

Linhof

color

4 x 5 in. 9/12 cm

2 1/4 x 3 1/4 in. 6,5 x 9 cm

Operating Instructions



LINHOF COLOR 4x5 in. / 9x12 cm.

- 1 Milled head for locking lensboard tilt
- 2 Spring-tensioned lock for interchangeable lensboard
- 3 Spring-tensioned milled pressure knob for releasing lensboard forward or backward tilt through central horizontal axis
- 4 Lens in Compur shutter mounted on lensboard
- 5 Lens standard with rack-and-pinion adjustment for rising and falling front
- 6 Locking lever for lateral shift of the lens standard
- 7 Release lever for front swivel through a vertical axis
- 8 Base of lens standard
- 9 Precision ground, chromium-plated monorail with geared rack

- 10 Knurled knob for locking monorail to tripod base
- 11 Face plates (2) of monorail
- 12 Knurled locking knob for camera front adjustment
- 13 Captive locking knobs (4) for swing-back
- 14 Position of the focal plane
- 15 Swing-frame with revolving back
- 16 Base of camera body and back
- 17 Knurled focusing knob
- 18 Knurled track locking knob
- 19 Tripod base

TECHNICAL DATA:

Weight without lens: 4 lbs. 6 oz.

Total extension: 17 in.

Height: 11 1/2 in.

Width: 7 1/4 in.

Maximum back tilt: 15°

Maximum rise of front: 1 1/2 in.

Drop front: 1/4 in.

Lateral shift, each way: 1 in.

