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INSTRUCTION BOOK



#120 film

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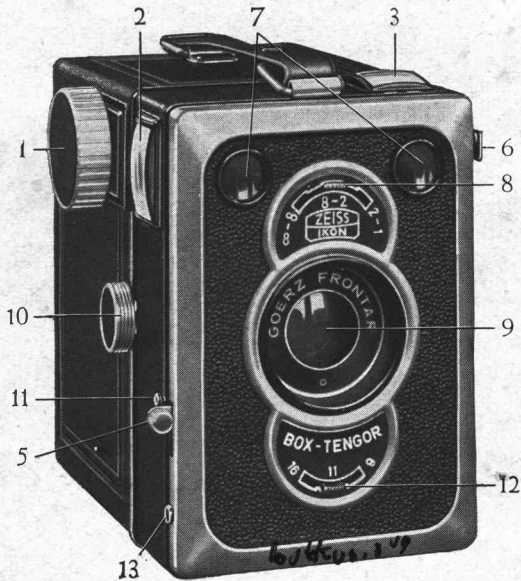
BOX-TÉNGOR

ROLL FILM CAMERA 2 1/4" x 3 1/4"



Taken with BOX TENGOR  
in sunshine at 14.00 hours  
in October;  $\frac{1}{30}$  sec,  
diaphragm setting 9





BOX TENGOR · front view

THE PARTS OF THE

# BOX TENGOR

- 1 = Film winding knob
- 2 = Viewfinder for horizontal pictures
- 3 = Viewfinder for vertical pictures
- 4 = Double exposure prevention signal
- 5 = Shutter release lever
- 6 = Lever for setting shutter on action photography or time exposures
- 7 = Viewfinder lenses
- 8 = Lever for setting long, medium and short distances
- 9 = Taking lens
- 10 = Knob for locking camera

at the bottom of the BOX TENGOR permits secure attachment of the camera to a tripod.

After every exposure the film has to be advanced with the film winding knob (1) until the next frame number appears in the window (15).

## FLASH PHOTOGRAPHS

can also be made with the BOX TENGOR thanks to its built-in flash synchronization contact, which fires the flash when the shutter is wide open. For taking flash photographs, attach the connecting cord of the flash unit to the flash synchronization contact (14) of the BOX TENGOR. Of course, the flash unit must have a standard plug. Flash photographs with flash lamps can be made with the "M" setting. Consequently, the BOX TENGOR can even be used for flash action photographs from the hand. The most suitable flash lamps available on the market are the Osram flashes F0, F1 and F2, the Philips flashes Pf 14, Pf 25 and Pf 56 as well as the Syntax flash. The camera is synchronised only for flash lamps (Vacuflashes), not for electronic flashes.

The BOX TENGOR is a dependable camera even in rough use, provided its efficiency is preserved by careful protection of the camera from moisture, dust, and similar detrimental external influences. Careful handling will pay in so far as the BOX TENGOR will remain a source of constant pleasure for its owner.



BOX TENGOR · rear view



- 11 = Shutter release lock
- 12 = Diaphragm setting lever
- 13 = Thread for cable release
- 14 = Flash synchronization contact
- 15 = Window for verifying the number of exposures made
- 16 = Tripod thread
- 17 = Spring blade for holding film spool
- 18 = Film winding prong.

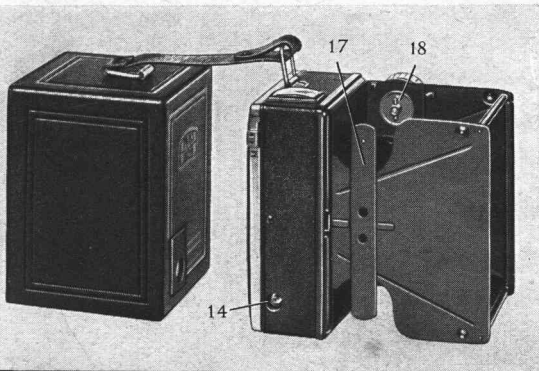
The BOX TENGOR is equipped with an excellently colour corrected two-lens objective, well suitable for colour photography.

Before loading the BOX TENGOR for the first time, it is advisable to read these instructions very carefully and to practise the necessary manipulations in order to be fast and safe in later practical photographic work.

## LOADING OF THE CAMERA

The BOX TENGOR is loaded with standard B II/8 roll film, furnishing  $8\ 2\frac{1}{4}'' \times 3\frac{1}{4}''$  pictures. For opening the BOX TENGOR, pull out the locking knob (10) and remove the back of the camera. Insert the empty spool into the upper spool chamber with the prong of the film winding key engaging with the slit of the spool. Then engage the unexposed film with the two lower spool pins, turn the spool until the narrow end of the protective paper points upward and then slit the gummed label. Pull the beginning of the protective paper over the

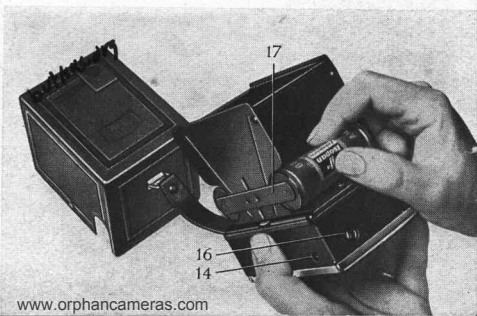
two rollers to the upper spool (take-up spool), insert the beginning of the protective paper into the wide slot of the take-up spool, tighten the paper by turning the film winding knob (1), slide the back of the camera on its front part and close



the camera with the locking knob (10). Then open the window (15) and turn the film winding knob (1) until the number "1" appears in the window. Now, the first frame of the film can be exposed. Then close the window (15).

