

Leitz
WETZLAR

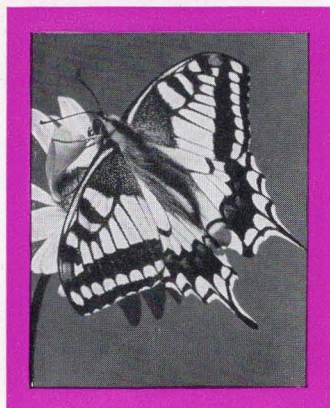
Enlarging
Correction
of converging
verticals
Reproduction

Focomat 1c



17-2d/Engl.

The FOCOMAT is supremely quick and efficient. Whether it is a small snapshot or a large exhibition print, the FOCOMAT will always bring out the finest definition and detail of the miniature negative, without the need to refocus the lens.



The Automatic Focusing Mechanism

moves smoothly and positively over a specially hardened cam and thus ensures absolute reliability. There is no need to check the focus; once the FOCOMAT® is set for the lens in use it will still yield the same high standard of sharpness after years of handling.

The automatic focusing range covers 2 to 10 diameters of enlargement, that is up to 10x15 inches prints. The rate of magnification is indicated at the side of the enlarging head. With manual focusing even higher degrees of enlargements are of course possible. For 1:1 copying 2 REPRO extension rings are available.

Amazingly Simple Operation

Two fingers of one hand will move the enlarger head effortlessly up or down for the desired size of enlargement. The operating lever at the front of the enlarger head incorporates a locking device; releasing the lever locks the enlarger head. The second hand is therefore free to position the masking board at will to select the best part of the picture area.

The FOCOMAT 1c has a specially adjustable cam to take care of appreciable tolerances in the focal length of the lens. Within the range of 2–10 diameters it therefore ensures perfect automatic focusing with any standard lens. The amateur can use his 50 mm. lens from his ®LEICA and fit it to, or remove it from the enlarger as often as he likes. Setting the automatic focusing mechanism for the lens in use takes a few minutes; it is a once-and-for-all adjustment. There is no risk of damage to the lens through heat in the FOCOMAT.

When the enlarger is in continuous use a special enlarging lens is of course recommended. In this case we supply the ®FOCOTAR f/4.5 50 mm enlarging lens with click stops.

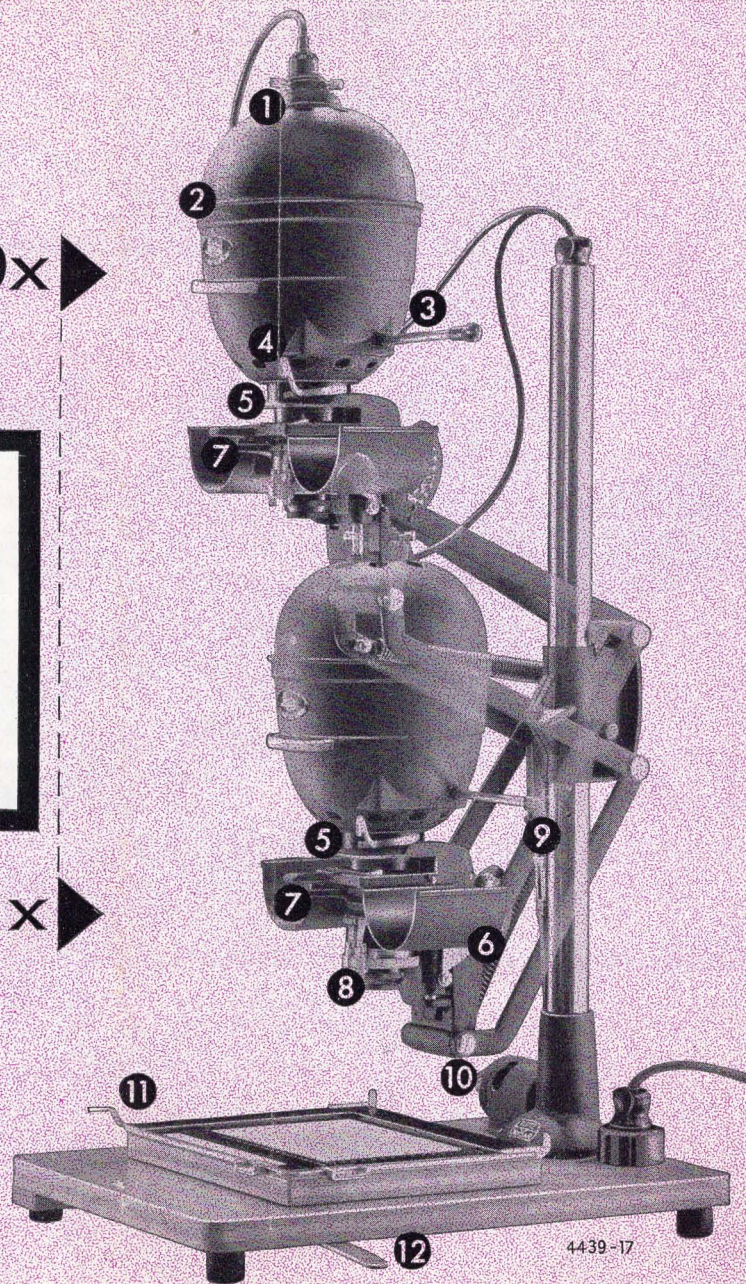
When supplied with this lens, the focusing mechanism leaves our works fully adjusted.