Lensboard tilt, forward and backward: 15°

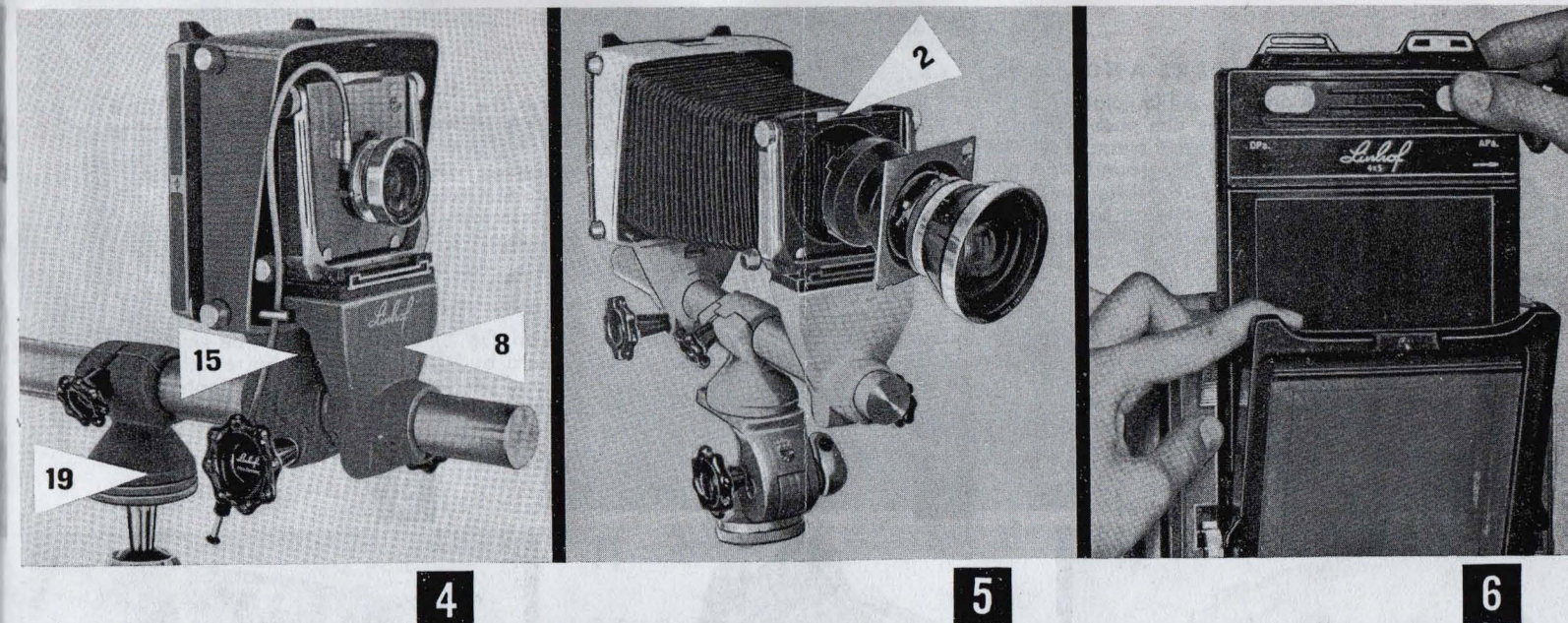
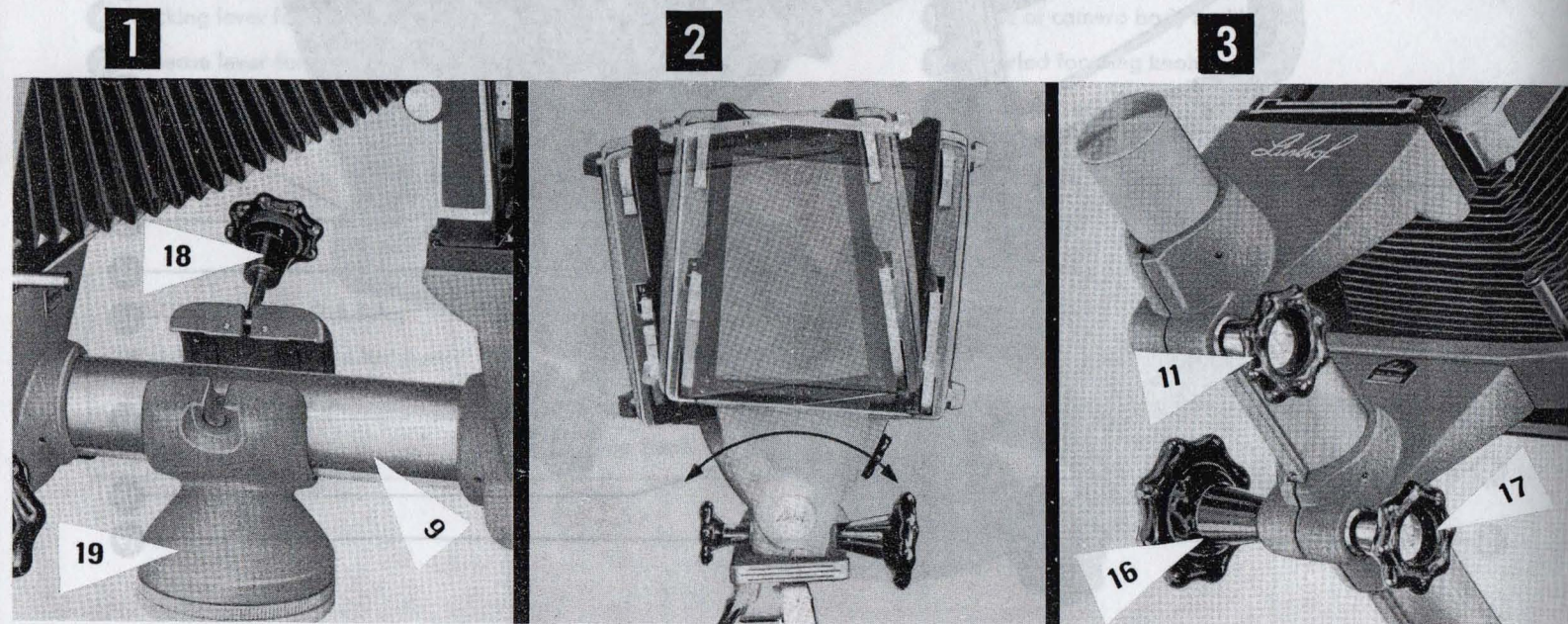
Swing of the lens standard, each way: 15°



Your COLOR is a precision camera of great stability. It is nevertheless of avail to treat it with the care appropriate for a precision instrument. Read closely the following instructions to avoid serious mistakes and to keep your camera in top shape:

THE SETTING UP AND FOCUSING OF THE CAMERA:

Attach the tripod base (19) to the pan/tilt head on the tripod. Open the clamp on the tripod base by loosening the knurled knob (18) and insert the monorail (9) so that the clamp is located between the base of the lens standard and that of the camera back (Fig. 1). It is thereby of no concern which side of the camera is on the right or left. The clamp is then closed and the knurled knob (18) tightened up. By slightly slackening that knob (without opening the clamp) the camera can be tilted to the right or left or the monorail slid forward or backward (Fig. 2). Preliminary ground glass focusing with the camera is done by loosening the knurled locking knob (11, Fig. 3) and sliding the camera front forward or backward on the monorail (9). For critical focusing the knurled knob (17) is slackened and the camera on its base (15) moved forward or backward on the monorail (9) by operating the rack-and-pinion focusing knob (16). The camera back can be locked in any position by tightening the knurled knob (17). The extension of both back and front is limited by the two face plates (10), one on each end of the monorail.



SETTING UP THE CAMERA IN WIDE-ANGLE POSITION:

For wide-angle work the monorail (9) with the camera, is lifted out of the clamp on the tripod base (19) and re-inserted in such a way that the whole camera is positioned in front of the clamp. The camera in this position permits the bellows extension to be reduced to a minimum (Fig. 4) and is thus suitable for wide-angle work.

LENSES:

One lens only is no sufficient to fully exploit the technical possibilities offered by this camera. Therefore, a whole range of lenses is adaptable, beginning with the 65 mm. (2 9/16.) Super wide-angle lens mounted on recessed lensboard and ending with the 360 mm. (14 in.) Telephoto lens. All lenses mounted on the lensboard of the SUPERTECHNIKA IV can be used without adapter; lenses mounted on lensboards pertaining to the SUPERTECHNIKA III may be used with an adapter lensboard. Details on available lenses are given in the current price list. An interchange of lenses is achieved simply by disengaging the spring-tensioned lock (2), lifting out the lens (mounted with shutter on lensboard) and inserting the new lens by letting the spring-tensioned lock (2) snap back over the lensboard of the new lens (Fig. 5). Do not push lensboard in place.

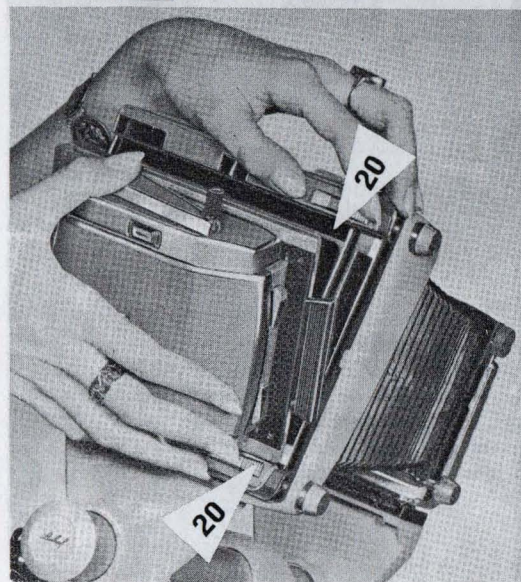
NEGATIVE HOLDERS AND ADAPTERS:

The LINHOF double cut film/plate holders or Super Cutfilm Holders 4x5 in. or 9x12 cm, the single metal plate holder 9x12 cm (with adapter frame), the film pack adapter 4x5 in. or 9x12 cm and the Grafmatic magazine (for 6 cut films 4x5 in.) are used in connection with the Universal spring-back. The spring-back yields to the negative holders, but holds them tightly in place between the revolving frame and the ground glass frame (Fig. 6). When the negative holder is removed from the camera back, it is slightly pulled back and can then be lifted out easily. Super Rollex, Cine Rollex or Rollex roll film adapters and police adapter are attached after the ground glass frame has been removed. To remove the latter, the spring-tensioned hinges on the right and left-hand side of the ground glass frame are slightly pressed down and the ground glass frame slid out in a short upward motion. A firm lock of the adapters to the camera back is assured by the two lock slides (20, Fig. 7).

