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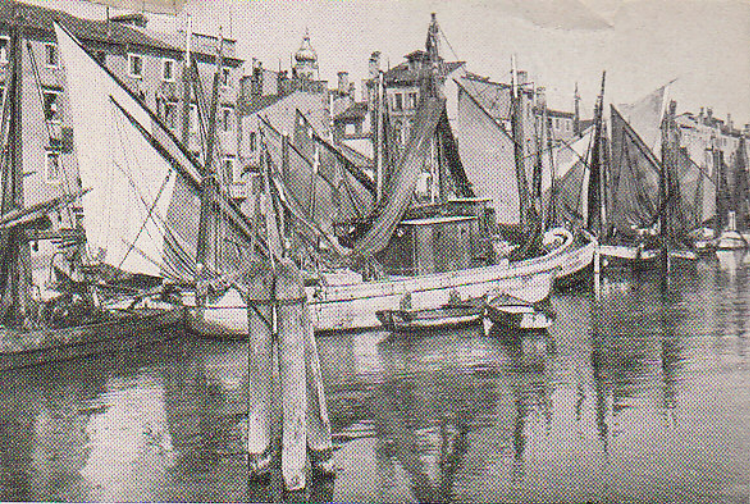
I N S T R U C T I O N   B O O K



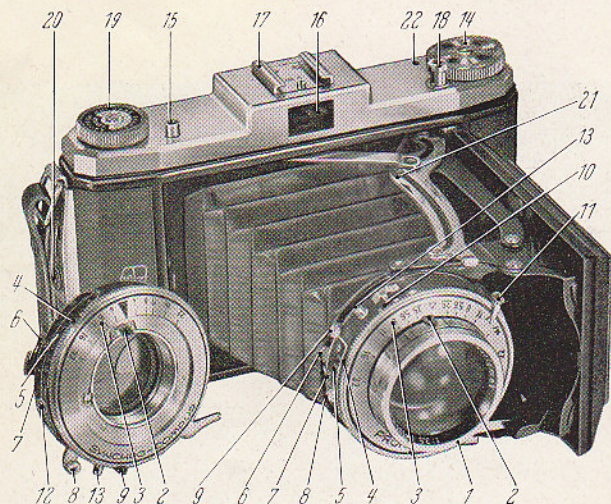
# IKONTA II

2 1/4" x 3 1/4"

R O L L F I L M   C A M E R A







Synchro-Compur

with Prontor SV

**THE PARTS OF THE IKONTA II  $2\frac{1}{4}'' \times 3\frac{1}{4}''$**

- 1 Rotating front lens for distance setting
- 2 Distance setting mark
- 3 Depth of field scale
- 4 Exposure time setting ring
- 5 Exposure time setting scale
- 6 Diaphragm setting lever
- 7 Diaphragm setting scale
- 8 Shutter winding lever
- 9 Synchro-switch
- 10 Marks for synchronization at Prontor SV-shutter
- 11 Lever for winding delayed action and synchronization mechanism at Prontor SV-shutter
- 12 Button for delayed action release
- 13 Flash synchronization contact
- 14 Film winding knob
- 15 Knob for opening camera
- 16 Built-in optical viewfinder
- 17 Shoe for attachment of slip-on accessories
- 18 Body shutter release threaded for fitting cable release
- 19 Film type indicator
- 20 Bolt for opening and closing camera back
- 21 Struts
- 22 Signal for film winding lock

**THE IKONTA II  $2\frac{1}{4}'' \times 3\frac{1}{4}''$**

The IKONTA II is an ingeniously constructed high quality ZEISS IKON camera guaranteeing excellent, needlesharp pictures. Having made yourself thoroughly familiar with the few manipulations described in this instruction booklet, you will easily obtain good pictures and you will derive great pleasure from photography.

The IKONTA II furnishes 8 exposures,  $2\frac{1}{4}'' \times 3\frac{1}{4}''$ , on standard B II/8 roll film. The IKONTA II is available with a NOVAR or a TESSAR lens. All lenses of the IKONTA II, which are factory (T) coated in order to eliminate flare and reflexes, ensure unmatched sharpness and colour correction. An automatic shutter release lock with signal device prevents double exposures.

