SUPER IKONTA

III

2 1/4 x 2 1/4 ins. (6 x 6 cm)

INSTRUCTIONS FOR USE

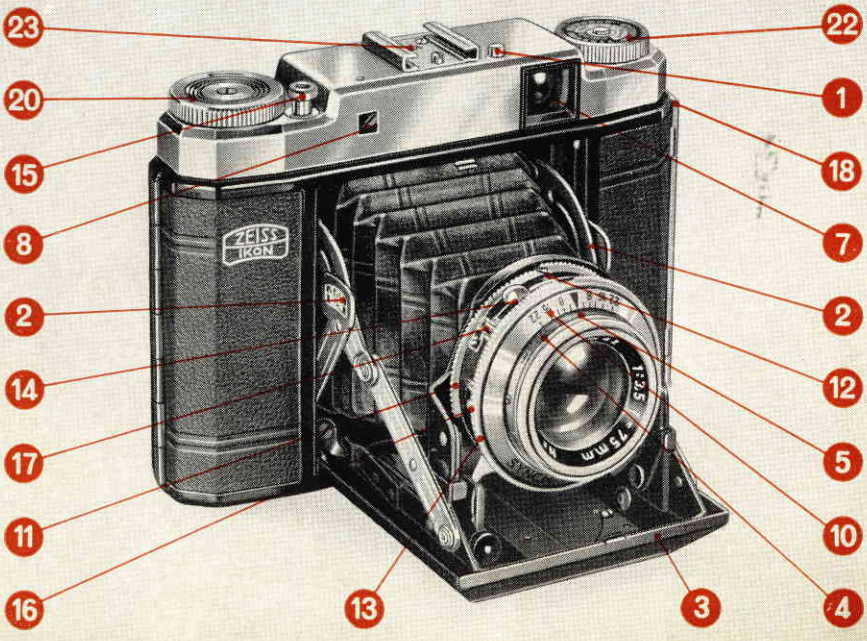
ZEISS IKON

ZEISS IKON AG. STUTTGART

PARTS OF THE SUPER IKONTA

1 Button to open the camera
2 Struts
3 Base-board
4 Distance scale
5 Distance setting mark
6 Setting ring for rangefinder (see fig. 6, page 9)
7 Single window coupled rangefinder
8 Window of the rangefinder
9 Eyepiece of the rangefinder
10 Depth-of-field ring
11 Diaphragm setting ring
12 Diaphragm setting mark

Numbers refer partly to back-view on page 26



PARTS OF THE SUPER IKONTA

13 Exposure time setting ring
14 Shutter tensioning lever
15 Body shutter release with thread for cable release
16 Synchro lever
17 Flash contact socket
18 Locking bar for camera back
19 Film window
20 Film advance knob
21 Frame counter
22 Film type indicator
23 Accessory shoe

The numbers refer partly to front-view of the camera on page 3

Good photographs

can easily be obtained with your ZEISS IKON camera. With the elegant and handy SUPER IKONTA every picture will be needlesharp on account of the single window coupled rangefinder and you will find great pleasure in your photos.

In order to utilize to the full all the advantages of the camera it is recommended that you study these instructions carefully. Unfold the inner leaves of the cover for further reference and try to practice the various mechanical movements before loading the camera. If you are still in doubt, do not hesitate to ask your photo-dealer for advice.

The picture on the second cover page was taken with SUPER IKONTA *against the light of the autumn sun with stop f : 11 and* $^1/_{50}$ *second.*

ZEISS IKON

THE MAIN FEATURES OF THE SUPER IKONTA 2¼ x 2¼ ins.

The SUPER IKONTA 2¼ x 2¼ ins. is a high quality roll film camera for 12 exposures 2¼ x 2¼ ins. size on standard 120 roll film.

