ZEISS IKON

STUTTGART

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SUPER IKONTA

$2\frac{1}{4}$" x $3\frac{1}{4}$"

INSTRUCTION BOOK

ZEISS IKON

ZEISS IKON AG. STUTTGART

FEATURES OF THE SUPER IKONTA 2¼"x3¼"

The high-speed, colour corrected, and coated ZEISS TESSAR f/3.5–105 mm has proved its efficiency already for some decades; it furnishes black and white as well as colour photographs of unmatched definition and plasticity.

The setting of the distance is done by means of the *rotating-wedge type rangefinder*, which without using a sensitive mechanical gearing permits exact focusing of the lens.

The van Albada *sports finder* allows an exact delimitation of the picture field even in the case of quickly moving subjects.

The *Synchro-Compur shutter* is marked in speeds from 1 sec. to 1/500 sec. with bulb and is equipped with a flash synchronisation contact and a delayed action release.

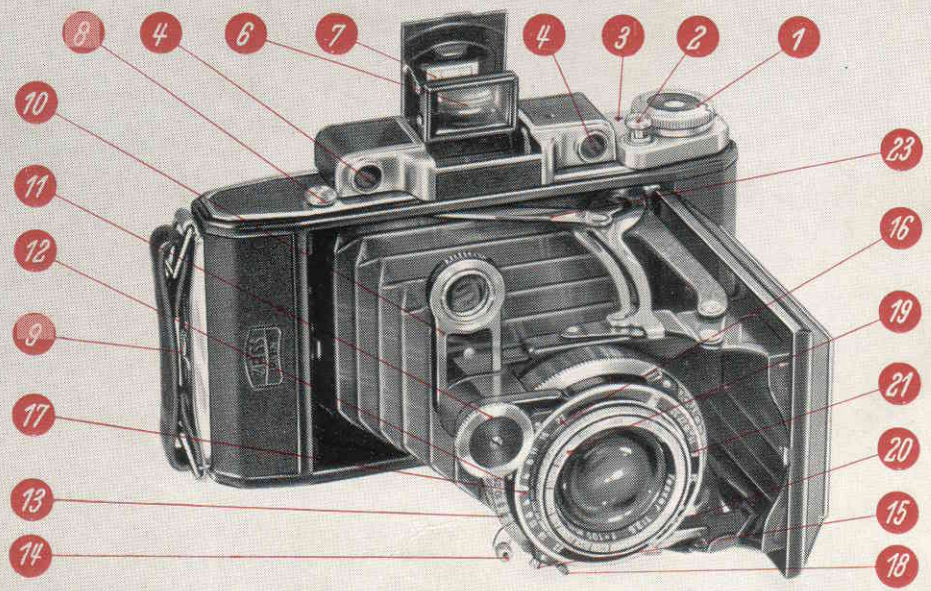
If lighting conditions are good, the ***red-dot setting*** of the SUPER IKONTA 2¼"x3¼" permits snapshots without circumstantial focusing, since everything from 16 ft to infinity is recorded sharply when using the red-dot setting.

All these features mark the SUPER IKONTA 2¼"x3¼" as a camera preferred by amateurs as well as by professionals, scientists, and reporters.

PARTS OF THE SUPER IKONTA 2¼" x 3¼"

1 Film winding key
2 Shutter release button (with thread for cable release)
3 Signal mark
4 Window of rangefinder
5 Eyepiece of rangefinder
6 Albada finder
7 Eyepiece of viewfinder
8 Press-button for opening camera
9 Bolt for locking camera back
10 Pivoted arm of range-finder
11 Focusing wheel of range-finder
12 Button of delayed action release
13 Shutter speed setting ring
14 Shutter setting lever
15 Flash synchronisation contact
16 Depth-of-focus scale

Description of parts continued on last page of cover



The

SUPER IKONTA 2¼" x 3¼"

is a high quality camera taking 8 pictures 2¼" x 3¼" or 16 pictures 1¾" x 2¼" on standard B II/8 (120) film. It carries a coated ZEISS TESSAR lens f/3.5–105 mm, coupled rangefinder, van Albada sportsfinder, Synchro-Compur shutter with built-in flash synchronisation contact, delayed action release, automatic film lock to prevent double exposures, and signal device to prevent blank frames. It is a large-format camera of maximum precision which meets the requirements even of discriminating users.

