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ZEISS IKON

INSTRUCTIONS FOR THE USE OF IKON

INSTRUCTIONS FOR THE USE

ZEISS IKON

CONTINA Ia

24x36 mm

INSTRUCTIONS FOR THE USE

ZEISS IKON AG. STUTTGART

Operational Parts of the CONTINA Ia

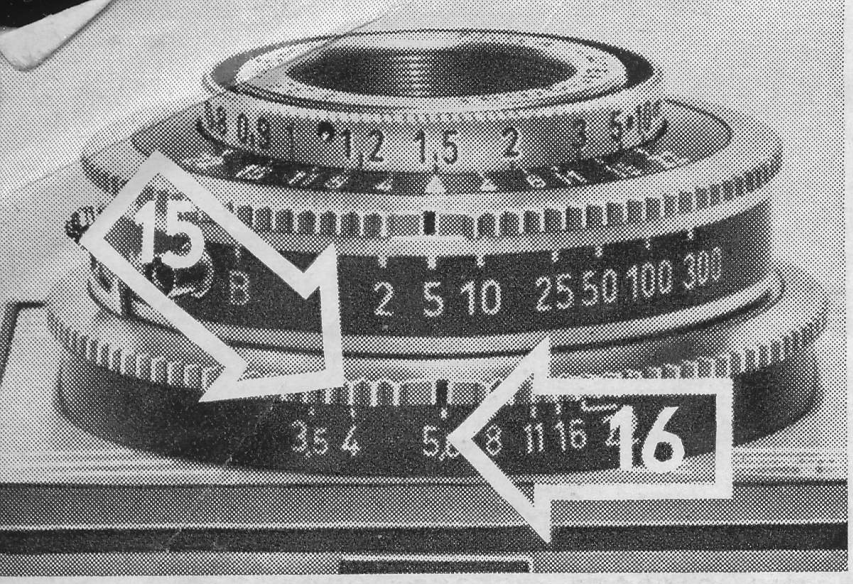
(See illustrations on the two inner cover pages)

1 Release knob
2 Frame counter
3 Rapid film-wind lever
4 Accessory shoe
5 Viewfinder
6 Rewind knob with film type indicator
7 Flashlight contact nipple
8 Synchro lever
9 Locking bar for the back of the camera
10 Distance setting ring
11 Distance setting mark
12 Depth-of-field scale
13 Shutter speed setting ring
14 Shutter speed scale
15 Diaphragm setting ring
16 Diaphragm scale in f/numbers
17 Tripod bush
18 Rewind locking knob

CONTINA Ia 24x36 mm

With its rapid film advance, its coupling between the film wind and shu tensioning and the clear lay-out of all setting scales the CONTINA Ia is very easy to operate. The highly efficient NOVAR anastigmat f : 3.5/45 mm lens gives pin-point sharp photographs on black and white and colour film.

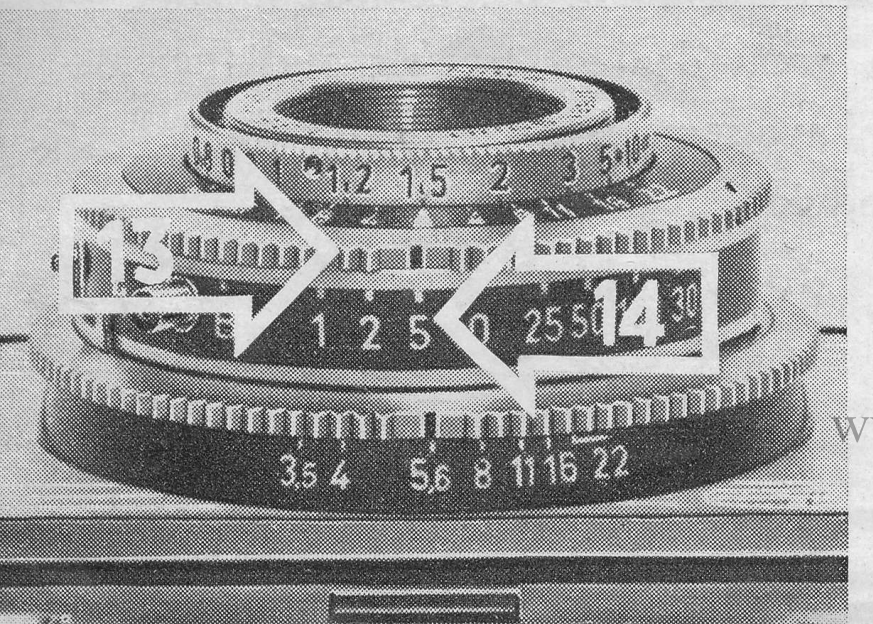
In order to make every CONTINA exposure a success right from the beginning, make yourself familiar with the operation of the camera before loading it with your first film. This will spare you a great deal of trouble and the CONTINA will never let you down. If you still have some doubts or difficulties, do not hesitate to ask your photo-dealer for advice.



