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PENTACON

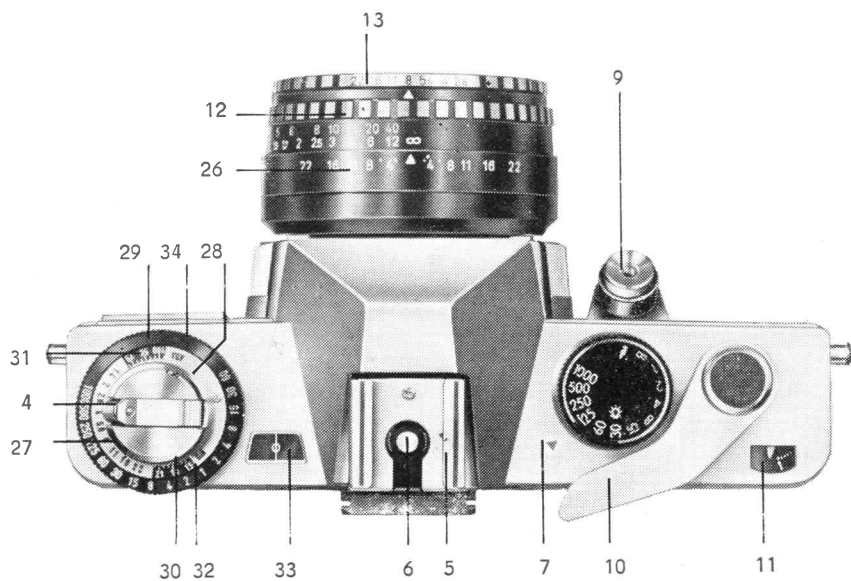
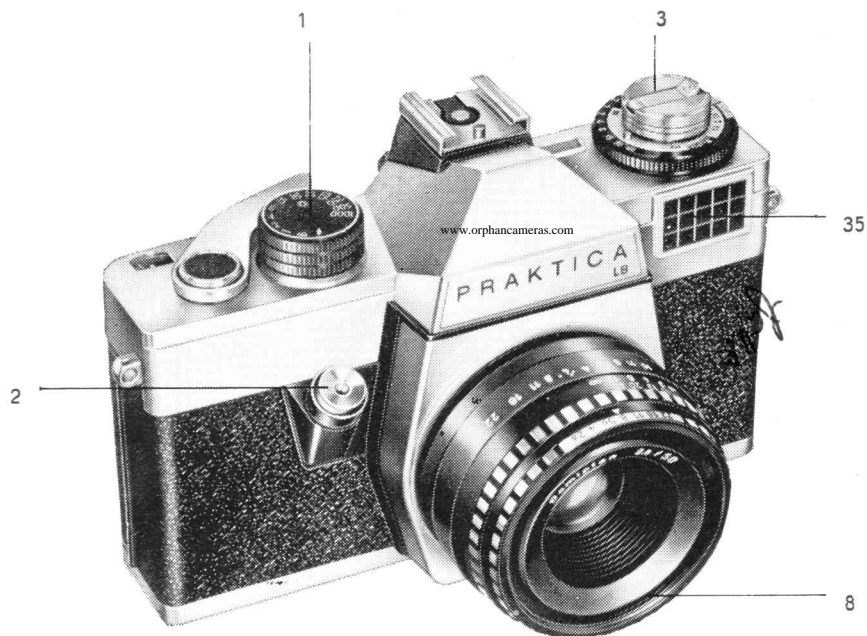


