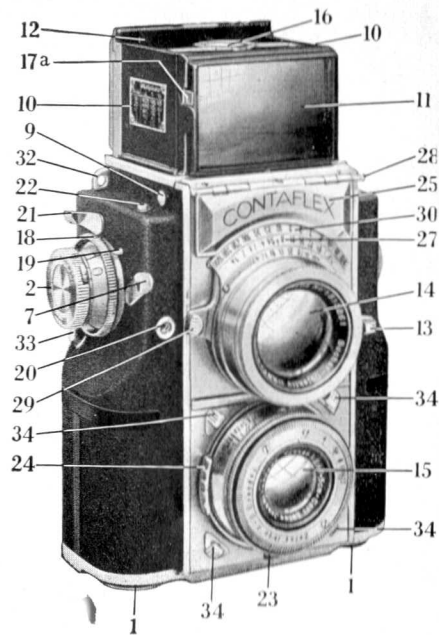


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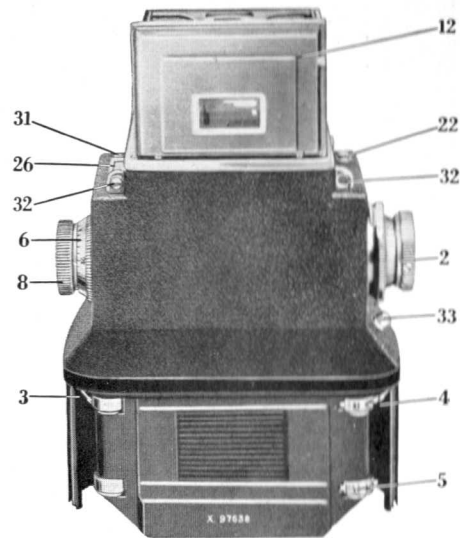


INSTRUCTIONS FOR USING THE  
**Contaflex Camera**



The Contaflex and its parts:

- |  |   |
|--|---|
| 1 = Levers which secure camera back                                    | 20 = Screw socket for wire release                            |
| 2 = Knob for winding both shutter and film                             | 21 = Lever for setting delayed action release                 |
| 7 = Shutter release lever  | 22 = Release button for delayed action release                |
| 9 = Button for erecting the hood which shields the ground glass screen | 23 = Bayonet catch of lens changing device                    |
| 10 = Flaps of the hood   | 24 = Bayonet mount ring                                       |
| 11 = Front glass of Albada finder                                      | 25 = Prism window of the exposure meter with protective cover |
| 12 = Back frame of Albada finder                                       | 27 = Diaphragm scale of exposure meter                        |
| 13 = Focussing lever   | 28 = Knob for raising the cover of exposure meter             |
| 14 = Lens for the ground glass screen                                  | 29 = Lever for setting the exposure time                      |
| 15 = Lens for taking the picture                                       | 30 = Exposure time scale                                      |
| 16 = Magnifying glass for accurate focussing on ground glass           | 32 = Eyelets for carrying strap                               |
| 17a = Bolt for erecting magnifying glass                               | 33 = Knob for releasing re-spooling device                    |
| 18 = Adjusting ring for the exposure indicator                         | 34 = Bayonet catches for fitting on sunshades, etc.           |
| 19 = Index pin of exposure time groups                                 |   |



The Contaflex and its parts:

- 2 = Shutter winding knob
- 3 = Left spool chamber (feed spool)
- 4 = Right spool chamber (take-up spool)
- 5 = Film transport sprocket
- 6 = Counter disc
- 8 = Re-spooling knob
- 12 = Albada finder frame
- 22 = Button for delayed action release
- 26 = Observation window of the exposure meter
- 31 = Screw for adjusting exposure meter scale
- 32 = Eyelets for carrying strap
- 33 = Knob for releasing re-spooling device



### Important!

The Contaflex is a miniature Reflex camera. On account of its novel design, its manipulation differs appreciably from that of the customary pattern of camera, and a thorough study of the instructions is consequently essential in order to become familiar with the controls. Good photographic results with the Contaflex can only be ensured by exercising the greatest care in handling and manipulation.

Needless to say this booklet comprises the entire working instructions for the Contaflex. It is advisable, however, to acquaint oneself firstly with those sections which deal with the taking of pictures and to practice the necessary operations without any film in the camera. Only after this has been done should the camera be loaded and exposures be made.

### A. Loading the camera

The Contax spool is made safe for daylight loading by means of a paper leader and a paper trailer, thereby rendering the sensitive film light-proof. Caution is, however, advised when inserting or removing the film. This should always be done in subdued light and in no circumstances in direct sunlight.



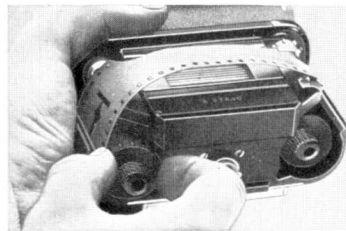
1. The camera is prepared for opening by giving the levers 1 a half-turn.



