grundig TK 745, TK 747, TK 850 (Sp) with Grundig Kit No. 137 Grundig TK 222/TK 242/TK 246/TK 248 TK 600 (Sp) with Grundig Kit No. 12
as above	as above	6-pin* connecting cable 031-049.159 and connecting piece 2*	Uher 560 Royal (Sp) with head carrier Z 346 AV Uher 561 Royal (Sp) with head-carrier Z 346 AV
as above	as above	Standard recording cable	All instruments with "Playback" (various quadro units)

\* Forms part of the D.U.-24A



# LEICA genealogical tree

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## List of the LEICA models



### LEICA I

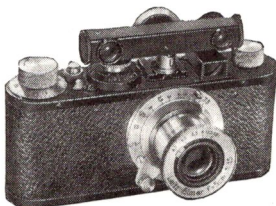
(non-interchangeable lens)

First basic LEICA model, black enamelled, **non-interchangeable ELMAR f/3.5 50 mm 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

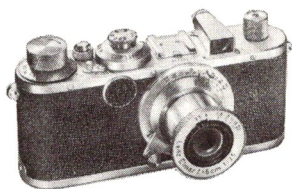
Black enamelled, non-interchangeable ELMAR f/3.5 50 mm lens, Compur shutter, speeds from  $1 - 1/300$  sec. Separate shutter wind and film transport. Available from 1926 onwards.



### LEICA I

(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.

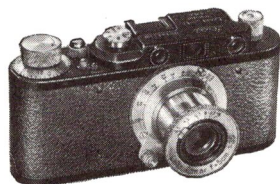


## Standard LEICA

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 100000 onwards.

Available from 1932 onwards.

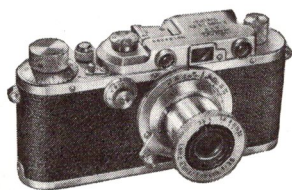


## LEICA II

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 71500 onwards.

Available from 1932 onwards.



## 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 109000 onwards.

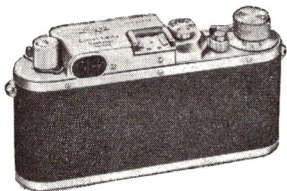
Available from 1933 onwards.

## LEICA III a

As model II, but with additional shutter speed  $1/1000$  sec.

Serial Nos. from 156201 onwards.

Available from 1935 onwards.



## 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 240017 onwards.

Available from 1938 onwards.

## LEICA 250

With enlarged cassette spaces (cassettes for 10 m [33ft] film) for reporters, otherwise as III a.

## 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 455000 onwards.

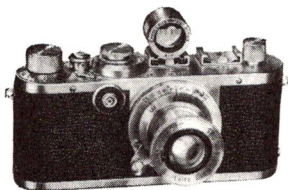
Available from 1949 onwards.

## LEICA II c

As model I c, but with built-in coupled rangefinder, shutter speeds from  $1/30$  to  $1/500$  sec and time exposure.

Serial Nos. 440000.

Available from 1948 onwards.



## LEICA I f

(black synchronizing dial)

As model I c, but fully synchronized, film indicator built into the film winding knob.

Serial Nos. from 562000 onwards.

Available from 1952 onwards.

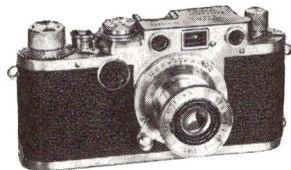
## LEICA If

(red synchronizing dial)

As above, but international shutter speeds  $1/25$ ,  $1/50$  sec etc.

Serial Nos. from 536 001 onwards.

Available from 1952 onwards.



## 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.

## 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.

## LEICA III c

As model II c, but with extended range of shutter speeds from 1 to  $1/1000$  sec and time exposure.

Serial Nos. from 360 000 onwards.

Available from 1940 onwards.



## 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.

## 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.



## 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.



## 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.



## LEICA I g

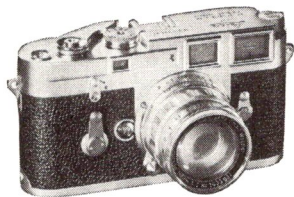
basically the same design as that of the LEICA III g.

Has no rangefinder and self-timer.

Serial Nos. from 887 001 onwards.

Available from 1957 onwards.





## LEICA M3

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.

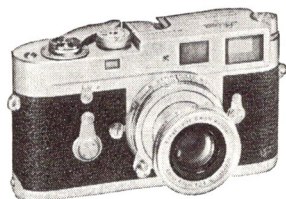
Attachable exposure meter with direct shutter coupling.

Automatic frame counter under magnifier. Hinged back.

From 1956 onwards with field-of-view selector.

Serial Nos. from 700001 onwards.

Available from 1954 onwards.



## LEICA M2

As LEICA M3, with the following differences:

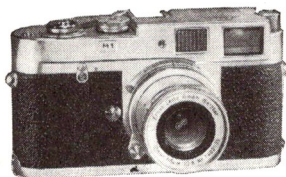
Automatically faded-in image frames for 35, 50, and 90mm focal lengths.

Film counter must be returned to 0 by hand.

From 1959 onwards with self-timer.

Serial Nos. from 926001 onwards.

Available from 1958 onwards.

