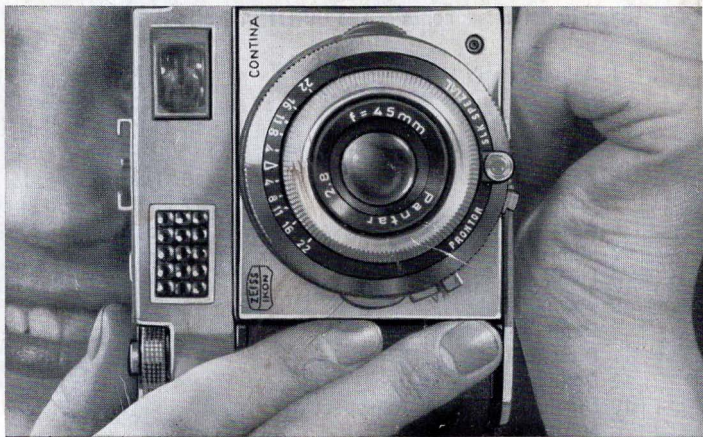


CONTINA

matic

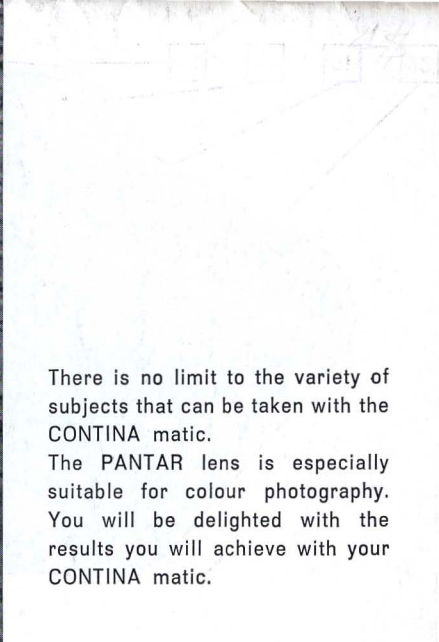
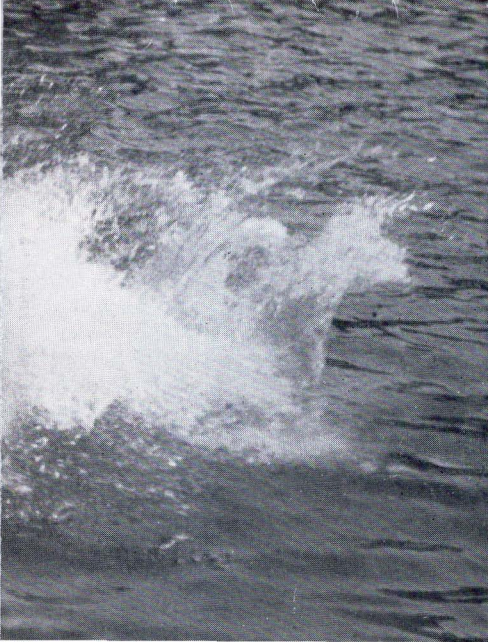
II and III 35 mm



**Instructions
for use**

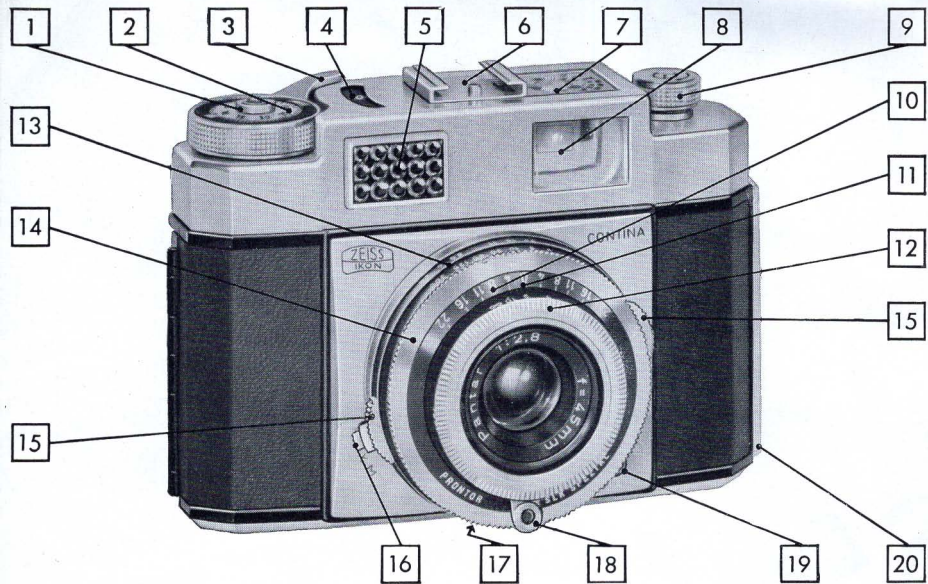
②





There is no limit to the variety of subjects that can be taken with the CONTINA matic.

