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# ZEISS IKON



INSTRUCTION BOOKLET

②



# Tenax

*automatic*



## The TENAX automatic and You

will soon be on familiar terms, because you will not be bothered with difficult technicalities;

You can start taking photographs right away.

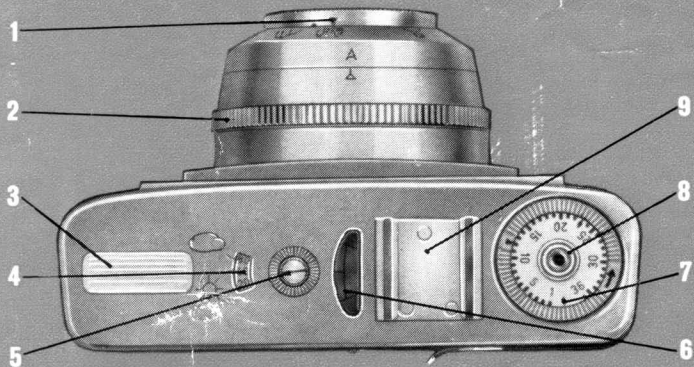
We expect that your dealer has loaded the camera with your first film. To load it yourself in the future, see the instructions on pages 8 to 10.


### Always take care that

the film speed number printed on every film pack is set to the sun-symbol in the window (4).



As soon as the rapid lever (19) is tensioned (press it to the right until it stops), you are ready to start hunting for pictures.



- 
- 1 Setting mark for symbols
  - 2 Setting ring
  - 3 Safety plug for flash connection
  - 4 Film-speed window
  - 5 Film-speed setting disc
  - 6 Exposure-meter window
  - 7 Frame-counter disc
  - 8 Control button
  - 9 Accessory shoe (flash equipment)
  - 10 Locking bar of camera back
  - 11 Locking pawl for flash range
  - 12 Tripod bush
  - 13 Locking pawl for rewind crank
  - 14 Rewind crank
  - 15 Axle of rewind crank
  - 16 Lever for flash and time exposures
  - 17 Aperture scale for flash and time exposures
  - 18 Film-type indicator disc
  - 19 Rapid-wind lever

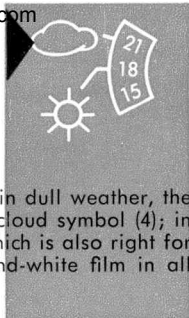
## Daylight Exposures

- Mark on the setting ring (2) is set to "A".
- Turn the ring on the lens until the setting mark (1) clicks-in at the symbol representing your subject (see fig. 1).
- If the pointer is visible in the green zone of the window (6), the light available is suitable for the exposure intended.
- Hold the camera at eye level and look through the viewfinder: everything you see inside the bright frame will appear later on your photo.
- Gently depress the control button (8), using either the index or the middle finger of your right hand; never jerk the button.

You have taken your first picture: After this, swing the rapid-wind lever (19) to the right until it comes to a stop. The TENAX is then ready for the next shot.

Fig. 1





## Care with Colour Reversal Film

For taking pictures on this type of film in dull weather, the filmspeed number should be set to the cloud symbol (4); in fine weather set it to the sun-symbol, which is also right for both colour negative film and black-and-white film in all weather.

## Flash photography

Remove the safety plug (3) and attach the IKOBLITZ 4 directly by plugging its contact into the two plug-holes (Fig. 7, 8). Other flashguns (including electronic units) should be attached to the accessory shoe (9) of the TENAX, plugging the cable into the socket which is beneath the safety plug. The safety plug can be stored in the ever-ready case. For taking flash pictures, the automatic exposure control must be disengaged. This can only be done when the rapid wind lever (19) has been tensioned correctly: press down locking pawl (11) and move the setting ring (2) slightly to the left.

The flash symbol (on the underside of the setting ring (2), should now be set to the guide number for "X"-synchronisation provided by the bulb manufacturer.



The lever (16) should point to the flash-symbol and the mark (1) on the lens ring should be set to "group". The camera/subject distance should be about 10 ft. The shutter is released as usual by depressing the control button (8). After taking flash pictures, return the setting ring (2) to its automatic position ("A"). The camera is permanently adjusted to a shutter speed of  $\frac{1}{30}$  sec. throughout the entire flash range, and you select the guide No. which is recommended under "Open shutter to  $\frac{1}{30}$  sec.". These flash guide numbers are usually given in the film instructions and on the wrappings of standard flash bulbs.