2. The camera back is drawn away a little and then lifted off.



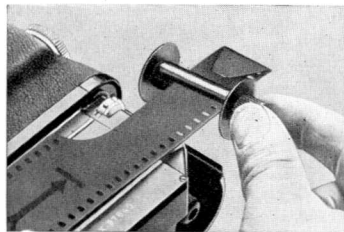
3. Wind the shutter by turning the knob 2 in the direction of the arrow as far as the stop.



4. Detach the gummed strip of the film (carefully, so that the spool does not unroll). Place the spool on the take-up studs of the left spool chamber 3.



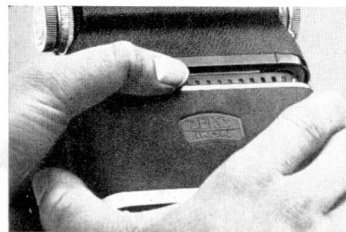
5. Withdraw the empty spool from the right spool chamber 4.



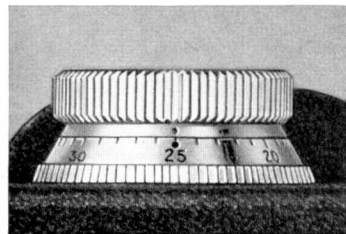
6. Insert the commencement of the paper leader into the slit of the empty spool and bend back the threaded end (about  $\frac{3}{4}$ " in length) so that the black side of the paper shows outside.



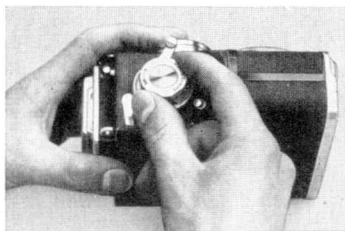
7. Wind paper on to the empty spool until the line at the arrow lies on the transport sprocket 5 when placing the spool in the right spool chamber 4.



8. Replace the back of the camera, holding the paper leader with the thumb of the left hand. Place the camera back from above in the guide grooves (do not push in) and slide in the last part until the camera is completely closed.
9. The hinged levers 1 on the bottom of the camera are now given a half turn and laid flat.



10. The red dot near the number "25" of the counter disc 6 must be set to the black mark.



11. Press the lever 7, thereby releasing the shutter. While holding down the release lever, give the winding knob 2 ten complete turns (this can be checked on the film counter 6) until the indicator is opposite the number "35" (on line before 0). During this procedure the re-spooling knob 8 should likewise rotate. If this is not the case, it is a sign that a mistake has been made in loading the film. The camera should then be opened again and the fault rectified.

12. Release the lever 7. Set the shutter again by turning the winding knob 2 and release by lever 7. This operation twice performed brings the counter disc to line "1". (Note: The knob 2 must be turned rather hard as far as the stop. Any slight resistance that is felt should be overcome, as this does not necessarily mean that the shutter is fully wound.) The camera is now ready for the first exposure. The instructions to be followed when loading with cassettes and cartridges are given on pages 40 to 44.

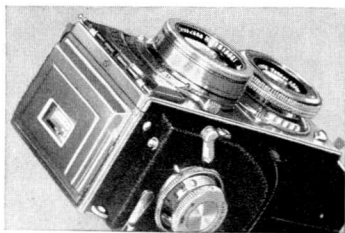
## **B. Unloading the camera (after the 36<sup>th</sup> exposure)**

1. Press and hold down the release lever 7; turn the shutter winding knob 2 until the paper trailer has passed through the camera. When the re-spooling knob no longer rotates, it is a sign that the paper trailer has been completely wound off.
2. Detach the camera back as described in section A, 1 and 2.
3. Remove the full film spool and secure the end with the gummed strip provided.
4. Place the empty spool in the left spool chamber.

## **C. The exposure**

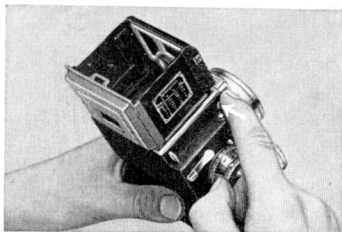
The following parts are manipulated when making the exposure:

1. The ground glass screen which gives the image as seen by the lens.
2. The Albada direct vision finder.
3. The focal plane shutter coupled with the film transport mechanism.
4. The lens and the lens changing device.
5. The built-in photo-electric exposure meter.

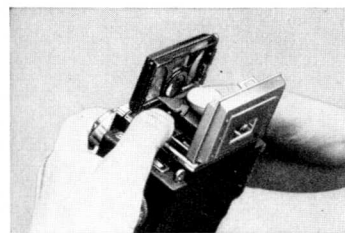


### 1. The ground glass screen

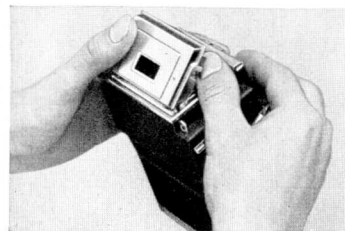
When the camera is not in use, the hood protecting the ground glass screen is closed.