Ill. 1

Setting the diaphragm

Turn the rear, chrome-plated milled ring (15) until its red mark is opposite the f/number (16) required (ill. 1). The higher the figure the smaller is the stop.



Setting the shutter speed

Turn the red mark on the milled front ring (13) to the desired shutter speed shown on the scale (14) (ill. 2.). The figures denote fractions of a second (e. g. "25" stands for $^1/_{25}$ second etc.). When set to "B", the shutter remains open as long as the

Ill. 2

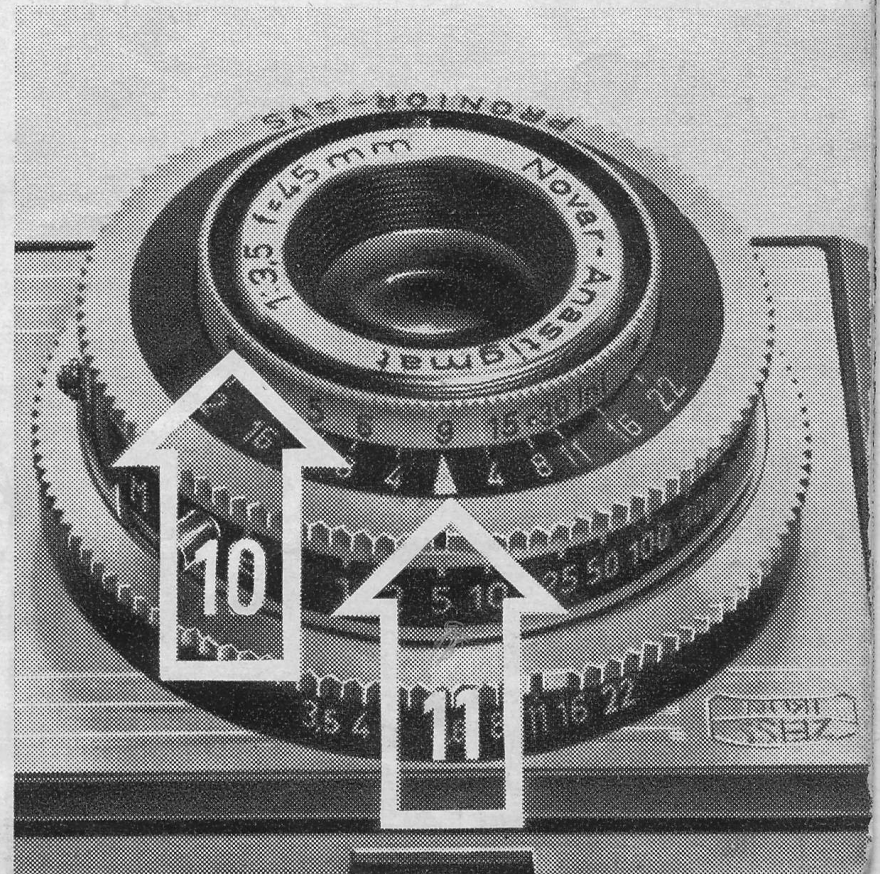
release knob is pressed down. It does not matter whether the shutter speed setting is carried out before or after tensioning the shutter by means of the rapid film wind lever (3) (see page 12).

Setting the distance

Turn the setting ring bearing the distance scale (10) until the setting mark (11) is opposite the distance (in feet) required (ill. 3).

