

# ZEISS IKON

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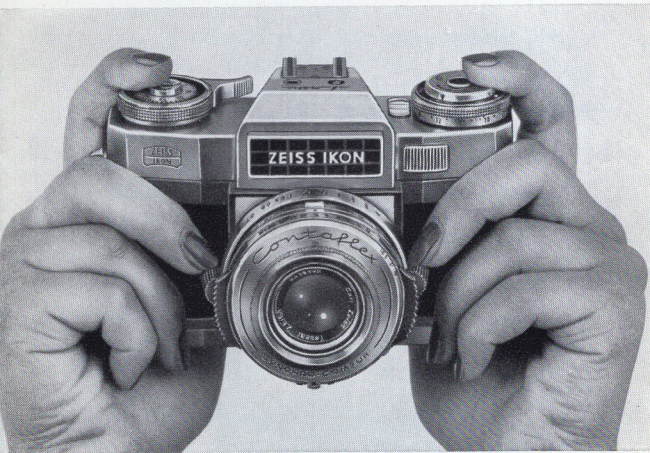
Instruction manual

## Contaflex *super B*

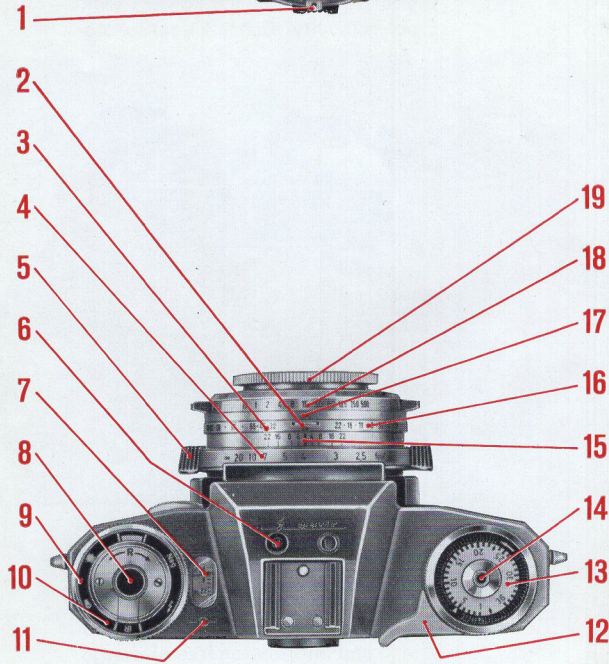


## For your own pleasure and enjoyment

in this fine photographic instrument, we urge you to read these instructions thoroughly and practice handling your new camera before loading your first film. Fold out the inner flaps so that as you read you can easily see each control and each reference number. Practice every operation until you are familiar with it so that later on you can operate the camera without difficulty. Consult your photo-



graphic dealer on any photographic problems; the Photo Advisory Service (Fotoberatung) of ZEISS IKON AG., 7000 Stuttgart, Postfach 540, will also be happy to supply advice and information free of charge.





## Key to controls

- 1 Locking catch** for changing the 35, 85 and 115 mm lenses
- 2 Key** for engaging and disengaging the automatic exposure control, also for setting the aperture and the flash control.
- 3 Flash guide-number scale** for ZEISS TESSAR f/2.8,50
- 4 Focusing scale**
- 5 Focusing grip**
- 6 Flash contact**
- 7 Exposure meter indicator** with f/numbers and red warning sectors
- 8 Retractable rewind crank**
- 9 Knob for adjusting the film-type reminder disc**
- 10 Film-type reminder disc**
- 11 Film plane indicator**
- 12 Rapid-wind lever for shutter tensioning and film winding**
- 13 Frame counter**
- 14 Release knob** with thread for cable release
- 15 Depth-of-field scale** with distance-setting mark
- 16 Aperture-setting scale** (manual) for use when auto-control is disengaged
- 17 Shutter-speed setting mark**
- 18 Shutter-speed scale** with setting grips
- 19 ZEISS TESSAR f/2.8,50 mm interchangeable lens**
- 20 Film speed scale** (ASA)
- 21 Film speed setting mark**
- 22 Filter corrector**

Reference numbers 23–39 refer to the illustration on the rear cover flap.