A pressure on the button 9 causes the hood to spring into position.



When closing the hood, fold back first the two side flaps 10, then the Albada finder lens 11 and

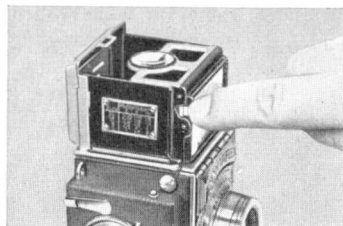


lastly, the Albada finder frame 12, which when pressed down is held by a catch.





Focussing on the ground glass screen is done by movement of the lever 13 on the lens 14, which is coupled with the picture-taking lens 15.



When the magnifying glass 16 is needed for specially accurate focussing, it is raised by moving the catch 17 to the side. After use press the magnifier back to its original position, when it will snap into place automatically.



The ground glass screen acts as a finder and is marked to show the angles of view for the varying focal lengths of lenses used and is provided with compensation for parallax when the 2'' lens is used. The whole field is used for the 2'' lens, the centre field for the  $3\frac{3}{8}$ '' lens and the small field for the  $5\frac{1}{4}$ '' lens. The parallax for the two smaller fields is corrected by keeping the boundary lines within narrow limits. As in all mirror reflex cameras, a picture reversed left to right is seen when looking down on the ground glass. In very intense light, and particularly when exposing "against the light", it is advisable to screen the Albada finder with the hand in order to obtain a clear and distinct image on the ground glass.

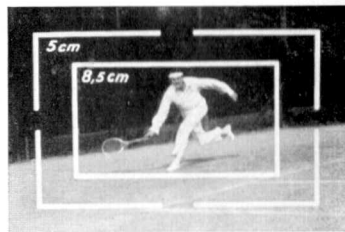
## 2. The Albada view finder

The Albada finder is used for pictures taken at eye-level, for sports photography and in all cases where it is desired to have a view of the field surrounding the actual scene photographed.



As the image is shown in natural size and unreversed, it is possible to view the moving object with both eyes. The Albada finder is supplied as a double-field view finder with white lines marking the boundary for the 2'' and the 3<sup>3</sup>/<sub>8</sub>'' focal lengths. The parallax caused by the large distance between the lens and the finder is compensated by keeping the fields of view within narrower limits.

Before looking through the eye-piece of the Albada finder, make sure that the magnifying glass 16 has been raised into place by the lever 17.

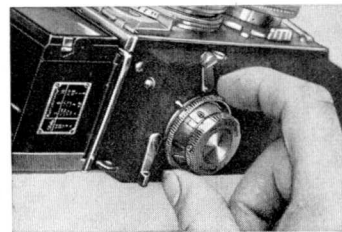
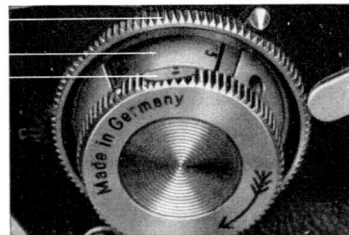


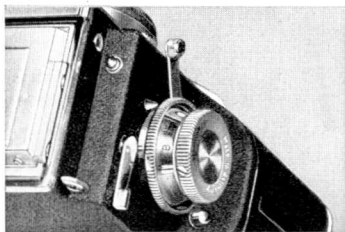
## 3. The focal plane shutter

The focal plane shutter is a so-called four group shutter; i. e. the times of exposure are divided into 4 groups.

The different groups of the shutter are set by turning the adjusting ring 18. As the greater part of the exposure time scale is covered, the speeds of only one group at a time can be seen in the opening at the top. The correct position of the group desired is obtained by bringing the corresponding dot on the milled ring opposite the index pin 19, a click being audible when snapping into position. The exposure times in these groups are marked in either black or red.

Adjusting ring  
Exposure time groups  
Shutter winding knob



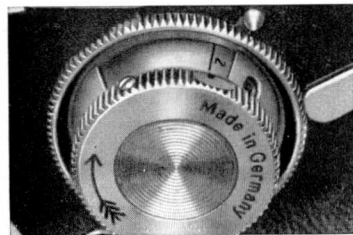


The exposure times are set by means of knob 2, which has both a red and a black indicating mark. The knob is drawn out and can then be turned as required. For the exposure times in black apply the black mark, and for those marked in red apply the red mark. When opposite the desired time of exposure, the knob will snap automatically into place. Before adjusting the knob see that the shutter is either fully wound or else fully run down.