Small changes on the camera as compared with the description may have been necessary due to the technical development.

ZEISS IKON

TABLE FOR USE OF PROXAR SUPPLEMENTARY LENSES

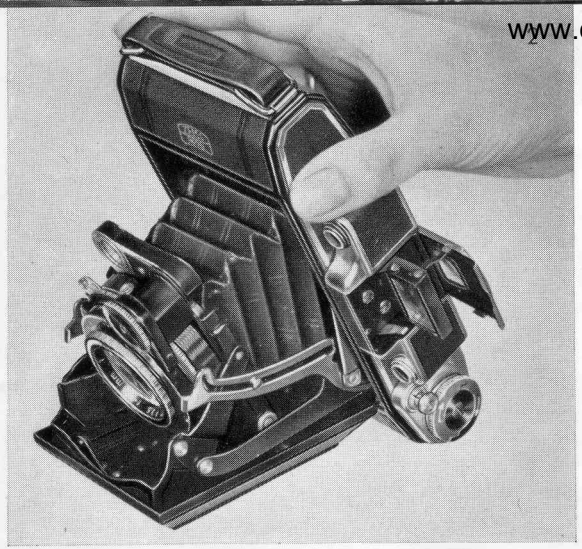
The distance from the camera to the subject must be measured from the rim of the Proxar lens mount. A sufficient depth of focus is obtained already with lens aperture 8.

Lens setting	Distance	Reduction 1:	Size of picture field	Distance	Reduction 1:	Size of picture field	Distance	Reduction 1:	Size of picture field
	Proxar F = 2 m			Proxar F = 1 m			Proxar F = 0.5 m		
inf.	6' 6¾"	19.0	3' 7" x 5' 5¾"	3' 3¼"	9.4	1' 9¼" x 2' 8½"	1' 7¾"	4.8	10¾" x 1' 4¾"
48'	5' 8¾"	16.6	3' 1½" x 4' 9½"	3' ½"	8.8	1' 8" x 2' 6½"	1' 7"	4.6	10½" x 1' 4"
24'	5' 1¾"	14.8	2' 9½" x 4' 3¼"	2'10¼"	8.2	1' 6½" x 2' 4½"	1' 6¼"	4.5	10¼" x 1' 3½"
15'	4' 6½"	13.1	2' 5¾" x 3' 9½"	2' 8"	7.6	1' 5¼" x 2' 2¼"	1' 5½"	4.3	9¾" x 1' 3"
12'	4' 2¼"	12.0	2' 3¼" x 3' 5½"	2' 6½"	7.2	1' 4¼" x 2' 1"	1' 5¼"	4.1	9¼" x 1' 2¼"
9'	3' 8½"	10.6	2' x 3' ¾"	2' 4¼"	6.7	1' 3¼" x 1'11¼"	1' 4¼"	3.9	8¾" x 1' 1½"
6'	3'	8.5	1' 7¼" x 2' 5½"	2' ¾"	5.8	1' 1¼" x 1' 8"	1' 3"	3.6	8¼" x 1' ½"
5'	2' 8¼"	7.6	1' 5¼" x 2' 2¼"	1'11"	5.4	1' ¼" x 1' 6¾"	1' 2¼"	3.4	7¾" x 11¾"

PARTS OF THE SUPER IKONTA 2¼" x 3¼"

17 Focusing scale index mark
18 Synchro-switch
19 Lens mount with focusing scale
20 Diaphragm setting lever
21 Diaphragm scale
22 Camera foot
23 Struts
24 Film window No. 1 for picture sizes 2¼" x 3¼" and 1¾" x 2¼"
25 Film window No. 2 for picture size 1¾" x 2¼"
26 Slide for opening of film windows
27 Tripod socket for vertical format 2¼" x 3¼" and horizontal format 1¾" x 2¼" (the tripod socket for horizontal format 2¼" x 3¼" and vertical format 1¾" x 2¼" is in the side of the camera)
28 Reducing mask for format 1¾" x 2¼"

Numbers refer in part to front view on page 3.