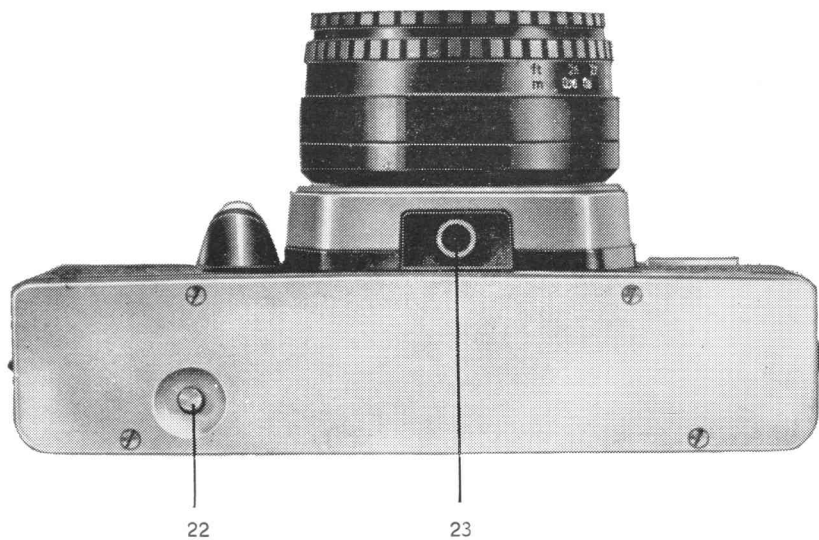
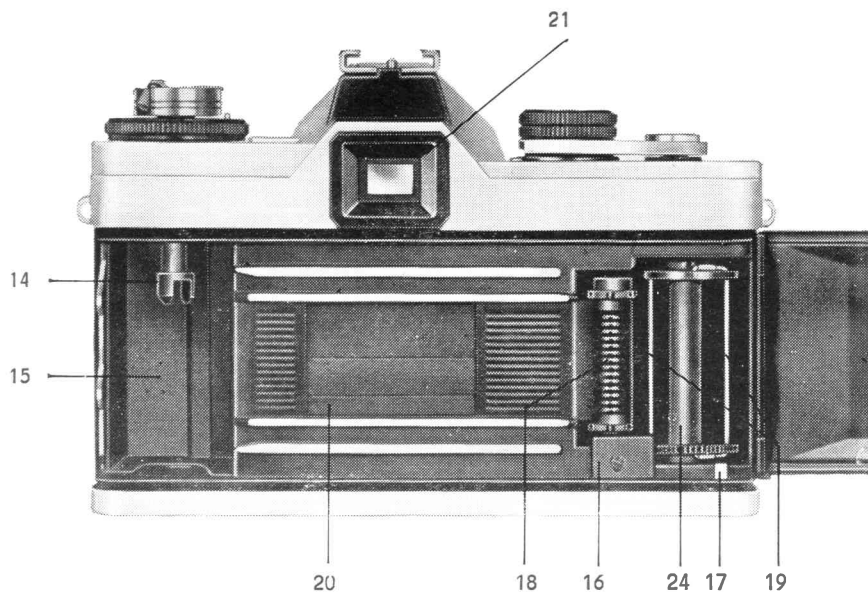
# PRAKTICA LB

I N S T R U C T I O N S   F O R   U S E



- 1 Knob for setting shutter speeds
- 2 Shutter release
- 3 Rewind knob
- 4 Rewind crank
- 5 Accessory shoe
- 6 Centre flash contact
- 7 Exposure speed index
- 8 Filter socket
- 9 Wire release socket
- 10 Rapid cocking lever
- 11 Exposure counter
- 12 Distance setting ring
- 13 Diaphragm setting ring
- 14 Rewind catch
- 15 Cartridge chamber
- 16 Supporting piece
- 17 Marking point for inserting the film





## Control Parts of the PRAKTICA LB

- 18 Film transport sprocket
- 19 Wire bracket
- 20 Metal-blade focal-plane shutter
- 21 Ocular mount with fitting for accessories
- 22 Rewind release knob
- 23 Tripod socket
- 24 Take-up spool
- 25 Manual stop down key
- 26 Depth-of-field scale
- 27 Graduated ring with aperture numerals
- 28 Knob
- 29 Index for ASA values
- 30 Index for DIN values
- 31 Window for ASA dial
- 32 Window for DIN dial
- 33 Window for meter needle
- 34 Knurled graduated ring with shutter-speed values
- 35 Photoelectric cell

We congratulate you on having chosen the high-quality PRAKTICA LB and wish you every success in working with this modern reflex camera.

Before using your camera, however, we would request you to read these Instructions for Use very carefully. This will help you to avoid trouble caused by wrong handling.

