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I N S T R U C T I O N S F O R U S E



I N S T R U C T I O N S F O R U S E

ZEISS IKON

CONTINA IIa

35 mm

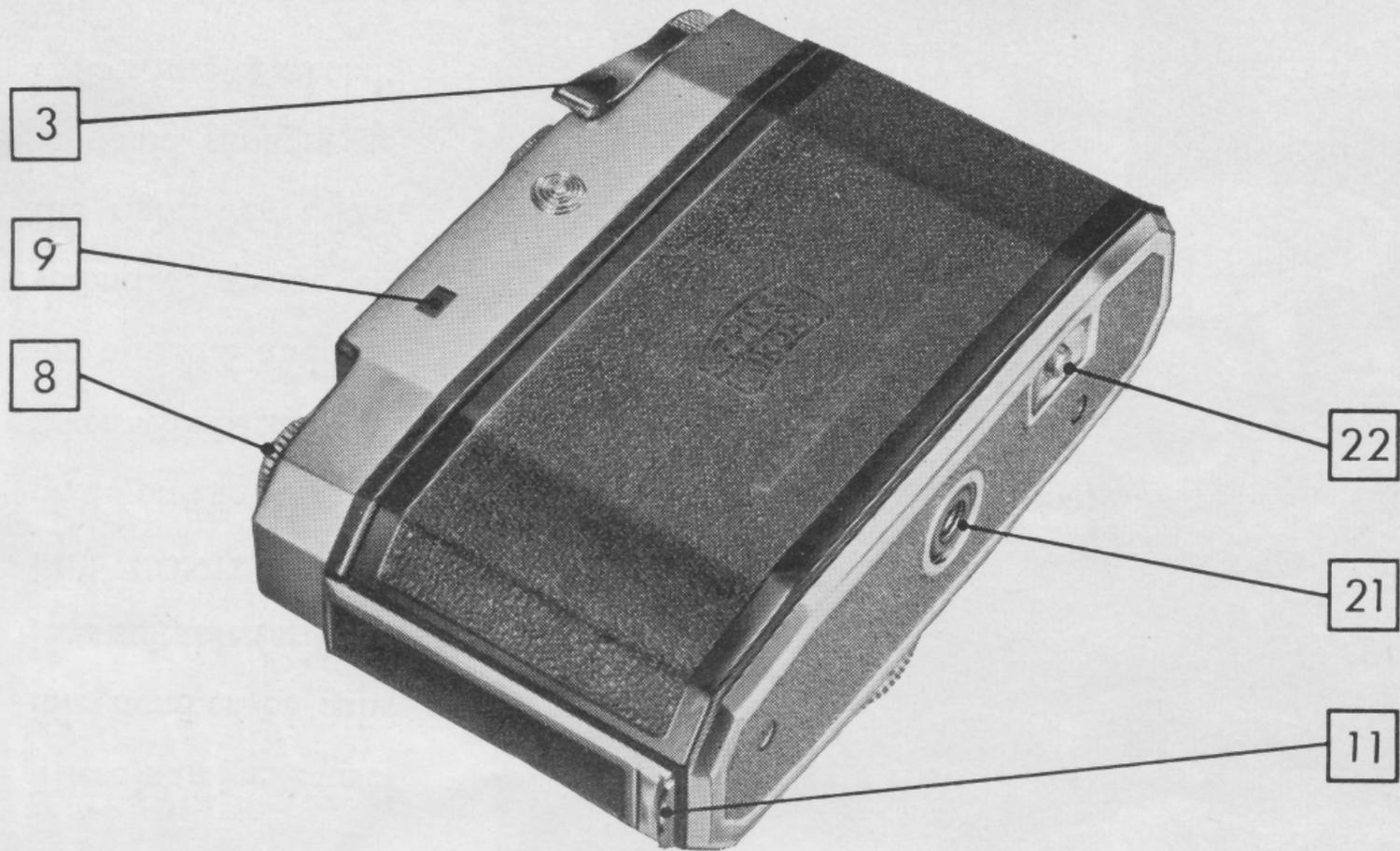
I N S T R U C T I O N S F O R U S E

Z E I S S I K O N A G . S T U T T G A R T

Operational Parts of the CONTINA IIa

(See illustrations on the two inner cover pages)