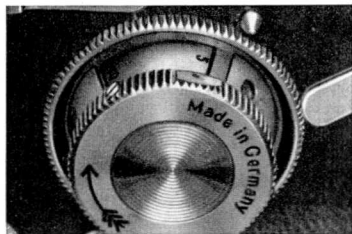


The catches for the speeds  $\frac{1}{500}$ th and  $\frac{1}{1000}$ th second lie close to each other. To set to  $\frac{1}{500}$ th second, turn the knob from the number 200 in the direction of 500. When in correct position the knob will snap downwards. To set to  $\frac{1}{1000}$ th second pull out the knob and turn the black index point as far as possible in the direction of the number 1000. The knob will then snap into po-

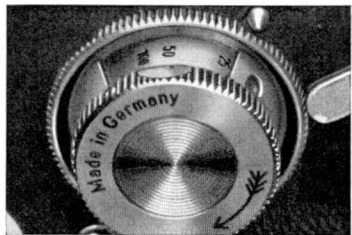
sition. The correct speeds can in this way be obtained with certainty. The exposure times can be set with the shutter wound or run down. But it will be found that, when the shutter is wound, the knob will be a little more difficult to turn while changing from short to long exposure times, as in this case the width of the slit is increased so that the spring tension must be overcome. Release the shutter by pressing down the lever 7, making sure that it is pressed down to its limit stop. When the shutter is set to B (B appears in the "Time group" in a small window near the large opening at the right) it will remain open as long as pressure is applied to the release lever or to the wire release.



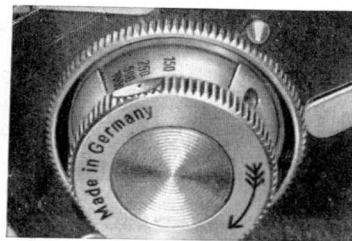
1. "Time group": B,  $\frac{1}{2}$  second; red numbers, red mark



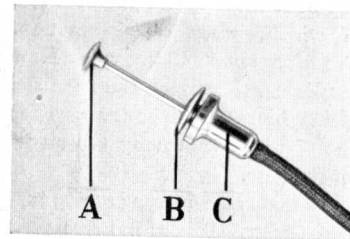
2. "Night pictures group", for slow instantaneous exposures:  $\frac{1}{5}$ ,  $\frac{1}{10}$  second; red numbers, red mark



3. "Normal group", for medium speeds:  $\frac{1}{25}$ ,  $\frac{1}{50}$  and  $\frac{1}{100}$  second; black numbers, black mark



4. "Sports group", for fast exposures:  $\frac{1}{150}$ ,  $\frac{1}{250}$ ,  $\frac{1}{500}$  and  $\frac{1}{1000}$  second; black numbers, black mark.



#### 4. The Wire Release for long time exposures

For long time exposures a special wire release is deliverable. It allows time exposures of any duration to be made. This wire release, which fits into the screw socket 20, differs from the ordinary patterns by the movable plate B between the neck C and the knob A of the release. Set the shutter to "B". When released, it will remain open until the

plate B is pressed down with the thumb. Just as with any other wire release, it can be used for short time and instantaneous exposures. For this, however the plate B must be pressed against the neck C and slightly turned to the right, when the locking device is disconnected.



#### 5. The Delayed Action Release

The Contaflex has a built-in delayed action release, the clockwork of which, when set in motion, releases the shutter after about 12 seconds. First set the shutter in the usual manner and then the delayed action release by moving the lever as far as it will go in the direction shown by the arrow in the illustration opposite.

(Note: The lever must overcome a strong spring tension; hence a certain amount of force is necessary.)

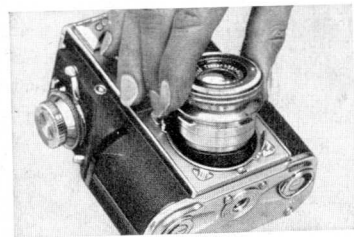


Pressure on the button 22 operates the delayed action release, which can be used within the range of the shutter speeds. When the shutter is set to B, the length of exposure in conjunction with the delayed action release will be about 1 second. Even with the clock-work set, the shutter can be released by pressing down the lever 7 and then wound again.



### 6. The Lenses and the Lens Changing Arrangement

To change the lens, press down the catch 23 and at the same time turn the bayonet mount ring 24 in anti-clockwise direction to the limit of motion. The lens can then be removed easily.



When inserting the lens into its tube on the camera, make sure that the red dot on the lens is opposite the red dot of the catch 23. The lens is re-fixed in position by turning the bayonet mount ring to the left as far as it will go. After having exchanged the lenses it is necessary to couple the camera lens with the finder lens. To do this, move the focussing lever backwards and forwards between its extreme positions until the

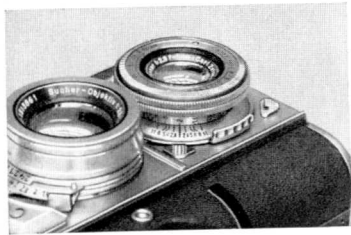


camera lens snaps into place and rotates with it. With lenses of a longer focal length than 2", the focussing should be done by turning the focussing arrangement on the taking lens, as the gear ratio of the focussing lever is too high for such focal lengths.