1 Centering fitting, for 150 watt or 250 watt high power lamp.
2 Large, well ventilated lamp house.
3 Filter slide for colour enlargements. (I c Color)
4 In height adjustable condenser lens.
5 Film stage with removable film guide.
6 Focusing cam with focal length adjustment for automatic focusing. Scale at the side indicates ratio of enlargement.
7 Lever for single-hand operating of height adjustment.

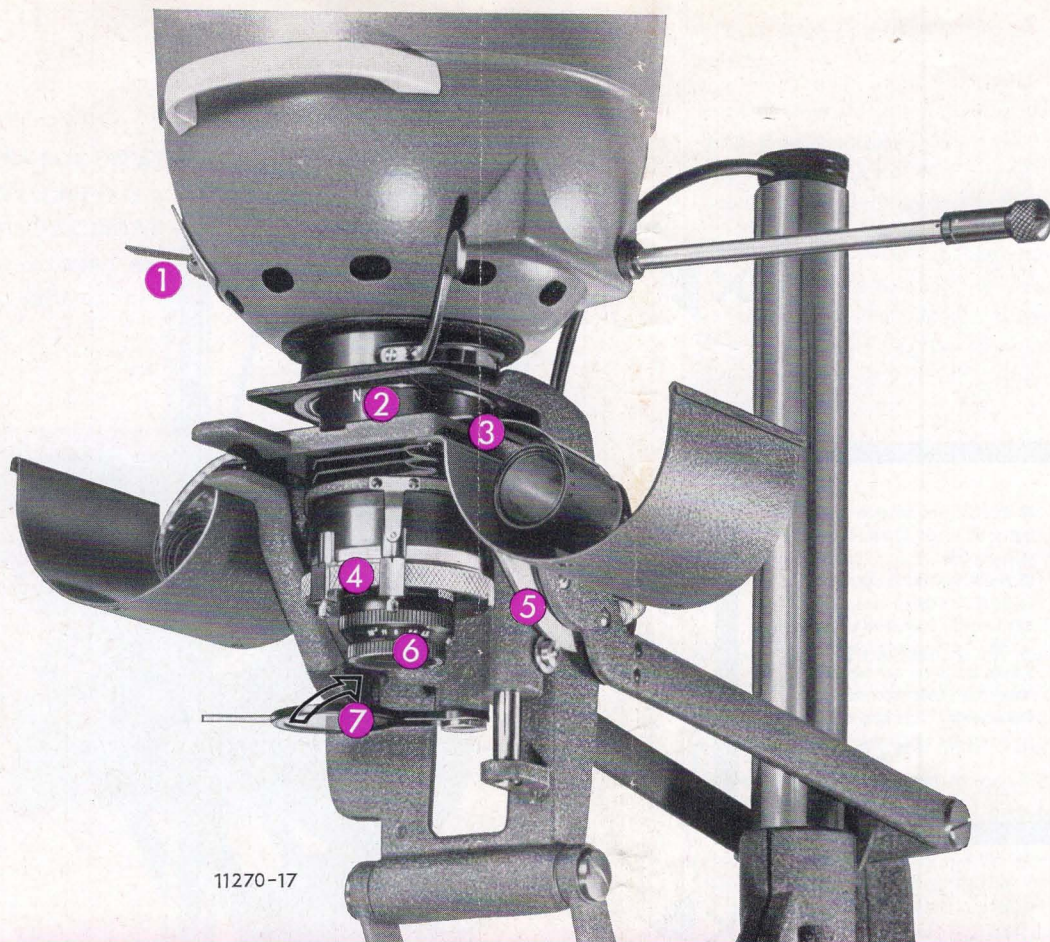
8 Threaded lens mount for 50 mm LEICA lens or the special 50 mm FOCOTAR enlarging lens.
9 Parallelogram arms controlling the height of the enlarger head.
10 Internally illuminated magnification indicator (on Focomat I c Color).
11 Masking board with adjustable masking strips and paper stops.
12 Lever to lock masking board in any position on the base board.