The PANTAR lens is especially suitable for colour photography. You will be delighted with the results you will achieve with your CONTINA matic.



20

9

8

3



ZEISS
IKON

JENA GERMANY

18

17

21

22

(See above illustrations)

Operational components of the CONTINA matic II and III

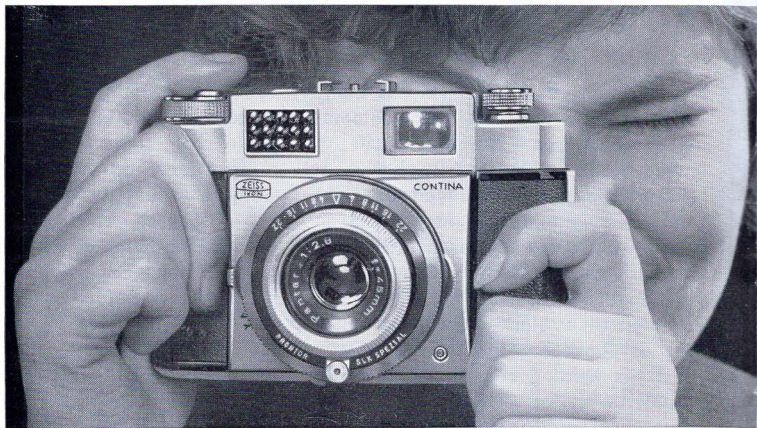
- | | |
|--|--|
| 1 Release knob | 14 Diaphragm and shutter-speed setting ring |
| 2 Frame counter | 15 Setting for the automatic exposure device |
| 3 Rapid wind lever | 16 Synchro-lever for flash and selftimer |
| 4 Exposure meter indicator | 17 Setting for film speed |
| 5 Honeycomb window of the exposure meter | 18 Locking pawl for interchangeable converter lens
(for CONTINA matic III only) |
| 6 Accessory shoe | 19 Flash contact |
| 7 Film type indicator | 20 Locking bar for camera back |
| 8 Luminous frame viewfinder | 21 Tripod bush |
| 9 Rewind knob | 22 Reversing button |
| 10 Depth-of-field scale | |
| 11 Distance setting mark | |
| 12 Distance setting ring | |
| 13 Diaphragm and shutter-speed setting scale | |

The CONTINA matic

is a miniature camera which has many advantages. In this our era of automation the automatic exposure device, the unique ZEISS IKON "auto-lock", will ensure correctly exposed pictures right from the beginning. By means of the coupled photo-electric exposure meter you will soon be able to find the correct setting for the new special PRONTOR-SLK shutter for black-and-white shots as well as for colour photographs, even when the lighting conditions are unfavorable. With the CONTINA matic you are always ready for action, due to the rapid wind lever and the clear and bright luminous frame viewfinder. The excellent 45 mm, f/2.8 PANTAR lens is a con-

vertible lens. With the CONTINA matic III you are enabled to take interesting telephoto, wide-angle and even stereo-pictures merely by exchanging the front element of the lens. All lenses are coated, of course, and colour corrected. You will be delighted with the efficiency of your lenses particularly in colour photography. Before you load a miniature film into your CONTINA matic for the first time, you should study these instructions carefully and try to master the various mechanical movements and operations. Once you have learned how to use it the camera will remain a source of constant pleasure.

**Your
first
glance**



through the bright luminous frame viewfinder will make you much more familiar with your CONTINA matic.

Everything enclosed by the luminous frame will be depicted on the film. Even if you wear spectacles you will be able to determine the exact image field without removing your glasses. With the CONTINA matic III the inner frame, identified by small angles, indicates the image area obtained with the Telephoto-PANTAR f/4,75 mm lens. More about it on page 25. The CONTINA matic should be held firmly during the exposure. The camera body must be held with both hands. The right-hand index finger should operate the shutter release (1). The elbows should be pressed lightly against the body. Fig. 1 shows the way horizontal pictures should be taken, whilst fig. 2 shows how to hold the camera when taking vertical pictures. In this case the thumb of the right hand can be used to operate the release knob. Exposures with the hand-held camera should be

made only when the shutter speed is set between $\frac{1}{300}$ and $\frac{1}{30}$ second (at the outside). For slower shutter speeds or when the selftimer is used the CONTINA matic 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 should be interpolated between the camera and the tripod. All these slow shutter-speed exposures should be made with a cable release, which can be screwed into the thread of the release knob (1).