- | | |
|-----------------------------------|--|
| 1 Release knob | 13 Distance setting ring |
| 2 Frame counter | 14 Distance setting mark |
| 3 Rapid wind lever | 15 Depth-of-field scale |
| 4 Setting mark for exposure meter | 16 Shutter speed setting ring |
| 5 Knob for setting film speed | 17 Shutter speed scale |
| 6 Pointer of exposure meter | 18 Diaphragm setting ring |
| 7 Accessory shoe | 19 Diaphragm scale in f/numbers |
| 8 Rewind knob | 20 Knob for opening the flap of the exposure meter |
| 9 Viewfinder | 21 Tripod bush |
| 10 Flashlight contact nipple | 22 Locking knob for film rewind |
| 11 Locking bar for camera back | |
| 12 Synchro lever | |



CONTINA IIa 35 mm

Owing to its rapid film wind, the coupling between the film wind and shutter tensioning and the clear lay-out of all operational scales the CONTINA IIa is very easy to operate. The highly efficient NOVAR anastigmat $f: 3.5/45$ mm or the NOVICAR anastigmat $f: 2.8/45$ mm lenses give needle-sharp photographs on black and white and colour films. The built-in photo-electric exposure meter can be relied upon to indicate the correct exposure time, even under difficult lighting conditions.

In order to make every CONTINA exposure a success right from the beginning, it would be to your benefit to study this booklet with the utmost care. This will enable you to utilize the obvious advantages of your CONTINA to the full. If you still have some doubts or difficulties, do not hesitate to ask your photo-dealer for advice.

Measuring the exposure time

The dependable built-in exposure meter indicates the correct exposure time and stop for black and white and colour film, for negative as well as for reversal film. First the speed of the film to be used must be set. Turn the inner disc by means of the small knob (5) until the relevant speed value appears opposite the black mark of the DIN or ASA window. The disc can also be set to intermediate speeds (ill. 1).

If the film manufacturer has rated the film speeds in other than DIN or ASA ratings, the corresponding values can be found in the table on page 5.

The speed of colour reversal film cannot be determined so easily. For reversal colour film the exposure depends on the brightness of the brightest highlight that the photographer wishes to record and not on the depth of the deepest shadow. For this reason the film manufacturers cover the speed ratings of their reversal colour films with expressions like: ". . . to be exposed like film of xx ASA". In general, these indications are reasonably reliable and give good results. For this reason colour negative films can be used with the speed value printed on the box. If you want to make absolutely sure, make a few test exposures with different exposure times on the colour film you intend to use.

Table showing the approximate equivalence of the various speed rating systems.

ASA Exp. ind.	Scheiner Europe	Scheiner USA	Weston	DIN in 1/10°
6	21	14	5	10
8	22	15	6	11
10	23	16	8	12
12	24	17	10	13
16	25	18	12	14
20	26	19	16	15
25	27	20	20	16
32	28	21	24	17
40	29	22	32	18
50	30	23	40	19
64	31	24	50	20
80	32	25	64	21
100	33	26	80	22
125	34	27	100	23
160	35	28	125	24
200	36	29	160	25
250	37	30	200	26
320	38	31	250	27

For measuring the exposure time, the CONTINA IIa should be aimed at the subject in the way you actually want to take it. When the light is good, the white pointer on the indicator scale (6) deflects immediately. However, when the light is poor, the flap of the exposure meter must be opened first with a slight pressure on the knob (20). Now the setting ring with the black triangle mark (4) is turned to the figure engraved in green or black on the scale indicated by the pointer (6). When doing this, the following rule must be observed:

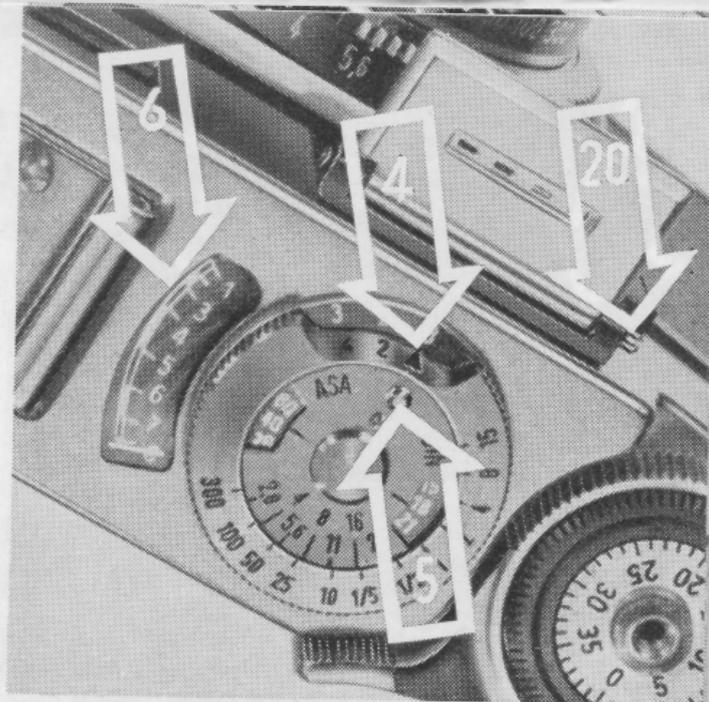
Closed flap — green mark visible on the flap — set triangle mark to **green** figures.

Open flap — no mark visible on the flap — set triangle mark to **black** figures.

After setting the triangle mark, the correct exposure time (outer ring) can be read off for every stop (inner ring) and vice versa. The shutter speeds to the left of $\frac{1}{5}$ stand for fractions of a second (thus 10 means $\frac{1}{10}$ second).

The red figures to the right of $1/2$ stand for full seconds. As described in the following pages, the values found must then be transferred to the diaphragm and the shutter of the CONTINA II a.

When filters are used (see page 23), the red or green figures on the exposure scale corresponding to the reading of the pointer (6) should not be aligned opposite the black triangle, but opposite the relevant filter factors (red figures beside the triangle mark). You are then able to read off the stop and exposure time without having to convert figures by means of the filter factor.

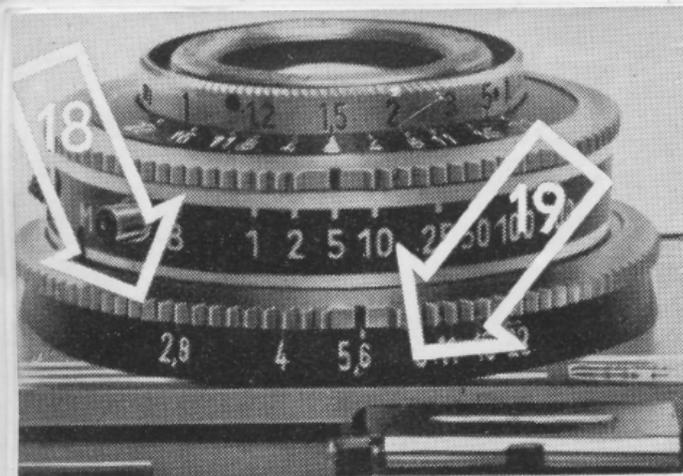


III. 1

Ill. 2

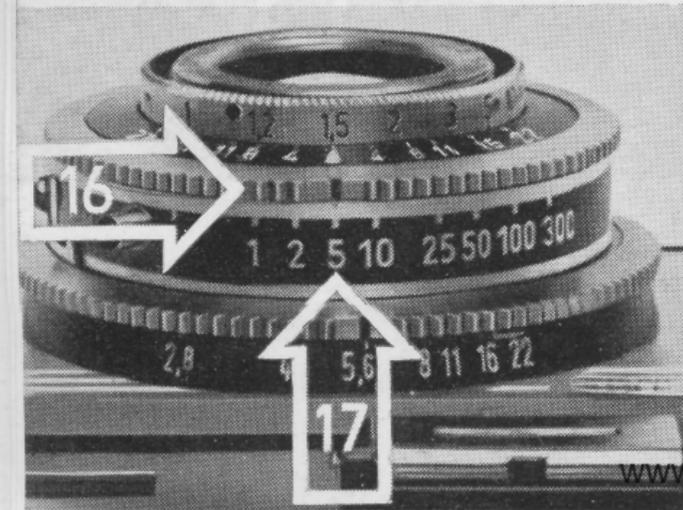
Setting the diaphragm

Turn the rear chrome-plated milled ring (18) until its red mark is opposite the f/number (19) required (ill. 2). The higher the figure the smaller the stop.