- 23 Film-speed setting ring and dull weather/backlight corrector**



- 24 Setting mark for dull weather/backlight corrector**
- 25 Coupling dog** for engaging the film cassette
- 26 Film-cassette chamber** (with baffle, which must be removed when using the interchangeable film back)
- 27 Setting lever for delayed-action release** (V) and X flash synchronization; used in conjunction with locking key 34
- 28 Grip** for setting aperture and flash guide-numbers in conjunction with key 2
- 29 Setting mark for rewinding**
- 30 Camera back catches**
- 31 Tripod bushing**
- 32 Setting mark** (red stroke) for flash guide-numbers when using ZEISS PRO-TESSAR 35 mm wide-angle lens
- 33 Flash guide-number scale** for ZEISS PRO-TESSAR 35 mm lens
- 34 Locking key** for setting lever 27
- 35 Toothed sprocket wheels** for engaging the film perforations
- 36 Take-up spool** with slot and lug for securing the film leader tongue
- 37 Viewfinder eyepiece**
- 38 Eyelets** for neckstrap
- 39 Accessory shoe**



## Loading and unloading

### Removing the camera back

Fold both catches 30 upwards and turn them in opposite directions. Then take off camera back. Before loading the film, tension the camera by swinging the rapid-wind lever 12 **until it stops**.

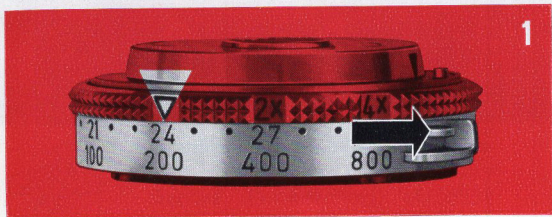
### Loading the film

Never load film in direct sunlight. Shade the film with your body if necessary. Remove the take-up spool 36 and insert the beginning of the film leader tongue into the slot; hook the lug into the 2nd or 3rd perforation hole. Wind the film twice around the spool and hold it in position. Insert the film spool and the cassette into the camera, so that the perforations engage with the toothed sprocket wheels 35 on either side of the film. Place the camera back in position from above, so that about half the width of the film is still visible. Then slide the back right home and lock it. Fold flat catches 30.

### Important: set the film speed (Fig. 1)

Note the DIN or ASA index respectively indicated on the film carton.

Press the locking catch in the direction of the arrow until it stops (see illustration) and set the setting mark

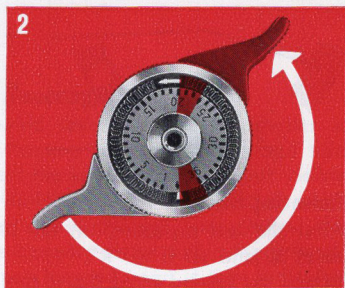


21 on ring 23 above the appropriate figure on the film speed scale 20.

### Setting the frame counter and checking the film advance (Fig. 2)

Always set the white mark on the black knurled ring of the rapid-wind lever 12 to the number of exposures on your film, **plus three**. Use the red marks for 20- and 36-exposure film cassettes. Use 15 for 12-exposure rolls.

Fold out the rewind crank 8 and turn it carefully in the direction of the arrow until a slight resistance is felt. The film will then be wound tightly in the cassette. Finally, alternately press release knob 14 and operate rapid-wind lever 12 twice, so that the white mark indi-

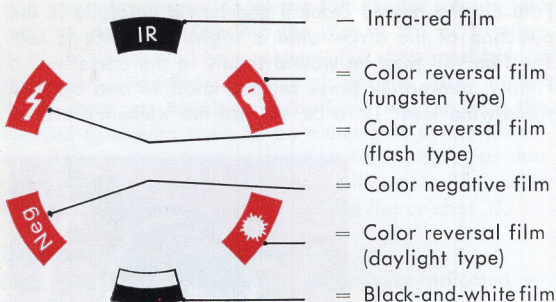


cates the actual number of exposures on your film. Note that the rewind crank rotates of its own accord in the opposite direction to that indicated by the arrow: this allows you to check that the film is being advanced correctly.



The frame counter always shows the number of frames still to be exposed. After the last exposure (when the counter indicates 1), the rapid-wind lever 12 will cease to operate or a distinct resistance will be felt half-way through a stroke. The film must then be rewound (see next page).