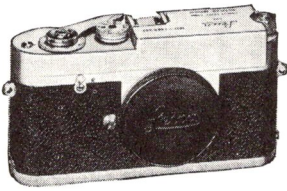


## LEICA M1

Without rangefinder. Fields of view for 35 and 50mm lenses are shown parallax-free and permanently faded into the bright-line finder. Otherwise as M2.

Serial Nos. from 950001 onwards.

Available from 1959 onwards.



## 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.



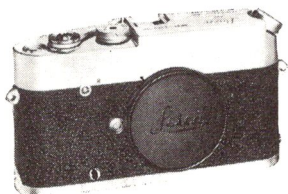
## LEICAFLEX

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.



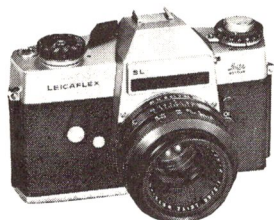
## LEICA M4

Bright-line measuring viewfinder with automatic parallax compensation. Automatically faded-in image frames for 35, 50, 90 and 135 mm 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 35 mm films and LEICA cassettes. Automatic film counter under magnifier. Hinged back.  
Serial Nos. from 1 175 001 onwards.  
Available from 1967 onwards.



## LEICA MDa

as LEICA M4, but without viewfinder. Designed for the use of the marking device.  
Serial Nos. from 1 159001 onwards.  
Available from 1967 onwards.



## 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 173005 onwards.  
Available from 1968 onwards.



## LEICA M5

as LEICA M4, 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 30sec 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 287001.  
Available from 1971 onwards.



## LEICA CL

Compact measuring-viewfinder camera. Brightline measuring viewfinder with automatic 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 convenient film insertion. Rapid film change.  
Serial Nos. from 1 300 001 onwards.  
Available from 1973 onwards.



## 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.





## LEICA R3

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 144001 onwards.

Available from 1976 onwards.



## LEICA M4-2

As LEICA M4, but with connection for motor winder. Additional accessory-shoe contact for electronic flash unit. Without self-timer.

Serial Nos. from 1468001 onwards.

Available from 1977 onwards.



## LEICA MD-2

As LEICA M4-2, but without viewfinder. Equipped for the use of the marking device.

Serial Nos. from 1468723 onwards.

Available from 1977 onwards.





## LEICA R3-MOT

As LEICA R3, but with connection for motor-winder – R3.

Display of the selective or integrating measuring mode in the viewfinder above the shutter speed scale.

Serial Nos. from 1 492 251 onwards.

Available from 1978 onwards.



## LEICA R4

Single-lens-reflex camera with electronically controlled metal-blade focal plane shutter. Two exposure measuring modes (LEITZ selective measurement and LEITZ integrating largefield measurement) coupled with operating modes of automatic shutter speed control, automatic aperture control, program automation and manual setting. In addition: flash automation. Electronically controlled shutter speeds from 1 to  $1/1000$  sec X = 100 sec for electronic flash synchronisation. Interchangeable focusing screens. Detachable camera back. Automatic frame counter and film wind control. Film cartridge window. Quick film change. Rapid lens bayonet changer.

Serial Nos. from 1 533 351 onwards.

Available from 1980.



## LEICA M4-P

As LEICA M4-2, but with automatically faded-in field-of-view frames for 6 focal lengths: 28, 35, 50, 75, 90, and 135 mm lens.

Serial Nos. from 1 532 377 onwards.

Available from 1980.

# Contents:

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# Accessories for the LEICA R3/R3 MOT

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## Motor Winder R3

Compact, handy winder, for the LEICA R3-MOT only.

Single-frame and series release. – With series setting frame frequency up to 2fps.

Very quiet running of gear and motor

Socket<sup>1)</sup> can be screwed onto the Remote Control LEICA R electronic control unit and other electronic releases.

Convenient handgrip with release button for series releases as accessory.

MOTOR-WINDER R3 ..... Code Number **14270**

## Handgrip R3 for hand-held exposures

Robust, practical design with convenient release for series releases, (release button of the handgrip and camera release button for single-frame releases are closely spaced for convenient operation.

Adjustable leather loop

Screw with coin slot for the attachment of the handgrip to the MOTOR-WINDER R3.

Handgrip R3 ..... Code Number **14271**

## MW-R adapter for external supply

For connection to an external current source; with appliance cable, length 1 m, and screw plug.

(The MW-R adapter for external supply is inserted in the winder instead of the battery housing).

### Possibilities of connection:

Battery housing (with the holder 14279) if at low temperatures the ordinary or rechargeable batteries have to be kept at body heat and therefore housed externally.

Mains unit of up to 8.5 v d.c.

Further possibilities will be found in the LEICA R4-MOT Working Sheets.

MW-R adapter for external supply ..... Code Number **14278**  
Extension cable, length 5m, for MW-R external supply ..... **14293**

<sup>1)</sup> Coupling plug 302-013.154-004 (5-pin) available from Technical Service, P.O.B. 2027, Ernst Leitz Wetzlar GmbH, D-6330 Wetzlar.

## Holder for the MW-R housing for ordinary or rechargeable batteries

With sockets marked "+" and "-" for the battery charger, for instance VARTA AG GE 1,2,-12/0,005-0,1 ex.