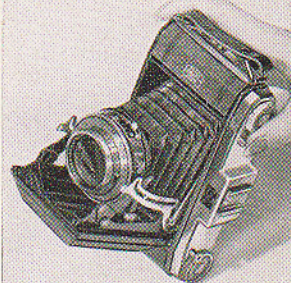
**HOW TO OPEN THE CAMERA**

Grasp the camera at the camera back and tilt it slightly forward. Upon pressing the knob (16) the camera automatically erects itself and springs into the taking position.

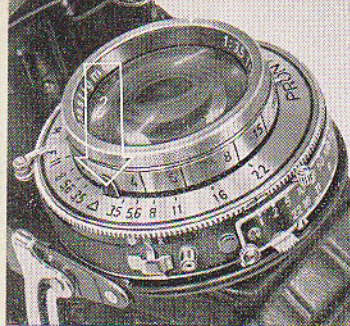
**HOW TO CLOSE THE CAMERA**

Take the camera in both hands as in the illustration. When pressing with your thumbs on the struts, the camera can be conveniently closed.

In order to close the IKONTA II in the taking position, the struts are pressed down with the index fingers. The IKONTA II can be closed with any setting, even with a slipped-on filter.

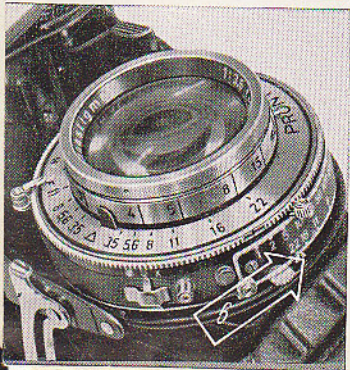






### HOW TO SET THE DISTANCE

Distances in terms of meters are engraved on the mount of the rotating front lens. The lens is focused on the object by turning the front lens on the distance setting.



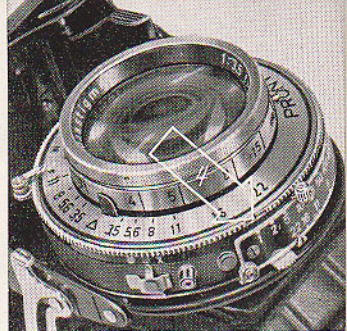
### HOW TO SET THE DIAPHRAGM

For setting the diaphragm, set the mark of the diaphragm setting lever on the desired lens aperture figure.

### HOW TO SET THE EXPOSURE TIME

Turn the milled ring (4) until the exposure time setting mark is opposite the required exposure time setting. The figures indicate fractions of a second, i. e. 50 means  $\frac{1}{50}$  sec. When using setting "B", the shutter remains open as long as the release is pressed.

The shutter must be wound with the winding lever (8) prior to every shot. It does not matter whether the shutter is wound first or whether the shutter speed is set first. The exposure time is set before the shutter is wound only when the shortest shutter ( $\frac{1}{300}$  sec.) of the Synchro-Compur shutter is used.



## THE SHUTTER

The IKONTA II is fitted either with a fully synchronized Prontor-SV shutter or with a Synchro-Compur shutter. Both shutters are synchronized for flash, so that the camera can be used with any current flash unit, e. g. the ZEISS IKON-IKOBLITZ or IKOTRON.

After setting the required shutter speed, the shutter is wound by pushing lever (8) as far as possible. The shutter is released by pressing the body release (17). When setting "B" (time exposures) is used, the shutter remains open as long as the release is pressed down. For time exposures it is recommendable to use the cable release, which is fitted into the thread of the body release (17).

## THE DELAYED ACTION RELEASE

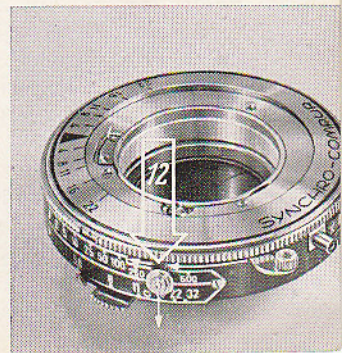
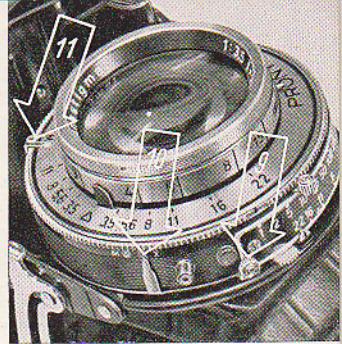
After setting lens aperture and distance, set push lever on the red dot beside the X.