Set the film-type reminder disc 10 by means of knob 9. This disc acts solely as an aid to remind you what type of film is in your camera. The symbols on the film-type reminder disc signify:



### Unloading the film

After the last exposure, lift the left-hand back-locking catch 30 and set it to "R".

Extend the rewind crank 8 and turn it in the direction of the arrow until a change in resistance is felt (indicating the film coming free from the take-up spool). Now open both back-locking catches, pull off the camera back and remove the film cassette.

Always keep the take-up spool and the film track perfectly clean.



**3**  
Focusing with split-image  
range finder



**4**  
Focusing with ground-glass  
ring

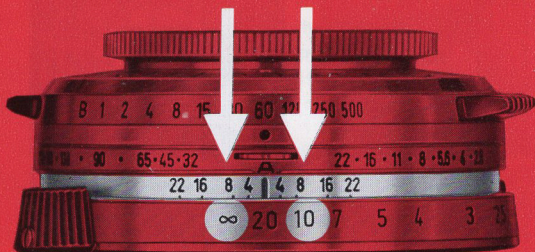
## Taking pictures

### Setting the distance (Focusing) (Figs. 3 and 4)

Operate the rapid-wind lever so that the shutter is tensioned. Hold the camera up to your eye and turn the finger-grips 5 until the split-image segments visible in the center of the viewfinder field line up accurately; for subjects with no clearly-defined lines, adjust the focus until the image appears sharp within the ground-glass ring. The distance focused upon is then indicated on scale 4 by the setting mark 15.

### Aperture and depth of field (Fig. 5)

Every photographic lens will form a sharp image of objects within a limited distance in front of and behind the object focused upon. This "depth of field" becomes



greater the more the lens is stopped down (larger  $f/$  stop numbers); its extent (at individual aperture stops) is shown on the depth-of-field scale 15.

Example (see fig. 5): Distance setting 20 ft  
 Depth of field at  $f/8$ :  
 from 10 ft to  $\infty$

### Remember:

**Large aperture ( $f/2.8$ ) = small depth of field**

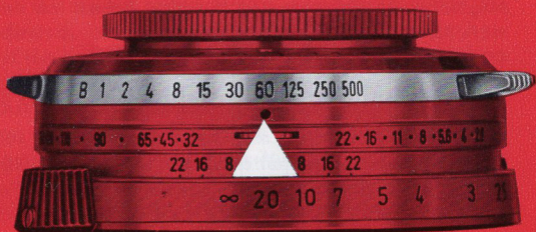
**Small aperture ( $f/22$ ) = maximum depth of field**

For exacting photographic work, accurate depth of field values will be found in the table on the rear cover flap.

### Setting the shutter speed (Fig. 6)

To adjust the shutter speed, turn ring 18 by means of the two finger grips to set the desired shutter-speed value opposite the setting mark 17. The speed selected will also be visible in the bottom right corner of the viewfinder.





The correct shutter speed depends on the movement of the subject. The faster the subject is moving, the briefer must be the exposure time. The figures on the scale 18 signify fractions of seconds (60 is 1/60 second, 125 is 1/125 second, etc.).

At "B", the shutter remains open for as long as the release knob 14 remains depressed.

### Delayed-action exposures

First tension shutter with rapid-wind lever 12, then move the setting lever 27 to "V". Approximately 10 seconds after operating the release, the shutter will open and close automatically. The lever 27 will then return to "X". Time exposures at the "B" setting cannot be made with the delayed-action release.

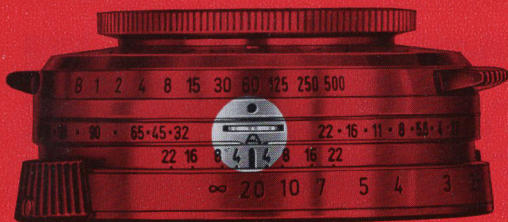
### Using filters

Most filters necessitate an increase in exposure. This filter-factor is indicated on the mount of the filter (2x, 4x, etc.). Set this factor on the filter corrector 22, above

the ASA speed index to which the setting mark 21 was originally set when loading the film. Return the setting mark to its original position when the filter is removed.