The PRAKTICA LB is a miniature single-lens reflex camera for the 24 x 36 mm picture format. Its novel type of steel-blade focal-plane shutter, which travels across the shorter side of the frame, has a range of speeds from 1 sec. to 1/1000 sec. and B. It is synchronized for the use of bulbs and electronic flash units. Owing to the extremely rapid movement of the steel curtains, the electronic flash can be synchronized at about 1/125 sec. setting to symbol  $\leq$ . The centre contact in the accessory shoe makes it possible to connect camera and flash unit without using a cable.

The pentaprism is firmly built in, and the focusing system with its Fresnel lens reveals a finder image of maximum corner-to-corner brightness. The microprism screen and a round ground-glass area assure quick and perfect sharp focusing.

Additionally, the PENTACON PRAKTICA LB has a photoelectric exposure meter built in which is to be operated manually.

For use as interchangeable lens systems, the well-known PRAKTICA lenses are available. Up to a focal length of 180 mm they have automatic diaphragm control. In connection with the automatic mechanism in the camera, they function as spring-diaphragm lenses which means that the diaphragm closes within the shortest time and opens again immediately after the shutter has run down. Through the instant return mirror the image is visible practically all the time, except for the short moment of the exposure.

## Abridged Instructions

For further details  
please turn to page

**A**

### **Opening the camera back**

8

Pull out rewind knob (3) as far as it will go.

**B**

### **Inserting the film**

8

Place film cartridge into cartridge chamber (15), push in rewind knob (3). Push film from above underneath the supporting piece (16) over the transport sprocket (18). Place beginning of film strip on to core of take-up spool (24) as far as the green marking point (17).

Wire bracket (19) on the take-up spool must not stand upwards.

### **Close the camera back**

10

### **Preparing for the exposure**

10

Actuate rapid cocking lever (10) and shutter release (2) until exposure counter (11) stands on number "1".

### **Light metering**

Set the sensitivity value of the loaded film against the marking point. Direct the camera to the subject to be taken and set the meter needle to the centre of the circular marking by turning the knurled graduated ring (34); read both the aperture and shutter speed values and set them at the camera by means of the shutter-speed setting knob and at the lens with the diaphragm setting ring.



For further details  
please turn to page

**F** **Setting the shutter speed** 14

Turn speed setting knob (1) until the desired speed numeral stands opposite the orange coloured triangle (7) on the cover plate of the camera.

**G** **Setting the diaphragm** 16

Turn diaphragm setting ring (13) on lens mount to bring the desired diaphragm numeral against the red index mark.

**H** **Focusing** 18

Turn distance setting ring (12) until the image in the microprism screen or in the round ground-glass area appears perfectly sharp.

**I** **Releasing and cocking the shutter** 21

Depress shutter release (2) to beyond the pressure point. After the shutter has run down a signal appears in the left-hand side of the viewfinder. — Swing cocking lever (10) around as far as it will go and move it back again.

**K** **Changing the film** 22

After the last exposure, depress rewind release knob (22), swing out rewind crank (4) and turn it in direction of arrow to rewind the film. Open the camera back and remove the cartridge.

For further details  
please turn to page

 **Exchanging lenses** 24

 **Flash exposures** 28

 **Maintenance and care** 30

 **Accessories** 32 to 39

The Abridged Instructions are a short summary of the most important items. A detailed description is given in the following main section. On pages 1 and 2 you will find specified illustrations with numbers referring to the control parts. In the text these numbers are printed in parentheses.



## **A**      **Opening the camera back**

Pull rewind knob (3) upwards until you feel hard resistance. The camera back is thus unlocked and can be opened. The exposure counter (11) will automatically jump to zero position.