During recharging the 6 NiCd batteries, for instance VARTA AG DEAC 501 RS, remain in the housing.

External current supply of the Motor Winder R3 by means of the MW-R adapter for external supply, Code No. 14278. Screw socket for same.

Holder for the MW-R battery housing ..... Code Number **14279**

## MW-R battery housing

For the MOTOR WINDER R3, replacement

For heavy-duty work (prolonged operation, low temperature, expeditions) a second housing with fresh or recharged batteries offers additional reliability. Interchangeable with a single action within seconds.

MW-R battery housing ..... Code Number **14280**

## Remote Control LEICA R electronic control unit

(RC LEICA R)

Electronic control unit for remote release

Built-in timer for automatic releases

7 integrated circuits in C-MOS technique

Digital display of the completed exposure by feedback from the camera.

Remote Control LEICA R (RC LEICA R) ..... Code Number **14277**

## Tripod holder

For the use of the LEICA R3 MOT combination with long-focal-length lenses on a tripod. Sturdy design with two knurled screws for the tripod bushes of the MOTOR WINDER.

Holder with thread A 1/4 DIN 4503 (1/4 in) for camera tripods ..... Code Number **14276**

## Electric release switch

For universal handgrip, with cable, length 0.3m, and screw plug:  
Practical accessory for work with long focal length lenses, for instance 250 mm f/4, 350 mm f/4.8, 400 mm f/6.8, 560 mm f/6.8.  
With insertion in the pistol grip the push-button can be directly connected with the screw plug on the Motor Winder R3 through the 0.3m cable.

Electric release switch ..... Code Number **14275** \_\_\_\_\_

## Electric cable release

For remote release, with cable, length 5m, and screw plug. In combination with extension cables, length 25m (14274) for electric remote release up to 100m.

Electric cable release ..... Code Number **14272** \_\_\_\_\_

## 25 m Extension cable (for electric remote release)

with screw plugs

Extension cable ..... Code Number **14274** \_\_\_\_\_



## Ever-ready cases

For the LEICA R3,  
LEICA R3 MOT  
(without motor-winder R3)

Code Number

### Ever-ready case, leather

with standard front part for 50 mm lenses with lens hood ..... **14506** \_\_\_\_\_

### 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 ..... **14507** \_\_\_\_\_

## Combination cases

### for the LEICA R3

External dimensions about 25 x 14 x 19 cm,  
soft leather

Accepts 1 LEICA R3/R3-MOT without the winder and with lens of focal lengths up to 180 mm f/4 inserted, and up to 3 additional lenses depending on their length, films and filters.

Code Number

Combination case ..... **14829** \_\_\_\_\_

### For the LEICA R3-MOT

External dimensions: about 25 x 14 x 19 cm  
Soft leather

Accepts one LEICA R3-MOT with Motor Winder and handgrip attached and lens, for instance 50 mm f/2, inserted and two additional lenses depending on their length, films and filters.

Code Number

Combination case ..... **14831** \_\_\_\_\_

### Safari case

As above, but green, heavy-duty canvas

Code Number

Safari case ..... **14548** \_\_\_\_\_

## Universal Holdall case

For the LEICA R3/R3-MOT  
External dimensions: about 36x21 x24 cm  
Soft leather

Universal holdall case .....	Code Number	<b>14835</b> _____
List of equipment accepted see under "Technical Information" page 226		

## Reporter case

Reporter case  
External dimensions: about 35x15x32 cm  
Soft leather

	Code Number	
Without internal partitions		
With two additional outside compartments .....	<b>14830</b>	_____
Coupling ring as replacement for all combination cases .....	<b>14836</b>	_____

## Correction lenses

For the LEICA R3, LEICA R3 MOT  
(spherical)

	Code Number	
+0.5 .....	<b>14240</b>	_____
+1.0 .....	<b>14241</b>	_____
+1.5 .....	<b>14242</b>	_____
+2.0 .....	<b>14243</b>	_____
+3.0 .....	<b>14244</b>	_____
-0.5 .....	<b>14245</b>	_____
-1.0 .....	<b>14246</b>	_____
-1.5 .....	<b>14247</b>	_____
-2.0 .....	<b>14248</b>	_____
-3.0 .....	<b>14249</b>	_____

## Eyecup

For the LEICA R3/R3 MOT

	Code Number	
Eyecup .....	<b>14257</b>	_____

## Angle finder

For unnoticed photography "round corners" or over the heads of a crowd.

	Code Number	
For the LEICA R3/R3 MOT 90° Angle finder, right-way-round, upright image, with focusing eye- piece .....	<b>14288</b>	_____

## Carrying Strap

Code Number

### Carrying strap

for the LEICA R3, R3-MOT, (replacement) ..... **14 226** \_\_\_\_\_

## Twin flash socket cover

Code Number

**Twin flash socket cover** (replacement) ..... **14 183** \_\_\_\_\_

For further general camera accessories, lenses and near-focusing equipment see LEICA R4 product range.

## Adapter

Code Number

**Adapter** for the use of VISOFLEX 2/3 lenses on:

LEICA R3/R3-MOT, LEICAFLEX SL/SL2-MOT, LEICAFLEX SL/SL-MOT  
(at working aperture) ..... **14 167** \_\_\_\_\_

## Conversion of LEICAFLEX lenses for use on the LEICA R3

For the full utilisation of the exposure facilities of the LEICA R3, existing LEICAFLEX lenses can be fitted with a cam.