## Loading the film

All normal brands of miniature film, black-and-white and colour, in cartridges for either 36 or 20 exposures, can be used with the TENAX. Film loading should always be done in subdued light. By pressing downwards the locking bar (10) on the narrow side, the back of the camera will spring open. First, place the lower end of the film cartridge over the pin in the cartridge chamber, so that the beginning of the film points towards the take-up spool (Fig. 2). The bar in the

Fig. 2

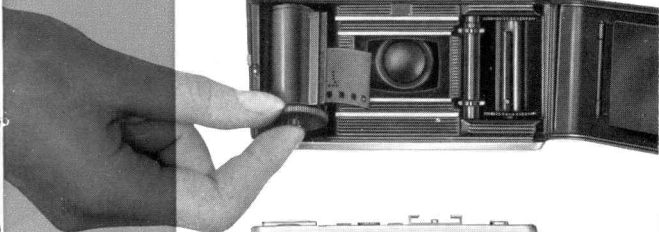


Fig. 3

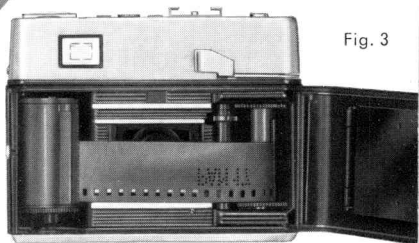
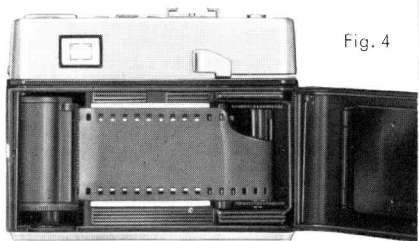


Fig. 4



base of the cartridge-core should engage the slot in the pin. Depress the locking pawl (13) and the rewind crank will spring out. Now turn the flange of the take-up spool until the slot in the spool is on top. Insert the beginning of the film into the slot until the third or fourth perforation hole engages the lug in the slot (Fig. 3). Turn the flange of the take-up spool until the teeth of the sprocket drum engage the perforations on both sides of the film (Fig. 4). **The rewind crank (14) is then folded home again firmly so that the pawl (13) springs out visibly.** Close the TENAX by replacing the back, using slight pressure.

Set the mark on the frame-counter disc (7) to the red marking preceding the number of exposures (which will be clearly marked on the film cartridge), by turning the milled ring in the direction of the arrow. Finally, turn the rapid-wind lever (19) and release the control button (8) twice; while doing this, check that the axle of the rewind knob (15) turns, which shows that the film is being wound on correctly (Fig. 5); a movement that can also be watched through the hole in the base of the eveready case. At the third swing of the rapid-wind lever (11), the mark on the frame-counter dial will indicate 36 or 20, and the camera is correctly set for the first exposure.

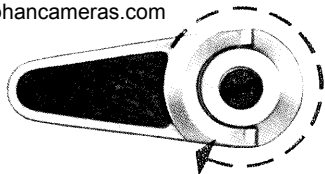


Fig. 5

The frame-counter dial always shows you how many frames are still to be exposed.

After loading set the film speed by turning the disc (5) on the top of the camera to the sun-symbol; (see note on colour reversal film, page 7).

Also turn the film-type indicator (18) on the camera back, to remind you what type of film is in the TENAX. The film-type indicator is solely an aid to memory and has no effect on the exposure.

## Removing the film

When the frame-counter dial indicates the figure "1" and the shutter is then released, the last picture has been taken and the film must be wound back into its cartridge. To do this, depress the locking pawl (13) on the underside of the TENAX. The rewind crank (14) will then spring out and should be unfolded (Fig. 6). Turn the crank in the direction of the arrow until a resistance is felt, which is caused by

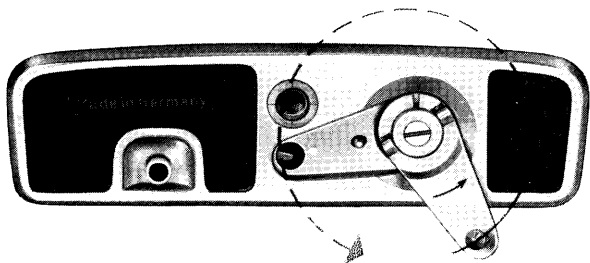


Fig. 6

the film coming free from the take-up spool. Now open the back of the TENAX by pressing the bar (10) on the narrow side of the camera and remove the film.