## **B**      **Inserting the film**

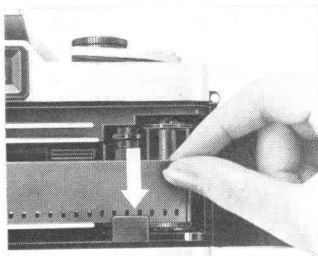
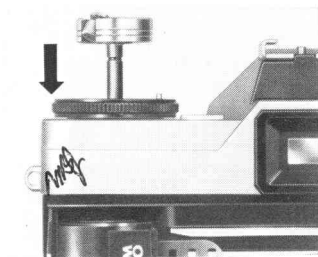
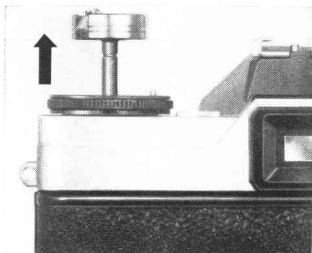
Any type of 35 mm film in commercially available standard cartridges may be used. The cartridges contain film lengths for 36, 20 or 12 exposures in the 24 mm x 36 mm picture format. To assure that no light enters the slit of the cartridge, the film should not be loaded in direct sunlight. The shade provided by your own body will suffice.

By having pulled out the rewind knob (3) to open the camera back, you have withdrawn the rewind catch (14) from the cartridge chamber (15), so that you can now place the cartridge into the cartridge chamber.

Push the rewind knob, with slight backward and forward movements, right back into the camera. The rewind catch will engage in the core of the cartridge.

Push the beginning of the film projecting from the cartridge from above below the supporting piece (16) arranged above the transport sprocket (18). The beginning of the film must rest on the core of the take-up spool (24) and be drawn up to the green marking point (17).

The wire bracket (19) of the take-up spool must not stand upwards. Should this happen to be the case, the milled flange of the spool has to be turned to bring the bracket wires to the lateral position.





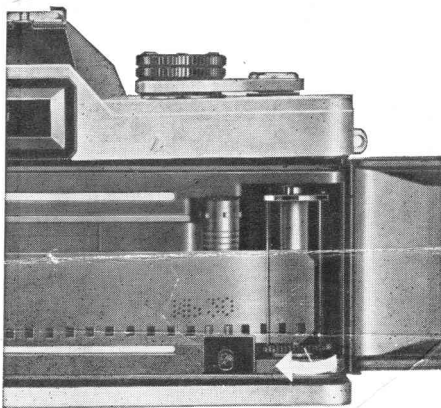
# PENTACON

## Annex to Operating Instructions of

PRAKTICA L, PRAKTICA LB,  
PRAKTICA LTL, PRAKTICA LLC,  
PRAKTICA nova I/IB,  
PRAKTICA super TL

### Supplement to Section B – Film Loading

Should the film show a pronounced tendency to warping we recommend to additionally turn the knurled speed disc anti-clockwise till one of the catch straps rests on the start of the film.



Kombinat VEB PENTACON DRESDEN  
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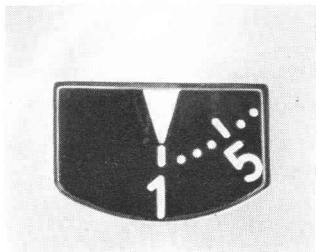
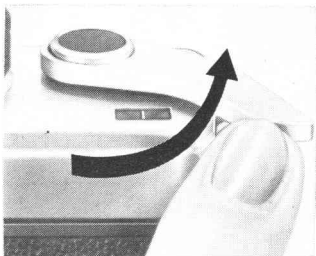
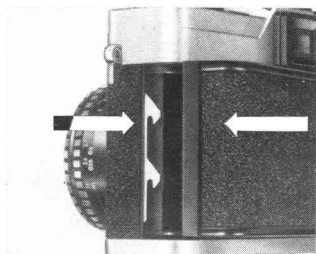
## **C Closing the camera back**

Press the camera back firmly on to the camera body. It locks automatically.

## **D Preparing for the exposure**

The rapid cocking lever (10) has an idle stroke of about 15° so that it can be moved from its resting position into readiness for action. It can thus be easily grasped – a great advantage especially in serial shots.

Swing the cocking lever around as far as it will go, move it back again, and depress shutter release knob (2). Repeat these operations and then cock the shutter once more. The automatic exposure counter (11) now stands on number "1". Special setting of the exposure counter is not necessary since it starts working automatically when the camera back is closed.