Fig. 2

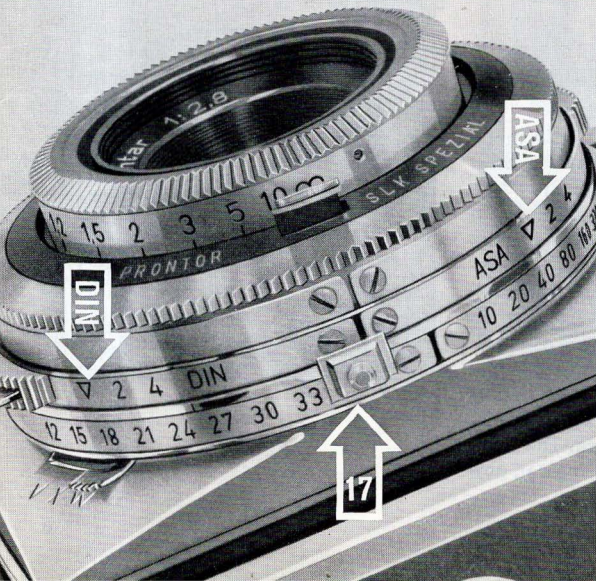


Determining the exposure values

With the built-in coupled exposure meter, you will easily find the correct shutter settings for black-and-white and colour film, both negative and reversal. First the meter must be set to the speed of the film in use. For this purpose the small lever (17) should be moved to the left or the right pressing it towards the camera body at the same time, until the appropriate film speed is opposite the triangle setting mark for DIN or ASA (fig. 3). If necessary, the triangle setting mark must be shifted by contra-rotating the two knobs (15). The mark can also be set to intermediate film speeds. The meaning of the figures 2 and 4 beside the setting mark will be explained on page 28 (filter correction).

When the speed of the film has been quoted in B.S.I. indices by the manufacturer the corresponding values can be found in the table on page 32.

Fig. 3



Since the speed of colour films cannot be determined in the same way as that of black-and-white films, the colour film manufacturers are unable to give exact speed numbers in ASA or DIN indices but recommend their films should be exposed "as a black-and-white film of XY DIN or ASA". Generally, this advice is quite reliable, but in order to be absolutely on the safe side you should calibrate your own equipment by making various test exposures at different apertures and thus determine the actual speed of the film in question and the correct setting of your own built-in exposure meter.

Fig. 4

To measure the light the CONTINA matic is pointed towards the subject so as it is intended to appear in the photograph. The white pointer (4) will then be seen to deflect. Now, with thumb and index finger, turn both the two knobs (15) depressing at the same time the small locking bar (fig. 4), and watch the small white circular mark (4) until it is exactly over the pointer when viewed from above. When this is the case the shutter speeds are automatically set opposite the corresponding f/numbers. The most suitable aperture/speed pairing can now



be selected in accordance with the lighting conditions and the depth of field required. For this purpose the setting ring (14) with its red setting mark should be turned to the values required. The ring will click in at the individual shutter speeds. The unique ZEISS IKON "auto-lock" ensures that the measuring range of the exposure meter cannot be exceeded when the lighting conditions are poor. Furthermore, the measured value, once determined, is locked.

The choice of the aperture depends on the depth of field required (see page 12). The smaller the figure (13, rear scale), the larger is the aperture.

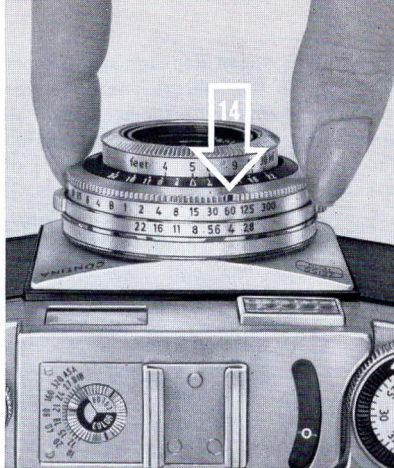


Fig. 5

The shutter speed depends on the rate of motion of the subject. The faster the subject movement the shorter should be the shutter speed. The black figures on the front scale (13) denote fractions of a second (60 means $\frac{1}{60}$ second, etc.).

When set to "B" (green), the shutter remains open as long as the release knob (1) remains depressed. The green figures denote full seconds. These cannot be set against the setting mark, however. If it should happen that after setting it to a definite f/number the red mark of the setting ring (14) indicates "B" (green) an exposure time of 2 seconds will be required. If it is necessary to stop down even further, the required exposure time in full seconds (green figures) can be read off. By turning both

knobs (15) the aperture required is then moved towards the green "B" which remains opposite the red mark on ring (14). The exposure time can then be controlled by depressing the release knob or the cable release for the requisite number of seconds. The value measured beforehand, however, is cancelled. If after these time exposures you wish to change from "B" back to shorter exposures, a new measurement should be taken.