In the case of the Prontor-SV shutter, first wind shutter (8), then wind delayed action mechanism by pushing lever (11) as far as possible.

In the case of the Synchro-Compur shutter, push lever (8) as far as possible, then move back button (12) and push lever (8) a little further, thereby winding the delayed action mechanism.

When release button (18) is pressed down, the delayed action mechanism starts running and automatically releases the shutter after approximately 8 sec.

For time exposures (setting "B") the delayed action release cannot be used.





## FLASH PHOTOGRAPHS

When releasing the shutter, the built-in flash contact permits igniting the flash bulb connected to contact nipple (12), at the moment when the shutter is wide open. The instructions for the various types of flash bulbs contain details regarding distances and lens apertures to be used.

The fully synchronized shutters Prontor-SV and Synchro-Compur do not only fire a flash at the moment when the shutter is opened (position **X**) but also permit firing the flash first and releasing the shutter after a delay of approximately  $\frac{1}{50}$  sec. (position **M**). Thus any instantaneous exposure coincides with the peak light intensity of the flash bulb, so that even the shortest shutter speeds may safely be used.

### POSITION X

Flash photographs without pre-ignition can be made

- 1) with electronic flashes in conjunction with all shutter speeds from 1 to  $\frac{1}{300}$  sec.;

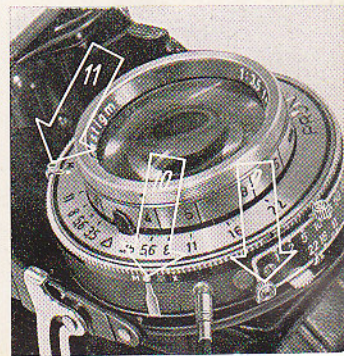
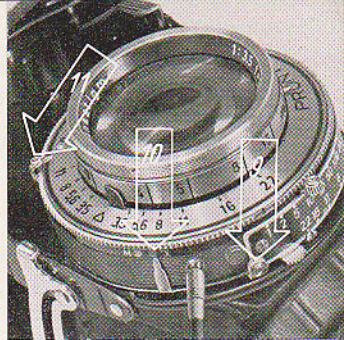
- 2) with flash bulbs in conjunction with all shutter speeds from 1 to  $\frac{1}{25}$  sec.

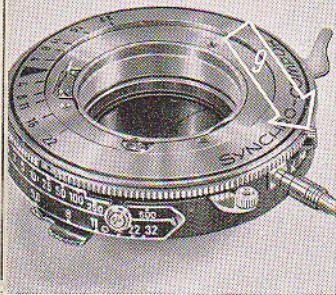
### MANIPULATIONS

Set lens aperture and shutter speed and wind shutter as usual. Set push lever (9) on red dot beside the **X**. Connect flash cable with contact nipple (12). Release shutter.

### POSITION M

Flash photographs with pre-ignition can be made, using all shutter speeds up to  $\frac{1}{300}$  sec. or  $\frac{1}{500}$  sec. Our table on page (11) shows the proper flash bulbs to be used.





## MANIPULATIONS

Set lens aperture and shutter speed and wind shutter as usual. Set push lever (9) on **M**. With the Prontor-SV shutter, lever (11) must now be set on the **M**. Connect flash cable with contact nipple (12). Release shutter. In the case of the Prontor-SV shutter the position **M** is valid for one exposure

only, so that lever (9) has to be set on **M** for every exposure.