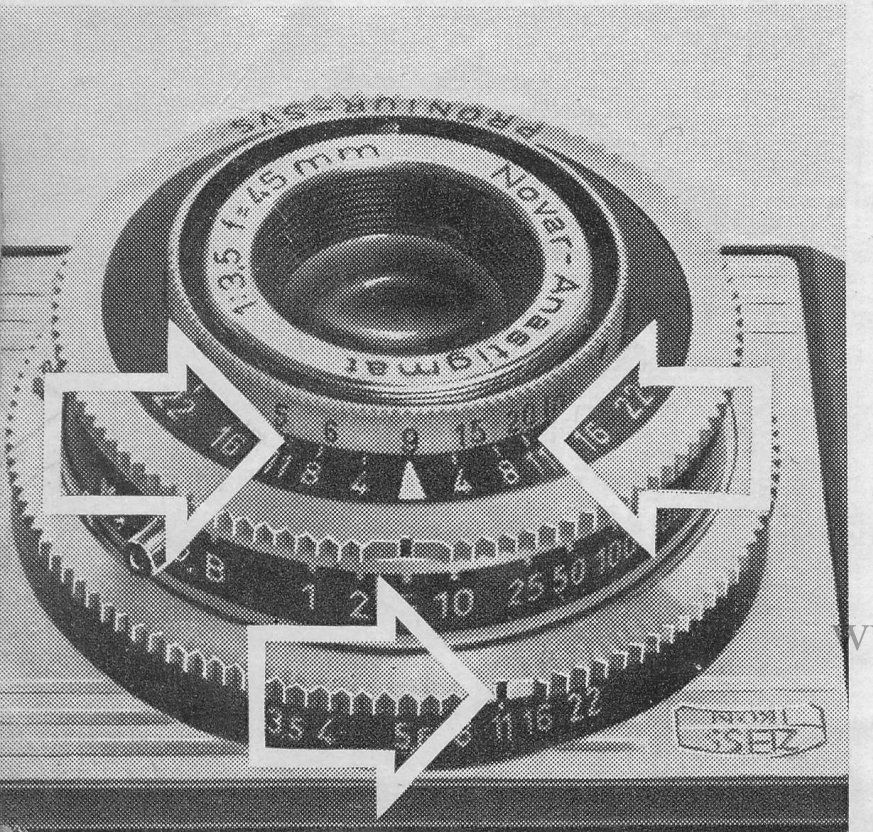
Depth-of-field scale

Every lens focused for a definite distance gives sharp pictures of objects only in a limited space before or beyond the distance for which it is focused. The zone of sharp



Ill. 3

definition becomes deeper the more the lens is stopped down. This so-called depth of field for any lens aperture and distance can be read off from the depth-of-field scale (12). The zone of sharp definition can be read off from the distance scale by means of the diaphragm figures on the right and left side of the distance setting mark (11). In illustration 4, for instance, the distance is set to 9 feet. Then the depth-of-field scale indicates that the depth of field extends from 5 feet in the foreground to 30 feet in the background at a stop of f : 11. The exact depth-of-field values can be found in the table on page 7.

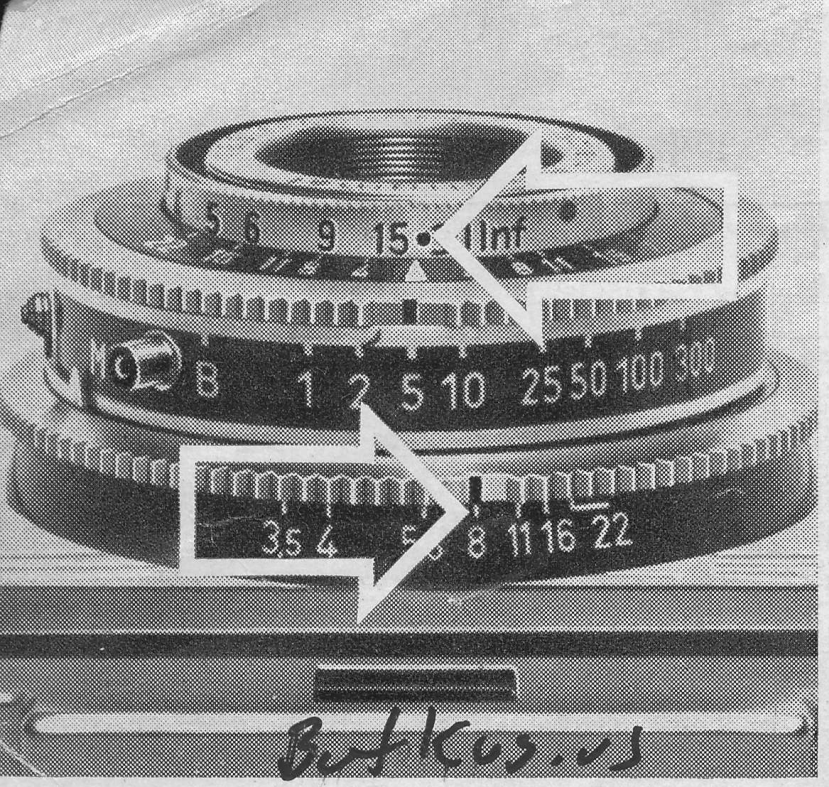


Ill. 4

Depth-of-field table

Distance	DIAPHRAGM 3·5	4	5·6	8	11	16	22
∞	38′1″ - ∞	33′2″ - ∞	23′10″- ∞	16′9″ - ∞	12′3″ - ∞	8′4″ - ∞	6′2″- ∞
30′	16′11″-137′6″	15′11″-281′	13′5″ - ∞	10′10″- ∞	8′9″ - ∞	6′8″ - ∞	5′2″- ∞
15′	10′10″- 24′4″	10′5″ -26′9″	9′4″ -39′2″	8′ -129′6″	6′10″- ∞	5′6″ - ∞	4′6″- ∞
9′	7′3″ - 11′9″	7′1″ -12′3″	6′6″ -14′4″	5′10″-18′10″	5′2″ -32′8″	4′4″ -63′2″	3′4″- ∞
6′	5′3″ - 7′1″	5′2″ - 7′2″	4′10″- 7′10″	4′6″ - 9′1″	4′2″ -11′3″	3′8″ -18′10″	3′2″-100′7″
5′	4′6″ - 5′8″	4′5″ - 5′10″	4′2″ - 6′2″	3′11″- 6′11″	3′8″ - 8′1″	3′3″ -11′4″	2′11″-22′1″
4′	3′8″ - 4′5″	3′7″ - 4′6″	3′6″ - 4′9″	3′3″ - 5′1″	3′1″ - 5′8″	2′10″- 7′1″	2′8″- 10′1″
3′	2′10″- 3′3″	2′9″ - 3′3″	2′8″ - 3′4″	2′7″ - 3′7″	2′6″ - 3′10″	2′4″ - 4′4″	2′1″- 5′4″