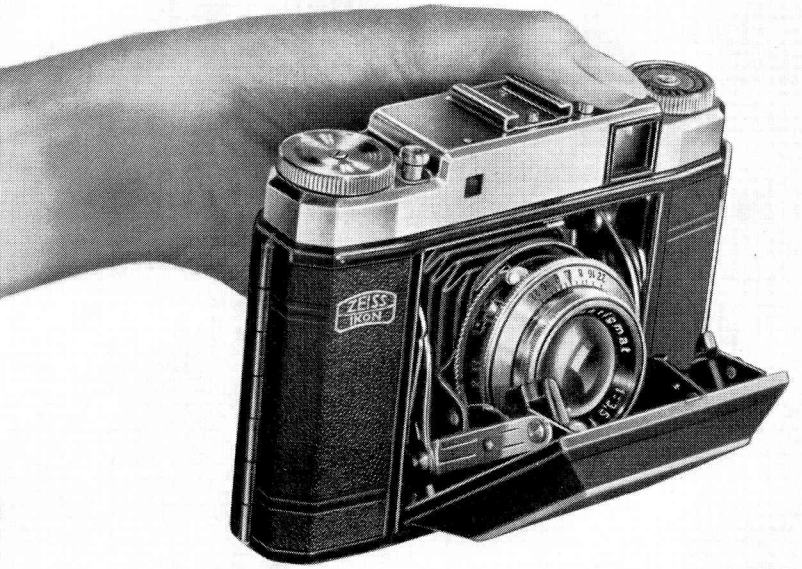
The value of a camera depends mainly on the quality of its lens. The SUPER IKONTA is available either with the world-famous ZEISS TESSAR *f:3.5/75 mm* or the time-tested, reliable NOVAR *f:3.5/75 mm*. Both lenses are colour-corrected and factory-coated. They yield black and white as well as colour pictures of unsurpassed definition and brilliance.

The built-in *rangefinder* is coupled to the lens so that correct focusing is guaranteed. The rangefinder is combined with the viewfinder ensuring not only sharp pictures but the correct image field simultaneously, even of fast moving objects.

The *red-dot setting* increases the versatility of the camera and makes it ready for action any time you want to take candid snapshots.

The *Synchro-Compur shutter* can be set to shutter speeds between 1 and 1/500 second as well as to time exposures. The built-in synchro-flash contact enables coupling to all flashguns and reacts to even the shortest exposure times.

All scale settings are clearly visible *from above*. The *double exposure preventive* and the *film advance lock* guarantee quick and safe working. The film is advanced from frame to frame and each is automatically counted by the frame-counter. There is no need to watch a red film window. Double exposures and blanks are thus prevented. The *film type indicator* can be set to the type and speed of the film with which the camera is loaded.



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3

Opening and closing the camera

Span the back of the camera with your hand, slightly tilting it forward. Depress the opening knob (1) and the lens will snap into the taking position (illustr. 2). If the camera is not held in the correct position it may happen that the struts do not snap in completely. In this case depress the front edge of the baseboard with your finger (3).

To close the camera press against the upper parts of both struts (2) with your thumbs. This makes the baseboard slide upward. The camera can then be conveniently closed until the lock catches (illustr. 3).

In order to close the camera in the taking position the upper parts of the struts (2) are pressed down with the index fingers and closed with the other fingers.

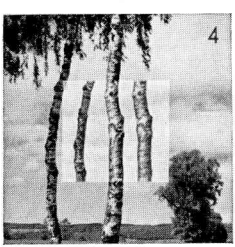
ZEISS IKON

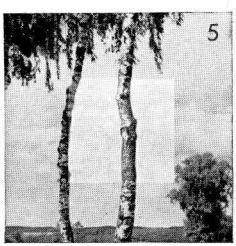
Prior to the exposure

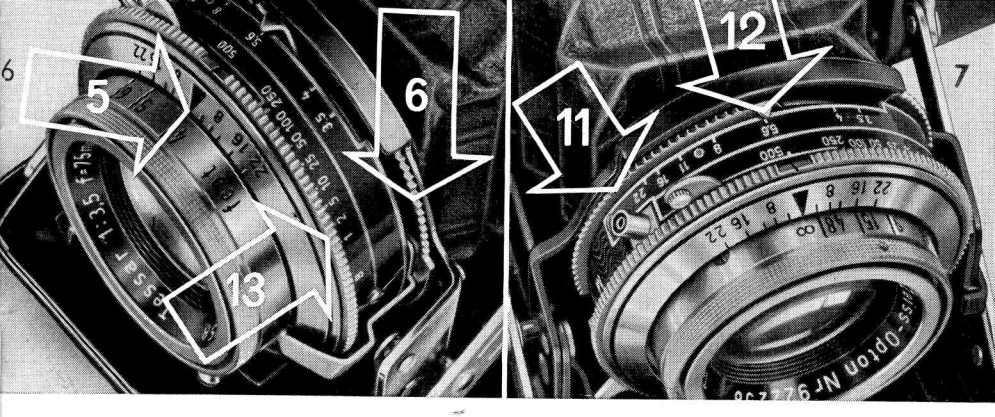
the distance between camera and subject, the diaphragm and the exposure time must be correctly set.