## TABLE OF EXPOSURE TIMES FOR FLASH LAMPS

Type of Flash	Synchro-Switch in Position	
	<b>X</b>	<b>M</b>
Osram F 0	1—1/50	—
F 1, F 2	1—1/25	—
General Electric	1—1/100	—
Westinghouse	1—1/100	—
Sylvania	1—1/100	—
Wabash	1—1/100	—
Osram S 1	1—1/25	1/50—1/500
S 2	1—1/10	1/50—1/500
Philips Pf 14	1—1/25	1/50—1/500
Pf 25	1—1/25	1/50—1/500
Pf 56	1—1/25	1/50—1/500
Gen. Electric	} No. 5, 11 u. 22	1/50—1/500
Westinghouse		
Sylvania		
Wabash	} Press 25, Press 40	1/50—1/500
Philips Pf 110		
Gen. Electric	} Press 50, No. 0, 2	1/25—1/50
Westinghouse		
Sylvania	} No. 50, 6	1/25—1/50
Wabash		
Electronic Flashes	} No. 3	1/25—1/50
without ignition delay		
with delayed ignition after 5 milliseconds	1—1/500	—
	1—1/100	—



## LENS APERTURE, DEPTH OF FIELD AND EXPOSURE TIME

In good lighting conditions a larger depth of field can be obtained by reducing the lens aperture. Lens aperture and lens aperture settings are reciprocal, i. e. the smaller the lens aperture, the higher the lens aperture setting figure. Every reduction of the lens aperture however, necessitates an increase of the exposure time.

In reducing the lens aperture, the depth of field increases both in forward and backward direction from the distance on which the lens is focused. The depth of field for any given lens aperture and distance setting can be ascertained from the depth of field scale of the camera. The depth of field can be read off the distance settings opposite the two diaphragm setting figures on the right and left side of the setting mark. Using distance setting 3 m (10 ft.) and diaphragm setting "11" you can read off 2 m (6,5 ft.) on the left side and on the right side 5 m (appr. 17 ft.). Consequently, everything between 6,5 ft. and 17 ft. will be rendered sharply with diaphragm setting "11" and distance setting 3 m (6,5 ft.). The exact depth of field for any given lens aperture and distance setting can be found on page 13.

## DEPTH OF FIELD TABLE for focal length 105 mm

Lens setting	D I A P H R A G M			
	f/3,5	f/4,0	f/4,5	f/5,6
<b>inf.</b>	98' 8" - ∞	86' 4" - ∞	77' 0" - ∞	62' 0" - ∞
<b>48'</b>	32' 8" - 92' 0"	31' 0" - 106' 0"	29' 8" - 125' 0"	27' 4" - 206' 8"
<b>24'</b>	19' 4" - 31' 4"	19' 0" - 32' 8"	18' 4" - 34' 4"	17' 8" - 38' 4"
<b>15'</b>	13' 0" - 17' 4"	13' 0" - 18' 0"	12' 8" - 18' 4"	12' 4" - 19' 4"
<b>12'</b>	10' 8" - 13' 8"	10' 8" - 13' 8"	10' 4" - 14' 0"	10' 4" - 14' 8"
<b>9'</b>	8' 4" - 9' 8"	8' 4" - 10' 0"	8' 0" - 10' 0"	8' 0" - 10' 4"
<b>6'</b>	5' 8" - 6' 4"	5' 8" - 6' 4"	5' 8" - 6' 6"	5' 6" - 6' 6"
<b>5'</b>	4' 9,5" - 5' 2"	4' 9" - 5' 2"	4' 9" - 5' 4"	4' 8,5" - 5' 4"
	f/8	f/11	f/16	f/22
<b>inf.</b>	43' 4" - ∞	31' 8" - ∞	22' 0" - ∞	16' 0" - ∞
<b>48'</b>	23' 0" - ∞	19' 4" - ∞	15' 4" - ∞	12' 4" - ∞
<b>24'</b>	15' 8" - 52' 0"	14' 0" - 93' 0"	11' 8" - ∞	10' 0" - ∞
<b>15'</b>	11' 4" - 22' 4"	10' 4" - 27' 4"	9' 0" - 44' 0"	8' 0" - 170' 8"
<b>12'</b>	9' 8" - 16' 4"	9' 0" - 18' 8"	8' 0" - 25' 0"	7' 0" - 42' 4"
<b>9'</b>	7' 8" - 11' 0"	7' 4" - 12' 0"	6' 8" - 14' 4"	6' 0" - 18' 8"
<b>6'</b>	5' 4" - 6' 10"	5' 2" - 7' 2"	4' 10,5" - 8' 0"	4' 6,5" - 9' 0"
<b>5'</b>	4' 7" - 5' 6"	4' 5,5" - 5' 10"	4' 2,5" - 6' 2"	4' 0" - 6' 10"

## THE CORRECT EXPOSURE TIME

can be ascertained from exposure tables or, most exactly, with the photo-electric ZEISS IKON exposure meter IKOPHOT. The required exposure time depends on the diaphragm setting, the film sensitivity, and the prevailing lighting conditions.