3

OPENING AND CLOSING THE CAMERA

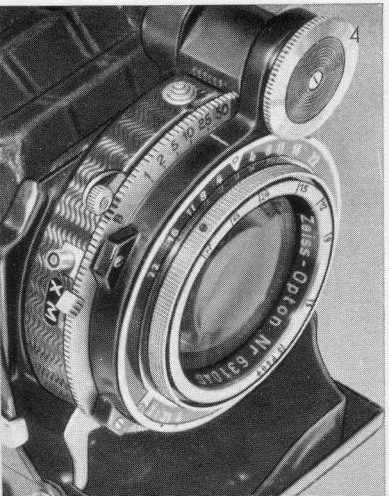
The camera is grasped with one hand from behind and is slightly tilted forward. A pressure on button (8) brings the baseboard and the viewfinder into the working position. If due to wrong handling of the camera the struts (23) should not open completely, the camera can at once be brought into the taking position by pressing down the baseboard. After this, the pivoted arm of the rangefinder (10) must be swung out.

For closing the SUPER IKONTA 2¼" x 3¼", swing back the pivoted arm of the rangefinder (10). Now the upper parts of the struts (23) are simultaneously pressed back with the thumbs, so that the baseboard is raised and the camera can be closed. Then close the viewfinder by pressing down the frame with the eyepiece.

The SUPER IKONTA may be closed at any position of the focusing scale, with the shutter set or with filters fitted on the lens. Thus the camera can be kept instantly ready for use.

SETTING OF EXPOSURE TIME

Turn the milled shutter speed setting ring (13) until the red mark is directly opposite the required exposure time. The numbers on this scale indicate fractions of a second; "25", for instance, means 1/25 sec. etc. When setting exposure time 1/500 sec. you will have to overcome a slight resistance. For long exposures, use setting "B" and employ a cable release. For very long exposures the ZEISS IKON cable release can be adjusted in a way as to give continual pressure. The shutter is set by lever (14). Except for the 1/500 sec. setting it does not make any difference whether the exposure time is set before or after cocking the shutter. With the 1/500 sec. setting, the exposure time must be set before the shutter is wound.



SETTING OF DIAPHRAGM

The diaphragm is set by turning diaphragm setting lever (20) until the desired lens aperture marking (21) is opposite the setting mark. The depth of focus for any lens aperture can be quickly and safely ascertained directly from the distance scale by means of the depth-of-focus scale (16). The various lens apertures are for this purpose engraved to the left and right of the index mark of the distance scale (17). Example: With a distance setting of 6 ft and diaphragm setting 11, the number "11" of the diaphragm setting is opposite the 5 ft mark on the left side and opposite the 12 ft mark on the right side. Consequently, every object between 5 ft and 12 ft will be recorded sharply with diaphragm setting 11 and distance setting 6 ft. The exact figures will be found in the depth-of-focus table on page 11.

THE CORRECT EXPOSURE TIME

can be ascertained from tables or, very exactly, with the photo-electric ZEISS IKON exposure meter IKOPHOT. It depends on the lens aperture and the sensitivity of the film used and the general lighting conditions.

BASIC RULE:

Outdoor photographs in bright sunshine:

film sensitivity 32 ASA
diaphragm setting 8
1/100 sec.

Outdoor photographs, sky overcast:

film sensitivity 32 ASA
diaphragm setting 5.6
1/50 sec.