The smaller the stop, the longer must be the exposure time. It is, therefore, advisable to stop down the lens only so far as to obtain the depth of field required. With a larger stop, faster shutter speeds can be used and thus camera shake prevented.



Ill. 5

Red-dot setting

In order not to lose time over distance and diaphragm settings when rapid snapshots must be taken, the red-dot setting should be used. The distance should be set to the red dot and the diaphragm, to the red figure 8 (ill. 5), whereupon all objects from 8 feet to (infinity) will be sharp. The exposure time depends on the lighting conditions and the film speed and is normally $^1/_{25}$ to $^1/_{100}$ second.

The correct exposure time

can be ascertained from exposure tables or, more reliably, with the aid of a photo-electric exposure meter, e.g. the ZEISS IKON IKOPHOT shown on page 25.

The exposure time depends on the lighting conditions, the speed of the film, the diaphragm setting and the use of filters and their filter factors (see page 21).

As a general rule it is:

for outdoor pictures
in bright sunshine
for film speed 40 ASA (27°BSI)
stop f:8
1/100 second

for outdoor pictures
under overcast sky
for film speed 40 ASA (27°BSI)
stop f:5.6
1/50 second

12-4
Kodacrome
8 — 60

after 4
60
5.6

Holding the camera

The CONTINA should be held firmly during the exposure. The body of the camera nestles safely in both hands (ill. 6) with the right index finger resting on the body shutter release (1). The elbows should be pressed slightly against the body. It does not matter whether the right or the left eye is used to look through the viewfinder (5).

In this way horizontal pictures will be taken. To take vertical pictures, the camera is rotated through 90° (ill. 7). The left hand holds the CONTINA from above while the right hand serves as a support for the camera. In this case the thumb of

Ill. 6

the right hand operates the body shutter release (1).

Exposures with the hand-held camera should be made only when the shutter speed is set to between 1/300 and 1/25 second (at the outside). For longer shutter speeds or when the self-timer is used the CONTINA should be rested on a firm support or screwed to a tripod by means of the tripod bush (17). For vertical pictures, a ball and socket head must be interpolated between the camera and the tripod. All exposures longer than 1/25 second should, as a matter of principle, be made with a cable release which can be screwed into the thread of the release knob (1). This is the best way of preventing camera shake.

Ill. 8

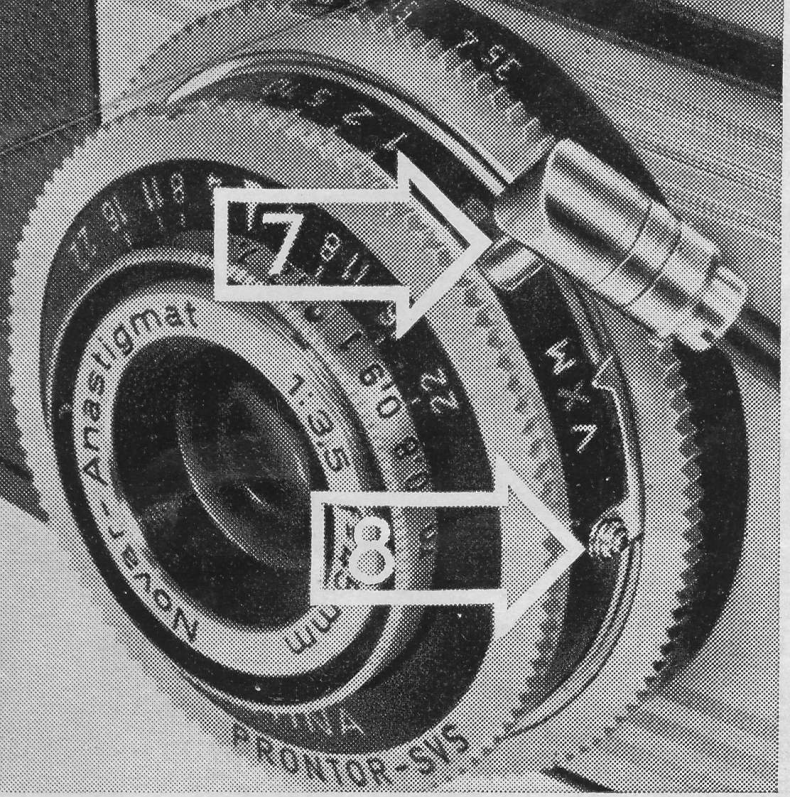
Shutter release and film advance

The shutter is released by gently pressing the release knob (1) either with the tip or the first joint of the index finger (ill. 8). After every exposure, the shutter must be re-cocked by operating the rapid wind lever (3). Holding the camera in the taking position, the rapid wind lever should be pushed round with a swift movement of the right thumb as far as it will go (ill. 9). This advances the film by one frame and the frame counter (2) — which indicates the number of negatives exposed — moves on to the next number, tensioning the shutter at the same time. The rapid wind lever (3)

snaps automatically back to its rest position and the CONTINA is ready for the next shot.