**The use of converted lenses remains unrestricted on all LEICAFLEX models.**

Price and time required for conversion on request from your  
National LEITZ Agency  
or Technical Service  
Ernst Leitz Wetzlar GmbH,  
P.O.B. 2027,  
D-6330 Wetzlar, Germany

# Accessories for the LEICAFLEX SL/SL2 (MOT)

## LEICAFLEX MOTOR

for the SL-MOT and SL2-MOT

For use on the LEICAFLEX SL-MOT or SL2-MOT only.

**Automatic shutter wind** for series and single-frame exposures.

**Remote control** via electric cable connection or radio release etc.

**Frame frequency** from 3 to 4 fps.

Can be switched for camera and motor operation.

**Selector** for single-frame and series exposures.

**Housing** for 10NiCd rechargeable batteries, for instance VARTA AG DEAC 501 RS (or 10 1.5v midjet cells).

This requires 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 rechargeable batteries.

**Frame counter** for motorised exposures

**Limit switch** for 36 exposures and infinity setting

**3-pin connection** for remote release and remote counter.

**Dimensions:** height 92 mm, length 145 mm, depth 40 mm,

**Weight:** 0.7 kg

	Code Number	
LEICAFLEX-MOTOR .....	<b>14 077</b>	_____
Accessories for the LEICAFLEX MOTOR		
Battery housing for the LEICAFLEX MOTOR, separate (replacement) ...	14 147	_____
Handgrip for hand-held exposures .....	14 181	_____
Extension cable, length 5 m for remote release .....	14 179	_____
Extension cable, length 25 m for remote release .....	14 178	_____
Remote release with push-button, length 2.5 m .....	14 176	_____
Tandem device for the connection of 2 LEICAFLEX SL-MOT cameras For series exposures of 6 to 7 fps. ....	14 185	_____
Cable for the connection of a LEICAFLEX SL-MOT with the LEICINA SUPER ST1 control unit (for intervals between about 0.5 to about 360 sec) .....	14 187	_____
Universal handgrip for handheld exposures with long-focal-length lenses	14 188	_____

# EXTENDER-R 2x

For the LEICAFLEX SL/SL2

Focal-length extending lens attachment

Number of elements: 5 (4 components)

Aperture range from f/2 to f/22

Working aperture measurement

Focal lengths suitable for use:

from 50 and more\*\*

Hard-chrome LEICA R rapid bayonet changer

Black finish

Length from bayonet flange: 30 mm

Diameter: 62 mm

Weight: 0.18 kg

Code Number

EXTENDER-R 2x for the LEICAFLEX SL/SL2

with two caps ..... 11 237 \_\_\_\_\_

Replacement caps:

Rear cover (= rear cover for lens) ..... 14 162 \_\_\_\_\_

Front cap (= camera body cover) ..... 14 103 \_\_\_\_\_

## Near-focusing adapters

Code Number

1:1 Adapter\* for 60 mm MACRO-ELMARIT-R f/2.8 ..... 14 198 \_\_\_\_\_

Near-focusing ring\* for the 100 mm MACRO-ELMAR-R f/4 ..... 14 262 \_\_\_\_\_

Leather case for the 1:1 adapter or for the near-focusing ring ..... 14 621 \_\_\_\_\_

Caps for the 1:1 adapter and near-focusing ring:

Front cap ..... 14 184 \_\_\_\_\_

Rear cap ..... 14 162 \_\_\_\_\_

\* The 1:1 adapter or the near-focusing ring can be attached and locked only when the lens aperture is closed. This setting is indicated by an additional marking. Wrong attachment is prevented by a block.

\*\* from 560 mm unwards slight vignetting occurs.



## Adapter

Code Number

**Adapter** for the use of VISOFLEX 2/3 lenses on the  
LEICAFLEX SL/SL2, LEICA R (at working aperture) ..... 14167 \_\_\_\_\_

## Correction lenses

for the LEICAFLEX SL2/SL2MOT  
(spherical)

Code Number

+0.5 .....	14240 _____
+1.0 .....	14241 _____
+1.5 .....	14242 _____
+2.0 .....	14243 _____
+3.0 .....	14244 _____
-0.5 .....	14245 _____
-1.0 .....	14246 _____
-1.5 .....	14247 _____
-2.0 .....	14248 _____
-3.0 .....	14249 _____

For the LEICAFLEX SL/SL MOT,  
LEICAFLEX with external exposure measurement  
(spherical)

+0.5 .....	14118 _____
+1.0 .....	14371 _____
+1.5 .....	14372 _____
+2.0 .....	14373 _____
+3.0 .....	14374 _____
-0.5 .....	14375 _____
-1.0 .....	14376 _____
-1.5 .....	14377 _____
-2.0 .....	14378 _____
-3.0 .....	14064 _____

## Eyecup

For the LEICAFLEX SL2/SL2 MOT

Code Number

Eyecup. .... 14257 \_\_\_\_\_

## Ever-ready Case

For the LEICAFLEX SL2/SL2 MOT (without motor)

Code Number

### Ever-ready case

With standard front part for the 50 mm f/2 lens with lens hood..... 14504 \_\_\_\_\_