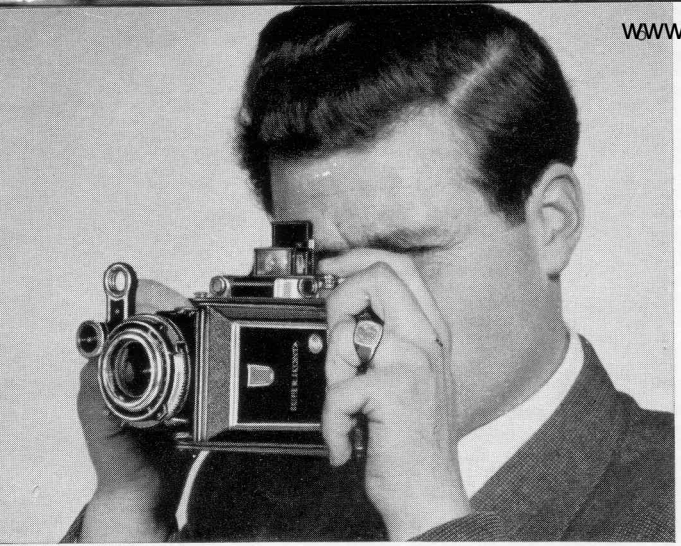
THE ZEISS IKON RED-DOT SETTING

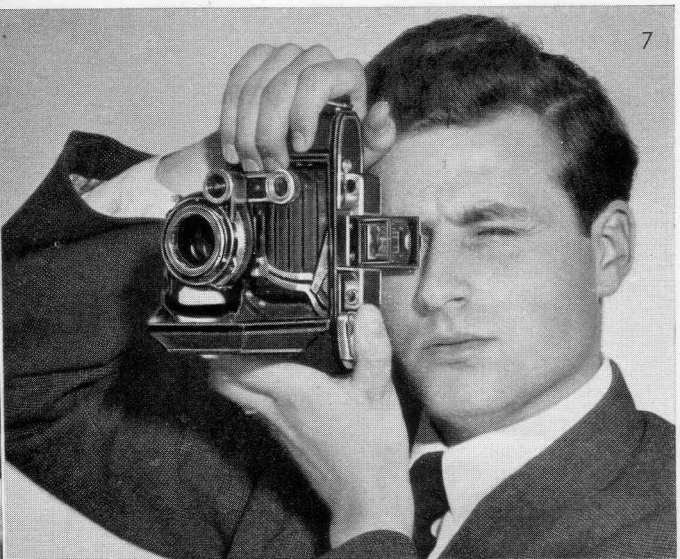
The ZEISS IKON red-dot setting enables the owner of a SUPER IKONTA to take rapid snapshots. After the diaphragm setting lever and the distance setting mark are set to the red dots, no further focusing is required, because with this setting everything from 16 ft will be recorded sharply. Most satisfactory exposure times for this setting are 1/25 or 1/100 sec., according to the prevailing lighting conditions.

The SUPER IKONTA can be closed also when set in this manner and is always ready for taking snapshots immediately after opening. Thus the SUPER IKONTA is the ideal camera for always being ready for action, and no SUPER IKONTA owner should ever miss any motif requiring quick action.

DEPTH OF-FOCUS-TABLE FOR FOCAL LENGTH 105 mm

Lens setting	Diaphragm 3.5	4.0	5.6	8	11	16	22	32
inf	98' 8"	86' 4"	62' 0"	43' 4"	31' 8"	22' 0"	16' 0"	11' 0"
	∞	∞	∞	∞	∞	∞	∞	∞
48'	32' 8"	31' 0"	27' 4"	23' 0"	19' 4"	15' 4"	12' 4"	9' 4"
	92' 0"	106' 0"	206' 8"	∞	∞	∞	∞	∞
24'	19' 4"	19' 0"	17' 8"	15' 8"	14' 0"	11' 8"	10' 0"	7' 8"
	31' 4"	32' 8"	38' 4"	52' 0"	93' 0"	∞	∞	∞
15'	13' 0"	13' 0"	12' 4"	11' 4"	10' 4"	9' 0"	8' 0"	6' 8"
	17' 4"	18' 0"	19' 4"	22' 4"	27' 4"	44' 0"	170' 8"	∞
12'	10' 8"	10' 8"	10' 4"	9' 8"	9' 0"	8' 0"	7' 0"	6' 0"
	13' 8"	13' 8"	14' 8"	16' 4"	18' 8"	25' 0"	42' 4"	∞
9'	8' 4"	8' 4"	8' 0"	7' 8"	7' 4"	6' 8"	6' 0"	5' 2"
	9' 8"	10' 0"	10' 4"	11' 0"	12' 0"	14' 4"	18' 8"	38' 4"
6'	5' 8"	5' 8"	5' 6"	5' 4"	5' 2"	4' 10.5"	4' 6.5"	4' 1.5"
	6' 4"	6' 4"	6' 6"	6' 10"	7' 2"	8' 0"	9' 0"	11' 8"
5'	4' 9.5"	4' 9"	4' 8.5"	4' 7"	4' 5.5"	4' 2.5"	4' 0"	3' 8"
	5' 2"	5' 2"	5' 4"	5' 6"	5' 10"	6' 2"	6' 10"	8' 0"





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HOW TO HOLD THE CAMERA

In order to obtain negatives of maximum sharpness the camera must be held absolutely motionless during the exposure. For horizontal pictures 2 1/4" x 3 1/4" it is advisable to hold the camera in the palms of the hands with the fingers surrounding it. The index finger of the left hand releases the shutter (2).