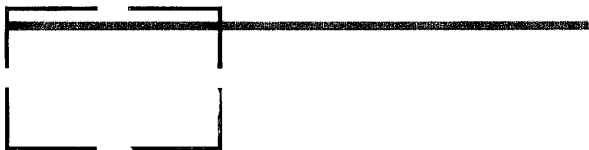
## Special features

You can also set the distance on the distance-setting scale of the TENAX; this will be found on the underside of the lens ring.

For taking pictures at distances of about 3 ft., do not let

your subject extend above the two pointers beneath the upper edge of the viewfinder frame.

With the TENAX you can also take pictures without using the automatic exposure control.



To do this, press the locking pawl (11) downwards (with the shutter tensioned), and turn the setting ring (2) to the left. If the lever (16) is now pointing to the flash sign, you will obtain a shutter speed of  $\frac{1}{30}$  second; by turning the lever to "B", you can take time exposures from a tripod at any aperture setting. For this a cable release should be employed; this is screwed into the control button.

By this method it is also possible to take close-up pictures with supplementary lenses (ZEISS PROXAR lenses,  $\phi$  A 28.5 mm). Aperture and distance should be set on the scales.

The exposure is made at the "B" or  $\frac{1}{30}$  second setting, as required, and with the aid of a flashgun, if necessary. Moreover, this method of setting may be used for taking normal flash pictures at distances other than 10 ft. (3 m.).

In this case divide the guide number of your flash (check the speed of the film in use) by the required distance and you will obtain the correct aperture value; this should be set on the aperture scale (17). Example: Guide number 24 (for metres) divided by a distance of 6 m (20 ft.) = f/4.)

The fully automatic exposure control of the TENAX will solve most exposure problems by itself.

With your TENAX, you can even master those few situations when the experienced photographer, working with a non-automatic camera, would resort to exposure corrections either necessitated by special lighting conditions or inherent in the subject.

For instance, when taking an against-the-light shot of a landscape, you can take a light-reading from the foreground by tilting the camera downwards slightly. Should very strong contrasts prevail (objects against a very bright background or any back-lit subject), reflected light readings can be taken. Approach the subject or the most important part of it as close as possible, measuring only the light reflected

from it. Lock the pointer of your exposure meter in the position just obtained by depressing the control button almost to the point of release (don't actually release the shutter!). Whilst maintaining the pressure, return to the previously marked taking point and then take the picture.

## Accessories

### **ZEISS IKON precision filters**

To improve the reproduction of tonal values in black-and-white pictures, ZEISS IKON precision filters can be screwed into the lens ( $\phi$  27 mm). Yellow, green, orange, red and ultra-violet filters are available, as well as the CONTAPOL polarizing filter. For colour photography the IKOLOR filters A, B, C and F are obtainable; detailed instructions are provided. When filters are used the film-speed should be set correspondingly lower: for an x2 filter-factor, reduce the ASA-speed by half, for an x4 filter factor by  $\frac{3}{4}$  and for an x5 factor by a further  $\frac{1}{3}$  division.



### **Eveready case**

The TENAX can be protected from external damage by its smart everady case. The camera is screwed into the case by means of the tripod screw and need not be removed for use. The front of the case may be detached.

### **Lenshood**

The lenshood obviates flare and fog when shooting directly into the sun. Moreover, it protects the lens from rain and snow in bad weather.

### **The rubber lenshood is especially practical ;**

it can stay on the camera lens when the eveready case is closed.

### **IKOBLITZ**

The cableless IKOBLITZ 4 capacitor flashgun can easily be fitted to the TENAX. This flashgun is remarkable for its high light-output. The reflector can be folded up so that

## Care of the TENAX

From time to time the film cartridge chamber and the film track should be cleaned with a soft camel-hair brush. The lens should only be cleaned when necessary, by careful wiping with a clean, soft linen rag. First remove all dust with a camel-hair brush. The windows of the exposure meter and the viewfinder should also be cleaned occasionally with a linen rag.

Every TENAX has its serial number on the back, and every ZEISS TESSAR lens has its own lens number. It is advisable to make a note of both numbers in order to prove your ownership in cases of loss or theft.

Your photo-dealer will be glad to give you advice and information on all photographic questions, free of charge.

*Subject to alterations in the interest of technical progress.*

the apparatus is easy to carry. Moreover, the IKOBLITZ 4 can be carried on the strap of the eveready case.



Fig.7, 8