## Combination case

For the LEICAFLEX

External dimensions: about 21 x 11.5 x 19 cm

Weight: 0.66 kg

Code Number

Accepts one LEICAFLEX with lens of focal length up to 135 mm in position, and, depending on their length, up to 2 additional lenses, films and filters..... 14824 \_\_\_\_\_

## Angle finder

For unnoticed photography "round corners" or above the heads of a crowd

Code Number

For the LEICAFLEX SL/SL;

90° angle finder, right-way-round, upright image, with focusing eyepiece ..... 14286 \_\_\_\_\_

## Carrying strap

Code Number

**Carrying strap** with non-slip pad, adjustable, (replacement) for all LEICAFLEX cameras..... 14092 \_\_\_\_\_

## Twin flash socket cover

Code Number

**Twin flash socket cover** (replacement) ..... 14183 \_\_\_\_\_

Other general camera accessories and lenses and near-focusing devices etc, see Product Range LEICA R4.

# Accessories for earlier LEICA R lenses

## ELPRO near-focusing attachment for earlier LEICA R lenses

Lens:	ELPRO	Distance scale on	Distance in cm		Object area in mm	Reproduction ratio
			Object-film	Object-front lens		
50 mm SUMMICRON-R f/2 (M 44x0.75) 11 228	Via 16531	$\infty$ 0.5	50 31	41 21	184x276 91x137	1:7.7 1:3.8
	2 <sup>1)</sup> 16542	$\infty$ 0.5	30 24	21 14	94x141 62x 93	1:3.9 1:2.6
90 mm ELMARIT-R f/2.8 up to No. 2809000 (M 54x0.75) 11 239	3 <sup>2)</sup> 16543	$\infty$ 0.7	74 44	61 30	161x241 72x106	1:6.7 1:3.0
	3 <sup>2)</sup> 16543	$\infty$ 0.7	74 44	61 30	161x241 72x108	1:6.7 1:3.0
135 mm ELMARIT-R f/2.8 up to No. 2772618 (M 54x0.75) 11 211	3 <sup>2)</sup> 16543	$\infty$ 1.5	76 58	61 42	107x160 66x 99	1:4.5 1:2.8
	VIIb 16534 or 4 <sup>2)</sup> 16544	$\infty$ 1.5	150 84	135 68	237x355 106x159	1:9.9 1:4.4
80-200 mm VARIO- ELMAR-R f/4.5 (M 55x0.75) 11 224	3 16543	80 mm/ $\infty$ 200 mm/1.8	82 66	61 45	177x266 50x 75	1:7.4 1:2.1
	4 16544	80 mm/ $\infty$ 200 mm/1.8	156 96	135 74	392x588 83x125	1:16.3 1:3.5

All values round

Code Number

**Leather case** for one near-focusing attachment ..... **14553** \_\_\_\_\_

- 1) = lens hood cannot be attached  
 2) = ELPRO 3 and ELPRO 4 can be used only after the lenses have been converted for filter thread M 55 x 0.75.

Conversion will be undertaken by  
 Technical Service  
 After Sales Service of Ernst Leitz Wetzlar GmbH  
 P.O.B. 2027  
 D-6330 Wetzlar

Series 7 filters continue to be suitable with the aid of the adapter No. 14 225, available as an accessory.

**Accessories for earlier LEICA R lenses**

R-lens:	Lens hood	Cap for lens hood	Lens cap	Rear cover	Filter size (2)	Adapter for Series filters	Internal thread	A Ø in mm
21 mm SUPER-ANGULON-R f/3.4 11803	—	—	14144	—	Series 8	Lens hood	M 67x0.75	70
35 mm ELMARIT-R f/2.8 11201 to No. 2517850	12564	14163	—	14162	Series 6	14160	M 44x0.75	47
35 mm ELMARIT-R f/2.8 11201 to No. 2928900	12509	—	14172	14162	Series 7	Lens hood	M 48x0.75	51
35 mm SUMMICRON-R f/2 11227 to No. 2791416	12509 (1)	—	14172	14162	Series 7	Lens hood	M 48x0.75	51
50 mm SUMMICRON-R f/2 11228 to No. 2777650	12564	14163	—	14162	Series 6	14160	M 44x0.75	47
50 mm SUMMILUX-R f/1.4 11875 to No. 2806500	—	14171	14172	14162	Series 7	Lens hood	M 48x0.75	51
60 mm MACRO-ELMARIT-R f/2.8 11203 to No. 3013650	12514	—	14184	14162	Series 8	Lens hood	M 60x0.75	63.7
90 mm ELMARIT-R f/2.8 11239 to No. 2809000	Built in	—	14089	14162	Series 7	14161	M 54x0.75	75
90 mm SUMMICRON-R f/2 11219 to No. 2770950	Built in	—	14144	14162	Series 7	14161	M 54x0.75	70
100 mm MACRO-ELMAR f/4 11230 to No. 2933350	Built in	—	14089	14162	Series 7	14161	M 54x0.75	65
135 mm ELMARIT-R f/2.8 11211 to No. 2722618	Built in	—	14089	14162	Series 7	14161	M 54x0.75	65
180 mm APO-TELYT-R f/3.4 11240 to No. 2947023	Built in	—	14089	14162	Series 7.5	14222	M 59x0.75	65
180 mm ELMARIT-R f/2.8 11919 to No. 2939700	Built in	—	14166	14162	Series 8	14165	M 72x0.75	78
80-200 mm VARIO-ELMAR-R f/4.5 11224	Built in	—	14261	14162	E 55 or S. 7	14225 for S. 7	M 55x0.75	72
250 mm TELYT-R f/4 11920 to No. 3050600	Built in	—	14166	14152	Series 8	14165	M 72x0.75	78
400 mm TELYT Lens unit f/5.6 (TELEVIT-R)	Built in	—	14295	—	Series 7	Filter slot	—	89
560 mm TELYT Lens unit f/5.6 (TELEVIT-R)	Built in	—	—	—	Series 7	Filter slot	—	120

