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Instructions for using the
I K O F L E X I I I

No. 853/16

COLOR ADAPTER — for the use of (6×6 cm) pictures
#828 Kodachrome or black and white
spools in this camera will be available
shortly. Ask your dealer or write for in-
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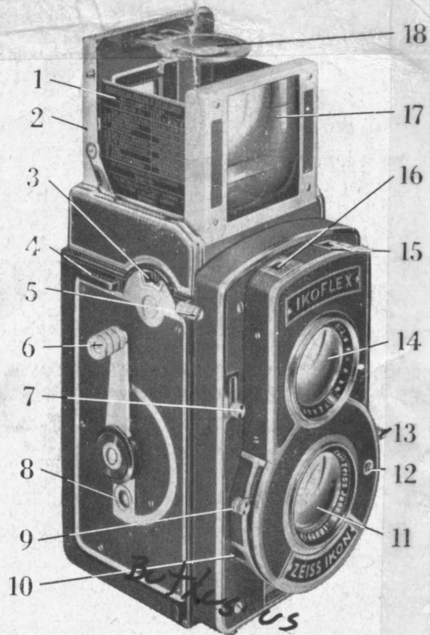
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*For the finest results of all
Zeiss Ikon film*

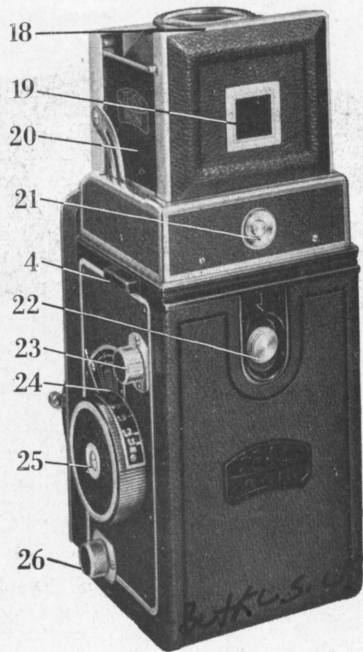
- 1 = Right panel of finder hood.
- 2 = Lever operating the supplementary magnifier.
- 3 = Picture counter.
- 4 = Eyelet for swivel of carrying strap.
- 5 = Shutter release.

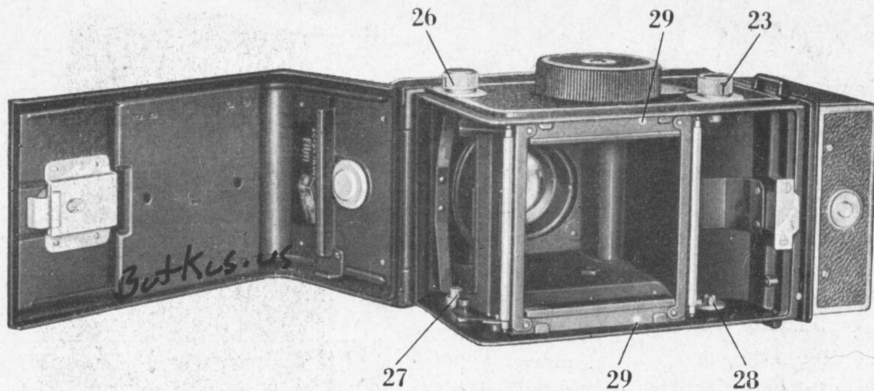
2



- 6 = Handle with hinged end which winds on the film and sets the shutter.
- 7 = Lever for setting the delayed-action shutter mechanism.
- 8 = Indicator showing whether film is in the camera or not.
- 9 = Lever for adjusting the shutter speed.
- 10 = Nipple taking flexible shutter release.
- 11 = Camera taking lens.
- 12 = Coloured indicator: shows red when shutter is set, black when not set, and white when delayed-action mechanism has been set.
- 13 = Lever for setting lens apertures.
- 14 = Finder lens.
- 15 = Window for reading off lens apertures.
- 16 = Window for reading off shutter speeds.
- 17 = Front panel of view finder hood, containing van Albada type finder with parallax compensation.
- 18 = Supplementary focussing magnifier.

- 4 = Eyelet for swivel of carrying strap.
- 19 = Black sight of view finder in hood.
- 20 = Left side panel of finder hood.
- 21 = Button which opens the finder hood.
- 22 = Locking button of camera back.
- 23 = Knob for holding spool in take-up chamber.
- 24 = Depth of focus scale.
- 25 = Focussing control knob.
- 26 = Knob for holding spool in feed chamber.