Setting the exposure time (shutter speed)

Turn the red mark on the milled front ring (16) to the desired shutter speed shown on the scale (17) (ill. 3). The figures denote fractions of a second



Ill. 3

("25" stands for $\frac{1}{25}$ second etc.). When set to "B", the shutter remains open as long as the release knob is depressed. It does not matter whether the shutter speed setting is carried out before or after tensioning the shutter by means of the rapid wind lever (3) (see page 18).

Setting the distance

Turn the setting ring bearing the distance scale (13) until the setting mark (14) is opposite the distance (in feet or metres) required (ill. 4).

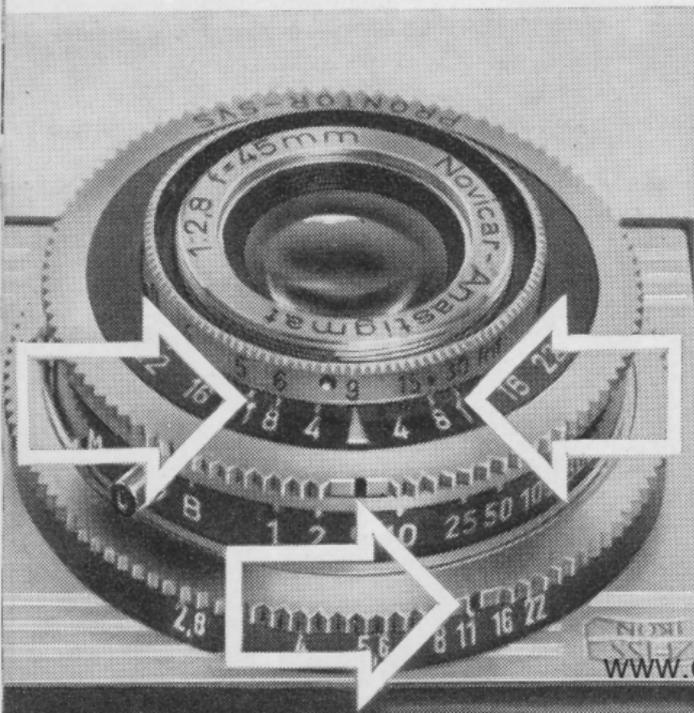
For technical reasons, the underside of this setting ring of the CONTINA with NOVICAR lens bears another scale which is of no importance in the operation of the CONTINA.



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. This zone of sharp 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 (15). 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 (14). In illustration 5, 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 11.



Ill. 5

Depth-of-field table

Dis- tance	D I A P H R A G M						
	2-8	3-5/4	5-6	8	11	16	22
∞	47'8" - ∞	38'1" - ∞	23'10" - ∞	16'9" - ∞	12'3" - ∞	8'4" - ∞	6'2" - ∞
30'	18'6" - 80'	16'11" - 137'6"	13'5" - ∞	10'10" - ∞	8'9" - ∞	6'8" - ∞	5'2" - ∞
15'	11'6" - 21'8"	10'10" - 24'4"	9'4" - 39'2"	8' - 129'6"	6'10" - ∞	5'6" - ∞	4'6" - ∞
9'	7'7" - 11'1"	7'3" - 11'9"	6'6" - 14'4"	5'10" - 18'10"	5'2" - 32'8"	4'4" - 63'2"	3'4" - ∞
6'	5'4" - 6'9"	5'3" - 7'1"	4'10" - 7'10"	4'6" - 9'1"	4'2" - 11'3"	3'8" - 18'10"	3'2" - 100'7"
5'	4'7" - 5'6"	4'6" - 5'8"	4'2" - 6'2"	3'11" - 6'11"	3'8" - 8'1"	3'3" - 11'4"	2'11" - 22'1"
4'	3'9" - 4'4"	3'8" - 4'5"	3'6" - 4'9"	3'3" - 5'1"	3'1" - 5'8"	2'10" - 7'1"	2'8" - 10'1"
3'	2'10" - 3'2"	2'10" - 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 aperture the longer has to be the exposure. The lens should, therefore, be stopped down only so much as is necessary for obtaining the required depth of field, in order to avoid blurred pictures due to the motion of the subject.