### 7. The Diaphragm

The diaphragm is adjusted by the milled ring of the lens, which varies in design according to the type of lens used. An important point to bear in mind is that the diaphragm must be set before focussing the lens, as otherwise the focus may be disturbed inadvertently when turning the diaphragm scale.

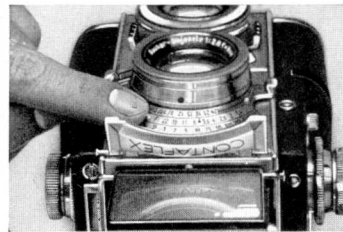


### 8. Depth of Focus Scale

A distance scale is engraved on every lens. Near the index mark (red line) are diaphragm Nos. which enable the depth of focus for every stop and distance setting to be read off. If for example the Tessar lens  $f/2.8$ , focal length  $2''$ , is set at a distance of 9 ft., the sharpness extends from  $6\frac{1}{2}$  to 16 ft. when using  $f/8$ .

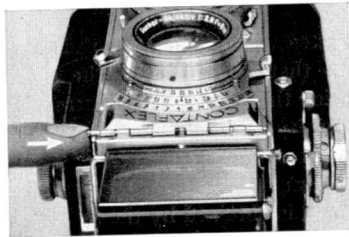
### 9. The built-in photo electric exposure meter

The exposure meter consists of a photo cell which is connected with a regulating resistance to an electric precision measuring instrument. The light that falls through the prism window 25 on to the cell produces an electric current causing the pointer of the measuring instrument to deflect to an extent varying with the intensity of brightness. To enable the exposure time to be read off for all diaphragms without using any conversion table, only one marking position for the pointer is provided. Compensation for the variable brightness of the object, and incidentally the electric current, is obtained by the resistance connected to the exposure scale.



### Manipulation

1. Set the red mark on the diaphragm scale 27 (between 5.6 and 8) to the number of the DIN or Scheiner scale corresponding to the speed of the film being used (immediately below the scale 27).



2. The protective cover is raised by depressing the knob 28.

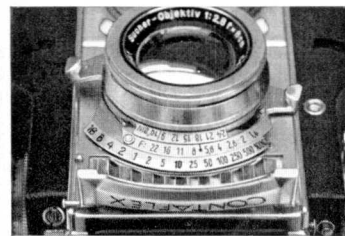


To close the window simply press the cover downwards, when it will snap into position.

3. When using the ground glass screen, the camera is directed towards the centre of the subject to be taken.



4. The lever 29, which is connected with the exposure time scale, is moved until the pointer seen in the observation window 26 is on the diamond index mark.



5. The appropriate exposure time on the scale 30 can be read off for every diaphragm, or conversely, the correct diaphragm can be read off for the desired time of exposure. The black numbers on the scale 30 denote fractions of a second, e. g.  $25 = \frac{1}{25}$ th second,  $2 = \frac{1}{2}$  second. The red numbers indicate full seconds. Allowance can be made for intermediate values by a corresponding adjustment of the diaphragm.





6. When the illumination is very poor, it will be impossible to bring the pointer as far as the index mark, even when the lever 29 is moved to its extreme position. It is then necessary to read off the exposure time indicated and multiply it by a factor resulting from the position of the pointer on the scale between zero point and index mark. The lines seen in the window have their corresponding lines in the table fixed to the flap of the hood and indicated immediately above.



Proceeding from the index mark, the lines in the order they are shown, represent multiplying factors of 2, 5 and 10 respectively.



Should the pointer lie between the divisions on the scale, it is permissible to estimate the "multiplier", but for the measurement to be accurate, the lever 29 must be at its lower stop.

Example: With the pointer as in illustration opposite, the "multiplier" is 5. Presuming the indicated length of exposure for a film with a speed of  $18/10$  DIN and a diaphragm of  $f/2$  to be  $1/10^{\text{th}}$  second, the correct time to expose would be  $5 \times 1/10 = 5/10 = 1/2$  second. For the diaphragm  $f/5.6$  the result would be  $5 \times 1 = 5$  seconds. A table on the right flap of the light

hood gives the exposure values for the most commonly occurring cases when the multiplier are used. The point at the beginning of the scale is the zero point of the instrument.

#### Further explanations:

In daylight the exposure time ascertained with the meter is correct for both orthochromatic and panchromatic film.