### BASIC RULE:

Outdoor photographs in  
bright sunshine:  
film sensitivity 17/10 DIN  
diaphragm setting 8  
 $\frac{1}{100}$  sec.

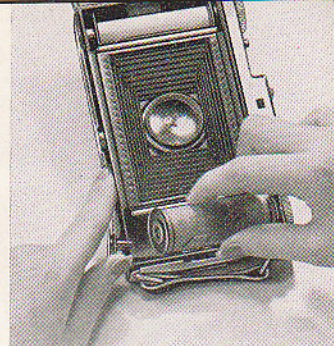
Outdoor photographs,  
sky overcast:  
film sensitivity 17/10 DIN  
diaphragm setting 5,6  
 $\frac{1}{50}$  sec.

## THE ZEISS IKON RED-DOT SETTING

enables the IKONTA II owner to take rapid snapshots. Set the diaphragm lever and the distance setting mark on the red dots and everything from approximately 13 ft. to infinity will be rendered sharply. According to the prevailing lighting conditions, exposure times from  $\frac{1}{25}$  to  $\frac{1}{100}$  sec. may be used in conjunction with the red-dot setting.

## LOADING OF THE CAMERA

The camera back can be opened after pulling out the bolt (21). For loading the camera with a  $2\frac{1}{4}'' \times 3\frac{1}{4}''$  roll film, pull out the spring prong at the bottom of the camera and insert the spool into the lower spool chamber. Then slit the label of the film and pull out the protective paper so that its beginning can be inserted into the wider slot of the take-up spool. Tighten the protective paper by turning the film transport knob several times.







Close the camera back and advance the film until number "1" appears in the red aperture on the camera back.

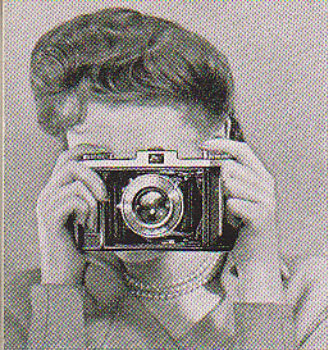
### **THE DOUBLE EXPOSURE PREVENTION**

After every shot the film has to be advanced by one frame, i. e. by one number. The IKONTA II does not take any double exposures because it has a built-in automatic shutter release locking mechanism. Even if the shutter has been wound the body shutter release cannot be pressed down unless the film has been previously

advanced by one frame. A red dot in the signal window indicates that the film has been duly advanced and that the camera is ready for the next shot.

### **UNLOADING OF THE CAMERA**

After the eighth exposure turn the film transport knob until the end of the protective paper passes the window on the back of the camera. Open the camera back, pull out the spring prong as when inserting the film, carefully remove the spool in the shadow (not in bright sunlight) and glue it. Before inserting a new film, remove the empty spool and insert it into the take-up spool chamber. By turning the film transport knob make sure that the empty spool has engaged with the prong of the film transport.



### **HOW TO HOLD THE CAMERA**

The IKONTA II must be held still during the exposure. The picture can be taken after focusing the front lens on the distance ascertained. The index finger rests on the body shutter release. The shutter is released, i. e., the exposure is made, by pressing down the body shutter release.



Time exposures are to be made from a tripod or some other solid support, preferably with a cable release.



### **ACCESSORIES FOR THE IKONTA II**

#### **THE EVEREADY CARRYING CASE**

The elegant ZEISS IKON Eveready Carrying Case protects the IKONTA II from dust and other detrimental external influences. The camera is screwed into the case and need not be removed for taking a picture.



## CABLE RELEASE

A cable release is especially useful for time exposures and photographs from a tripod. It is screwed into the thread of the body shutter release. The ZEISS IKON cable release is equipped with a plunger catch for long time exposures.

## ZEISS IKON FILTERS

improve the rendering of tone values in black and white photography. The filters are screwed on the front lens mount and need not be removed when the camera is closed. Available filters: yellow, green-yellow, orange, and red filters.