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. 6), whereupon all objects from 8 feet to ∞ (infinity) will be sharp. The correct exposure time for this setting is found in the usual way by means of the built-in exposure meter.

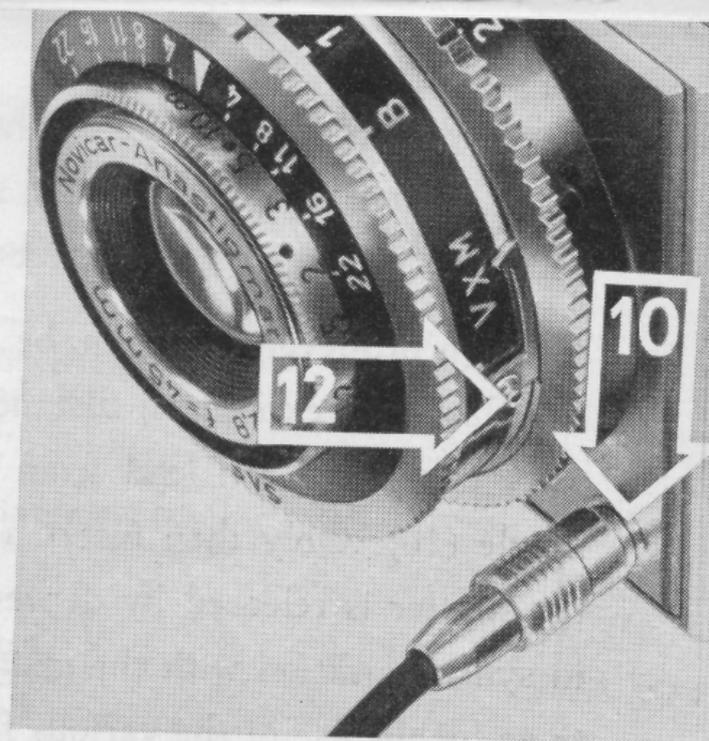
Flashlight and self timer

The speed synchronised 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 (12) (ill. 7).

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, even 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 can be operated. 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 (12) can be set either with cocked or uncocked shutter. For flashlight exposures, distance and diaphragm should be set in the usual way, then the flash lead from the flashgun connected to the flash contact nipple (10). Only then insert a flashbulb into the socket of the gun. When the shutter is released by depressing the knob (1) the flashbulb will be fired in synchronisation with the shutter. For further particulars study the instructions for the use of the various flashguns and flashbulbs. The correct exposure times for the "X", "M" and "V"-settings can be found in the table on page 15.

Table of Exposure Times for Flashbulbs and Electronic flash units

Type of flashbulb	Synchro-lever set to		Type of flashbulb	Synchro-lever set to	
	X and V	M		X and V	M
Osram Vacublitz XP, XO F1, F2 S0, S1 S2	1— $\frac{1}{50}$ 1— $\frac{1}{25}$ 1— $\frac{1}{25}$ 1— $\frac{1}{10}$	— — $\frac{1}{50}$ — $\frac{1}{300}$ $\frac{1}{50}$ — $\frac{1}{300}$	Gen. Electric Westinghouse Nr. 31 Nr. 50	1— $\frac{1}{10}$ 1— $\frac{1}{10}$	$\frac{1}{25}$ $\frac{1}{25}$ — $\frac{1}{50}$
Philips Photoflux Pf3 Pf14, Pf25 } Pf45, Pf56 } Pf24, Pf100	1— $\frac{1}{25}$ 1— $\frac{1}{25}$ 1— $\frac{1}{10}$	$\frac{1}{50}$ — $\frac{1}{100}$ $\frac{1}{50}$ — $\frac{1}{300}$ $\frac{1}{25}$ — $\frac{1}{50}$	Sylvania Superflash, Wabash SF Nr. 0, 2 } Press 25 } Press 40 } Nr. 3	1— $\frac{1}{100}$ 1— $\frac{1}{25}$ 1— $\frac{1}{10}$	— $\frac{1}{50}$ — $\frac{1}{300}$ $\frac{1}{25}$ — $\frac{1}{50}$
Gen. Electric Westinghouse SM Nr. 5, 6, 11, 22	1— $\frac{1}{50}$ 1— $\frac{1}{25}$	— $\frac{1}{50}$ — $\frac{1}{300}$	Electronic flash units	1— $\frac{1}{300}$	—