## The automatic exposure control (Figs. 7 and 8)

Key 2 (A = Automatic) must be engaged at the setting mark 17. Select the shutter speed (do not attempt to set intermediate speeds; "B" cannot be selected when the auto-control is engaged). Hold the camera up to

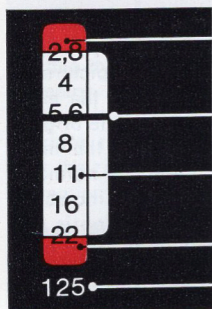


your eye and point it at the subject. If the exposure meter pointer (to the right of the finder image) is within the green sector, then there is sufficient light for a picture and you can press the release 14.

The automatically-selected aperture setting can be read both in the viewfinder and on top of the camera body (7).

If there is too much or too little light, the exposure meter pointer will lie within the red warning sectors, in-

dicating that the picture will be incorrectly exposed. Re-adjust the shutter speed (which is indicated within the viewfinder) until the pointer swings into the green sector. If the lighting conditions are not suitable for taking automatic exposures, then this correction will be unsuccessful: either the pointer will remain within the red sector when the shutter speed is adjusted, or else the red warning sector will move together with the pointer (i. e. when the camera is set to a film speed value above 25 ASA/15 DIN and a slow shutter speed). Here the



Red warning sector

Exposure meter pointer

Aperture scale

Red warning sector

Shutter speed

Fig. 8

remedy is to use flash (see page 16).

When the shutter is not tensioned the exposure-meter pointer will be locked.

If you wish to use a particular aperture setting, it is also possible to adjust the shutter-speed setting ring 18 whilst the auto-control is engaged, so as to line the exposure-meter pointer up with the desired f/number. The shutter speed ring must however engage at one of the click-stop settings.



## Releasing the shutter

Hold the CONTAFLEX super B as shown on the front cover-flap of this instruction manual. To take a picture, press the release knob 14 softly and smoothly downwards — never jerkily. At the moment of exposure the viewfinder image will black out; it will reappear as soon as the rapid-wind lever 12 is tensioned. For shutter speeds slower than  $\frac{1}{30}$  second the camera should be placed on a tripod.

## The exposure meter

is calibrated against a standard and will ensure the correct exposure under normal conditions. Open landscapes with large areas of sky, and backlit pictures in particular may be incorrectly exposed when the exposure meter is used as described above, since the brighter sky tones or the sun shining directly into the meter will falsify the reading. In such situations the normally-determined exposure should be modified by increasing the lens aperture by one f/stop. This correction is also necessary for pictures of low-contrast subjects on color reversal film, e.g. exposures on cloudy days. For this reason a **dull weather/backlight corrector** is incorporated in the camera.

## Dull weather/Backlight corrector (Fig. 9)

With the thumb on your left hand, turn ring 23 to bring the cloud symbol over the setting mark 24. Hold it in this position while pressing the release knob. The result of the correction is shown by the deflection of the pointer on the aperture scales, both in the viewfinder and on top of the camera. Both will register one f/stop larger aperture. The ring 23 will spring back automa-

9



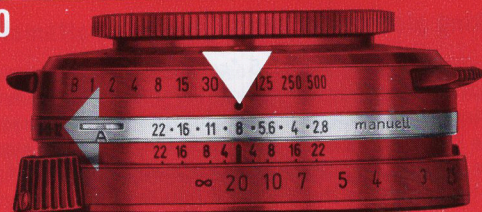
tically to the sun symbol when it is released. The figure 2 within the cloud symbol indicates that the dull weather corrector corresponds to a filter-factor correction of 2x, and it may also be used for this purpose. If the aperture requires less than one full f/stop correction, then the ring need only be turned by a correspondingly smaller amount.

### Manual operation

#### Disengaging the auto-control (Fig. 10)

Depress key 2 and at the same time turn the aperture scale 16 (marked "manuell") to the setting mark 17 by

10



means of grip 28. By setting the shutter to "manuell" it is possible to select the shutter-speed and aperture settings according to choice: either independently of the exposure meter or in accordance with its readings.

In this way the exposure can be corrected — preferably by varying the aperture setting in either direction — to a greater extent than can be achieved with the dull weather/backlight corrector.