## SUPPLEMENTARY LENSES FOR CLOSE-UPS

With the standard lens equipment of the IKONTA II photographs can be made of objects from 4 ft. to infinity. Objects closer than 4 ft. can be photographed only with the aid of ZEISS IKON supplementary lenses (PROXAR lenses), which are slipped on the front lens mount. Three different PROXAR lenses are available for the IKONTA II 2¼"×3¼". When using supplemen-

TABLE FOR USE OF PROXAR LENSES

Distance of object to be measured from rim of Proxar lens. Sufficient depth of field is obtained with diaphragm 8.	Lens setting feet	Distance between object and camera	Reduction 1 :	Size of picture field		
				Width	Height	
inf. 48 24 18 12 9 7		6' 6¾"	19,0	5' 5¾"	3' 7"	Proxar f = 2 m 0,5 Dioptr
		5' 8¾"	16,6	4' 9½"	3' 1½"	
		5' 1¾"	14,8	4' 3¼"	2' 9½"	
		4' 9½"	13,9	4' ¼"	2' 7½"	
		4' 2¼"	12,0	3' 5½"	2' 3¼"	
		3' 8½"	10,6	3' ¾"	2'	
		3' 3"	9,3	2' 8¼"	1' 9"	
inf. 48 24 18 12 9 7		3' 3¼"	9,4	2' 8½"	1' 9¼"	Proxar f = 1 m 1 Dioptr
		3' ½"	8,8	2' 6½"	1' 8"	
		2' 10¼"	8,2	2' 4½"	1' 6½"	
		2' 9"	7,9	2' 3¼"	1' 6"	
		2' 6½"	7,2	2' 1"	1' 4¼"	
		2' 4¼"	6,7	1' 11¼"	1' 3¼"	
		2' 2"	6,1	1' 9¼"	1' 1¾"	
inf. 48 24 18 12 9 7		1' 7¾"	4,8	1' 4¾"	10¾"	Proxar f = 0,5 m 2 Dioptr
		1' 7"	4,6	1' 4"	10½"	
		1' 6¼"	4,5	1' 3½"	10¼"	
		1' 6"	4,4	1' 3¼"	10"	
		1' 5¼"	4,1	1' 2½"	9¾"	
		1' 4¼"	3,9	1' 1½"	8¾"	
		1' 3¼"	3,7	1' ¾"	8½"	

tary lenses, the photographer should take into account that due to parallax the viewfinder shows too much of the upper part of the object and cuts off part of the lower end of the object which is actually embraced by the camera, i.e. when framing close-up objects take care that you duly tilt the camera. See table on preceeding page.

#### THE LENS HOOD

prevents flare and haze in against-the-light photographs. Moreover, in bad weather, it protects the lens from rain and snow.

#### COLOUR PHOTOGRAPHY

The IKONTA II is excellently suited for colour photography because it is equipped with high quality colour corrected ZEISS lenses. Contrary to black and white films, colour films permit little deviation from the exact

required exposure time. Therefore, the photo-electric exposure meter IKOPHOT is indispensable for colour photography.

#### HOW TO TAKE CARE OF THE CAMERA

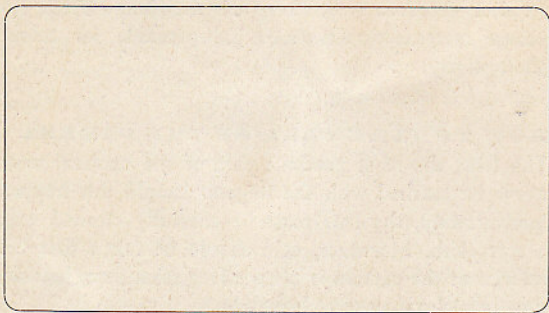
The lens, the most precious part of the camera, must never be touched with the fingers. Should this happen inadvertently, the lens must be carefully cleaned with a soft cloth. Moreover, care should be taken that the interior of the camera is always free from dust, because dust particles may scratch the film.

#### SERIAL NUMBER

Every camera has a serial number on the camera back. It is advisable to take this number down, in order to be able to identify the camera in case of loss.

*The technical development may require slight changes on the camera as compared to the description.*





ZEISS IKON A.G. STUTTGART

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