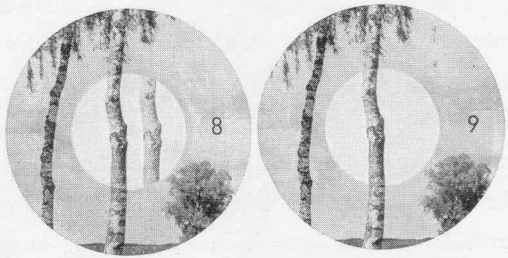
For vertical pictures 2 1/4" x 3 1/4" the camera must be held mainly with the right hand, while the left hand supports it from below. The thumb of the left hand presses on the shutter release button (2).

With the 1 3/4" x 2 1/4" picture size, i. e. when using a reducing mask, the camera is held exactly the other way round. When holding the camera vertically it will take horizontal pictures 1 3/4" x 2 1/4", whereas vertical pictures 1 3/4" x 2 1/4" are obtained by holding the camera horizontally. Long instantaneous or time exposures have to be made from a tripod or other solid support. It is advisable to use a cable release in this case.

FOCUSING WITH THE ROTATING-WEDGE RANGEFINDER

For focusing, swing out the pivoted arm (10). When looking through the eyepiece (5) of the rangefinder you will see in the middle of the picture field a bright circular field, in which part of the object to be photographed appears duplicated. By turning the focusing wheel (11) these double images will be brought to coincidence and the lens will then be accurately focused on the distance of the subject. Sharp vertical lines show coincidence especially easily.

Accurate focusing is particularly required if the lens aperture f/3.5 is used, because the larger the lens aperture used, the less will be the depth of field.



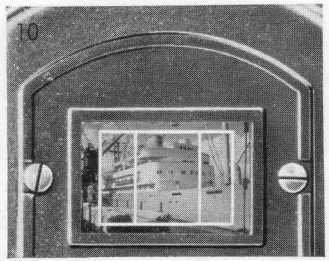
The distance measured can be read off on the distance scale. This distance scale reading is particularly useful in showing the lens aperture required for a certain depth of focus.

In practice, the following method has proved to be very efficient:

If you want, for instance, to photograph a child at play, set the lens on the most favourable distance and then leave this distance unchanged. Observe the child in the rangefinder and approach it until the two images in the rangefinder come to coincidence. Look through the viewfinder and release the shutter.

THE ALBADA SPORTS FINDER

On pressing the button for opening the camera (8) the automatic spring mechanism opens the camera as well as the optical finder (7). A look through the finder shows the subject to be photographed and a sharp delimitation of the picture field by means of white lines, the outer frame corresponding to the $2^1/_4'' \times 3^1/_4''$ picture size, while the inner one delimits the $1^3/_4'' \times 2^1/_4''$ picture field. The finder must be held closely to the eye. Care should be taken, however,



that the eyepiece (7) is not pushed forward, lest the picture field be distorted. Also take care that the horizontal and vertical lines of the subject run parallel to the edges of the finder.

THE EXPOSURE

The shutter is released by completely pressing down the body release (2) without jerking. Releasing is possible only if

1) the film has been advanced by one picture frame, which is indicated by the red dot of the signal mark (3);
2) the shutter has been set.

THE DELAYED ACTION RELEASE

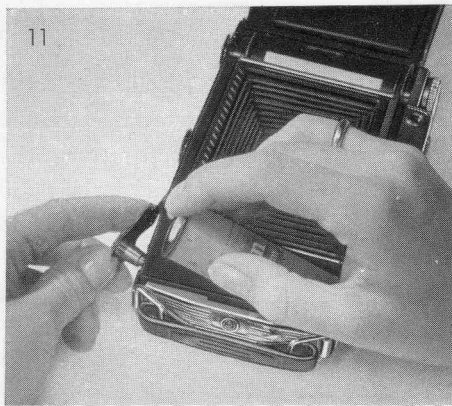
To set the built-in delayed action release, set shutter and push back button (12). The shutter cocking lever can now be pushed a little further, whereby the delayed action mechanism is wound. After pressing the body release (2) the delayed action mechanism starts running and, after about 8 seconds, releases the shutter. The delayed action mechanism can not be used when the 1/500 sec. setting or setting "B" are

used. It is helpful to use the delayed action release for pictures taken with the camera held in the hand and with exposures of 1/10 sec. or longer. After releasing the shutter it is possible to grip the camera tightly with both hands, so that the tendency to blur longer exposures is greatly reduced, especially if the photographer has some support, leaning, for instance back on a wall etc.