Holding the camera

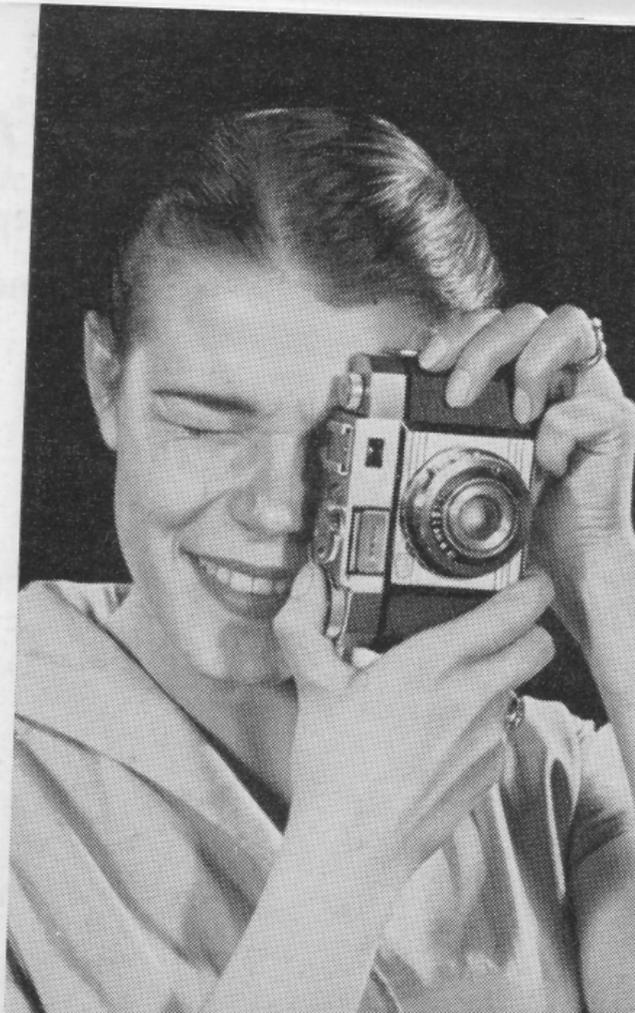
The camera must be held firmly during the exposure. The body of the camera should be held with both hands (ill. 8). The right-hand index finger operates the shutter release (1). The elbows should be pressed slightly against the body. It does not matter whether the right or the left eye is used to look through the viewfinder (9).

In this way horizontal pictures will be taken. To take vertical pictures, the camera is rotated through 90° (ill. 9). The left hand holds the camera from above while the right hand serves as a support for the CONTINA. In this case the thumb of the

Ill. 8

right hand rests on the body shutter release (1).

Exposures with the hand-held camera should be made only when the shutter speed is set between $\frac{1}{300}$ and $\frac{1}{25}$ second (at the outside). For longer shutter speeds or when the self-timer is used the CONTINA should be placed on a firm support or screwed to a tripod by means of the tripod bush (21). For vertical pictures a ball and socket head must be interpolated between the camera and the tripod. All exposures longer than $\frac{1}{25}$ 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 prevents camera shake.



Shutter release and film advance

The shutter is released by depressing the release knob (1) either with the tip or the first joint of the index finger (ill. 10). After every exposure, the shutter must be tensioned by means of the rapid wind (3). Holding the camera in the taking position, the rapid wind lever (3) should be pushed round with a swift movement of the right thumb until it stops (ill. 11). This advances the film by one frame and the film counter (2) — which indicates the number of frames exposed — moves on to the next number, tensioning



Ill. 10

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 the rapid-wind lever (3), and this lever, on the other hand can be operated only when the shutter has been released by depressing the release knob (1), double exposures and blanks are prevented. However, attention has to be paid to the fact that the rapid-wind lever must be pressed firmly until it stops. The shutter can remain in a tensioned condition without any risk of damage.