The distance

The subject distance is determined by means of the built-in rangefinder. Looking through the eyepiece (9) of the combined view and rangefinder, you see the image as it will be recorded by the camera but with a light, rectangular portion in its centre. In this centre the outlines of the subject will appear doubled (illustr. 4). By turning the milled ring (see arrow 6 in illustr. 6) with the middle finger of the left hand these double outlines in the centre of the measuring field are brought to coincidence. The best objects for obtaining accurate focus are sharply defined vertical lines, such as the edge of a house, a telegraph pole or a tree. (illustr. 5). As soon as the contours coincide the lens is accurately focused at the correct subject distance required. The measured distance may be read off from the distance setting mark (5) on the scale of the lens mount (4).







Exposure time

The exposure time is set by turning the milled front ring (13). The black stroke engraved on this ring must be exactly opposite the figure required on the exposure time scale (illustr. 6). The figures engraved on this scale indicate fractions of a second. ("50" is 1/50 sec. etc.). With the setting "B" the shutter remains open as long as the release knob (15) is depressed (see page 16). When set to 1/500 second a slight resistance is felt which is due to an additional spring needed for this fastest speed. The shutter is tensioned by pushing the cocking lever (14) in the direction of the distance setting mark (5). It is immaterial whether the shutter speed is set prior to tensioning or after it, with the exception of the shutter speed of 1/500 sec. when the exposure time must be set prior to tensioning the shutter.

Diaphragm

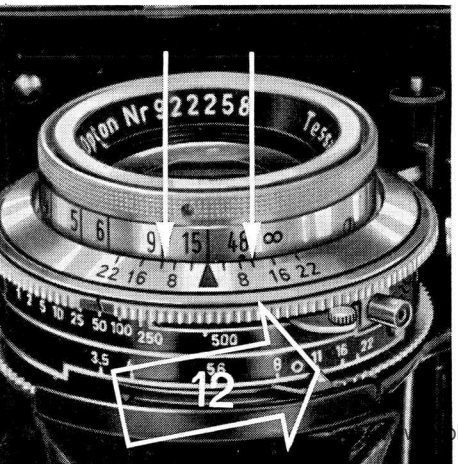
Turn the milled ring (11) until the triangular diaphragm setting mark (12) is opposite the stop figure required (illustr. 7).

The interdependence of the settings

Subject distance and diaphragm

When the lens is focused at some definite subject distance it yields a sharp picture not only of the subject at this distance but also of those objects that are nearer to the camera or further away from it. This zone of sharp definition is called the depth of field. It is rather small when the diaphragm is fully open (f:3,5) but increases gradually the more the lens is stopped down. Thus: the smaller the stop, the greater the depth of field.

The depth of field for any given lens aperture and distance can be read off from the depth-of-field ring (10). Diaphragm figures will be found on the right and left side of the distance setting mark (5). The figures on the distance scale (4) opposite these stop figures indicate the extension of the depth of field. The strokes without figures beside the triangular mark indicate the depth of field at stop 4 and the strokes between 8 and 16 that for stop 11.



For instance: When focused at 15' the stroke for f:11 on the right-hand side indicates 48', that on the left-hand side 9' (illustr. 8). Focused at 15' with stop f : 11 the lens will yield a sharp zone reaching from

9' in the foreground to 48' in the background. The exact depth of field can be found in the table on page 11.

A different way of utilizing the depth of field is this: the zone that is required to be sharp is measured with the rangefinder, first the foreground then the background. The necessary stop to cover this particular depth of field is then found in the depth-of-field table.