### **Example:**

Close-up readings with high brightness-contrasts. Hold the camera (with the auto-control engaged) close up to the subject whilst taking care not to cast a shadow upon it. Read off the aperture indicated (here the external meter window will prove most useful) and set it by means of the aperture setting ring marked "manuell". Then take the picture from the desired position.

When the camera is set to a manually-selected aperture, the exposure meter is disconnected (the pointer remains within the red sector). This is a built-in precaution to avoid the possibility of erroneous readings. So long as the pointer is visible within the green sector, you can be certain that the automatic exposure control is in operation.

## **Taking pictures by flash (Fig. 11)**

The ZEISS IKON IKOBLITZ 5 "cordless" flashgun can be plugged directly into the flash contact 6. Other types of flash units should either be slipped into the accessory shoe (39) or attached to the tripod bushing 31 by means of a bracket. Plug the synchro-contact at the end of the cable attached to the flash unit into the flash contact 6. Determine the correct guide number of the flash unit or





flashbulb for the speed of the film you are using. This will be given on the flashbulb carton or in the instructions for the flash unit.

**The lever 27 must always be set to "X" for taking pictures by electronic flash, and for use with flashbulbs as well.**

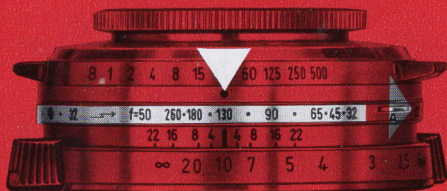
To set the synchronization to "X", depress locking key 34 and move lever 27 to "X".

Flash pictures taken on delayed-action ("V" setting) will be exposed as at the "X" setting.

### **Automatic flash exposures** (Fig. 12)

The automatic flash-exposure control operates at all shutter-speed settings. For normal use with both flashbulbs and electronic flash, the synchronization should be set to "X".

There is no limitation on the choice of shutter speed when using electronic flash, and the speed selected has no influence on the guide number to be set.



Flashbulbs provide the most effective light at a shutter speed of  $\frac{1}{30}$  sec (marked in yellow); if faster speeds are used, it should be noted that the guide number must be reduced accordingly.

Press key 2 and turn scale 3 by means of grip 28 so as to set the appropriate flash guide number to the black setting mark 17 (provided that the basic ZEISS TESSAR f/2.8,50 mm lens is being used).

When taking flash pictures with the ZEISS PRO-TESSAR 35 mm wide-angle lens, the guide number scale 33 in red must be employed. The red stroke 32 is then used as the setting mark.

Switching over from A-setting (automatic) operation to guide-number control is easiest to perform when the camera is tensioned and the focus-distance is set to approximately 10 ft.

If the exact guide number for your flash light-source is not engraved on the flash scale, set it to the numerically-nearest guide number. Intermediate settings without positive click-stops should not be selected.

The following guide numbers can be set:

On the black scale ( $f = 50$  mm) for the ZEISS TESSAR  $f/2.8, 50$  mm standard lens:

Corresponding guide-numbers for distance setting in meters:

<b>260</b>	<b>220</b>	<b>180</b>	<b>155</b>	<b>130</b>	<b>110</b>	<b>90</b>	<b>78</b>
<b>80</b>	<b>68</b>	<b>56</b>	<b>48</b>	<b>40</b>	<b>34</b>	<b>28</b>	<b>24</b>

<b>65</b>	<b>55</b>	<b>45</b>	<b>38</b>	<b>32</b>
<b>20</b>	<b>17</b>	<b>14</b>	<b>12</b>	<b>10</b>

On the red scale ( $f = 35$  mm) for the ZEISS PRO-TESSAR 35 mm wide-angle lens:

<b>130</b>	<b>110</b>	<b>90</b>	<b>78</b>	<b>65</b>	<b>55</b>	<b>45</b>	<b>38</b>	<b>32</b>
<b>40</b>	<b>34</b>	<b>28</b>	<b>24</b>	<b>20</b>	<b>17</b>	<b>14</b>	<b>12</b>	<b>10</b>

For greater clarity in reading, the guide numbers printed here in small type are represented by dots on both scales.

Hold the camera up to your eye, focus, and press the release. At any speed, the aperture setting required to ensure correct exposure will be selected automatically as you focus.

In order to prevent incorrectly exposed flash pictures, the focusing movement is stopped automatically at the closest and furthest distances for the pre-set guide number. Therefore, if you cannot focus your camera properly, do not attempt to take a flash picture as the conditions are not suitable.