## UNLOADING OF THE CAMERA

After exposure of the 8th frame, turn the film winding knob (1) until the end of the protective paper has passed the window (15). Then open the camera as described above and seal the film while it is in the spool chamber. In order to remove the film, bend the spring (17) outward, simultaneously holding and removing the spool. Then take out the empty spool and insert it into the upper spool chamber, engaging the prong (18) of the film winding knob with the slot of the spool core.





## THE SETTINGS

*Focusing:* When taking pictures at distances closer than 25 ft, estimate or measure the distance of the object before the exposure and set the lever (8) on the respective distance. Close-ups and portraits are usually made with the 1-2 m (40''-80'') distance setting, pictures of groups of persons are made with the 2-8 m (80''-25 ft) setting, and landscape or architectural photographs are best made with the 8-∞ (25 ft-infinity) distance setting.

The Diaphragm is set with lever (12). Three different lens apertures can be chosen: 9, 11, or 16. The higher the lens aperture figure the smaller is the

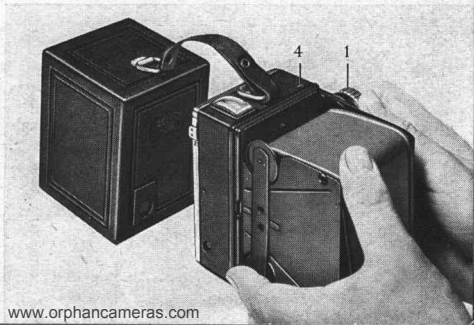
lens aperture. Every reduction of the lens aperture, however, requires an extension of the exposure time. The best pictures are obtained with the medium diaphragm setting "11" which, therefore, is preferably used for all outdoor photographs. Under less favourable lighting con-

ditions use diaphragm setting "9" and in bright sunlight (snow or beach in sunshine), or if a large depth of field is required, use diaphragm setting "16".

The Shutter of the BOX TENGOR has two settings: one for time exposures and one for action photographs. For action photographs set lever (6) on "M", for time exposures on "T". The exposure time for action photographs is approximately  $\frac{1}{30}$  sec.

## THE FILM WINDING LOCK

prevents double exposures. The shutter can be released only if the red mark appears in the window (4) of the signal device. After every exposure a white spot appears in the window (4) indicating that the shutter release is locked. It can be unlocked only by advancing the film with the film winding knob (1).



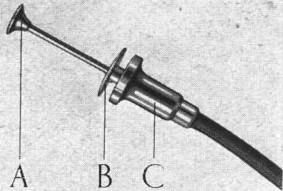
## HOW TO HOLD THE CAMERA

For taking pictures with the BOX TENGOR, the camera is held slightly above waist level so that the viewfinder image can be conveniently studied from above. When taking vertical pictures the BOX TENGOR is held in the left hand and the shutter is released with the right-hand thumb. For good composition it is necessary that the photographer's eye is directly above the viewfinder sighting aperture (see illustration). The viewfinder renders an upright image of the object with reversed sides. In order to avoid slanting of pictures, it is advisable to co-ordinate the left and right edges of the viewfinder image with the vertical lines and objects of the motive.

## THE EXPOSURE

When an exposure is to be made the locking knob (11) must first be pushed back and the red dot must be in the signal window (4), indicating that the film has been advanced. The lever (6) is set on the desired exposure time (action photograph or time exposure). Then the exposure can be made by pressing down the shutter release lever (5). With setting "M" the shutter opens for  $1/30$  sec and then closes automatically. When making time exposures (lever [6] to be set on "T"), the shutter opens when the release (5) is pressed down and closes after the pressure ceases. With the aid of a cable release equipped with a plunger catch the shutter can be kept open for a long time, without constantly pressing the release (5). In fact, it is





highly recommendable to use a cable release for every time exposure. The cable release must be screwed into the thread (13).

The ZEISS IKON cable release, equipped with plunger catch, permits extremely long time exposures. For all action photographs and short time exposures the disk "B" must first be pressed in the direction of "C" and then be slightly twisted until it remains in this position close to "C".

For long exposures, however, the disk "B" must be apart from "C". When the cable release plunger is pressed, the disk "B" catches the knob "A" which, subsequently, can be released only by a slight pressure on the disk "B". With the aid of this device unlimited time exposures can be made without constantly pressing the cable release knob.

When taking action photographs it is advisable not to breathe during the exposure in order to avoid blurring of the picture. Time exposures must be made from a solid support, preferably from a tripod. A thread (16)