(1) = Leather case for some: 14621

(2) = Filters, see tables

## Circular polarising filters with screw-in rotary mount

	Code Number
M 44x0.75 for R 35 mm f/2.8 up to No. 2517850	
E 44 for R 50 mm f/2 up to No. 2777650 .....	13353 _____
M 54x0.75 for R 90 mm f/2.8 up to No. 2809000	
E 54 for R 90 mm f/2 up to No. 2770950	
for 100 mm f/4 for Universal Focusing Bellows R up to 2933350	
for R 135 mm f/2.8 up to No. 2772618 .....	13354 _____

## Polarising filters with screw-in rotary mount

	Code Number
M 44x0.75 for R 35 mm f/2.8 up to No. 2517850	
E 44 for R 50 mm f/2 up to No. 2777650 .....	13358 _____
M 54x0.75 for R 90 mm f/2.8 up to No. 2809000	
E 54 for R 90 mm f/2 up to No. 2770950	
for 100 mm f/4 for Universal Focusing Bellows R up to 2933350	
for R 135 mm f/2.8 up to No. 2772618 .....	13359 _____

## Lens hoods

	Code Number
<b>Lens hood</b> for the 28 mm f/2.8 and 35 mm f/2 lenses (replacement) ...	<b>12509</b> _____
<b>Lens hood</b> for the 35 mm PA-CURTAGON f/4 lens (replacement) and for the 60 mm MACRO-ELMARIT-R f/2.8 .....	<b>12514</b> _____
<b>Lens hood</b> for R 75 mm f/2.8 and 50 mm f/2 (replacement) .....	<b>12564</b> _____



# Camera bodies and lenses

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## Combination case for the LEICA M5

Accepting:

one LEICA M5 with lens of focal length up to 135 mm in position, and two additional lenses depending on their length, films and filters.

External dimensions: about 21 x 11.5 x 19 cm, weight: 0.66 kg

	Code Number	
Combination case .....	14823	_____

## Adapter

	Code Number	
Adapter for the use of cable releases with captive thread on the LEICA M with bayonet changer .....	14088	_____

## Carrying strap

	Code Number	
Carrying strap, adjustable, with split rings and non-slip pad for LEICA models up to M4 .....	14092	_____

## Flash socket covers

	Code Number	
Flash socket cover for M3, M2, M1, MD (replacement) .....	14054	_____
Flash socket cover for M4, MDa, M4-2, MD-2 (replacement) .....	15526	_____
Twin flash socket cover for M5 (replacement) .....	14183	_____

## Camera spools

	Code Number	
Replacement take-up spool (with spring-loaded head) for the LEICA M3, M2, M1, MD, IIIg, Ig .....	14022	_____
Ditto for all other LEICA models (except M5, M4, M4-2, MDa and MD-2) .....	14021	_____

## Camera covers

	Code Number
<b>Camera cover</b>	
M-bayonet (plastic) .....	14 195 _____
Ditto for screw-thread cameras .....	14 055 _____

## Bayonet adapters

### Bayonet adapters

For use of screw-thread LEICA lenses on the

	Code Number
<b>LEICA M3</b>	
21-50 mm focal length .....	14 097 _____
135 mm focal length and VISOFLEX I attachment .....	14 099 _____
<b>LEICA M5, M4-2, M4, MDa and LEICA CL</b>	
21, 28 and 50 mm focal length .....	14 097 _____
35 mm, 135 mm focal length and VISOFLEX I attachment .....	14 099 _____

## Rear cap for lenses

	Code Number
with thread .....	14 050 _____

## Lens hoods

	Code Number
21 mm SUPER-ANGULON-M f/3.4 and 28 mm ELMARIT-M f/2.8 .....	12 501 _____
35 mm SUMMICRON-M f/2 11 309 .....	12 504 _____
All 50 mm M Lenses of 42 mm push-on diameter .....	12 585 _____
Cap for same .....	14 033 _____
90 mm ELMARIT-M f/2.8 .....	12 575 _____
Lens hood for the 40 mm SUMMICRON-C .....	12 518 _____
Lens hood for the 90 mm ELMAR-C .....	12 517 _____
Lens cap A 35.5 (fits the lens hood) .....	14 191 _____
Lens cap for the 50 mm SUMMILUX-M f/1.4, A 45, chromium plated .....	14 036 _____