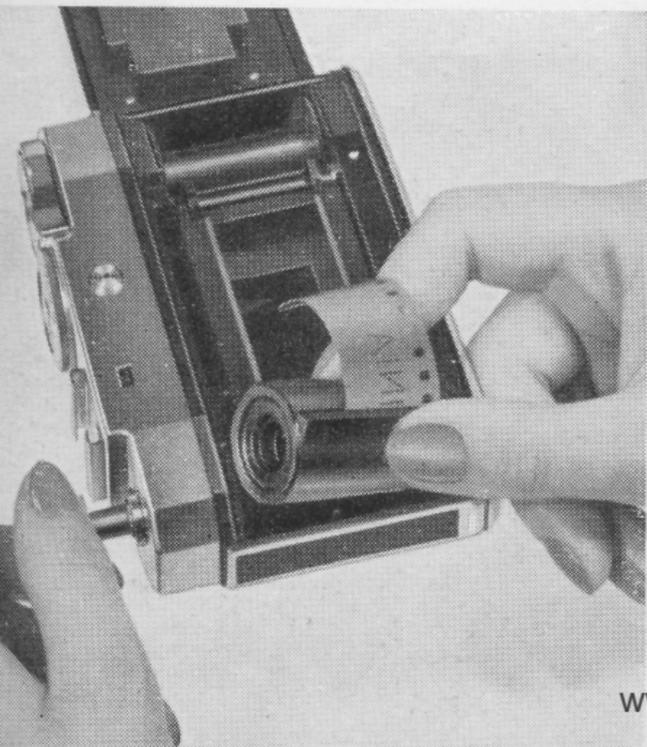


Loading the Camera

The CONTINA can be loaded with all commercial cartridges containing black and white or colour film 35 mm for 36 or 20 exposures, 1" x 1 1/2" (24 x 36 mm).

Loading should never be done in bright sunlight. When the locking bar (11) has been pulled back the back of the camera can be opened. Pull out the rewind knob (8) and insert the film cartridge into the empty feeding 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 of the film cartridge (ill. 12).

Turn the take-up spool by means of the milled flanges until the slit with its small



Ill. 12

lug points upwards. Hook the film to this lug. Wind the film on the take-up spool until the sprockets on both sides engage in the perforation (ill. 13), and simultaneously depress the locking knob (22). Close the camera. Tension the shutter and advance the film twice by means of the rapid wind lever (3) and release the shutter twice. This will advance the unexposed film to the film gate. Set the film counter (2) by turning the black ring in the direction of the arrow to "0". The CONTINA is now ready for the first shot.

To make sure whether the camera is loaded or not, turn the rewind knob (8) in the direction of the arrow. When the camera is loaded a slight resistance will be felt after a short turn.



Unloading the Camera

Before the camera is opened, the exposed film must be rewound into its cartridge. Depress the locking knob (22) and at the same time turn rewind knob (8) (which for easier handling will automatically unscrew a little) 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 (8) completely and remove the cartridge with the exposed film. Any film particles which might break off when the end of the film is torn off must be removed from the camera immediately.



Ill. 14

A C C E S S O R I E S

Ever-ready-case

The elegant ever-ready case protects the CONTINA from damage, dust and rain. The camera is fixed to the case by means of a screw fitting into the tripod bush (21) 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 ϕ). Yellow, yellow-green, orange-, red- and ultra-violet filters are available. For exposures by artificial light on daylight colour film, an IKOLOR FILTER (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 the blue sky the polarising filter ZEISS BERNOTAR can be slipped on to the lens (32 mm ϕ).

Supplementary lenses for close-ups (ZEISS PROXAR)

If photographs at short range are to be taken with the CONTINA coated ZEISS PROXAR lenses should be slipped on to the lens (28.5 mm ϕ). They are available in four different types. The setting of the lens and the distance can be found in the table on page 25. The distance between object and camera is measured from the front rim of the mount of the supplementary lens. Sufficient depth of field should be ascertained by stopping down to $f:8$. 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 prevents irradiation and fog in back-lighted pictures. 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 ϕ). 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 17). It can be screwed into the release knob (1). The ZEISS IKON cable release has a special time lock (shutter setting "B").

IKOBLITZ

The capacitor flashguns IKOBLITZ 0 and IKOBLITZ III can easily be fixed to the CONTINA. The flash lead is suitably connected to the flash contact nipple by means of the ZEISS IKON angle plug.

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

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 compared with these instructions.



Z E I S S I K O N A G . S T U T T G A R T

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