CAMERA BACK:

The camera back of the COLOR can be rotated for horizontal or vertical composition (Fig. 8). Back swings can be employed by slackening the four captive locking knobs (12); intermediate positions of the camera back can be locked by re-tightening the knobs (Fig. 9). With the aid of the back adjustments extreme depth of field is obtained and perspective distortion eliminated. Full details about camera movements are given in the LINHOF Technique Data Sheets or in the LINHOF PRACTICE, the comprehensive manual of large-format photography.

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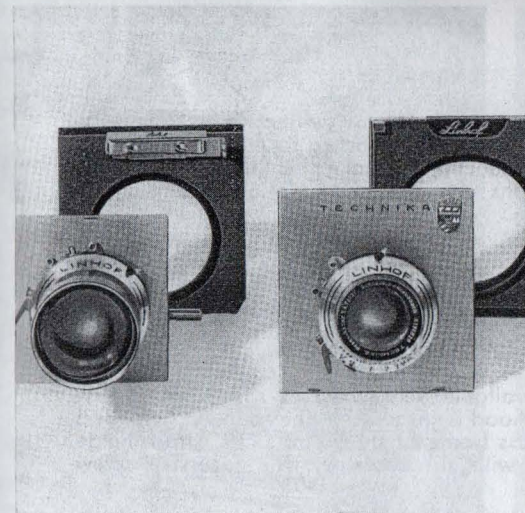
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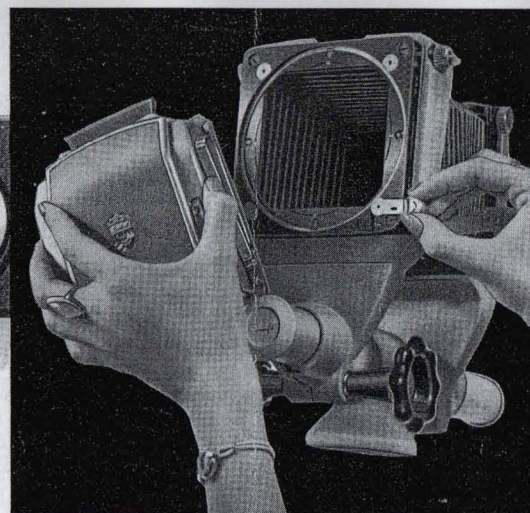
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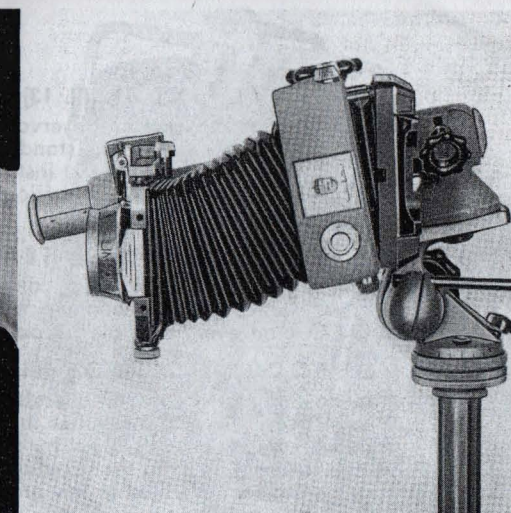
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11



12



THE COLOR 2 1/4 x 3 1/4 in.

is operated in the same manner as the COLOR 4x5 in. Therefore the instructions for the latter camera are also valid for the 2 1/4 x 3 1/4 in. model except for the following additions:

LENSES

Lenses from 47 mm wide angle (on recessed Color lensboard) to 360 mm tele may be used. Lenses mounted on Super Technika IV 4x5 in. lensboards may also be used without adapters. For Super Technika III 4x5 in. lensboards an adapter (Ill. 10, right) is available and likewise lenses of the Super Technika 2 1/4 x 3 1/4 in. may be used by means of another adapter (Ill. 10/left).

NEGATIVE HOLDERS

LINHOF Double Cutfilm/Plate Holders 2 1/4 x 3 1/4 in. (or 6,5/9 cm) may be used interchangeably in the same camera. The same holds true for Film-pack Adapters of the afore mentioned formats. In order to connect the Super Rollex or Cine Rollex the quick-change back is used (Ill. 11). After operating the lever shown on the illustration the ground-glass back is removed and after attaching a Super or Cine Rollex the lever is swung in opposite direction and affords a safe connection.