Setting the distance. The distance setting ring (12) with the engraved distance scale should be turned until the required distance in feet is opposite the setting mark (11) (fig. 6).

On the underside of this distance setting ring the CONTINA matic has for technical reasons a second scale which is of no importance at all for the operation of the camera.

Fig. 6



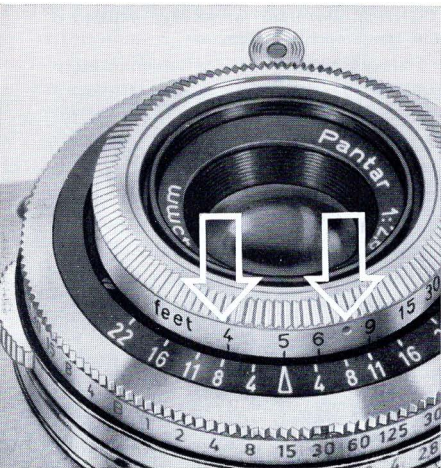


Fig. 7

Depth-of-field scale

Every lens focused on a definite distance will yield sharp pictures of subjects only within a limited space before or beyond the plane on 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 (10). The depth of field can be determined from the distance scale by means of the f /numbers to the right and the left of the distance setting mark (12). Fig. 7, for instance, shows that, when the distance is set to 5 feet and the aperture is $f/8$, the depth of field will extend from approx. 4 ft to 7 ft. The exact depth-of-field values can be found in the table on page 33.

Snapshot setting

In order to be ready for action at any time, particularly for taking candid shots ring (14) should be turned to f/8 and the distance set to 15 ft (fig. 8). To facilitate this setting both figures are marked in red. At these settings all subjects between approx. 8 ft and ∞ will be recorded sharply.

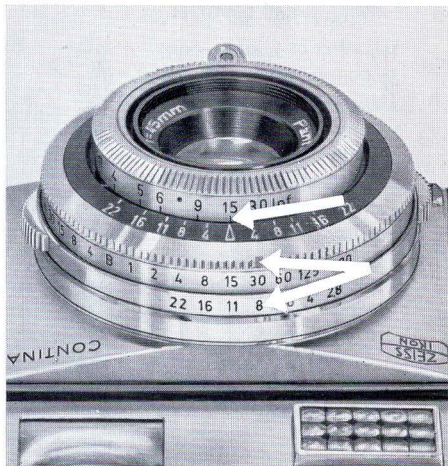


Fig. 8

Flashlight and selftimer

The fully synchronized special PRONTOR-SLK shutter can be coupled to any type of flashgun. The shutter has a built-in selftimer. Three different settings are possible by moving lever 16 (fig. 9):

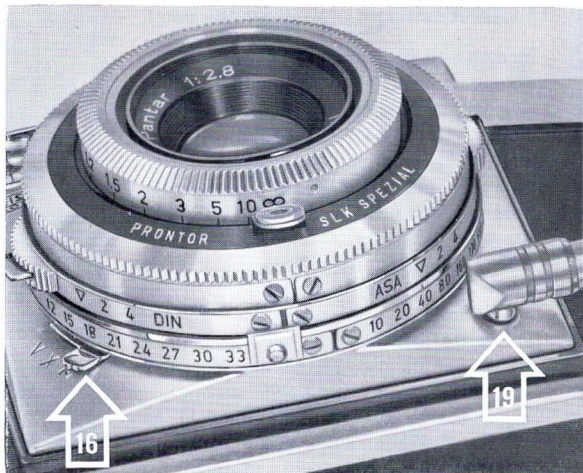


Fig. 9

With the "X" setting the shutter fires the flash the moment the blades are fully open. Electronic flashes should be fired with the "X" setting exclusively.

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

The correct settings ("X" or "M") for the various flashbulbs and flash capsules should be found in the instructions for the use of the bulbs and the individual flashguns, or from a careful study of the table on page 34.

With the "V" setting, the delayed action release or selftimer is set for use. After depressing the shutter release knob (1), a retarding movement is set in motion which releases the shutter after about 8 seconds. Time exposures (setting "B")

cannot be made with the selftimer. If, by mistake, a flashbulb is fired with the "V" setting no harm is done, since it will act as though the shutter were set to "X".