## **E Light metering**

At the photoelectric exposure meter first set the sensitivity of the loaded film. For this purpose turn the graduated ring (27), which surrounds the rewind knob, by means of knob (28) until the markings (29) and (30), resp. indicate the sensitivity value of the used film. The sensitivities become visible as DIN or ASA values within the windows (31) and (32), resp.

Subsequently, light metering is carried out as follows: –

The camera is directed to the subject to be taken, and the meter needle, becoming visible within window (33), is centered to the circular marking by displacing the outer knurled graduated ring (34).

Pay attention that the window of the photoelectric cell (35) cut on the front of the camera top is not covered.

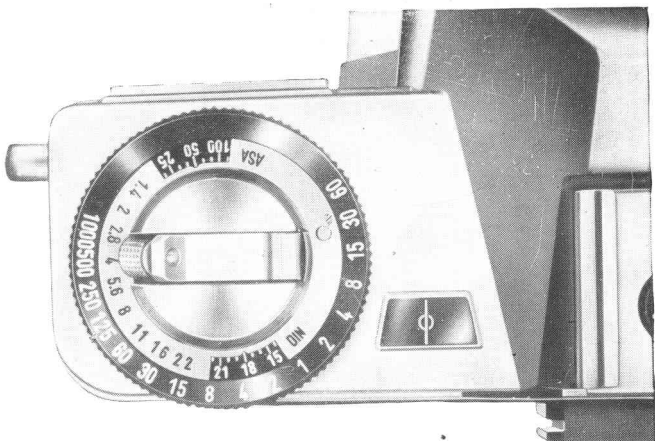
After light metering, the aperture values on the inner graduated ring (27) are against the relevant exposure values on the outer graduated ring (34). Each of both these numerals of shutter speed and diaphragm will give correctly exposed images.

Choose that combination of shutter speed and diaphragm which will be best suited for the subject, and set these values by means of shutter-speed setting knob (1) and the diaphragm setting ring (13) of the lens, resp.

Up to 1 sec. the shutter speeds correspond with those indicated on the shutter-speed setting knob (1). If shutter speeds longer than 1 sec. will become necessary – they have a green index – please use the B-setting. For this purpose please compare sections F and G.

If the meter needle cannot be centered to the circular mark, the illumination density of the subject will be out of the light-meter range.





## **F**      **Setting the shutter speed**

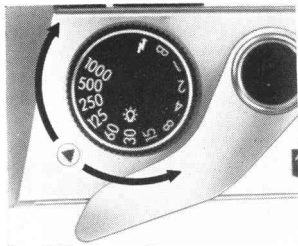
The metal-blade focal-plane shutter can be set for shutter speeds from 1 sec. to 1/1000 sec. When set on "B", the shutter remains open as long as the release knob (2) is being depressed. For longer time exposures a cable release with locking device should be used, which can be screwed into the thread in the body release knob.

For shutter speeds in connection with flash units please refer to section M.

The orange-coloured numerals on the shutter-speed setting knob (1) stand for slow speed exposures from 1 sec. to 1/15 sec. which require the use of a tripod. The white numerals indicate the values for instantaneous exposures from 1/30 sec. to 1/1000 sec. The shutter speeds are set by turning knob (1) until the desired numeral meets the orange-coloured triangle (7) on the cover plate of the camera.

The shutter speeds can be set either before or after the shutter has been cocked. The setting knob clicks in at every numeral.

Intermediate values are not adjustable.



**G****Setting the diaphragm**

On the lenses with automatic pressure diaphragm (APD) the desired aperture numeral on the diaphragm setting ring (13) need only to be brought to meet the red index on the lens mount. It is also possible to set intermediate values which are situated between the indicated aperture numerals. The diaphragm thus remains fully open at first and closes down to the preselected value when the shutter release is depressed. The automatic diaphragm connecting mechanism in the PENTACON PRAKTICA LB causes the pressure diaphragm to function as an automatic spring diaphragm. Regardless of the speed with which the shutter release (2) is depressed, the diaphragm will spring to the preselected value and then open again immediately after the shutter has run down.

For checking the depth of field in the viewfinder image, most lenses can be stopped down to the preselected value by means of a manually operable key (25) on the lens mount before the exposure is made.