Depth-of-field for SUPER IKONTA
$2^1/_4 \times 2^1/_4$ ins. ($f = 75$ mm)

Distance at	f/3.5	f/4.0	f/5.6
inf.	70' 8" – ∞	61' 8" – ∞	44' 4" – ∞
48'	28' 8" – 147' 8"	27' 4" – 210' 0"	23' 4" – ∞
24'	18' 0" – 36' 0"	17' 4" – 38' 8"	15' 8" – 51' 4"
15'	12' 8" – 19' 0"	12' 4" – 19' 8"	11' 4" – 22' 4"
12'	10' 4" – 14' 4"	10' 4" – 14' 8"	9' 8" – 16' 4"
9'	8' 0" – 10' 4"	8' 0" – 10' 4"	7' 8" – 11' 0"
7'	6' 6" – 7' 8"	6' 4" – 7' 8"	6' 2" – 8' 4"
6'	5' 6" – 6' 6"	5' 6" – 6' 6"	5' 4" – 6' 10"
5'	4'8.5" – 5' 4"	4' 8" – 5' 4"	4' 7" – 5' 6"
4'	3' 10" – 4' 2.5"	3'9.5" – 4' 3"	3' 9" – 4' 4"

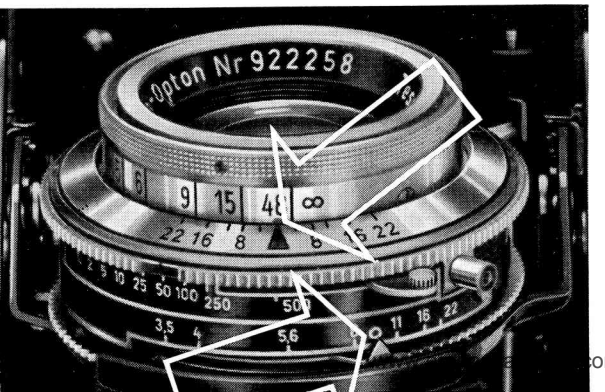
	f/8	f/11	f/16	f/22
inf.	31' 0" – ∞	22' 8" – ∞	15' 8" – ∞	11' 4" – ∞
48'	19' 0" – ∞	15' 8" – ∞	12' 0" – ∞	9' 4" – ∞
24'	13' 8" – 101' 0"	11' 8" – ∞	9' 8" – ∞	8' 0" – ∞
15'	10' 4" – 28' 0"	9' 4" – 42' 4"	8' 0" – 265' 4"	6' 8" – ∞
12'	8' 8" – 19' 0"	8' 0" – 24' 4"	7' 0" – 47' 0"	6' 0" – ∞
9'	7' 0" – 12' 4"	6' 6" – 14' 4"	5' 10" – 19' 8"	5' 2" – 35' 8"
7'	5' 10" – 8' 8"	5' 6" – 9' 8"	5' 0" – 12' 0"	4' 6" – 16' 4"
6'	5' 2" – 7' 4"	4' 10" – 8' 0"	4' 6" – 9' 4"	4' 1" – 11' 8"
5'	4'4.5" – 5'10"	4'2.5" – 6' 2"	3' 11" – 7' 0"	3'7.5" – 8' 4"
4'	3'7.5" – 4' 6"	3'5.5" – 4' 8.5"	3'3.5" – 5' 1.5"	3'1.5" – 5' 8.5"

Diaphragm and exposure time

In order to avoid too long exposure times it is advisable to work with as large an aperture as the required depth of field permits, because the smaller the stop the longer the exposure time. The stops and the exposure times are arranged in such a way that any stop smaller than the preceding one requires double the exposure time. When stop f : 5.6 requires $^1/_{100}$ second, stop f : 8 will require $^1/_{50}$ second and stop f : 11 $^1/_{25}$ second.

Red-dot setting

When the prevailing light conditions are good and rapid sequence snapshots have to be taken it is no good to lose time with distance setting. In this case the red-dot setting should be used. Set the diaphragm and the distance to the red dots (illustr. 9) and everything from 13 feet to "infinity" will be sharp. According to the light conditions exposure times of $^1/_{25}$, $^1/_{50}$ or $^1/_{100}$ second may be used. The SUPER IKONTA can be closed when it is set to the red dots so that it is always ready for rapid action.