LOWERING OF THE LENS STANDARD

If the tripod base is attached at the far end of the monorail base as shown in Ill. 12, the whole camera may be swung 90° to the left or right. The side movement of the lens standard may now be used as a drop front. Thus a displacement of the optical axis often required in so-called high angle photography for the correction of diverging lines may be reached, which would otherwise not be possible with the camera in normal position.

THE FRAME FINDER (III. 13)

of the COLOR allows an observation of the composition up to the instant of the exposure. The frame (with optional Plexiglass mask) is attached to the lens standard by using the two holes on the top of it. The peep sight is attached to the accessory clip which may be fitted on request instead of the name plate. By compensating the field reduction automatically the frame finder indicates the image area with sufficient accuracy at the various distances. For photographs with vertical composition the complete camera must be turned 90°.

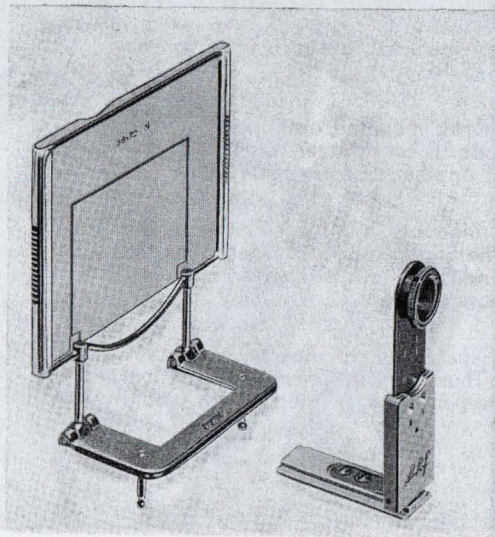
THE COLOR PAN/TILT HEAD (III. 14)

is specially designed for these cameras. The tripod mount is simply inserted in the upper clamping ring and locked by a set screw. Vertical tilt and panning motion are locked separately. The COLOR PAN/Tilt Head assures great stability of the COLOR on every suitable tripod.

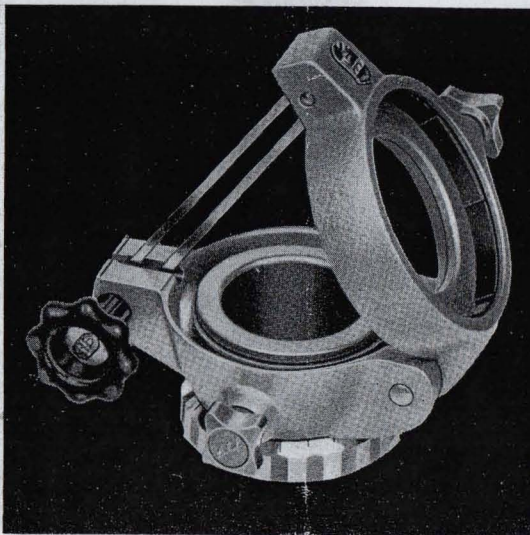
THE FOCUSING HOOD (III. 15)

For those photographers who prefer not to use a focusing cloth a folding hood is available on request as special accessory. When focusing with a magnifier the focusing hood can be swung away. The focusing hood is attached in the following manner: Remove camera back as usual by operating the quick-change lever. Lift up ground glass frame as shown in III. 15. Attach hinge of the focusing hood to the ground glass frame by means of the four screws supplied with this accessory. The necessary screw holes are already drilled in the ground glass frame.