## H Focusing

To brighten up the image, the prism viewfinder of the PENTACON PRAKTICA LB is fitted with a Fresnel lens in the centre of which are the two focusing systems:

- the micropism screen right in the middle and
- the circular ground-glass area around it.

Focusing is performed by turning the distance setting ring (12) on the taking lens. To achieve utmost definition when using lenses with pre-set diaphragm or simple diaphragm adjustment, it is advisable to focus with the lens set to the smallest diaphragm numeral (at full aperture).

### **Focusing on the micropism screen**

The image in the micropism screen is in correct focus as soon as it appears clear and free from fuzziness. It is out of focus if it looks fuzzy and crumbles into screen elements. The micropism screen is usually employed for focusing if the subject to be photographed is in resting position or only slightly moving.

### **Focusing on the circular ground-glass area**

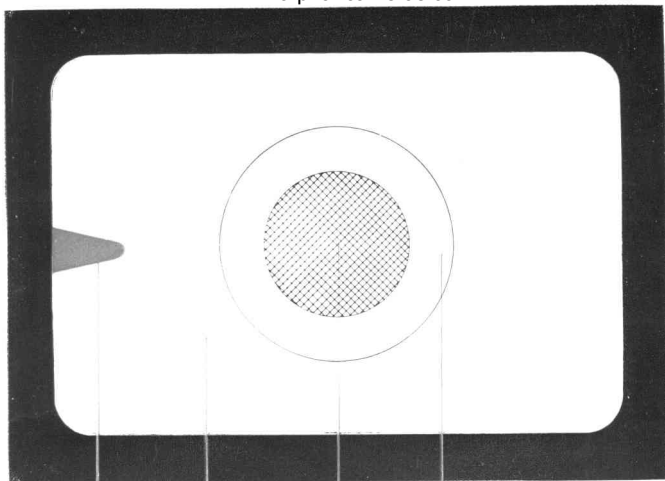
The ground-glass area is used for focusing if the subject is moving more rapidly. Also, it is often most appropriate in macro-photography and photomicrography.

The ground Fresnel section is not meant to be used for focusing.

### **Depth-of-field indication**

The depth of field is determined by means of the depth-of-field scale (26) running to the right and left of the red index mark on the lens mount.

While the camera-to-subject distance figure stands opposite the red marking, the limits of the range of definition can be read from the distance scale above the numerals on the depth-of-field scale, which latter are equivalent to the diaphragm numerals. As an example, the illustration shows a zone of sharpness from 2 m to 5 m (7 ft. to 16 ft.) for a distance setting of 3 m (10 ft.) and an  $f/8$  aperture.

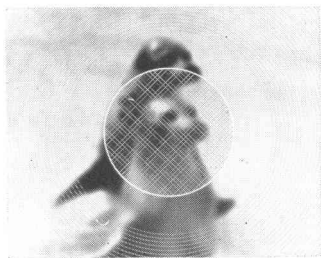


Signal

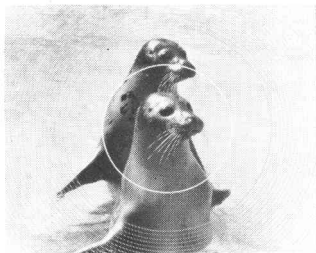
Microprism screen

Image-brightening  
Fresnel lens

Circular  
ground-glass area



Microprism screen is fuzzy =  
unsharp



Microprism screen not fuzzy =  
sharp

Depress the manual stop down key, which is provided at some lenses, and you will also be able to judge the depth of definition in the finder image.

Persons with defective eyesight may work without their spectacles on by having a corrective lens corresponding to their long-distance glasses fitted into the eye cup which is then attached to the ocular mount (see section „Accessories“).

For infra-red exposures the focusing point has to be slightly modified. By turning the distance setting ring (12), the distance reading which, after focusing, stands next to the red indicator, has to be moved to meet the red dot next to the indicator. Thus, the image produced by the infra-red rays is brought into correct position in relation to the film.