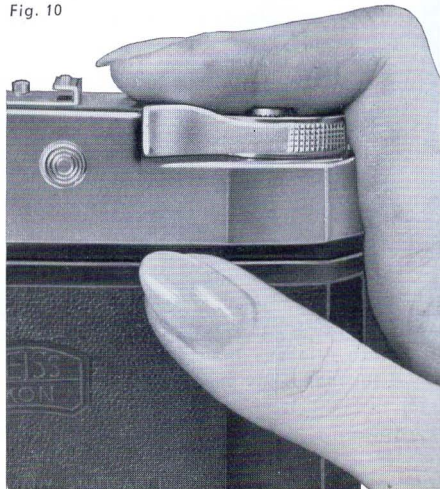
The lever (16) can be set to "V" only when the shutter is tensioned. It returns automatically to "X" and must, if necessary, be reset to "V". For flash exposures the flash lead from the flashgun should be connected to the flash contact (19) and only then the flashbulb inserted. When the shutter is released (1) the flashbulb will be fired in synchronisation with the shutter. For further particulars study the instructions for the use of the various flashguns.

Releasing and cocking the shutter

The shutter is released by gently and quietly depressing the release knob (1). Do not jerk but squeeze the knob (1) gently, taking up the slack in the release mechanism slowly. Jerking the shutter causes camera shake and camera shake is the cause of many unsharp pictures. So release the shutter with either the tip of the first joint of the index finger (fig. 10). After every exposure, the shutter must be cocked by means of the rapid wind lever (3). Holding the CONTINAmatic in the taking position, the wind lever should be swung round with a swift movement of the right thumb until it stops (fig. 11). This also advances the film by one frame and the frame counter (2), which indicates the number of frames exposed, moves on to the next number, while the shutter is cocked at the same time. The correct advance of

the film in the camera is guaranteed when the rewind knob (9) turns automatically when the film is advanced.

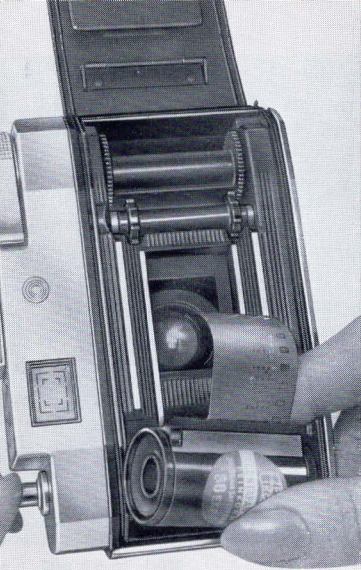
Fig. 10



Since the shutter can be released only after being cocked by the rapid wind lever (3), the latter, 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 thus prevented. However, attention has to be paid to the fact that the rapid wind lever (3) must be swung positively until it stops. The shutter can remain in a cocked position without any risk of damage.



Fig. 11



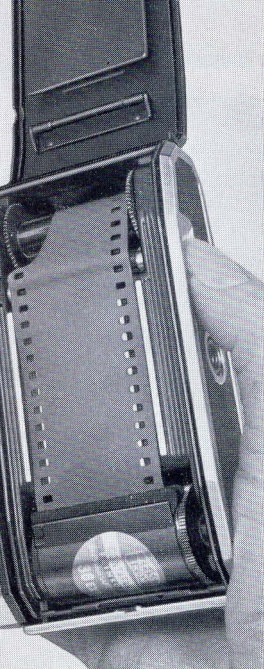
Loading the camera

The CONTINA matic can be loaded with all commercial cartridges containing black-and white or colour miniature film for 36 or 20 exposures 35 mm (24 x 36 mm). Loading should never be done in bright sunlight! When the locking bar (20) has been pulled out the back of the camera can be opened. Pull out the rewind knob (9) and insert the film cartridge into the empty chamber (fig. 12) in such a way that the beginning of the film points towards the take-up spool. Push back the rewind knob (9) so that its prong engages correctly with the recess at the top of the film cartridge. Now turn the take-up spool by

Fig. 12



Fig. 13



means of the milled flanges until the slit with its small lug points upwards. Hook this lug into a perforation hole of the film. Wind the film on the take-up spool until the sprockets on both sides engage the perforation (fig. 13), at the same time depressing the reversing button for rewinding (22). Close the camera back, cock the shutter and advance the film twice by operating the rapid wind lever (3) and the shutter release (1). This will advance the unexposed film to the film gate.

It is of the greatest importance that the speed of the film inserted into the camera should now be adjusted on the lever (17) — as described on page 6 — in order to make the automatic exposure control work correctly. Finally, set the frame counter (2) by turning the black ring in the direction of the arrow to "0". Operate the rapid film wind (3) once again and the Contina is ready for the first exposure. To make sure whether the camera is loaded or not, turn the rewind knob (9) in the direction of the arrow. When the camera is loaded a slight resistance will be felt after a short turn.