As the shutter can be released only after being tensioned by operating the rapid wind lever (3), which, on the other hand, cannot be moved until the shutter has been released by depressing the release knob (1) double exposures and blanks are prevented. However, attention should be paid to the fact that the shutter will not be tensioned properly and the film cannot advance sufficiently if the rapid wind lever (3) is not pressed home until it stops. The shutter can remain in a tensioned condition without any risk of damage.

Ill. 9



Ill. 10

Flashlight and self-timer

The speed-synchronized Prontor-SVS shutter can be coupled to flashguns of every type. Moreover, it has a built-in self-timer (delayed action release). The Prontor-SVS shutter permits three different settings of the synchro-lever (8) (ill. 10):

With the "X"-setting, the shutter fires the flash automatically the moment the shutter blades are fully open. With this setting, flashbulbs and flash-capsules can be fired with shutter speeds of $^1/_{25}$ second and longer. Electronic flashes must always be fired with the "X"-setting down to the shortest shutter speeds.

With the "M"-setting, there is a delay to peak which corresponds to that of

most flashbulbs. When set to "M" the fastest shutter speeds can be used to fire a flashbulb of the "M" classification.

With the "V"-setting, the delayed action release or self-timer is set in operation. After depressing the release knob (1), a retarding movement is set in motion which releases the shutter after about 8 seconds. Time exposures ("B") cannot be made with the self-timer. If, by mistake, a flashbulb is fired with the "V"-setting, it will act as though the shutter were set to "X".

The synchro-lever (8) can be adjusted either with cocked or uncocked shutter. For flashlight exposures, diaphragm and distance should be set in the usual way and the flash lead from the flashgun connected to the flash contact nipple (7). Only then insert a flashbulb into the socket of the flashgun. When the shutter is released by depressing the release knob (1), the flashbulb will be fired in synchronisation with the shutter. For further particulars read the instructions for the use of the various flashguns and flashbulbs. The correct exposure times for the "X", "M" and "V"-setting can be found in the table on page 16.

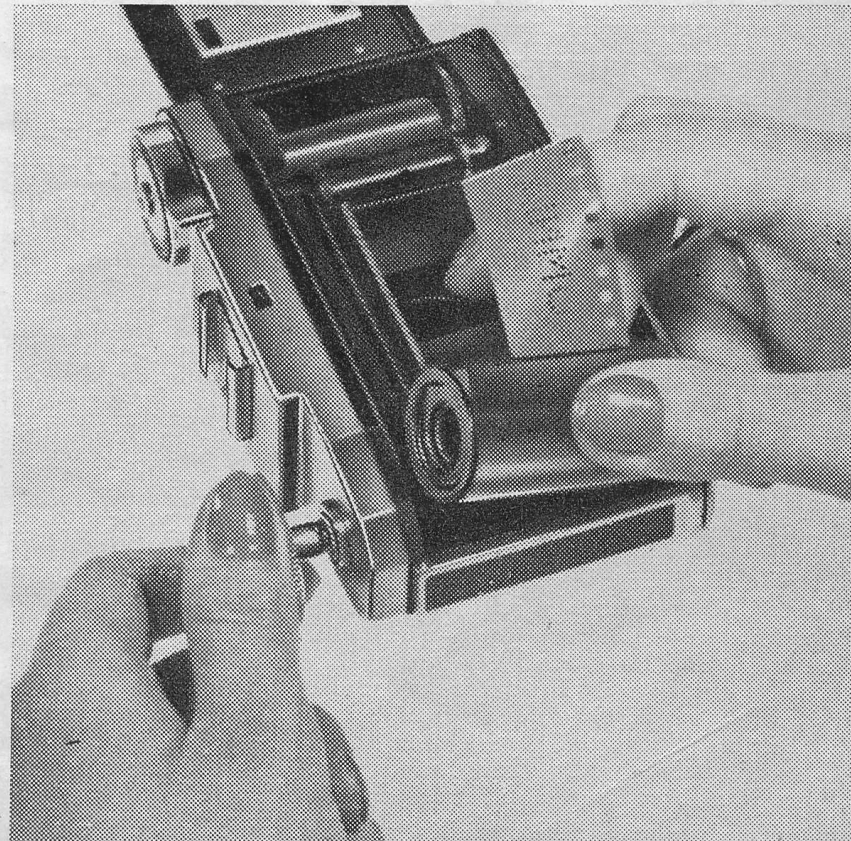
Table of Exposure Times for Flashbulbs and Electronic flash units