## I Releasing and cocking the shutter

Before releasing the shutter, please note the following:

- 1- If the signal is visible in the left viewfinder, the **camera is not ready for exposing**. The shutter has to be cocked!
- 2- For shutter speeds slower than 1/30 sec. a tripod and a cable release should be used.

We advise you to hold your PRAKTICA LB so that it lies firmly in both hands and you are able to actuate the shutter release (2) easily.

Depress the shutter release steadily— never with a jerk — past the soft-running limit until the shutter runs down.

After the exposure, the signal on the left side of the viewfinder image becomes visible again, a sign that the shutter has to be cocked.

## **K**      **Changing the film**

When the exposure counter (11) indicates the maximum number of frames obtainable with the film in the camera (12, 20 or 36 exposures), the film has to be rewound and taken out of the camera. Depress rewind release knob (22) in the base plate of the camera. It will remain locked in this position. Unfold rewind crank (4) out of rewind knob (3) and turn it, not too quickly, in the direction of the arrow. Rewinding at too great a speed causes electrostatic charge and statics on the film.

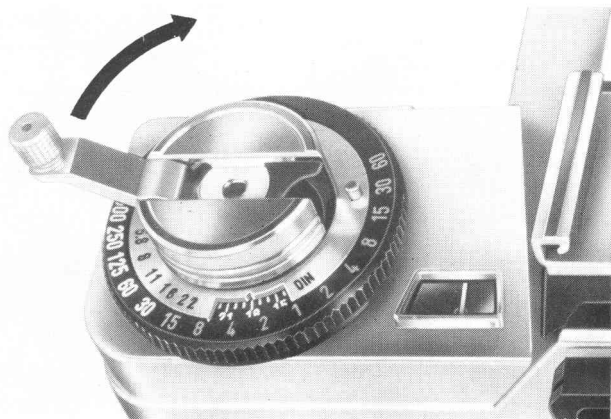
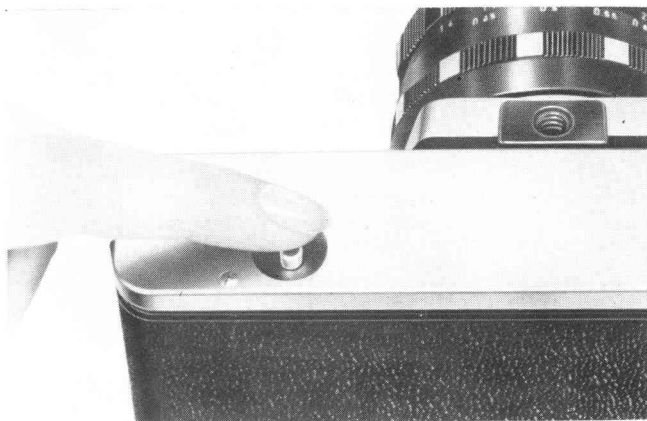
As rewinding is completed, greater resistance becomes noticeable until the film is disengaged from the take-up spool. After this, the crank turns quite easily.

Fold the rewind crank back into the knob and pull the knob upwards as far as it will go. The camera back is thus unlocked and can be opened. Remove the cartridge with the exposed film from the cartridge chamber.

Loading a new film, and subsequent cocking of the shutter, cause the rewind knob (22) to spring back automatically out of its click-stop position.

Should you have attempted to expose more frames than the number marked on your film packet, the cocking lever might, at the end of the film, get jammed so that it cannot be swung completely to the stop. Do not, in such a case, use force, as this might cause damage to the perforation of the film, or the end of the film might slip off the spool inside the cartridge. Rewinding would then be impossible.

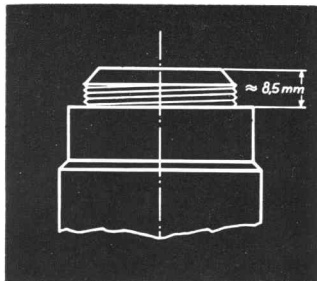
If the cocking lever – as described above – has not been fully cocked, this must be completed, and the shutter released, after removing the exposed film and before inserting a new one.