#### Artificial light photography with Panchromatic Films

generally requires an exposure time that is one or two numbers less than that indicated on the scale. Since, with artificial lighting, it is usual to take a series of pictures in rapid succession, the necessity of converting the exposure values in every instance may be dispensed with by a simple alteration of the film speed setting. The procedure is as

follows: Instead of setting the mark on the diaphragm scale to the daylight speed of the panchromatic film used, set it to the next higher speed but one, e. g. to  $2^{1/10}$  DIN instead of to  $1^{5/10}$ .

#### Interiors in daylight

Not against the light (with window at the back of the photographer) likewise call for an exposure time which is two intervals shorter than that indicated on the scale.

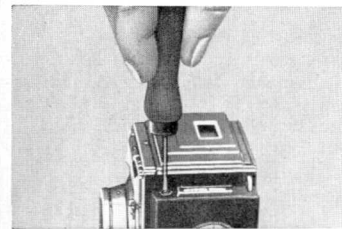
#### Exposures against light

(directed at sun or window) require an exposure time two intervals longer than that indicated. If, by way of exception, an orthochromatic film should be employed in artificial light, set the red mark on the scale 27 to the normal daylight speed and multiply the time thus determined by four.

The indications given on the flap of the light hood are intended to serve as a guide in case the instruction booklet is not at hand.

#### Care and treatment

The exposure meter is a precision measuring instrument and must therefore be handled with care. Above all it should be protected from shocks and jolts. In order that the photo-electric cell may preserve its utmost sensitiveness, it must be kept away from the light whenever possible. When not in use, the protective cover of the prism window 25 should always be closed and the lever 29 swung upwards. The instrument will thus be protected from overloading when suddenly exposed to intense illumination. In strong light it may happen that the pointer is subjected to very severe deflections and remains jammed at the end of the scale. The cause of this is to be found in physical laws and has no effect



point (at the left of the multiplier lines) is brought exactly opposite the pointer.

When making this adjustment, satisfy yourself that no current is generated in the instrument by any light whatsoever striking the cell, as otherwise it is impossible to fix the zero point position with absolute accuracy. The exposure meter, it should be noted, is so sensitive to light that the protective cover does not by itself suffice as a mask. The stray light that penetrates through the hinges and from the sides, although weak, is enough to cause a slight deflection of the pointer and render any adjustment of the zero point ineffectual. Hence, the adjustment should preferably be carried out in some dark spot (on no account in the open air in broad daylight) with a dark cloth or some similar object placed over the protective cover of the prism window.

## D. Taking the picture

When taking pictures in the open air, the "ever-ready" case is recommended for protecting the camera. The carrying strap, which may be lengthened to suit individual requirements, can be shortened with ease so as to raise the camera to its working position. The focussing of the lens when using the large diaphragm stops is best done with the



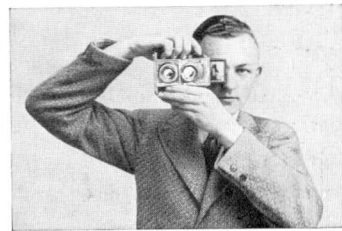
magnifying glass. With the smaller stops (from  $f/4$  on) the magnifying glass is not absolutely essential and this has an advantage in that an undisturbed view of the entire picture is then obtained. If lenses of longer focal lengths than 2" are used, the magnifying glass should always be employed for the focussing.

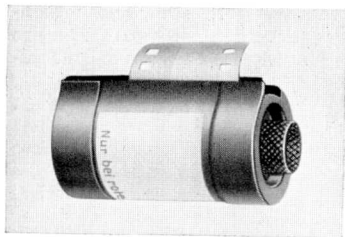
If it is desired to use the Contaflex without the ever-ready case, attach the black carrying strap to the two eyelets 32.

When the camera is slung round the neck, horizontal pictures are the result. To produce upright pictures, hold the camera longways and look into the finder hood at right angles to the subject, which however gives an image reversed left to right. It is more practical therefore, to make use of the Albada Finder, holding the camera as shown. Focussing must of course be performed beforehand.

### Summary

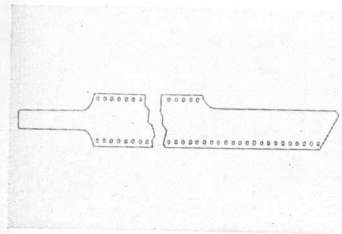
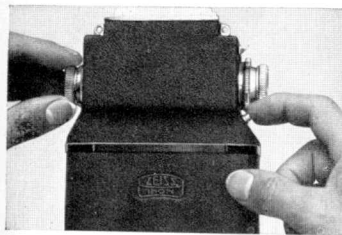
1. Measure the time of exposure.
2. Adjust the diaphragm.
3. Set the exposure time on the shutter.
4. Focus the object on the ground glass screen.