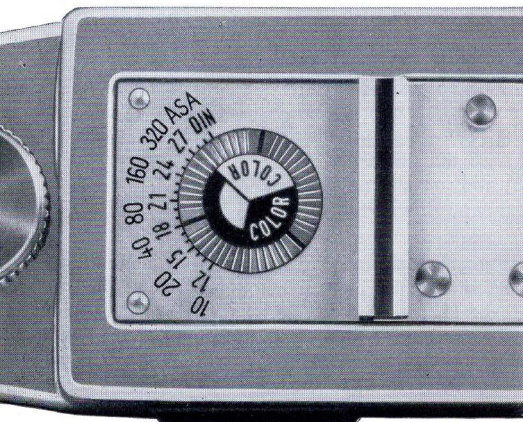


Fig. 14

Film type indicator

Immediately after loading the camera with a fresh film the film type indicator (7) should be set accordingly. The inner disc should be turned with the thumb until one of the three black strokes (black-and-white film, daylight colour film or artificial-light colour film) is exactly opposite the corresponding speed of the film (fig. 14). The correct setting of the film type indicator is particularly important when making exposures with a filter (see page 28).

Fig. 15



Unloading the CONTINA matic

Before opening the camera, the exposed film must be rewound into its original cartridge. Depress the reversing button (22) and at the same time turn the rewind knob (9) — which for easier handling will automatically unscrew a little — in the direction of the arrow (fig. 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 (9) completely and remove the cartridge with the exposed film. Film fragments which break off occasionally should be removed immediately from the camera.

The system of the CONTINA matic III

The PANTAR convertible lens

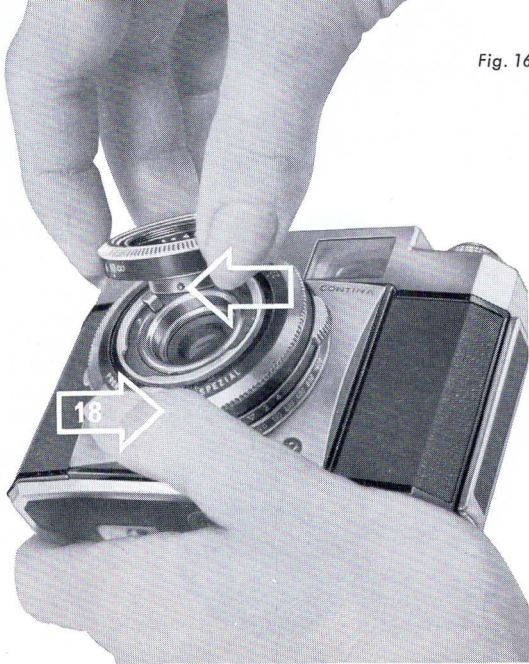
To give the greatest possible versatility to the CONTINA matic III it is equipped with a PANTAR Convertible Lens, which has an easily interchangeable front element, so that telephoto, wide-angle and even stereo shots can be made on the same film strip. To remove the front element of the standard 45 mm, f/2.8 PANTAR lens the CONTINA matic III should be held with the left hand (fig.16). The thumb depresses the locking pawl (18) whilst the right hand turns the distance setting ring (12) to the left, thereby overcoming a slight resistance, until it stops. Then remove the ring holding the front element from the bayonet

mount by pulling it upwards. When the standard lens is re-assembled the red dot on the front element should exactly coincide with the red dot on the locking pawl. Then press in the lens firmly and turn it to the right until it snaps in audibly. All additional lens elements, usually called "component lenses", should be interchanged in the same way, that is; when inserting the lens: red dot on red dot — turn to the right. When removing the lens: depress the locking pawl (18) — turn to the left. In order to prevent damage or soiling of the highly sensitive surfaces of the lenses, their glass portions should never be touched!

Fig. 16

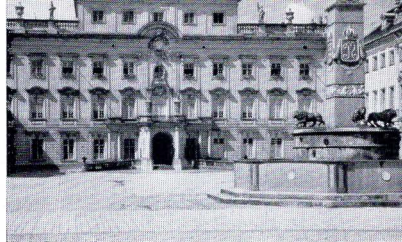
When removing:
Depress locking pawl (18) —
Turn to the left

When inserting:
Red dot on red dot —
Turn to the right





◀ f30 f 45 ▶



For the CONTINA matic III the following interchangeable component lenses are available:

PANTAR 30 mm, f/4 wide-angle component lens. A wide image area can be covered by this lens at a short distance. It is preferably used for architecture and interiors. A special wide-angle viewfinder conveys the correct image field for this lens combination.

PANTAR 75 mm, f/4 tele-component lens for tele-photography. Just like a tele-



◀ f75

Furthermore, there is a tele-view/range-finder for shots with the Tele-PANTAR f/4,75 mm, which at a glance not only shows the correct image field but also the distance to be focused on.

scope it makes distant objects appear nearer and gives the photographer the ability to "fill the frame". It is the lens for landscape photography, portraiture and wild animal life in its natural habitat.