10x

2x



4439-17



11270-17

1 Filter slide for colour work.

2 The lower surface of the condenser lens holds the film absolutely flat; a lever at the side lifts the condenser for moving the film.

3 The ingeniously designed film stage of the FOCOMAT effectively prevents scratching of the film and speeds up work. The film can be inspected frame by frame. With numbered negatives the frame number is

projected through an orange film mask so that it does not record on the sensitive paper.

4 The lens is mounted in a smooth-working helical focusing movement, which carries two

spring catches on the outside rim. The right hand catch serves for accurate film focusing with the standard film mask, while the left hand catch controls the focusing adjustment with the single-negative holder.

5 The hardened focusing cam glides over a precision guide roller and guarantees maximum sharpness all the time.

6 Enlarging lens with click-stops: FOCOTAR 50 mm.

7 Swing-out orange filter for observation of the image after positioning the enlarging paper.

8 Lever to raise condenser lens.

9 Lamp house swung open, exposing the condenser lens for cleaning (A special ring 17652 can be fitted over the condenser lens to prevent the formation of Newton's rings).

10 Spring-loaded stop supporting the lamp house when open.

11 Compensating spring to per-

mit effortless adjustment of magnification.

12 Setting screw for focusing cam (adjusted at the factory, and of importance only in case readjustment should become necessary).

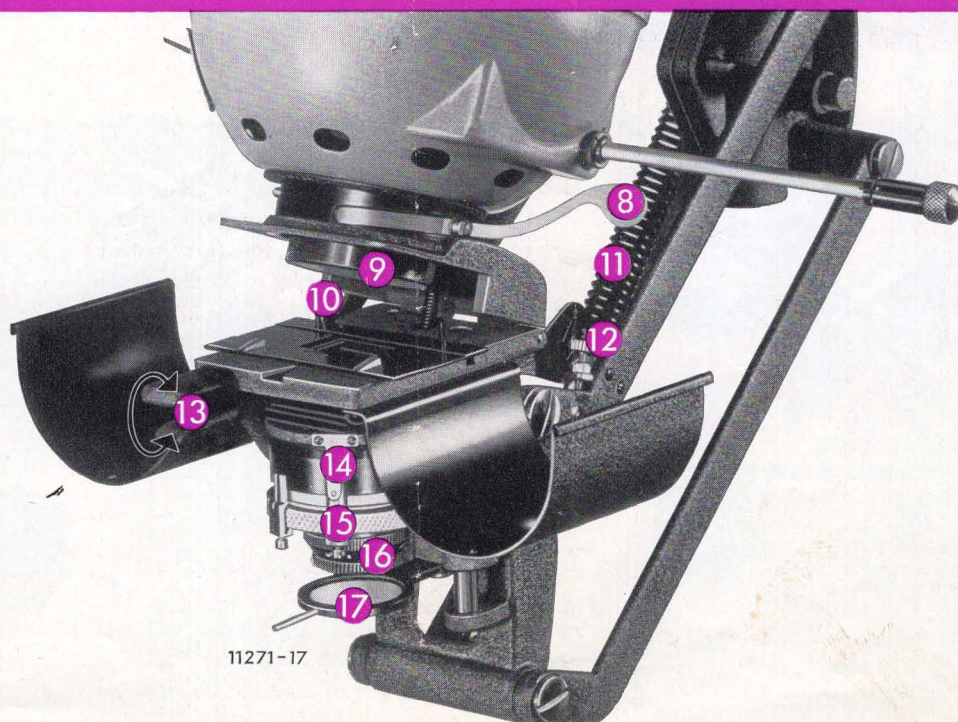
13 Lever for raising and lowering the enlarger head (Releasing the spring-loaded lever locks the head in any position).