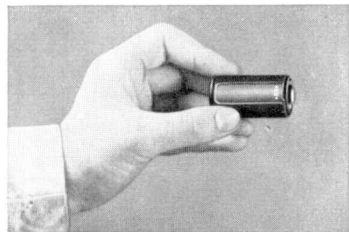
### E. Films

Apart from the Contax spool, the Contaflex also takes other perforated cine film packages, specially prepared for miniature cameras. To ensure faultless film transmission, however, use only such films the spools of which sufficiently conform to the measurements of the spool chamber. The spool head should, in particular, be bored so as to allow the spool to turn correctly on its bearings.



All cartridges need to be re-spooled in the camera; to this end, the knob 33 for releasing the re-spooling device is pressed down and the film wound back into the cartridge by rotating the milled knob 8 in the direction of the arrow. As nearly all the well known makes of daylight loading spools are supplied in the manner of the Contax spool, they should be given preference over cartridges for the reason that they require no re-spooling, and the film therefore does not have to pass twice through the camera.

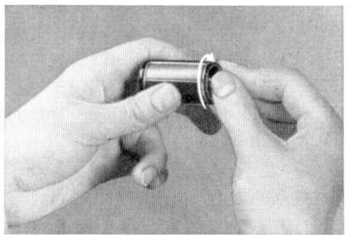
Cut lengths of cine film are also made in the following lengths 16, 32 and 48 ft. It should be cut with the Zeiss Ikon stencil No. 541/16 as shown in the diagram and inserted into the camera, both operations being carried out in the darkroom. A length of 5 ft. is sufficient for 36 exposures and the shaped ends. There are also cut lengths of various makes that are used for loading the cassette in the darkroom.



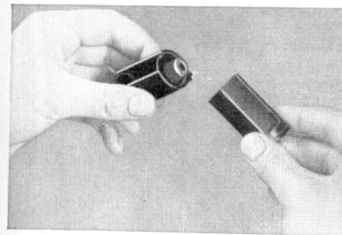
## F. Manipulating the cassette

### a) Loading the cassette as delivery magazine

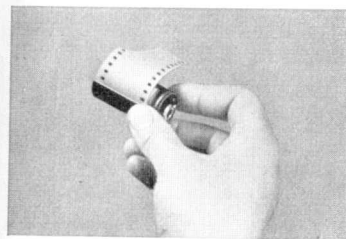
1. Empty cassette closed.



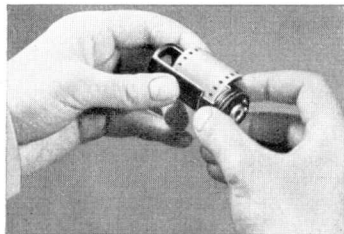
2. Press the nickelled cap and turn until the two openings of the sleeves are superimposed.



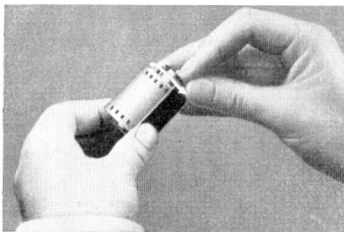
3. Separating the two parts.



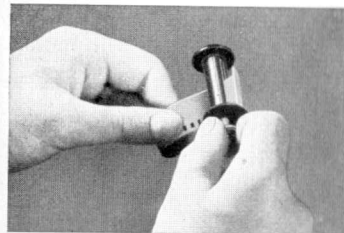
4. To fix the film on to the core turn over only a little film (coated side inwards) and thread into the large slit of the delivery spool. This enables the end of the film to slide out easily when re-spooling. The film should then be wound on to the magazine core and the whole inserted into the inner tube.



5. Put the two parts one within the other, with the film end left outside.

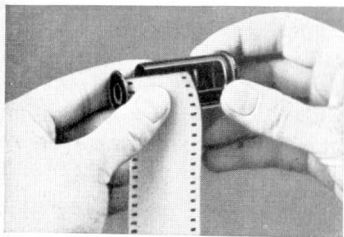


6. Close the cassette by giving the inner part a half turn, whereupon the letters "zu" will appear.

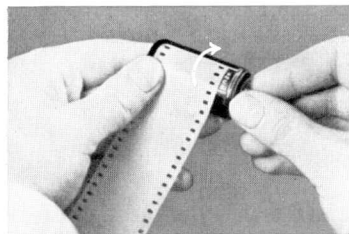


**b) Loading the take-up cassette with film**

1. Open the cassette and take the parts apart as in A, 1—3.
2. Thread the film end into the magazine core and bend back about an eighth of an inch, coated side outwards.



3. Slip both inner and outer parts over the core.

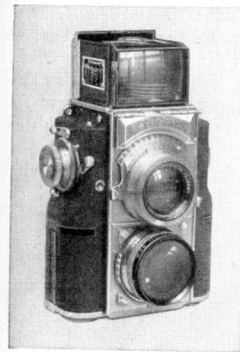
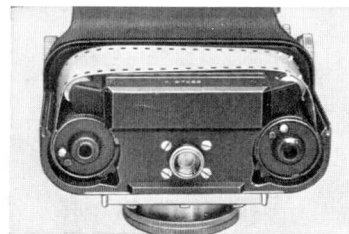


4. Close the cassette by giving the core a half turn, whereupon the letters "zu" will appear.

**c) Inserting the cassette and closing the camera**

Insert the cassette in such a manner that the projection on the outer part fits snugly in the corresponding recess of the camera body.