## Accessories for earlier LEICA M- and CL-lenses

M-lens	Internal thread	External dia. in mm	Lens hood	Cover for lens hood	Lens cap	Rear cover	Filter size <sup>1)</sup>
21 mm SUPER ANGULON-M f/3.4	M 48 x 0.75	52.5	12 501	–	14 102	14 042	Series 7 with lens hood or E 48
28 mm ELMARIT-M f/2.8 to No. 2 977 550	M 48 x 0.75	52.5	12 501	–	14 102	14 042	Series 7 with lens hood or E 48
35 mm SUMMARON-M f/2.8	M 39 x 0.5	42	12 585	14 033	14 268	14 051	E 39
35 mm SUMMICRON-M f/2.8 to No. 2 307 450 to No. 2 483 503 to No. 2 974 250	M 39 x 0.5 M 39 x 0.5	42 42 42	12 585 12 504 12 504	14 033 – –	14 268 14 051 14 268	14 051 14 051 14 051	E 39 Series in lens hood E 39 or series 7
35 mm SUMMILUX-M f/1.4 to No. 2 166 700	M 41 x 0.5	46.5	–	–	–	14 051	E 41
40 mm SUMMICRON-C f/2	M 39 x 0.75	41.5	12 518	14 191	–	14 051	Series 5.5 with lens hood
50 mm ELMAR-M f/2.8	M 39 x 0.5	42	12 585	14 033	14 268	14 051	E 39
50 mm SUMMICRON-M f/2 to No. 2 915 800	M 39 x 0.5	42	12 585	14 033	14 268	14 051	E 39
50 mm NOCTILUX-M f/1.2	–	52.5	–	–	14 102	14 051	Series 8 in lens hood
50 mm NOCTILUX-M f/1 to No. 2 919 656	M 58 x 0.75	61	12 519	–	–	14 051	E 58
65 mm ELMAR-M f/3.5 to No. 2 378 900	M 41 x 0.5	56	built in	–	14 153	14 074	E 41
90 mm ELMAR-C f/4	M 39 x 0.75	42	12 517	14 191	–	14 051	Series 5.5 with lens hood
90 mm ELMAR-M f/4	M 39 x 0.5	42	12 575	14 033	14 268	14 051	E 39
90 mm ELMARIT-M f/2.8	M 39 x 0.5	42	12 575	14 033	14 268	14 051	E 39
90 mm SUMMICRON-M f/2 to No. 2 997 000	M 48 x 0.75	63.7	built-in	–	14 124	14 051	E 48
135 mm HEKTOR-M f/4.5	M 39 x 0.5	42	12 575	14 033	14 268	14 051	E 39
135 mm ELMAR-M f/4	M 39 x 0.5	42	12 575	14 033	14 268	14 051	E 39
135 mm ELMARIT-M f/2.8 to No. 2 788 926	M 54 x 0.75	63.7	built-in	–	14 124	14 051	Series 7 with adapter 14 161
280 mm TELYT-M f/4.8 to No. 2 340 952	M 58 x 0.75	76	built-in	–	–	14 051	E 58
400 mm TELYT-M f/5.6	–	98	built-in	–	14 295	14 051	Series 7 in filter slot
560 mm TELYT-M f/5.6	–	120	built-in	–	–	14 051	Series 7 in filter slot

Lens cap for the 50 mm SUMMILUX-M f/1.4, hard chrome . . . . . 14 036 \_\_\_\_\_

Rear cover for lenses with thread . . . . . 14 050 \_\_\_\_\_

<sup>1)</sup> Filters see p. 122

# Accessories for the LEICINA

## A) for the LEICINA SPECIAL

Adapters for LEICA R lenses:

	Code Number	
For R lenses: adapter .....	22228	_____
LEICA M lenses can be attached without adapter unless there are no protruding rear components (details on request)		
Required for the use of LEICA lenses with screw thread:		
Bayonet adapters: .....	14097 or 14099	_____

For the use of VISOFLEX lenses an adapter tube is required instead  
of the VISOFLEX attachment:

Adapter tube .....	543195	_____
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Adapter for non-LEITZ lenses:

For lenses with Arri connection .....	22230	_____
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For lenses with M42 x 1-M attachment .....	22232	_____
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For Minolta lenses .....	22233	_____
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## B) Accessories only for the LEICINA SUPER RT 1

Front lens attachment for close-ups down to 0.4 m camera distance (smallest object field 17 x 22 mm) .....	22003	_____
Leather case for same .....	14553	_____

## C) Accessories for the LEICINA SPECIAL and the LEICINA SUPER RT

90° angle finder, right-way-round, upright image .....	14286	_____
Holder for the angle finder .....	22221	_____

# Accessories for the FOCOMAT Ic

## 50 mm FOCOTAR® f/4.5 enlarger lens



## 50 mm FOCOTAR® f/4.5 enlarger lens

	Code Number
with click-stops .....	17582 _____
Filter drawer .....	17772 _____
Enlargement indicator .....	17773 _____
Mains cable (replacement) .....	37656 _____

## Film guides



## Film guides

suitable also for VALOY® II, FOCOMAT Ia

	Code Number
8x11 mm.....	17514 _____
13x17 mm.....	17517 _____
18x24 mm.....	17516 _____
24x24 mm.....	17521 _____
24x36 mm (replacement) .....	17526 _____
4x4 cm (corners are cut by approx. 3 mm).....	17536 _____