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Working with fixed distance setting

When fast moving objects have to be taken a different method is advisable: if you want to photograph a child at play, you often have no time for correct distance measuring. In this case it is recommended to set the rangefinder to a suitable distance. Then, by looking into the eyepiece you approach your object until its double outlines coincide in the rangefinder. When the image field required appears in the viewfinder you merely press the button and expose.

The correct exposure time

can be ascertained from exposure tables or, most exactly, with the photo-electric exposure meter ZEISS IKON IKOPHOT which allows to read off the correct exposure time for any stop and any light condition directly without any calculation (see page 23).

The exposure time depends on the stop used, the film speed, the prevailing light conditions and the filter factor, if a filter is used. As a rough-and-ready rule try:

Outdoor photographs

in bright sunshine	*sky overcast*
film speed 32 A.S.A	film speed 32 A.S.A.
diaphragm setting f : 8	diaphragm setting f : 5.6
1/100 second	1/50 second

The Exposure

How to hold the camera

The SUPER IKONTA must be held as steady as possible during exposure, if sharp negatives are to be obtained. It is one of the advantages of the square size $2^1/_4 \times 2^1/_4$ ins. that no weighty decision is needed as to whether to approach the subject with the camera in a horizontal or vertical position. So there is only one way to hold the SUPER IKONTA correctly.

Hold the camera with both hands the fingers spanning the camera body while the thumbs are on the back. The middle finger of the left hand operates

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the milled ring (6, illustr. 6) of the rangefinder. The index finger of the right hand releases the shutter (15).

When looking through the eyepiece of the combined view-and-rangefinder with the right eye the camera must be held as shown in illustr. 10. In this case the left eye must be closed. It is, therefore, more convenient to use the left eye because then the right eye need not be closed (illustr. 11).

Instantaneous exposures of a longer duration (e. g. $^1/_5$ or $^1/_{10}$ sec.) as well as time exposures should always be made from a tripod or any other firm support. The SUPER IKONTA has a tripod bush at the base of the camera.

How to release the shutter

The shutter is released by completely depressing the body shutter release knob (15). Do not press but squeeze the button (15) gently, taking up the slack in the releasing mechanism slowly. Releasing the shutter is possible only if:

1) the film is correctly advanced (see page 18)
2) the shutter (14) is tensioned

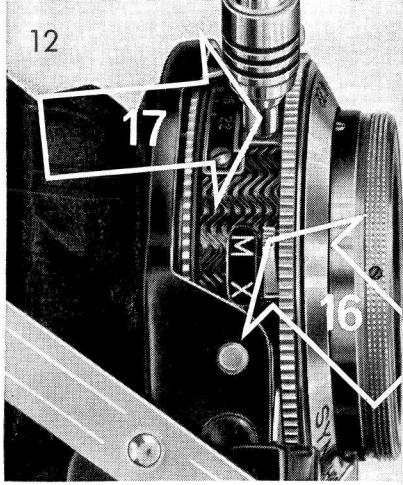
Flashlight photography

The speed synchronized Synchro-Compur shutter can be coupled to all types of flashgun. The shutter has two synchronizing settings which are set by means of the synchro-lever (16):

With the *"X"-setting* the shutter fires the flashbulb at the moment the shutter blades are fully open. Electronic flashes have always to be fired with the "X" position.

The *"M"-position* allows for the firing delay of most average flashbulbs. The "M"-setting is therefore suitable for standard flashbulbs at all shutter speeds.

For flash exposure set the synchro-lever (16) to the required position ("X" or "M"). (illustr. 12). Distance, exposure time and stop are set in the usual way. Then the shutter must be tensioned. Connect the flash lead from the flashgun to the flash socket (17). Only then put a flashbulb into the gun: When the



shutter is released (button 15) the flashbulb will be fired in synchronization with the shutter and according to the setting of the synchro-lever (16).

Listed in the table on page 17 are the suitable shutter speeds for flashbulbs of different types at "X" and "M" settings.