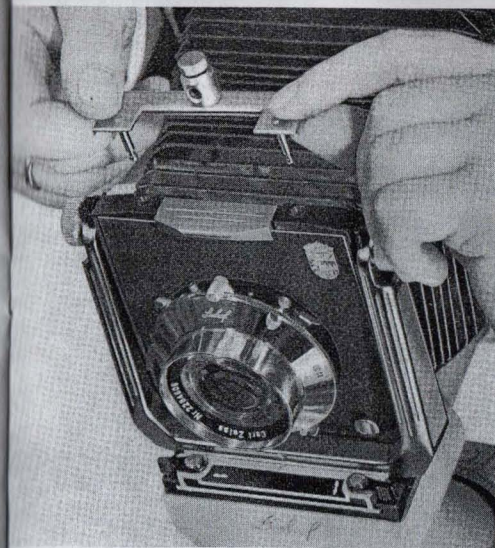
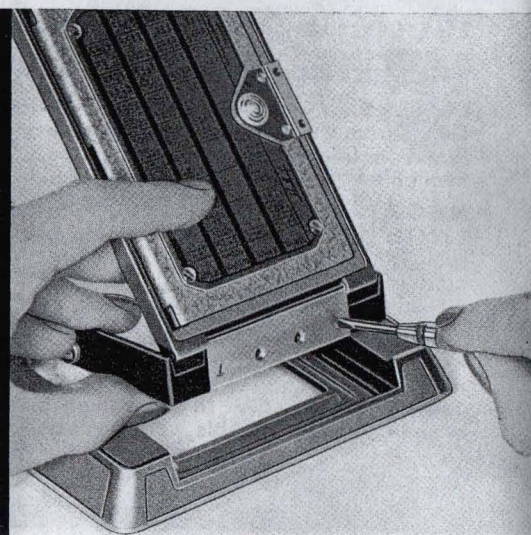
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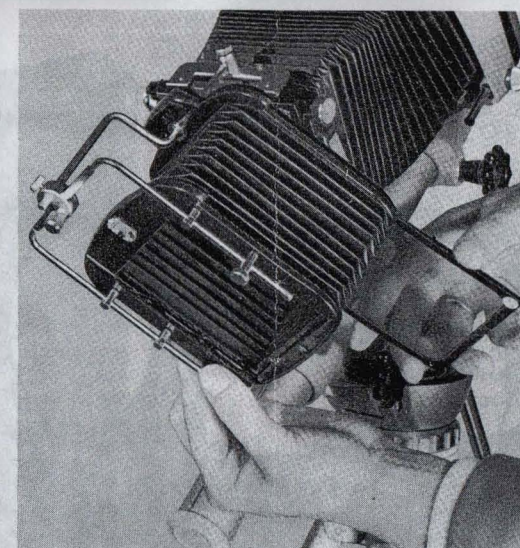
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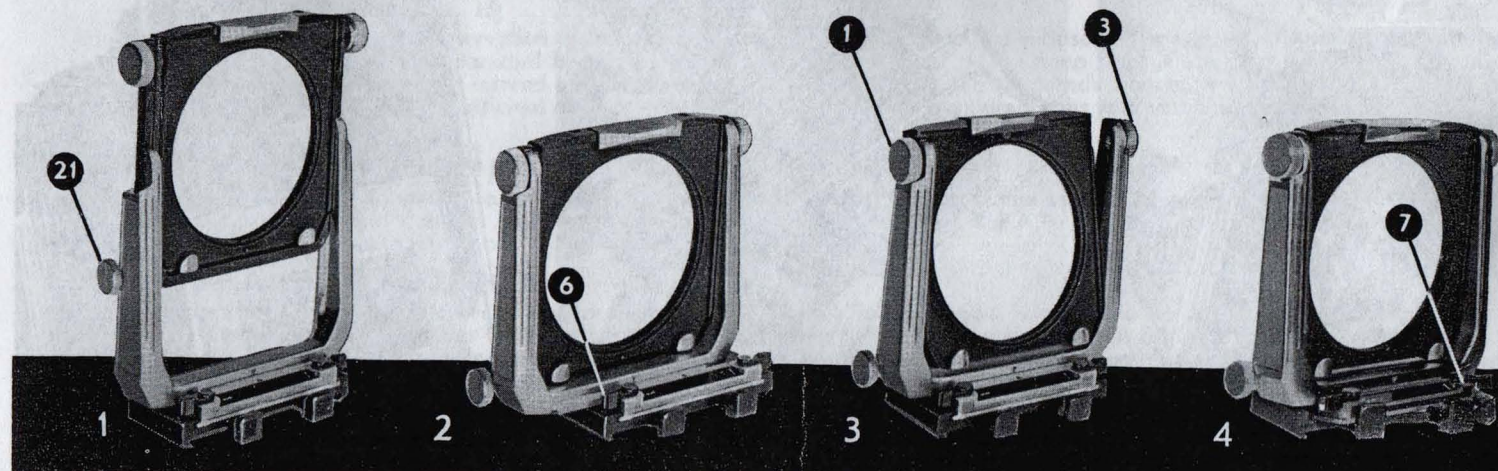
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18