The inner rectangle in the luminous frame finder marked by small luminous angles shows the correct image field covered by this lens combination. For certain cases, however, the special tele-viewfinder should be used.



STERITAR-D is designed to take stereo-photographs on the ZEISS IKON Stereo-System. This opens up a new and interesting field for the CONTINA matic III. The two half-images 16x23 mm in size are immediately side by side in one frame of the miniature film and can be mounted without separating by means of the special ZEISS IKON stereo masks, in the same way as other transparencies. The stereo-pictures can be viewed in the ZEISS IKON "○" — stereo-viewer or projected by means of the highly efficient IKOLUX projectors with their stereo-accessories.

The correct image field for stereo shots can be sighted through the luminous frame finder of the CONTINA matic III. The lateral border of the image is shown

by the breaks in the upper and lower transverse lines, whilst the borders above and below are indicated by the luminous frame itself.



Universal Viewfinder

This viewfinder shows the correct image field for all focal lengths (30, 45 and 75 mm) and for stereo exposures by super-imposed luminous frames.

Leather cases

There is a well fitting leather case for every viewfinder, which can be attached to the strap of the ever-ready case. Moreover, the PANTAR 30 mm, f/4 and the PANTAR 75 mm, f/4 with their corresponding viewfinders and two filters can be accommodated in a combined leather case. For the STERITAR-D a special leather case is available.

Accessories for the CONTINA matic II and III

Ever-ready case

The CONTINA matic is protected from external strain and damage by an attractive ever-ready case. The camera is held in the case by means of a screw which is screwed into the tripod bush (21) and need not be taken out of the case for taking pictures.

ZEISS IKON precision filters

In order to improve the tone values in black-and-white pictures ZEISS IKON precision filters should be screwed into the lens mount (ϕ 27 mm for PANTAR 45 mm and STERITAR-D; ϕ 60 mm for PANTAR 30 mm and 75 mm). Yellow, yellow-

green, orange red, blue (IKOLOR-B) and ultra-violet coated filters are available. For special purposes with colour films there are the IKOLOR (A, B and F) filters, for which special instructions are supplied.

When using filters the exposure time must be increased according to the filter factor, which is engraved on the mounts of all ZEISS IKON filters.

Filter Corrector

In order to make the automatic exposure control of the CONTINA matic take into account the filter factor, the filter corrector should be adjusted before measuring the light. For this purpose the speed number of the film in use should be set to the figures 2 or 4 beside the DIN or ASA setting mark by

adjusting lever (17). With different filter factors the corresponding intermediate values should be chosen. Then the measurement can be taken as usual. When the filter is removed the speed number of the film should be reset to the triangle setting mark. In order to remind you of the correct speed figure, the film type indicator (7) should always be adjusted properly after loading the camera.

Polarising filter CONTAPOL

To reduce or even eliminate reflections in highly polished surfaces of subjects and to darken the blue sky in colour and black-and-white photographs the CONTAPOL polarising filter can be slipped on the 45 mm lens (ϕ 28.5 mm). For particulars see the instructions supplied with the CONTAPOL filter.

Supplementary lenses for close-ups (ZEISS PROXAR)

If photographs at short range are to be taken with the CONTINA matic, coated ZEISS PROXAR lenses should be slipped on to the 45 mm lens (ϕ 28.5 mm). They are available in four different types. The distance and lens settings can be found in the table on page 35. The distance between subject and camera is measured from the front rim of the mount of the PROXAR lens. Sufficient depth of field should be ensured by stopping down the camera lens to f/8 at least. The resulting finder parallax, particularly when PROXAR lenses of very short focal lengths are used, can be compensated for by a corresponding displacement of the camera or the subject.

Close-up viewfinder

There is a close-up viewfinder for the CONTINA matic which is supplied together with a PROXAR $f = 0.5$ m lens in the same plastic case. To determine the exact distance between camera and subject a measuring chain is attached to the viewfinder, which has coloured balls at the distances of 50 cm (20 in.) and 30 cm (12 in.). The viewfinder shows the correct image field for these distances so that even snapshots are possible within this close-up range.

Lens hood

The lens hood prevents irradiation, flares and fog in backlighted pictures. There is no picture which cannot be improved in clarity and brilliance by the use of a lens hood. Furthermore,

it prevents rain and snow falling on the lens and is a necessity for colour photographs. The ZEISS IKON lens hood can be slipped over ZEISS IKON filters and ZEISS PROXAR lenses (for the PANTAR 45 mm, ϕ 28.5 mm; for the PANTAR 75 mm, screw-in mount, ϕ 60 mm. A lens hood must not be used with the 30 mm wide-angle PANTAR.