Flash pictures with the ZEISS PRO-TESSAR 85 mm and 115 mm telephoto lenses should be taken in the conventional manner, with the automatic control disengaged and the proper aperture setting selected on the manual scale.



## Accessories

Key:  $\phi$  = Diameter of mount in mm

S = Screw-on mount

G = Yellow

GR = Green

O = Orange

R = Red

Ever-ready case	23.0007
Color filters G — GR — O — R — UV, Ikolor — B — C and F, $\phi$ S 27	20.1000
1 set of filters (G—GR—O—UV), $\phi$ S 27, with case	20.7071
Lenshood, flexible, $\phi$ S 27	20.0713
ZEISS PROXAR LENSES, $\phi$ A 28.5, for close-up pictures	
from 40 to 20 in. approx. ( $f = 1$ m)	20.0800
from 20 <sup>1</sup> / <sub>2</sub> to 13 <sup>1</sup> / <sub>2</sub> in. approx. ( $f = 0.5$ m)	20.0801
from 13 <sup>1</sup> / <sub>2</sub> to 10 in. approx. ( $f = 0.3$ m)	20.0802
from 8 <sup>1</sup> / <sub>4</sub> to 6 <sup>1</sup> / <sub>4</sub> in. approx. ( $f = 0.2$ m)	20.0803
ZEISS PROXAR doublet lens for close-ups down to 3.6 in., $\phi$ S 27	20.0804
1 set of PROXAR lenses, with depth-of-field calculator and container	20.7070
CONTAPOL polarising filter, $\phi$ S 27	20.1200
Cable release with lock	20.0281
Vision-correction lenses, from $\pm 0.5$ to $\pm 5$ dioptres	20.0504
Vision-correction lens, anomalous	20.0505
Cassette with spool and container	20.0300
Spool for cassette	20.0301
Cap for 50 mm lens	20.0602
Camera neckstrap with securing attachments	20.0211

### ZEISS interchangeable lenses and accessories

ZEISS PRO-TESSAR f/3.2, 35 mm wide-angle lens, with container	11.1201
ZEISS PRO-TESSAR f/3.2, 85 mm telephoto lens, with container	11.1202
ZEISS PRO-TESSAR f/4, 115 mm telephoto lens, with container	11.1205

ZEISS PRO-TESSAR 1:1, for natural-size close-ups, in leather case	11.1204
ZEISS Monocular Attachment 8×30 B, for telephoto pictures at 400 mm focal length	20.1629
Color filters for PRO-TESSAR 35 and 85 G—GR—O—R—UV, Ikolor C, F, $\phi$ S 60	20.1009
Color filters for PRO-TESSAR 115, G—UV, Ikolor C, $\phi$ S 67	20.1017
Adaptor ring for using S 67 filters on PRO-TESSAR 35 and 85	20.1643
Lenshood for PRO-TESSAR 35 and 85, $\phi$ S 60	20.0709
Lenshood for PRO-TESSAR 115, $\phi$ S 67	20.0714
Leather container for $\phi$ S 67 lenshood	23.2003
Leather case for 1 PRO-TESSAR and 1 filter	23.1001
Leather case for 2 PRO-TESSARS, 2 filters and lenshoods	23.1201
Case for ZEISS Monocular Attachment	20.7812
Universal case for 3 PRO-TESSARS, film back and 3 filters	23.0202
Universal case	23.0206