LOADING THE CAMERA

The camera back is opened by pushing the locking bolt (9) in direction of the arrow. For loading the camera with a B II/8 (120) roll film, pull out the spring prong at the bottom of the camera and insert the spool into the upper spool chamber, so that the end of the red protective paper is directed towards the empty take-up spool.

Now slit the lable of the film and pull out the protective paper, so that its beginning can be inserted into the wider slot of the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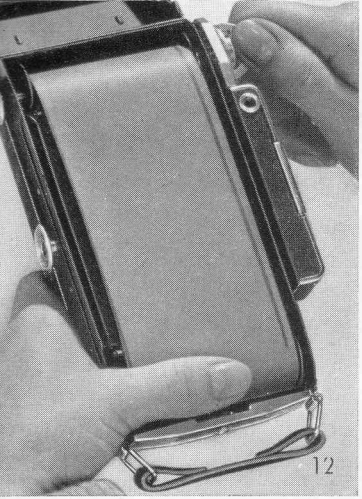


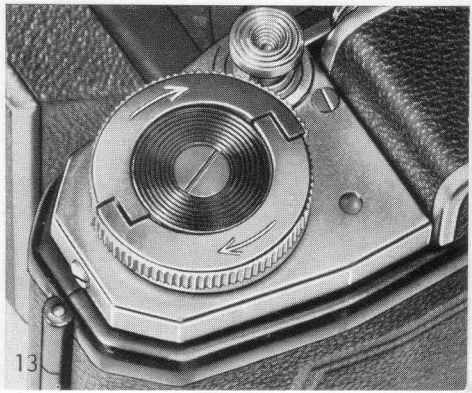
take-up spool. Tighten the protective paper by turning the film winding key (1) several times. Close the camera back. When opening the slide (26) in the camera back you will see two film windows, which serve for verifying the number of pictures made. Turn the winding key until number "1" appears in the first film window (24). After each exposure, advance the film with film winding key (1) by one frame. For picture size $2^1/_4$" x $3^1/_4$" you need only observe the first window (24). When a reducing mask for picture size $1^3/_4$" x $2^1/_4$" is used, each number must appear first in window No. 1 (24) and then in window No. 2 (25). Close the film windows (26) when the film has been wound on.

Accidental double exposures are not possible with the SUPER IKONTA, as the camera is equipped with a double exposure prevention device. The body release can be pressed down only if the film has been advanced to the next number by turning film winding key (1).

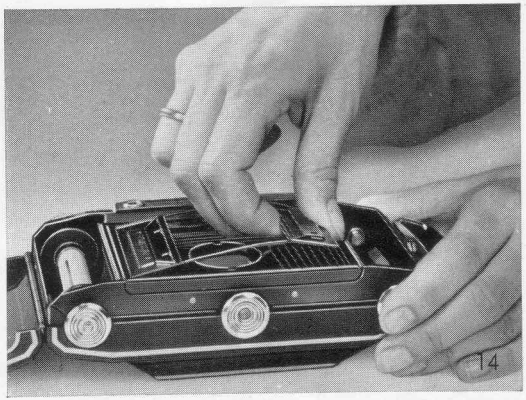
A red dot in signal window (3) indicates that the film has been properly advanced. Thereby also blank frames are prevented.

UNLOADING THE CAMERA

After the 8th exposure (or 16th exposure when using picture size $1^3/_4$" x $2^1/_4$"), turn the film winding key until the end of the protective paper passes the film window. Open the camera back, pull out spring prong, carefully remove the spool in the shadow (not in bright sunshine) and glue it. Before loading a new film, remove the empty spool and insert it into the take-up spool chamber. By turning the film winding key make sure that the empty spool has engaged properly with the prong of the film winding key.



HOW TO ATTACH THE REDUCTION MASK



FLASH PHOTOGRAPHS

The fully synchronised Compur shutter has provision for two positions (X and M).