For accommodation a practical leather case is supplied. Moreover there is a leather case for the lens hood ϕ 28.5 mm and three colour filters ϕ 27 mm.

Cable release

For time exposures from a tripod, a cable release should be used (see page 5). It can be screwed in the thread

of the body shutter release (1). For long time exposures (shutter setting "B") the ZEISS IKON cable release has a special locking device for time lock.



IKOBLITZ

The ZEISS IKON IKOBLITZ capacitor flashgun can easily be fitted to the CONTINA matic; its light-efficiency is really amazing. The IKOBLITZ 4 is so simple to fold up and carry.

MOVILUM Lighting Equipment

The general-purpose MOVILUM lighting equipment provides artificial light of any intensity, as it can be fitted with two, four or even six photoflood lamps.

Maintenance of the CONTINA matic

The film cartridge chambers and the film track should be cleaned from time to time with a soft brush. The lens should be cleaned only when absolutely necessary. First any dust should be

removed with a soft brush then clean the surface with lens tissue or a frequently washed piece of linen. Furthermore, the honeycomb lens of the exposure meter must be kept clean always.

Serial number

Every CONTINAmatic has a serial number engraved on its back. It is recommended that a record should be kept of these numbers, which may be of value in establishing ownership in case of loss or theft.

Note:

Your photo dealer will be glad to give you free advice and information you may desire on everything photographic.

Conversion table of speed rating systems

ASA	10	12	16	20	25	32	40	50	64	80	100	125	160	200	250
BSI	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
° DIN	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

Depth-of-field table

Dis- tance	DIAPHRAGM STOP						
	2.8	4	5.6	8	11	16	22
∞	47'8" - ∞	33'2" - ∞	23'10" - ∞	16'9" - ∞	12'3" - ∞	8'4" - ∞	6'2" - ∞
30'	18'6" - 80'	15'11" - 281'	13'5" - ∞	10'10" - ∞	8'9" - ∞	6'8" - ∞	5'2" - ∞
15'	11'6" - 21'8"	10'5" - 26'9"	9'4" - 39'2"	8' - 129'6"	6'10" - ∞	5'6" - ∞	4'6" - ∞
9'	7'7" - 11'1"	7'1" - 12'3"	6'6" - 14'4"	5'10" - 18'10"	5'2" - 32'8"	4'4" - 63'2"	3'4" - ∞
6'	5'4" - 6'9"	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'	4'7" - 5'6"	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'	3'9" - 4'4"	3'7" - 4'6"	3'6" - 4'9"	3'3" - 5'1"	3'1" - 5'8"	2'10" - 7'1"	2'8" - 10'1"

The smaller the aperture, the longer must be the exposure. The lens should, therefore, be stopped down only as much as is necessary to obtain the required depth of field, in order to avoid camera shake and blurred pictures due to your own motion or that of the subject.

Table of Exposure Times for Flashbulbs

Manufacturer Type of flashbulb	Synchro-lever to		Manufacturer Type of flashbulb	Synchro-lever to	
	X or V	M		X or V	M
Osram			General Electric and Westinghouse		
XM 1, XM 5, SO, } SO blue	1-1/30	1/60-1/300	M 2, M 2 B, M 25 B	1-1/60	—
XM 1 B, XM 5 B	1-1/30	1/60-1/125	SM	1-1/125	—
			50	1-1/15	1/30
Philips			Sylvania		
PF 1, PF 5, PF 60, } PF 1/blue, PF 5/ }	1-1/30	1/60-1/300	No. 0, 2, Bantam 8, }	1-1/30	1/60-1/300
blue, PF 60/blue }	1-1/30	1/60-1/125	Press 25, 40, M 5 }	1-1/30	1/60-1/125
PF100, PF100/blue	1-1/15	1/30-1/60	M 5 B	1-1/60	—
			M 2, M 2 B, M 25, }	1-1/125	—
General Electric			M 25 B	1-1/15	1/30
and Westinghouse			SF	1-1/300	—
No. 5, 8, 11, 22, M 5	1-1/30	1/60-1/300	3		
M 5 B	1-1/30	1/60-1/125	Electronic flash units		

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

Lens focused at	∞	30'	15'	9'	6'	5'	4'	PROXAR-lens
Distance of object from camera	3'3½"	2'11¾"	2'8¼"	2'4¾"	2'1¼"	1'11½"	1'9"	f = 1 m
Distance of object from camera	1'8¼"	1'7¼"	1'6¼"	1'5"	1'3¾"	1'3¼"	1'2¼"	f = 0.5 m
Distance of object from camera	1'1¾"	1'7/8"	1'½"	1'	11¼"	11"	10½"	f = 0.3 m
Distance of object from camera	8½"	8"	7¾"	7⅝"	7¾"	7¼"	7"	f = 0.2 m



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