It is best to work with two cassettes in the camera. When inserting the cassettes always see that they are closed, the letters "zu" then being visible. The act of closing the camera back by means of the locking lever No. 1 opens the mouth of the cassette and thus affords free passage for the film.



**G. Accessories for the Contaflex**

**Lenses.**

Biogon  $f/2.8$  3.5 cm  
Tessar  $f/2.8$  5 cm  
Sonnar  $f/2$  5 cm

Sonnar  $f/1.5$  5 cm  
Triotar  $f/4$  8.5 cm  
Sonnar  $f/2$  8.5 cm  
Sonnar  $f/4$  13.5 cm

**Yellow and colour filters.**

The filters for the 2-inch. lenses are either screwed into the lens mounts or pushed over the diaphragm adjusting ring, while with the long focus lenses they are only pushed over the ring. In addition to the ordinary yellow filters, there are also colour filters for special purposes, namely yellow-green, green, orange, red and dark filters.

**Supplementary lenses.**

For taking subjects less than 3 ft. from the camera a supplementary lens is screwed on to the camera lens or pushed over the diaphragm ring. The camera is then sharply set in focus, not with the ground glass screen, but in accordance with the table given here below. The supplementary lenses supplied are of 1 or 2 diopters. The distance of the object must be measured from the Proxar lens attachment.

**Table of focal depth for Contaflex with Proxar and camera lens stopped to  $f/8$**

Scale in feet	Focus obtained with Proxar	Focus obtained with Proxar
	1×27*	2×27
	1×42*	2×42
4	1'9 <sup>1</sup> / <sub>2</sub> "	1'13 <sup>3</sup> / <sub>4</sub> "
6	2'1"	1'3 <sup>1</sup> / <sub>2</sub> "
8	2'3 <sup>1</sup> / <sub>2</sub> "	1'4 <sup>1</sup> / <sub>2</sub> "
10	2'5 <sup>1</sup> / <sub>4</sub> "	1'5 <sup>1</sup> / <sub>2</sub> "
15	2'8 <sup>1</sup> / <sub>2</sub> "	1'6"
20	2'9 <sup>1</sup> / <sub>4</sub> "	1'6 <sup>1</sup> / <sub>2</sub> "
30	2'10 <sup>1</sup> / <sub>2</sub> "	1'7 <sup>1</sup> / <sub>2</sub> "
60	3'1 <sup>1</sup> / <sub>2</sub> "	1'7 <sup>1</sup> / <sub>2</sub> "
∞	3'2"	1'8"

\* Push on supplementary lenses with 27 and 42 mm diameter may be had and screw in supplementary lenses with 25.5 and 40.5 mm diameter.

The adapter is designed to take plateholders of the single pattern. The size of plate is  $1\frac{3}{4} \times 1\frac{1}{4}$ " ( $3 \times 4.5$  cm) and of the image  $1\frac{1}{2} \times 1$ " ( $24 \times 36$  mm).

**Lens hoods.** The employment of a lens hood is an expedient means for enhancing the brilliance of negatives, especially when photographing in artificial light. It has the advantage of producing effective "against the light" pictures without any troublesome reflections.

The lens hoods are attached either to the outer bayonet catches 34, or pushed or screwed on to the lens in the manner of yellow filters.

**Plate adapter.** The Contaflex, although primarily a film camera, may also be used with the adapter as a plate camera. To use this accessory, the back of the camera is removed and a second back, carrying the adapter, is put in its place. The adapter is supplied complete with the back to fit. Focussing for such photographs is done on the ground glass screen inserted within.



**Micro Arrangement.**  
**Enlargers:** rigid, or with hand or automatic focussing.  
**Developing apparatus.**  
**Various Devices for production of diapositives.**

**Mirror Viewing Magnifier.** This is pushed into the screen hood to allow focussing on the ground glass at eye-level.

**Light-Hood Extension Attachment.** When annoying side light is present, this can be attached to the light-hood of the camera.

**Copying Apparatus.** Special copying apparatus for reproductions 1:1 up to 1:4, large copying apparatus for reproductions 1:2 up to 1:10.

**Optical Near Focussing Device "Contameter",** for close-up photographs at 20, 12 and 8 inches, camera held in hand.



**Projectors for both black and white and colour pictures.**  
**Wide angle view finder for the Biogon  $f/2.8 - 3.5$  cm.** The finder is fixed to the camera with bayonet ring. The image is upright and reversed as regards left and right.