## Single-negative holders

also for the FOCOMAT Ia and I and VALOY I and II

	Code Number
Double glass plate 3.5x12 cm.....	17545 _____
5 x 16 cm.....	17565 _____
Masks 24 x24 mm .....	17541 _____
24 x36 mm .....	17540 _____
3 x 4 cm.....	17555 _____

New:

5x5 cm slide holder for the FOCOMAT Ic .....	17542 _____
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**Adapter ring**

Code Number

also for VALOY II for the use of the 50 mm SUMMICRON lens unit . . . . .	17672	_____
Adapter ring for the use of the 50 mm ELMAR and SUMMICRON lenses, collapsible with bayonet mount . . . . .	17671	_____

**Anti-Newton-disc**

with 3 mm spacing ring for the type N condenser . . . . .	17652	_____
<b>Type N Condenser</b> (replacement) also for FOCOMAT Ia . . . . .	17639	_____

**Accessory for increasing the enlarging range** also for FOCOMAT Ia, VALOY I, II

REPRO extension ring, for 1:1 . . . . .	16615	_____
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**Accessories for the AGFA colour head for the FOCOMAT Ic-Color and Ia-Color**

Adapter . . . . .	17775	_____
Additional condenser . . . . .	17780	_____

For the use of the AGFA-VARIOMAT®

40mm-diameter spacing ring . . . . .	17631	_____
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In addition the following colour heads can be adapted:

Chromega B Dichroic

Wallner Colorhead

For more detailed information please contact your

National LEITZ Agency.

**Masking Frames**

for all FOCOMAT models

**24 x 30 cm (10 x 12 in) universal masking frame**

(height 30mm), with 4 adjustable masking strips, combined "feet-metre" scale . . . . .	17584	_____
--	-------	-------

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

17586 \_\_\_\_\_

**English system (inch):**

12 x 16 in masking frame (height 1.18 in) . . . . .	17630	_____
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# Accessories for the PRADOVIT COLOR

	Code Number
Extension cable for remote control, length 5m.....	37931 _____
<b>Holder for micro attachments</b> .....	<b>37937</b> _____
Accessories for the showing of film strips on request.	

<b>Multiple plug</b> for the simultaneous connection of tape recorder and remote-control cable to the PRADOVIT (above Serial No. 400000), variants of the PRADOVIT COLOR, PRADOVIT RC, PRADOVIT R 150 and PRADOVIT COLOR 110. ....	<b>37911</b> _____
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## Projector lenses and optical accessories

35 mm ELMARON f/2.8* .....	37041 _____
50 mm ELMARIT-P f/2.8** .....	37011 _____
60 mm ELMARON f/2.8*** .....	37004 _____
85 mm ELMARON f/2.8 .....	37003 _____
<b>90 mm COLORPLAN</b> f/2.5 (dia. 42.5 mm) .....	<b>37005</b> _____
<b>90 mm COLORPLAN-CF</b> f/2.5 .....	<b>37015</b> _____
120 mm ELMARON f/2.8 .....	37022 _____
150 mm ELMARON f/2.8 .....	37030 _____
200 mm ELMARON f/3.6 .....	37062 _____
250 mm ELMARON f/4 .....	37082 _____
300 mm EPNOR f/4.3 .....	34837 _____

\* Only up to 24 x 36 mm format and 30-slide magazines

\*\* Only up to 24 x 36 mm format, not for 50-slide magazines

\*\*\* 40 x 40 mm effective format, not for 50-slide magazines

## Focusing sleeves for focal length

35 mm – 120 mm (dia. 42.5 mm) .....	37119 _____
150 mm .....	37121 _____
200 mm .....	37129 _____
250 mm .....	37130 _____

## Interchangeable condenser

for 35 mm to 50 mm .....	37210 _____
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## Replacement accessory parts

Replacement mains cable .....	37656 _____
<b>Repeater plate</b> for Advertising Projector (replacement) .....	<b>37933</b> _____

## Projector lamps, light pointer and AF lamps and accessories\*

\* Replacements available from:

Technical Service Centre, P.O.B. 2027, Ernst Leitz Wetzlar GmbH, D-6330 Wetzlar, Germany, or your National Leitz Agency (please give precise technical data).

# Accessories for the PRADOVIT COLOR 110

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	Code Number	
Remote-control cable with light pointer* .....		_____
Multiple plug for simultaneous connection of tape recorder and remote control .....	37911	_____
Extension cable for remote control, length 5m. ....	37931	_____

# Accessories for the DIASRIPTOR OP 250

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	Code Number	
Anti-glare .....	33834	_____
Shelf attachment .....	33833	_____
Transparent dust cover .....	33835	_____
Accessory case .....	33836	_____
Transparent foils (for use with 33846 and 33821)		
15m scroll on cardboard reel .....	33822	_____
30m scroll on cardboard reel .....	33823	_____
50m scroll on cardboard reel .....	33824	_____
25 sheet foils in sliding box .....	33831	_____

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\* Projector lamps, light pointer and Autofocus lamps, accessories  
Replacements available from Ernst Leitz Wetzlar GmbH, D-6330 Wetzlar, Germany, or your  
National Leitz Agency (please give precise technical data).



Leitz Means Precision.  
Worldwide.



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