Type of flashbulb	Synchro-lever set to X and V	Synchro-lever set to M	Type of flashbulb	Synchro-lever set to X and V	Synchro-lever set to M
Osram Vacublitz			Gen. Electric Westinghouse		
XP, XO	1—1/50	—	Nr. 31	1—1/10	1/25
F1, F2	1—1/25	—	Nr. 50	1—1/10	1/25—1/50
S0, S1	1—1/25	1/50—1/500			
S2	1—1/10	1/50—1/500	Sylvania Superflash, Wabash		
Philips Photoflux			SF	1—1/100	—
Pf 3	1—1/25	1/50—1/100	Nr. 0, 2 / Press 25 / Press 40	1—1/25	1/50—1/500
Pf 14, Pf 25 / Pf 45, Pf 56	1—1/25	1/50—1/500	Nr. 3	1—1/10	1/25—1/50
Pf 24, Pf 100	1—1/10	1/25—1/50			
Gen. Electric Westinghouse			Electronic flash units	1—1/500	—
SM	1—1/50	—			
Nr. 5, 6, 11, 22	1—1/25	1/50—1/500			

Loading the camera

The CONTINA Ia can be loaded with all commercial cartridges containing 24 x 36 mm black and white or colour film for 36 or 20 exposures. Loading should never be done in bright sunlight.

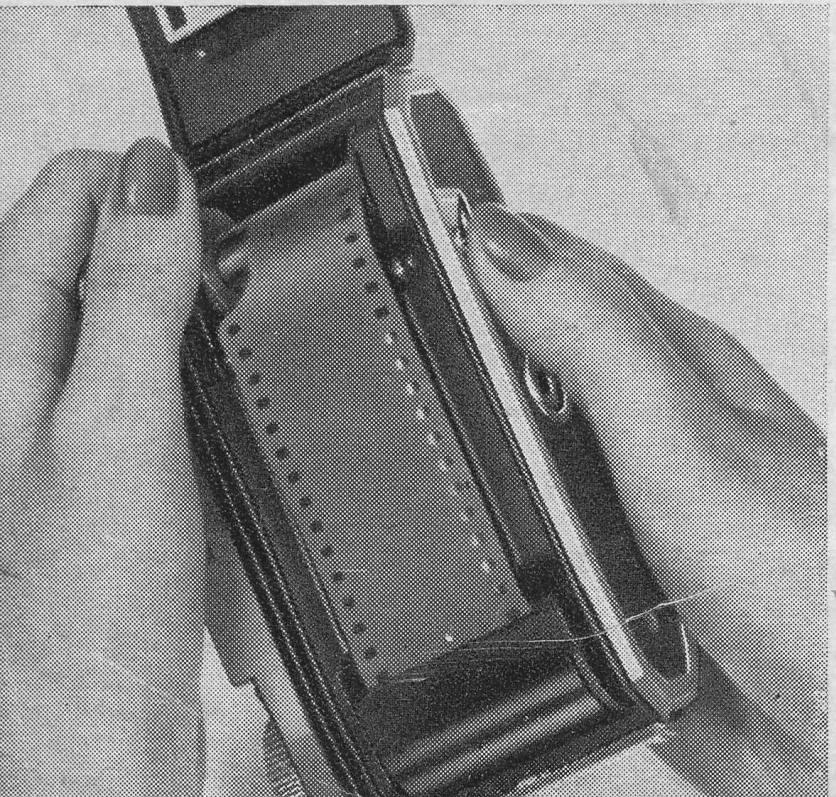
When the locking bar (9) has been pulled back the back of the camera can be opened. Pull out the rewind knob (6) and insert the film cartridge into the empty spool chamber in such a way that the beginning of the film points towards the take-up spool. Then push back the rewind knob so that its prong engages correctly with the opening in the film cartridge (ill. 11).



Ill. 11

Turn the take-up spool by means of the milled flanges until the slit with its small lug points upwards. Hook the film to this lug. Wind the film on to the take-up spool until the sprockets on both sides engage in the perforation (ill. 12), and simultaneously depress the locking knob (18). Now close the camera. Tension the shutter and advance the film twice (by means of lever (3)) and release the shutter twice. This will advance the unexposed film to the film gate. Set the frame counter (2) to "0" by turning the black ring in the direction of the arrow.

The CONTINA is now ready for the first shot.