Table of exposure times for flashbulbs and electronic equipment

Type of flashbulb	Synchro-Lever on "X"	Synchro-Lever on "M"
Osram Vacublitz XP, XO	1—1/50	—
F 1, F 2	1—1/25	—
S 0, S 1,	1—1/25	1/50—1/500
S 2	1—1/10	1/50—1/500
Philips Photoflux Pf 3	1—1/25	1/50—1/100
Pf 14, Pf 25 / Pf 45, Pf 56	1—1/25	1/50—1/500
Pf 24, Pf 110	1—1/10	1/25—1/50
Gen. Electric Westinghouse SM	1—1/50	—
Nr. 5, 6, 11, 22	1—1/25	1/50—1/500
Nr. 31	1—1/10	1/25
Nr. 50	1—1/10	1/25—1/50
Sylvania Superflash, Wabash SF	1—1/100	—
Nr. 0, 2 / Press 25 / Press 40	1—1/25	1/50—1/500
Nr. 3	1—1/10	1/25 – 1/50
Electronic flash	1—1/500	–

After the exposure

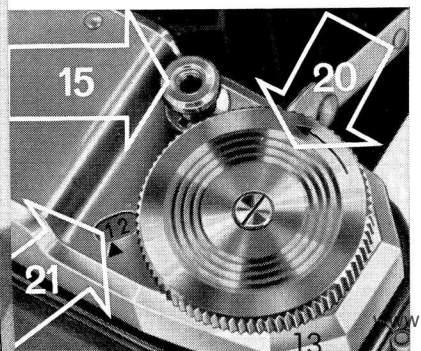
Film advance

After every exposure the film must be advanced one frame by turning the film wind knob (20) until it stops (illustr. 13). The same movement automatically advances the film-counter (21) by one figure. The film counter indicates the number of the frame which is ready for exposure. As the film can be advanced only when the body shutter release (15) has been released, while on the other hand a shutter release is only possible when the film has been advanced, double exposures and blanks are excluded.

Inserting the film

For the SUPER IKONTA standard 120 roll film is used. The camera can be loaded in daylight, but in the shadow and not in bright sunshine — even your own shadow will do.

The back of the camera can be opened after the locking bolt (18) has been pulled out. The full film spool is inserted into the spool chamber below the film type indicator (22, illustr. 14). Pull out the spring prong at the lower side of the camera. The spool must be inserted in such a way that the tapered end of the red backing paper points toward the empty (take-up) spool. Break the gummed seal of the film and draw the pointed end of the backing paper across the film



gate until you can fit it into the longer slit in the core of the empty take-up spool. Pull the red backing paper taut by a few turns of the film wind knob (20) until the two triangular marks on the paper (or, with other makes of film, a double-headed arrow) are exactly opposite the two white marks on the film guide of the camera (illustr. 15). The backing paper must lie flat between the flanges of the take-up spool and must on no account chafe them. Then close the back of the camera and push the locking bolt (18) completely home. The film wind knob (20) has now to be turned several times until it locks. The film counter is thus set to „1" automatically and when the shutter is tensioned (14) the SUPER IKONTA is ready for the first shot.

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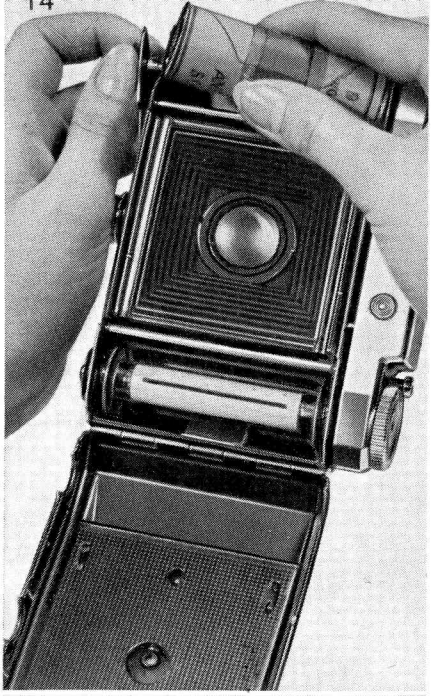