- 23 = Knob for holding spool in take-up chamber.
26 = Knob for holding spool in feed chamber.
27 = Beg for holding spool in feed chamber.
28 = Winding key in take-up chamber.
29 = Indicating dots for loading film.

General notes

The novel design of the Ikoflex III makes it necessary for the user to read the following instructions carefully. It is only when the various movements have been thoroughly understood that successful results in practice can be expected.

The Ikoflex III is designed in such a way that it is impossible to forget any particular operation between exposures: the crank handle winding on the film turns through 180° , and if not turned through its full distance will not return to its original position.

This crank sets the shutter as it moves on the film to the next picture: by this means double exposures as well as blank unexposed sections of film are completely prevented.

A picture counter indicates the number of exposures which have been made, and after the 12th exposure the counter springs back to zero as soon as the crank handle is wound, remaining there until a new film has been loaded. As soon as the first section of film has been wound into position the handle is locked and cannot be moved again until an exposure has been made.

I. Suitable films to use.

The Ikoflex takes pictures $2\frac{1}{4} \times 2\frac{1}{4}$ inches (6×6 cm) in size, and is used with a standard B 2 wide diameter spool, on which it gives 12 pictures. The fast Zeiss Ikon Panchrom film is specially recommended, since it is always reliable and gives excellent results even in bad lighting conditions. The colour sensitivity of this film includes orange and red, as well as the other colours, and all colours of the rainbow are reproduced in their correct relative brightnesses.

Spools of film must be kept in their original light-tight cartons and wrappings, and although the backing paper is impervious to light it is desirable to load and unload the camera in diffused weak light or in the shade. This will avoid any risk of fogging.

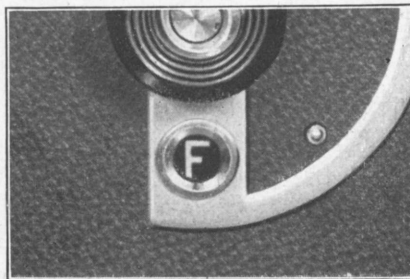
*Zeiss Ikon cameras — Zeiss lenses — Zeiss Ikon film
These three mean trouble-free photography*

II. Loading the camera

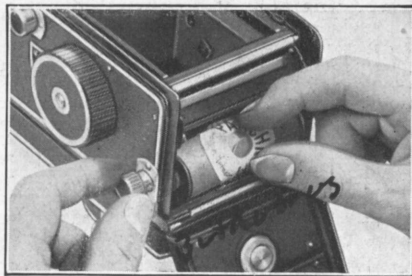
Under the crank handle (6) will be seen a small indicator (8). When no film is in the camera, a dark area is seen through the circular window, but when a film has been loaded into the camera and its paper backing strip attached to the take-up spool, a large white "F" on a red ground appears in the window (8). It is thus possible to ascertain in a moment whether film is in the camera or not.

The following operations are required for loading, and must be carried out in the order given below:

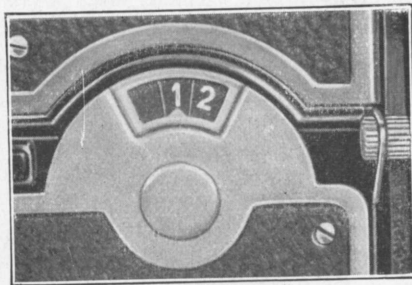
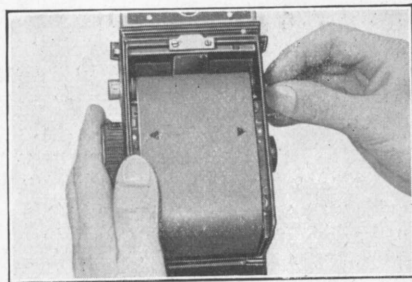
1. By moving the button (22) in the direction of the arrow, and simultaneously lifting the back of the camera, the latter swings open on its hinge.



2. After pulling outwards slightly the knob (26) and turning it a little to the side to lock it in the outer position, a full spool of film is placed on the inside pin (27). The pointed end of the backing paper must point in the direction of the open camera back and the take-up chamber, the black surface being next to the camera body and not facing upwards. By turning the pin (26) back to its original position, it will spring inwards once more and hold the spool of film in place.
3. The gumstrip holding down the backing paper of the film is now broken, and the paper drawn over the open camera back and threaded through the longer slot in the empty spool core placed in the take-up chamber.