### **Interchangeable film backs**

Film back	20.0302
Case for 1 film back	20.7855
Case for 2 film backs	23.0201

### **Copying and photomicrography accessories**

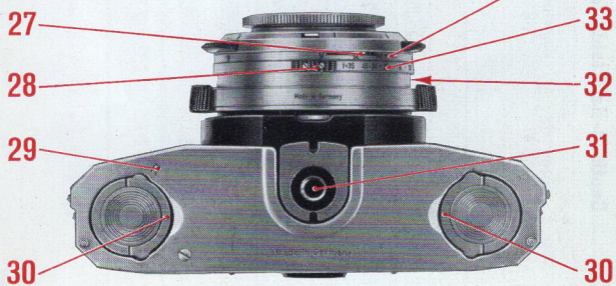
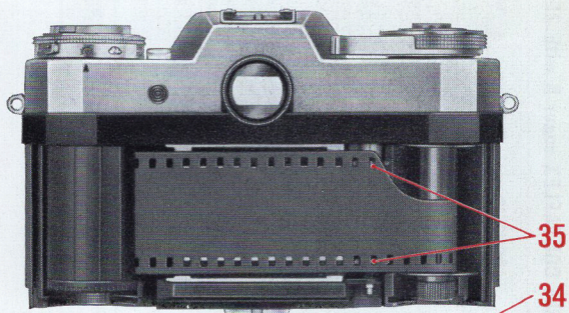
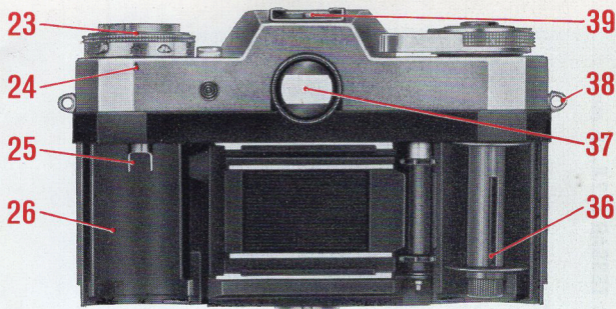
Angle viewfinder	20.1614
Adaptor ring for micro-attachment	20.1620
Attachment head for micro-attachment	20.1616

### **Copying equipment**

Table copying unit	20.1850
Illumination equipment	20.1852

### **Other accessories**

Cable release with time-exposure lock	20.0281
IKOBLITZ 5 "cordless" capacitor flashgun for capless flashbulbs	22.0006
for No. 5 bulbs, and M 5 & M 25 bulbs	22.0007





### Depth-of-field table for the CONTAFLEX super B with ZEISS TESSAR f/2.8, 50 mm

Distance	Aperture f/2.8	Aperture f/4	Aperture f/5.6	Aperture f/8	Aperture f/11	Aperture f/16	Aperture f/22
∞	64'4" - ∞	45'1" - ∞	32'4" - ∞	22'9" - ∞	16'8" - ∞	11'6½" - ∞	8'6" - ∞
20'	15'4" - 28'9"	14' - 35'6"	12'6" - 51'7"	10'8¾" - 162'5"	9'2" - ∞	7'4½" - ∞	5'11¾" - ∞
10'	8'8½" - 11'9"	8'3" - 12'8"	7'8¼" - 14'3"	7'½" - 17'5"	5'¼" - 11'8"	5'5½" - 71'4"	4'8" - ∞
7'	6'4¼" - 7'9½"	6'1½" - 8'2¼"	5'10" - 8'9½"	5'5¼" - 9'10½"	5'¼" - 11'8"	4'5½" - 17'	3'11¼" - 37'4"
5'	4'8" - 5'4½"	4'6½" - 5'6¾"	4'4¾" - 5'9¾"	4'2" - 6'3"	3'11¼" - 6'11"	3'7" - 8'5"	3'3" - 11'5"
4'	3'9½" - 4'2¾"	3'8½" - 4'4"	3'7¼" - 4'6"	3'5½" - 4'9"	3'3½" - 5'1¼"	3'¾" - 5'10"	2'9¾" - 7'1"
3'	2'10¾" - 3'1½"	2'10¾" - 3'2"	2'9½" - 3'3"	2'8½" - 3'4½"	2'7¼" - 3'6½"	2'5½" - 3'10½"	2'3¾" - 4'4¼"
2.5'	2'5" - 2'7"	2'4¾" - 2'7¼"	2'4¼" - 2'8"	2'3½" - 2'9"	2'2¾" - 2'10¼"	2'1½" - 3'½"	2'½" - 3'3¾"

The distances are measured from the film plane (mark 11)

# ZEISS IKON

## Contaflex *super B*

### Care of the CONTAFLEX super B

Before loading a film, dust the film track, spool chambers and the inside of the camera back with a soft brush (caution: do not press against the film gate cover flap, or the mechanism may be damaged). If necessary, the lenses may be wiped very carefully with a soft, well-washed piece of linen; first remove all dust with a fine brush.

Right of alteration reserved in the interests of technical development.



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