14 Spring for setting the focusing ring.

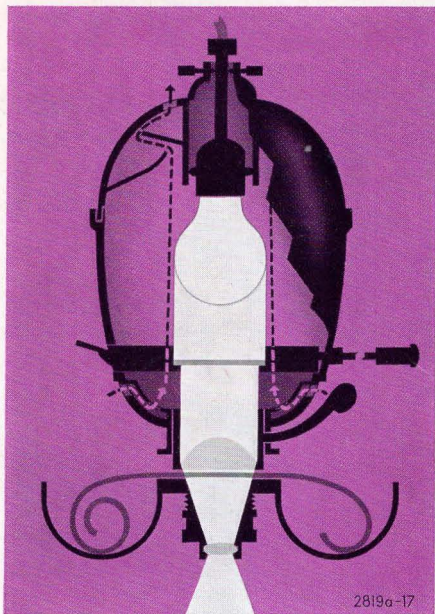
15 Spring catch of the helical focusing movement of the lens.

16 Click-stop aperture ring on lens.

17 Orange filter in position for observation of the image on the printing paper.



11271-17



The Lighting System

influences the character of the print. Condenser enlargers with a point source of light produce contrasty enlargements while completely diffused light yields soft prints. The FOCOMAT, with a semidiffused lighting system, produces well-graded and well-lit images permitting short exposures. At the same time, the illumination will suppress slight scratches on the back of the film. A centering device adjusts the position of the 150 W opal lamp. The condenser lens collects the light and evenly illuminates the whole area. The large lamp house and good ventilation ensure maximum lamp life.

For Colour Enlargements

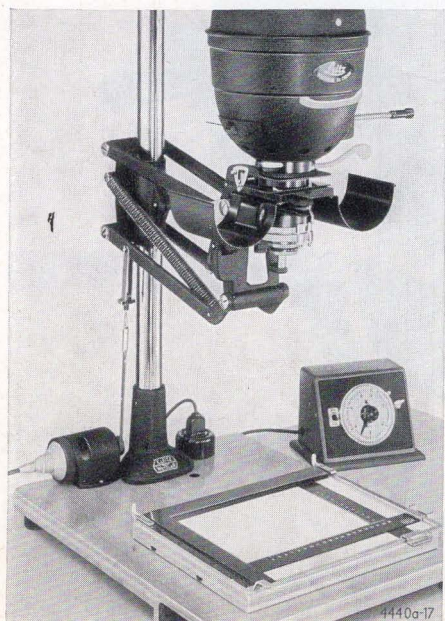
from Agfacolor negatives we supply the FOCOMAT I c COLOR. The lamp house of this model incorporates a filter slide to take the appropriate 7x7 cm Agfa printing filters.

For quantity colour enlargements, it is important to know the exact magnification ratio. The FOCOMAT I c COLOR therefore also has an internally illuminated magnification indicator mounted on the base board.

For colour work

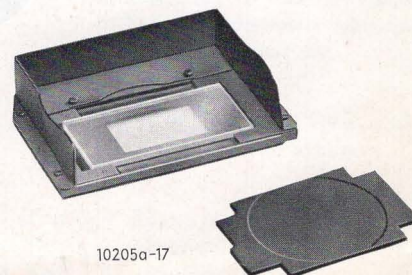
as well as for enlargements from specially dense negatives the FOCOMAT can be fitted with a 250 W high-efficiency enlarging lamp. As, however, such a lamp has a life time of only a few hours at full operating voltage, it is best used with a dimming control and voltmeter. An automatic timer can also be connected to a built-in socket. The lamp then runs at reduced voltage during adjustment of the enlarger and selection of the picture area; the timer automatically switches over to the full operating voltage during the exposure. This prolongs the life of the high-efficiency lamp many times.

For colour enlargements we recommend the use of a dimming control combined with a voltage stabilizer. Most models can be adjusted to an accuracy of $\pm 1\%$.