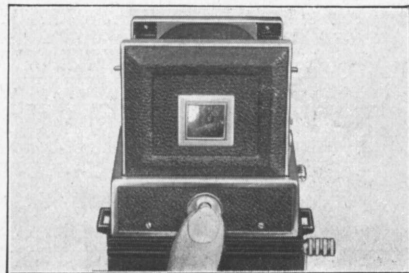
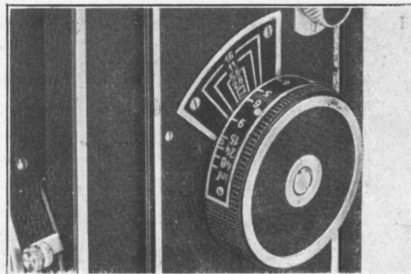
4. Move the crank handle (6) a little, until the two triangular black marks on the backing paper are opposite the two white indicating dots (29) on the guides beside the film in the open camera back.
5. The camera back is now closed, making certain that the locking button snaps audibly into place.
6. The crank handle (6) is turned until the first section of film is ready for exposure inside the camera. This is the case when the handle (6) locks, and will not turn further. Simultaneously the picture counter (3) indicates "1" on its dial, and the shutter is set so that an exposure may be made immediately.



III. Taking the picture

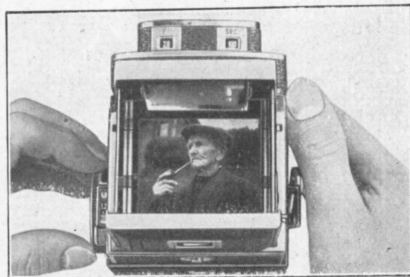
Focussing and composing the picture are done on the ground-glass screen of the view-finder. The depth of focus is indicated by the special scale (24) placed beside the focussing control knob, and showing the limits of sharp focus for any lens aperture which may be in use. In the illustration opposite, the subject focussed is at 6 feet, and it may be seen that at $f/11$ the limits of focus are 5 and 8 feet.

1. Pressure on the button (21) causes the hood of the finder to spring automatically into its working position.

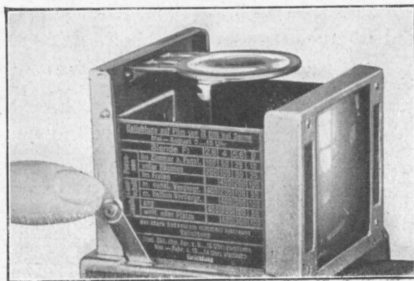


2. For use, the Ikoflex is hung round the neck on a strap, and its height below the eyes may be adjusted by moving the buckle of the strap itself.

The image seen inside the finder hood is brilliant and erect, but — as in all reflex cameras — it is reversed left to right.



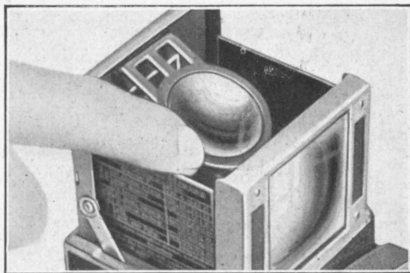
3. For the very sharpest focus, particularly at large aperture values, it is useful to use the supplementary focussing magnifier (18). This springs upwards into position when the small milled lever (2) is pressed downwards.



4. During use, the eye should be placed close to the magnifier and just over its central point.



After focussing, the magnifier in its mount is pushed downwards once more, and it will remain in that position.



5. When required, the camera may also be used at eye level, for a van Albada type finder is built into the finder hood for this purpose. The aperture (19) in the back panel of the finder hood is used for an eyepiece, but before using it, the magnifier (18) must be raised so that vision is not obstructed.



The van Albada type finder is an immense improvement over all other direct-vision finders for the photography of moving objects, for it shows a considerably greater portion of the subject than is actually taken by the camera. All objects are seen in their natural size, and the advantage over the ordinary frame type of finder is that the limits of the camera field are seen as white lines projected at the subject distance.