THE COLOR COMPENDIUM LENS SHADE

A suitable protection against back and stray light is absolutely essential in order to obtain brilliant photographs, especially in colour. Even side light may cause fogging on the negative under certain conditions and when using certain lenses (Symmar!). An optimum protection is only possible by an **adjustable** lensshade such as the COLOR COMPENDIUM. The assembly is quite easy. The compendium holder is inserted into the two holes provided for that purpose on top of the lens standard (III. 16). The guiding rod is then inserted into the opening of the holder and locked by a set screw. The COLOR COMPENDIUM serves at the same time as a filter holder. The filter foils are easily inserted in the back frame of the compendium (III. 17) which already indicates the advantage that only one set of filters is required for many lenses of different diameter. The front frame of the compendium may be used for masks often required in trick photography (III. 18). When carrying out lens adjustments without loss of protection against back light become possible. The extension of the compendium is of course related to the camera extension, respectively to the focal length of the lens used. — Please request our comprehensive special leaflet.



CAMERA FRONT ADJUSTMENTS:

1. The rising front is a parallel displacement of the optical axis moving the image upwards. Operated with the milled head (21) it is used to avoid perspective distortions in photographs of tall subjects. A lens with a large circle of sharp definition is needed for that purpose. The normal position of the lensboard is marked by the white line on the upper left of the lens standard.
2. The lateral shift is a parallel displacement of the optical axis moving the image to the right or left. The lens standard can easily be slid in both directions after operating the locking lever (6). To make full use of this movement a lens with a large circle of sharp definition is necessary. The lens standard – when moved back to the normal position – clicks into place. The zero position is marked by a red triangle.
3. The lensboard tilts (forward and backward) are movements through the horizontal axis, in the nodal point of the lens, displacing the zone of sharp focus in the direction of the movement. To put these movements into effect the milled knob (1) is slackened, the milled knob (3) depressed, and the lensboard tilted forward or backward at 15°. Intermediate positions are locked by tightening up the milled head (1). When the lensboard is returned, it clicks audibly into the normal position.
4. The swivel of the lens standard is a movement through the vertical axis displacing the zone of sharp focus in the direction of the swing. The release lever (7) is operated and the standard swivelled into the required position. When the standard is returned it clicks audibly into the normal position.



ACCESSORIES: All accessories – as listed below – of the 4x5 in. SUPERTECHNIKA IV can be used with the COLOR:

1. Lenses: Top-grade lenses, between 65 mm. (2 9/16 in.) and 360 mm (14 in.) focal lengths.
2. Negative holders and adapters: LINHOF double holders 4x5 in. and 9x12 cm, single metal plate holder 9x12 cm in adapter frame, 4x5 in. Graphic film pack adapter and Grafmatic magazine for six 4x5 in. cut films. Reducing formats can be used in the following adapters: 56x72 mm (2 1/4 x 2 3/4 in.) Super Rollex 120 roll film adapter for 10 exposures, or Cine Rollex for 50 exposures on 70 mm film and by making use of the 4x5 in. to 2 1/4 x 3 1/4 in. reducing back, the LINHOF double holders 2 1/4 x 3 1/4 in. and 6,5x9 cm., and the 2 1/4 x 3 1/4 in. film pack adapter.
3. Adapters for specialized work: Police adapter for three 4x6 cm exposures on 6x13 cm plate or cut film, and Polaroid Back.
4. Tripods: The most recommendable tripods for the COLOR Camera are the Light Weight Pro Tripod, Model 138 P and DeLuxe Studio Tripod, Model 168 R, in connection with the COLOR Pan/Tilt Head.
5. Further accessories: Lens-shade/filter holders and filters of various diameters, Kodak Ektalite field lens (for better illumination of the ground glass image), ground glass with centimetre-grid, spirit level with ground glass adapter, cable release, focusing hood, multifocus optical viewfinder, magnifier for critical focusing, Filter Foil Holder and COLOR Compendium.

CAMERA CASES: Two camera cases are available, the Standard Camera Case and the DeLuxe Camera Case. Each of the cases takes your camera, lenses, and accessories (see illustration at the left) protecting them from mechanical damage, dampness and dust and to make the carrying of your equipment as convenient as possible.