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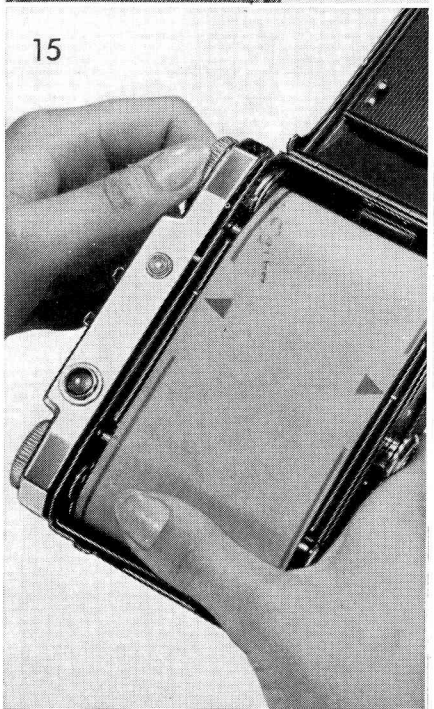
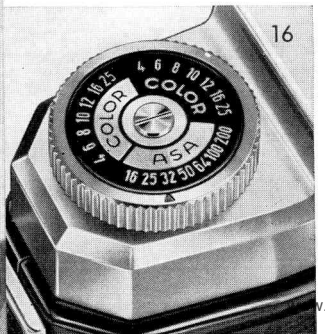


Film type indicator

Having loaded the camera, the film type indicator (22) is set to the type of film which has just been inserted into the SUPER IKONTA. Giving the type of black and white or colour film for daylight or artificial light as well as the film speed (illustr. 16), this indicator is always a useful reminder. To set the indicator, lift the milled ring upward and set the black mark to the type and speed required. Whether the camera is loaded or not can easily be ascertained by pulling back the slide of the film window (19). The coloured backing paper of the film will be visible when the camera is loaded.

Unloading the camera

After the twelfth exposure turn the film wind knob (20) until it locks. The film counter (21) now shows a red dot. The camera back can then be opened, which makes the film counter snap back automatically into its initial position (black dot). The lower spring prong is then pulled out and the spool removed (in the shadow, not in bright sunshine). Seal the film spool immediately with the label „Exposed". Prior to inserting a fresh film remove the empty spool and insert it into the take-up spool chamber. By turning the film wind knob (20) make sure that the take-up spool has engaged in the key of the film wind knob.



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Accessories

Ever-ready case

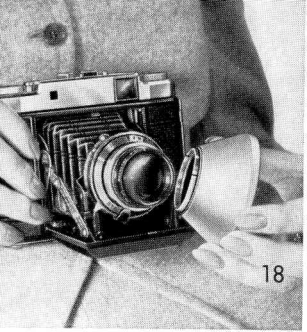
The practical ever-ready case protects the SUPER IKONTA from damage and dust. The camera is held in its case by means of a screw and need not be taken out of the case for taking photographs. (illustr. 17) Order No. 1237/16

ZEISS IKON *precision filters*

For special effects ZEISS IKON precision filters are available in yellow, yellow-green, orange, red and blue (IKOLOR) as well as U.V. filter. They are screwed onto the lens mount and need not be removed when the camera is closed (lens focused at ∞). Diameter 35.5 mm. When filters are used the exposure time has to be extended in accordance with the filter factor which is engraved on the mount of every filter. Order No. 353

Polarising filter

To eliminate reflections in highly polished, non-metallic surfaces of the object to be photographed, the polarising filter ZEISS BERNOTAR(diameter 32 mm)



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is slipped onto the lens mount. Filter factor: 3. For particulars see the instructions for use of the polarising filter. Order No. 330

Lens hood

The lens hood prevents irradiations and fog in against-the-light 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 simply a must for colour photography. The ZEISS IKON lens hood (diameter 32 mm) can be slipped over ZEISS IKON precision filters and the ZEISS PROXAR lenses (illustr. 18). Order No. 1111

Cable release

For long instantaneous ($^1/_{10}$ or $^1/_5$ sec.) and time exposures a cable release should be used which can be screwed into the thread of the body shutter release (15). For long time exposures (shutter setting "B") the ZEISS IKON cable release has a special time lock. Order No. 1312/24

Supplementary lenses for close-ups (ZEISS PROXAR)

The SUPER IKONTA can be focused at any distance up to 4 feet.