This is arranged by the unusual design of the finder itself: the white rectangle is actually on the back wall of the finder surrounding the aperture used by the eye as a sight. The glass of the front portion of the finder consists of two cemented lenses, the surface between the two being semi-silvered, and as a result this semi-reflecting surface produces an image of the white rectangle at the subject distance. The finder must be held close to the eye, so that the area surrounding the white rectangle can be clearly seen, though the area enclosed by the white lines themselves is that which will actually be included in the picture taken by the camera lens. The front wall of the finder hood (17) moves as the focussing control knob is turned, and thus compensates for variation in parallax at different focussing distances. By this means it is ensured that what appears within the white lines seen through the finder will actually appear in the negative later on.

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These three mean trouble-free photography

6. Focussing is watched on the ground-glass screen while the control knob (25) is turned, and the shutter release (5) is best pressed to make the exposure by the right thumb.



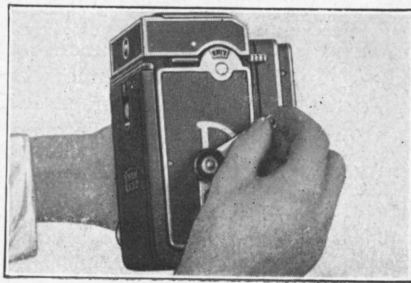
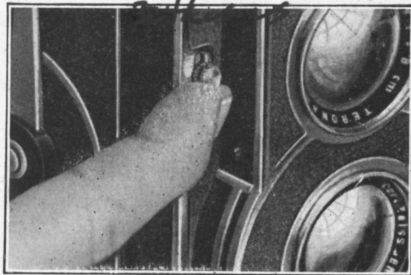
7. When using the longer "snap shot" exposure times it is strongly desirable that after the focussing has been adjusted, the left hand steadies the camera as shown opposite.



8. When it is required to work with the delayed-action shutter release, the mechanism controlling this action, must first be set. This is done by pressing the button (7) on the camera front upwards in its slot until it will go no farther. The indicator (12) of the shutter will then show the white disc.

The delayed-action mechanism cannot be used for $\frac{1}{400}$ th second and "B" settings.

9. After each exposure, the crank handle (6) is turned through 180° , which will move on the film, wind the shutter again, and move the picture counter forward to the next number.



Closing the finder hood

To close the finder hood, the two side panels (1) and (2) are first folded down, then the front panel (17), and finally the back panel (19).

Safety devices

Double-exposures on a single section of film are out of the question; for the shutter can only be released when the film has been wound on to the next picture. In the same way, the film cannot be wound on until the shutter has been released.

Apart from this mechanism, a red disc shows in the window (12) when the shutter has been set which also means that the film has been wound on. A black disc in the same window indicates that the film needs winding on if another exposure is to be made, and that the crank handle (6) must be rotated.



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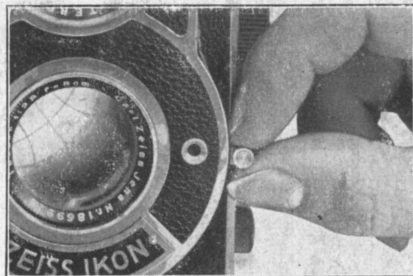
If the crank handle (6) and the shutter release (5) are locked, force must never be used to try to make them work. Locking of one or the other merely implies that some operation has been forgotten.

Two-point focus settings

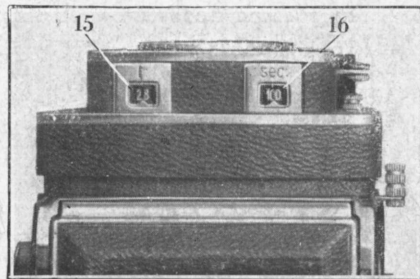
In order to give the very greatest readiness for use at short notice, the Ikoflex III is fitted with the well-known Zeiss Ikon system for two-point focus settings. If the lens aperture is set to the red dot between $f/11$ and $f/16$, and the focussing control knob to the similar red dot between 20 and 30 feet, the depth of focus stretches between 13 feet and infinity. This setting can be used for practically every exposure in which lack of time forbids accurate focussing on the ground glass.

The lens aperture

The larger the numerical value of the lens aperture, the smaller the actual aperture through which light passes, and the greater is the depth of focus. At the same time, a small aperture (i. e. large aperture number) implies a long exposure. The aperture is adjusted by means of the lever (13).



The lens aperture that has been set appears in the small window (15).