Ill. 12

Film-type disc

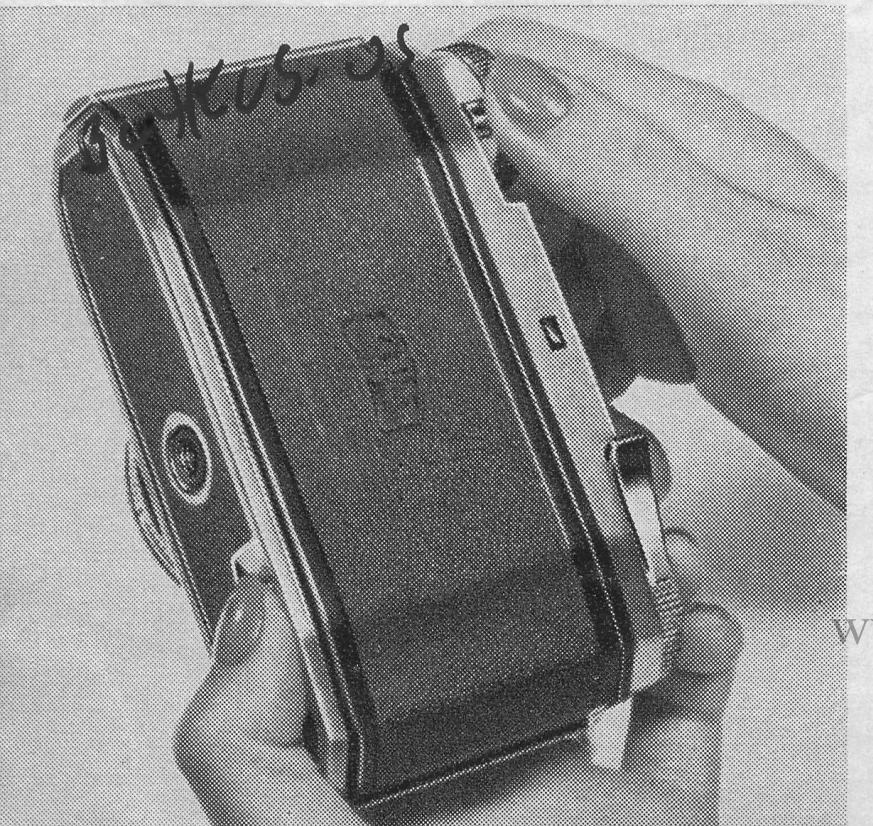
On the rewind knob (6) there has been fitted a film-type disc, which by means of its three small knobs can be set to the type of film in use (black and white film, colour film for daylight and artificial light) and to the corresponding film speed (ill. 13), so that the user always knows which type of film he has loaded.

To make sure whether the camera is loaded or not, turn the rewind knob (6) in the direction of the arrow. When the camera is loaded a slight resistance will be felt after a short turn.

Ill. 13

Unloading the camera

Before the camera is opened, the exposed film must be rewound into its cartridge. Depress the locking knob (18) and at the same time turn the rewind knob (6) in the direction of the arrow (ill. 14). After some time a slight resistance will indicate that the film has parted from the take-up spool. Then open the back of the camera, pull out the rewind knob (6) completely and remove the cartridge containing the exposed film. Any film particles which may break off when the end of the film is torn off must be removed from the camera immediately.



Ill. 14

ACCESSORIES

Ever-ready case

The elegant ever-ready case protects your CONTINA from dust, rain and damage. The camera is fixed to the case by means of a screw fitting into the tripod bush (17) and need not be removed from the case for exposures.

ZEISS IKON precision filters

In order to improve the tone values in black and white photos ZEISS IKON precision filters can be screwed into the lens mount (27 mm ⌀). Yellow, yellow-green, orange, red and ultra-violet precision filters are available. For exposures by artificial light on daylight colour film, an IKOLOR (blue) Filter is also available. When filters are used the exposure time has to be extended in accordance with the filter factor engraved on the mount of every filter.

Polarising filter (ZEISS BERNOTAR)

To reduce or eliminate reflections in highly polished, nonmetallic surfaces and to darken blue skies, the polarising filter ZEISS BERNOTAR can be slipped on the lens (32 mm ⌀).

Supplementary lenses for close-ups (ZEISS PROXAR)

If photographs at short range are to be taken with the CONTINA Ia, coated ZEISS PROXAR lenses should be slipped on to the lens (28.5 mm ⌀). They are available in four different types. The correct focusing of the lens and the corresponding distance can be found in the table on page 23. The distance between object and camera is measured from the front rim of the supplementary lens mount. Sufficient depth of field should be secured by stopping down to at least f:8. The resulting finder-parallax, particularly when PROXAR lenses of the shortest focal length are used, can be compensated for by a corresponding movement of either the camera or the object.