The supplementary lenses allow to focus the camera at shorter distances. The ZEISS PROXARS (dia-

meter 32 mm) are merely slipped onto the lens mount. For subject distances up to about 19¾ ins (50 cm) PROXAR-lens f = 1 m is used, for subject distances up to about 14 ins (35 cm) it is the PROXAR-lens f = 0.5 m. Image scale and size of the image field can be found in the table on page 23.

Order No. 910

Table for the use of supplementary lenses
(ZEISS PROXAR)

Lens setting m	Subject distance cm	Reduction 1 :	Subject size cm
inf.	3' 3¼"	13.3	2' 6" × 2' 6"
48'	3' ½"	12.3	2' 3¾" × 2' 3¾"
24'	2' 10½"	11.7	2' 2½" × 2' 2½"
15'	2' 8"	10.8	2' ½" × 2' ½"
12'	2' 6½"	10.3	1' 11¼" × 1' 11¼"
9'	2' 4¼"	9.5	1' 9½" × 1' 9½"
7'	2' 2¼"	8.8	1' 8" × 1' 8"
6'	2' ¾"	8.2	1' 6¾" × 1' 6¾"
5'	1' 11"	7.6	1' 5¼" × 1' 5¼"
4'	1' 9¼"	6.9	1' 3½" × 1' 3½"
	Proxarlens f = 1 m		
inf.	1' 7¾"	6.7	1' 3¼" × 1' 3¼"
48'	1' 7"	6.4	1' 2½" × 1' 2½"
24'	1' 6¼"	6.2	1' 2" × 1' 2"
15'	1' 5½"	5.9	1' 1¼" × 1' 1¼"
12'	1' 5"	5.7	1' 1" × 1' 1"
9'	1' 4½"	5.5	1' ½" × 1' ½"
7'	1' 3¾"	5.3	1' × 1'
6'	1' 3¼"	5.1	11½" × 11½"
5'	1' 2½"	4.8	10¾" × 10¾"
4'	1' 1½"	4.5	10¼" × 10¼"
	Proxarlens f = 0,5 m		

The distance between the object and the camera is measured from the front rim of the mount of the supplementary lens. The depth of field will be sufficient when the lens is stopped down to f : 8.

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Colour photography

On account of the excellent colour correction of the NOVAR- or the TESSAR lenses the SUPER IKONTA is especially suited for colour photography. Contrary to black and white films colour films have a small exposure latitude only and accurate exposure is, therefore, one of the essentials of good colour photography. For this purpose the photo-electric exposure meter ZEISS IKON IKOPHOT comes in handy (illustr. 19). Ask your photo-dealer for the special IKOPHOT leaflet.

Flashlight photography

For flashlight exposures the ZEISS IKON flashguns IKOBLITZ have proved to be especially suitable. The IKOBLITZ 0, a handy capacitor flashgun, has a test lamp for testing inserted flashbulbs and is supplied with a practical bag with zip fastener.

The IKOBLITZ III, also a capacitor flashgun, is provided with all refinements for the most particular customer.

For press-photographers and discriminating amateurs there is the electronic flash equipment IKOTRON Ask your photo-dealer for descriptive leaflets.

In order to prevent the flash lead from interfering with the field of view the flashgun is suitably connected to the contact socket (17) by means of the ZEISS IKON angle-plug. Order No. 1340

Photography with artificial light

The most suitable equipment for photography with artificial light is the Universal Lighting Equipment MOVILUM (illustr. 20). This practical appliance is delivered with two reflectors but can be equipped with 4 or even 6 reflectors. Similar to a flashgun the MOVILUM is screwed to the camera by means of a special bracket so that the lamps need not be shifted when the subject changes the position. Order No. 1310

ZEISS IKON

How to take care of the
SUPER IKONTA

The inside of the camera should be cleaned from time to time with a fine brush. All dust must be removed. If the surfaces of the lens show spots and finger marks they should be cleaned with lens tissue paper or with a soft, frequently washed, non-fluffy piece of linen (not leather). The lens should be cleaned only when absolutely necessary, dust on the lens can be removed with a lens cleaning brush of selected camel hair.

Serial number

Each SUPER IKONTA 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 case of loss or theft.

The technical development may require slight changes on the camera as compared with this description.

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