For Reproduction

of documents, periodicals, book pages etc., we supply a copying darkslide for a single exposure on a piece of 35 mm film or a 2x2 inches (5x5 cm) lantern plate.



The Tilting Device

for the FOCOMAT permits extensive correction of converging verticals on the negative.

Such converging verticals arise when the camera is not held perfectly level, but tilted, during exposure. This is often unavoidable in architectural and commercial photographs.

This distortion of the image can easily be eliminated during enlargement by an appropriate tilt of the negative, together with a tilt of the printing board in the opposite direction.

For this purpose a special tilting device can be supplied.

It consists of a universal tilting negative carrier which is inserted into the film stage of the enlarger head, and permits accurate determination of the negative tilt. To compensate for the loss of sharpness, the printing board must be tilted in the opposite direction; its dovetail guide underneath is therefore fitted to a base plate with a tilting joint. When the angles of the negative and printing board are correctly adjusted to each other, the whole image will be uniformly sharp.



Enlargement
without use
of tilting device



Single Negatives

are more conveniently held between two glass plates in the film stage. Single negative masks are available for this purpose (see illustration).

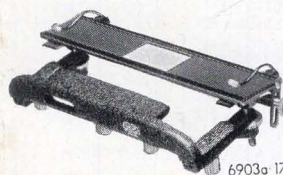


Diagram of correction of converging
verticals with the FOCOMAT I c



Enlargement of the same negative with tilting device

FOCOMAT I c equipment

FOCOMAT I c Automatic Focusing Enlarger

with 16x21 inches (40x52 cm) baseboard and with locking lever for printing board, switch, and line cord with plug.

Upright column 32" (80 cm) high, 1 1/8" (40 mm) diameter.

Lamphouse with 150 W, 110 V opcl lamp, hinged film stage, lever for height adjustment of enlarger head, raisable condenser lens, film stage with side wings and film guide for LEICA size negatives, threaded lens mount to take 50 mm LEICA lenses or special enlarging lens FOCOTAR f/4.5 50 mm.....

Coated FOCOTAR f/4.5 50 mm enlarging lens in special clickstop mount

Enlarging Easel (8x10-inch)

Orange filter

FOCOMAT I c complete

FOCOMAT I c enlarger as described under 17 601 but with large baseboard 22" x 25" (56x64 cm) and upright 48" (1.20 m)

FOCOMAT I c color enlarger, as described under 17 601, but with filter slide for special color filters 2 3/4" x 2 3/4" (70x70 mm) and with magnification indicator on baseboard

FOCOMAT I c color enlarger, as described under 17 602, but with large baseboard 22" x 25" (56x64 cm) and upright 48" (1.20 m)

Accessories

Enlarging Easel (8x10-inch) with two adjustable masks for the amateur darkroom

Enlarging Easel (12x16-inch)

Film guide masks for film strip in the sizes:

8x11 mm 17 514; 18x24 mm 17 516; 24x24 mm 17 521; 24x36 mm (spare)

17 526; 1 1/8" x 1 1/8" (3x4 cm) 17 531; 1 1/8" x 1 1/8" (4x4 cm) 17 536**

Masks for single negatives: 24x24 mm

24x36 mm

Double glass carrier 1 1/8 x 4 3/4 inches (3,5 x 12 cm) for above....

Masks for single negatives 1 1/8 x 1 1/8 inches (3x4 cm)

1 1/8 x 1 1/8 inches (4x4 cm)

Double glass carrier 2 x 6 3/8 inches (5x16 cm) for above

Specially treated glass pressure plate, in sliding mount for eliminating Newton rings

Auxiliary Condenser for directed light

Slip-on diaphragm ring with stop numbers at the side, to fit 50 mm screw-mounting LEICA ELMAR® f/3.5 lens

Bayonet Adapter to use the ELMAR-M lens (bayonet mounting)

Adapter to use lens unit of Dual-Range or Rigid-mount 50 mm Summicron lens

Perspective Corrector for correcting distortion, consisting of: film tilting device, film holder and tilting arm on base

Film and Plate Holder for single film frames and slides 2x2-inch (5x5 cm)

** The 1 1/8 x 1 1/8 inch (4x4 cm) masks cut off approximately 1/8 inch of the corners of the negative.

Cat. No.

17 601

17 581

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17 641

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Design subject to alterations without notice.

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