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Zeiss Ikon film*

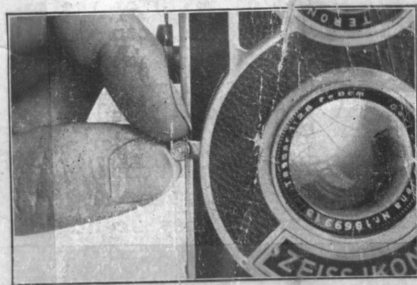
The shutter

The Compur-Rapid shutter fitted permits exposure times to be given automatically between 1 second and $\frac{1}{400}$ th second, as well as time exposures of any duration.



Snapshot exposures

The lever (9) is moved upwards or downwards as required until the number indicating the fraction of a second exposure to be given appears in the small window (16). It is very important to remember that the highest speed of $\frac{1}{400}$ th second cannot be obtained after the shutter has been set. To do this would damage the shutter.



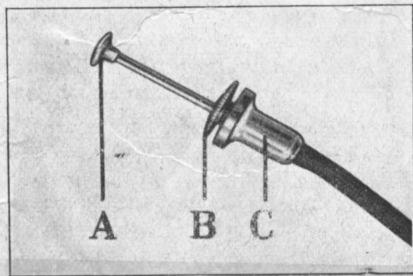
Short time exposures

Move the lever (9) until the letter "B" appears in the window (16).

For

long time exposures,

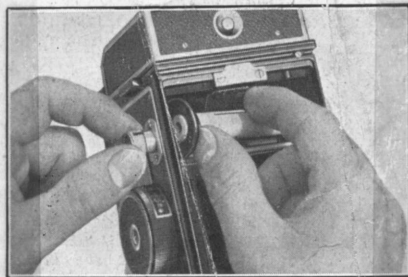
the special flexible release illustrated should be used, and this is screwed for use in the nipple (10) on the shutter casing. It differs from normal flexible releases in having a moveable plate (B) between the plunger (A) and the body (C).. When the shutter has been set to "B" as above, the leaves will open when the plunger (A) is pressed, and will remain open until the plate (B) is pressed down against the body (C) of the release. This special release can be used as a normal one for short time exposures by pressing the plate (B) against the body (C) and turning it slightly to the right to lock it down. When this has been done, the plunger (A) is not locked when pressed down, and the release may be used in the normal manner.



vided, and the film repacked in its original wrapping. To remove the full spool, the peg (23) must be pulled outwards, and turned slightly to lock it in the outer position.

3. By pulling out the peg (26) in the same way as when loading a film, the empty spool core may be removed from the feed chamber and transferred to the take-up chamber.

When placing the spool in the take-up chamber, care must be taken that the slotted end of the core engages in the key (28). The peg (23) will spring back and engage in the round hole at the other end of the core when it is turned back to its original position.



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V. Accessories for the Ikoflex III

1. Zeiss Ikon filters

The filters series 321 fits the lens of the Ikoflex III, and the mounts slip on to the front rim of the camera lens (11). A yellow or yellow-green filter is most generally useful, but orange and red filters are available for night effects in daylight and for long distance work in misty weather.

2. Proxar and other supplementary lenses

For exposures at closer ranges than 3 feet supplementary lenses are required, and are made to focus on distances between 36 and 20 inches, and 20 and 14 inches respectively. In order that the image may be focussed correctly on the ground-glass screen by means of the focussing knob (25), it is necessary to have one supplementary lens on the camera lens, and a second identical one on the finder lens.

Zeiss Proxar lenses are available in stereoscopically matched pairs for the above purpose.

3. Ever ready carrying case No. 1780/16

It is naturally desirable to protect the camera from mechanical damage and scratches, and a leather carrying case is the simplest method of doing so. The ever-ready case is not a camera case in the ordinary sense of the word, since it opens with a single flap, and the camera may be used while still remaining in it without the least impediment to any of the normal operations required. The camera is held in the case by screwing the special bolt in the base into tripod bush on the bottom of the camera body.

4. Zeiss Ikon lens hood, Nr. 1283/16

The purpose of a lens hood is to keep unwanted side and top light from the lens, and is particularly necessary in against-light exposure. By excluding extraneous light, it gives a brilliance and clarity of image that is not produced by any other means.

5. Supplementary finder hood, No. 851/45

This is a long hood which is pushed over the ordinary viewfinder of the camera. It serves to keep light from the ground glass, and makes it very much more convenient to focus the picture.