Table of Distances
when using ZEISS PROXAR lenses for close-ups

Lens focused at	∞	30′	15′	9′	6′	5′	4′	3′	PROXAR-lens
Distance of object from camera	3′3 1/4″	3′2 3/4″	2′8 1/4″	2′4 1/2″	2′1″	1′11 1/4″	1′9″	1′6″	f = 1 m
Distance of object from camera	1′7 1/2″	1′6 1/2″	1′5 1/2″	1′4 1/2″	1′3 1/4″	1′2 1/2″	1′1 1/2″	1′1/4″	f = 0,5 m
Distance of object from camera	1′1 5/16″	1′3/4″	1′9/32″	11 3/4″	11 1/8″	10 3/4″	10 1/4″	9 1/2″	f = 0,3 m
Distance of object from camera	7 1/8″	7 23/32″	7 9/16″	7 11/32″	7 3/32″	6 15/16″	6 23/32″	6 3/8″	f = 0,2 m

Lens hood

The lens hood or sun shade prevent irradiation and fog in pictures against the light. A lens hood is just as useful with a coated lens as with an uncoated one; it protects the lens from rain and snow and is a necessity for colour photographs. The ZEISS IKON lens hood can be slipped over ZEISS IKON filters and ZEISS PROXAR lenses (28.5 mm ⌀). When not in use, it can be carried in a practical leather case.

Cable release

For long instantaneous and time exposures from a tripod a cable release should be used (see page 11). It can be screwed into the release knob (1). The ZEISS IKON cable release has a special time lock (for shutter setting "B").

IKOPHOT exposure meter

Guessing the exposure time may lead to serious mistakes. The photo-electric exposure meter ZEISS IKON IKOPHOT indicates immediately and without any calculations the correct exposure time for all lighting conditions even when filters are used. This is of special value when taking colour shots, as accurate exposure is essential for good colour pictures. Ask your photographic dealer for our special leaflet about the IKOPHOT.

IKOBLITZ

The capacitor flashguns IKOBLITZ O and IKOBLITZ III can easily be fixed to the CONTINA. For connecting the flash lead to the flash contact nipple (7) the ZEISS IKON angle plug (see ill. 10) should be used, as it prevents the lead from interfering with the field of view.

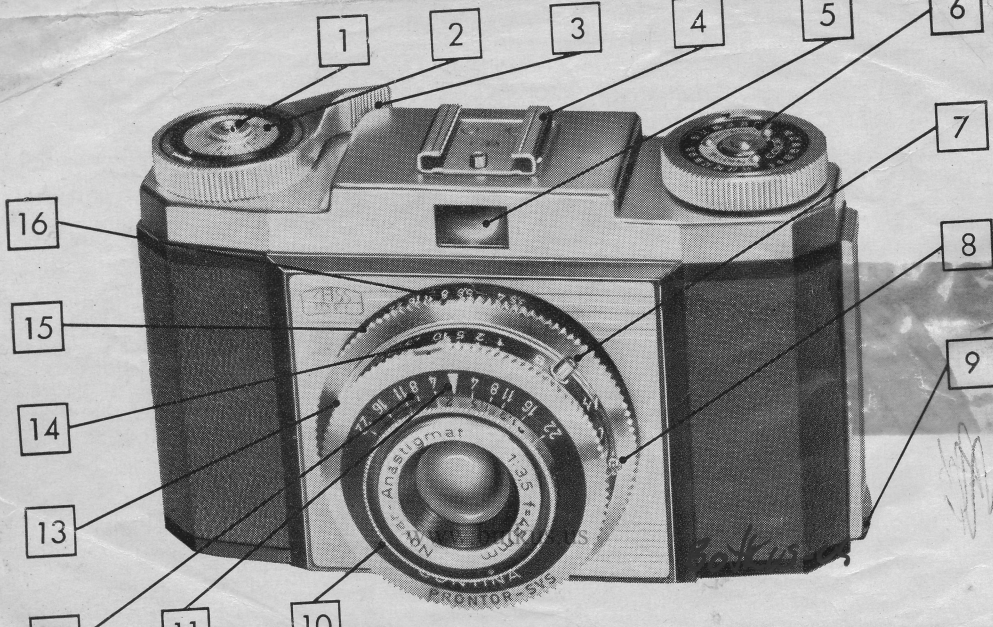
MOVILUM lighting equipment

The universal MOVILUM lighting equipment provides artificial light of any intensity, as it can be fitted with 2, 4 or even 6 reflectors.

Maintenance of the camera

The film cartridge chambers and the film track should be cleaned from time to time with o soft brush. The lens, however, should be cleaned only when absolutely necessary. First remove any dust with a soft brush, then clean the surface of the lens with lens tissue or a frequently washed piece of linen.

There is an inexhaustible number of subjects suitable for your elegant CONTINA. The photo on the left was taken in the morning sun at f : 4.5 and 1/100 second; the one on the right with bright sunlight also at f : 8 and 1/100 second.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PRONTOR-SVS


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ZEISS IKON
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9

Serial number

Every CONTINA has a serial number engraved on its back. It is recommended that a record should be kept of this number, which may be of valuable aid in establishing ownership in case of loss or theft.

Further technical developments may involve slight changes in the design and operation of the camera with these instructions.

ZEISS IKON AG. STUTTGART

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