LENSES FOR THE COLOR

4 x 5 in. — 9 x 12 cm

Normal Lenses

Technika Symmar	1:5,6 f = 135 mm	Compur MX-CRO
Technika Xenotar	1:3,5 f = 135 mm	Compur MX-CRI
Technika Planar	1:3,5 f = 135 mm	Compur MX-CRI
Technika Tessar	1:4,5 f = 150 mm	Compur MX-CRI
Technika Xenar	1:4,5 f = 150 mm	Compur MX-CRI
Technika Xenotar	1:2,8 f = 150 mm	Compur EX-CII/5
Technika Apo-Lanthar	1:4,5 f = 150 mm	Compur MX-CRI
Technika Symmar	1:5,6 f = 150 mm	Compur MX-CRI
Technika Symmar	1:5,6 f = 180 mm	Compur MX-CRI
Technika Symmar	1:5,6 f = 210 mm	Compur MX-CRI
Technika Symmar	1:5,6 f = 240 mm	Compur EX-II/5
Technika Xenar	1:4,5 f = 210 mm	Compound EX-III/7
Technika Apo-Lanthar	1:4,5 f = 210 mm	Compound EX-III/7
Technika Heliar	1:4,5 f = 210 mm	Compound EX-III/7
Technika Imagon	1:5,6 f = 240 mm	Compound EX-III/7

Wide Angle Lenses

Technika Super Angulon	1:8 f = 90 mm	Compur MXV-CROO
Technika Biogon	1:4,5 f = 75 mm	Compur MX-CRO
Technika Super Angulon	1:8 f = 75 mm	Compur MXV-CROO
Technika Angulon	1:6,8 f = 90 mm	Compur MX-CRO
Technika Super Angulon	1:8 f = 65 mm	Compur MXV-CROO

Tele Lenses

Technika Sonnar	1:5,6 f = 250 mm	Compur MX-CRI
Technika Tele Arton	1:5,5 f = 240 mm	Compur EX-II/5
Technika Rotelar	1:5,6 f = 270 mm	Compur MX-CRI
Technika Telomar	1:5,5 f = 360 mm	Compound EX-III/7
Technika Tele Arton	1:5,5 f = 270 mm	Compur EX-II/5
Technika Tele Xenar	1:5,5 f = 360 mm	Compound EX-III/7

2 1/4 x 3 1/4 in. — 6,5 x 9 cm

Normal Lenses

Technika Planar	1:2,8 f = 100 mm	Compur 1 bis 1/400 sec.
Technika Tessar	1:3,5 f = 105 mm	Compur 0 bis 1/500 sec.
Technika Xenar	1:3,5 f = 105 mm	Compur 0 bis 1/500 sec.
Technika Xenotar	1:2,8 f = 105 mm	Compur 1 bis 1/400 sec.
Technika Apo-Lanthar	1:4,5 f = 105 mm	Compur 0 bis 1/500 sec.
Technika Symmar	1:5,6 f = 105 mm	Compur 0 bis 1/500 sec.
Technika Biogon	1:4,5 f = 53 mm	Compur 0 bis 1/500 sec.

Wide Angle and Tele Lenses

Technika Angulon	1:6,8 f = 65 mm	Compur 00 bis 1/500 sec.
Technika Angulon	1:6,8 f = 90 mm	Compur 0 bis 1/500 sec.
Technika Super Angulon	1:8 f = 47 mm	Compur 00 bis 1/500 sec.
Technika Super Angulon	1:8 f = 65 mm	Compur 00 bis 1/500 sec.
Technika Super Angulon	1:8 f = 90 mm	Compur 00 bis 1/500 sec.

Technika Sonnar	1:4,8 f = 180 mm	Compur 1 bis 1/500 sec.
Technika Tele Arton	1:5,5 f = 180 mm	Compur 0 bis 1/500 sec.
Technika Tele Xenar	1:5,5 f = 180 mm	Compur 0 bis 1/500 sec.
Technika Telomar	1:5,5 f = 180 mm	Compur 0 bis 1/500 sec.
Technika Rotelar	1:4,5 f = 180 mm	Compur 0 bis 1/500 sec.

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