After setting synchro-switch (18), exposure time, and lens aperture, cock the shutter, fit the flash cable to contact nipple (15), and insert the flash bulb. On pressing the release (2) the flash bulb is fired in accordance with the synchronisation setting used and the shutter action.

POSITION X

When this position is used, the bulb is fired at the moment when the shutter is wide open. Electronic flashes are always fired with position X.

POSITION M

This position serves for firing flash bulbs, using a pre-ignition that corresponds to the ignition delay of most flash bulbs. This is the reason why position M allows firing of flash bulbs in conjunction with even the shortest shutter speeds.

The delayed action release can be used for flash photographs in conjunction with the X position. Our table indicates the exposure times to be used with positions X or M for the various types of flash bulbs.

ZEISS IKON

SHUTTER SPEEDS TO BE USED FOR FLASH BULBS

Type of Flash	Synchro-Switch in Position X	M
Osram Vacublitz		
XP, XO	1 – 1/50	–
F 1, F 2	1 – 1/25	–
S 0, S 1, S 2	1 – 1/25	1/50 – 1/500
Philips Photoflux		
Pf 3	1 – 1/25	1/50 – 1/100
Pf 14, Pf 24, Pf 25, Pf 45, Pf 56	1 – 1/25	1/50 – 1/500
Pf 110	1 – 1/10	1/25 – 1/50
General Electric Westinghouse		
SM	1 – 1/50	–
No. 5, 6, 11, 22, 31	1 – 1/25	1/50 – 1/500
No. 50	1 – 1/10	1/25 – 1/50
Sylvania Superflash, Wabash		
SF	1 – 1/50	–
No. 0,2, Press 25, Press 40	1 – 1/25	1/50 – 1/500
No. 3	1 – 1/10	1/25 – 1/50
Electronic flashes	1 – 1/500	–

ACCESSORIES FOR THE SUPER IKONTA

THE EVEREADY CARRYING CASE

protectos the SUPER IKONTA from detrimental external influences. It need not be removed for taking a picture.

THE LENS HOOD

prevents flare and haze in against-the-light photographs. In bad weather it moreover protects the lens from rain and snow. It can also be fitted on a filter.

COLOUR FILTERS

ZEISS IKON colour filters, which are screwed on the lens of this camera, are used to obtain certain effects. They need not be removed when the camera is closed. Yellow, yellow-green, orange, red, and ultraviolet filters are available. The diameter of their mount is 40.5 mm.

POLARIZATION FILTER

The polarization filter ZEISS Bernotar (Ø 37 mm) is slipped on the lens when the photographer wishes to eliminate reflexes on shining surfaces of the subject. The exposure time must in this case be multiplied by 3.

SUPPLEMENTARY LENSES

for close-ups (ZEISS Proxar lenses) serve for focusing the SUPER IKONTA on distances of less than 5ft; they are slipped on the lens (Ø 37 mm). The lens setting the scale of reproduction, and the size of the picture field can be seen from the table on page 25.

THE CABLE RELEASE

is screwed into the thread of the body shutter release (2). It is used mainly for photographs made from a tripod and is equipped with a plunger catch which serves for long time exposures (shutter setting "B").

COLOUR PHOTOGRAPHS

The SUPER IKONTA is excellently suited for colour photography thanks to the high quality colour corrected ZEISS lenses. Contrary to black and white films, colour films permit little deviation from the exact exposure time. Therefore, the photo-electric exposure meter IKOPHOT is indispensable for these photographs.

FLASH PHOTOGRAPHS

If you want to take flash photographs, you will find the ZEISS IKON flash units IKOBLITZ I and IKOBILTZ II and the ZEISS IKON electronic flash IKOTRON very useful.

How to take care of the

SUPER IKONTA

It is advisable to dust the interior of the camera from time to time with a soft camel hair brush. If the lens is dirty, clean it carefully with a soft, well washed, dry linen cloth. Dust particles should be removed beforehand with a soft camel hair brush. The valuable lens should be cleaned only when it is really necessary.

A serial number is engraved on every SUPER IKONTA, and the ZEISS lens with which the camera is equipped is also numbered. We recommend every SUPER IKONTA owner to take a note of these two numbers in order to be able to identify the camera if this should be necessary.

ZEISS IKON