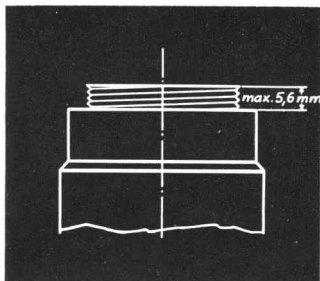
## **L**      **Exchanging lenses**

The standard lens of the PRAKTICA LB can easily be replaced by lenses of other focal lengths. You take hold of the lens body, as shown in the illustration opposite, and turn it in an anti-clockwise direction. The exchange lens is inserted analogously and screwed tight.

Some of the older type lenses without automatic diaphragm protrude so far into the inside of the camera body as to impede the functioning of the swing mechanism for the automatic diaphragm; mirror and shutter cannot work. Such lenses **cannot be used** in the PRAKTICA LB. They are recognizable by the design of their barrels, as may be seen from the illustration.



Cannot be used



Can be used



## Interchangeable lenses

ZEISS FLEKTOGON	20 mm f/4	APD
PENTACON auto	29 mm f/2.8	APD
PENTACON	30 mm f/3.5	PD
ZEISS FLEKTOGON	35 mm f/2.8	APD
ZEISS PANCOLAR	50 mm f/1.8	APD
PENTACON auto	50 mm f/1.8	APD
DOMIPLAN	50 mm f/2.8	APD
ZEISS TESSAR	50 mm f/2.8	APD
PENTACON auto	100 mm f/2.8	APD
PENTACON auto	135 mm f/2.8	APD
PENTACON	135 mm f/2.8	PD
ZEISS S	180 mm f/2.8	APD
PENTACON	200 mm f/4	PD
PENTACON	300 mm f/4	PD
PENTACON	500 mm f/5.6	PD
ZEISS mirror lens	1000 mm f/5.6	without diaphragm

APD = automatic pressure diaphragm

PD = pre-set diaphragm



The shutter of the PRAKTICA LB is designed for synchronization with flash bulbs and electronic flash units.

When the flash unit is attached to the camera, the electric connection between camera and unit is automatically effected by means of the centre contact (6) in accessory shoe (5). No synchronization cable is required. Modern flashbulb and electronic units are equipped for this purpose with a suitable cooperation contact.

For the use of flash units fitted with synchronizing cable, an adapter piece with flash socket to accept the cable plug has to be pushed on to the accessory shoe of the PRAKTICA LB.

### **The use of flash bulbs**

If bulbs for short flash durations are used, set to a shutter speed of 1/30 sec. – indicated by the lamp symbol – or longer. The ignition circuit is only closed while the shutter runs down; during the moment of cocking it remains open so that the flash bulb can also be exchanged before cocking the camera.

### **The use of electronic flash units**

Owing to the extremely rapid travel of the curtains in the metal-blade focal-plane shutter, synchronization up to a shutter speed of 1/125 sec. is made possible. The knob for setting the shutter speeds has to be moved to the flash symbol setting  $\leq$  next to "B".

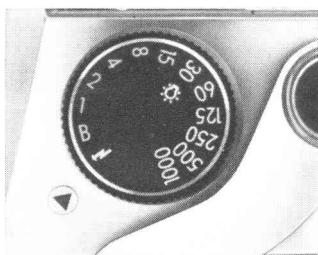
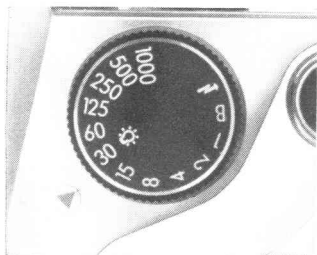
### **The guide number**

The diaphragm numeral to be set on the lens mount for flash exposures can be found with the aid of the „guide number“. The manufacturer of bulbs and electronic flash units gives these guide numbers on the wrappings or in the instructions for use as required for the various sensitivity grades of the negative material.

The correct aperture to be set is determined by dividing the guide number for the flash in use by the flash-to-subject distance figure (in meters). Formula for the flash unit attached to the accessory shoe of the camera:

$$\text{Diaphragm numeral} = \frac{\text{guide number}}{\text{flash-to-subject distance}}$$





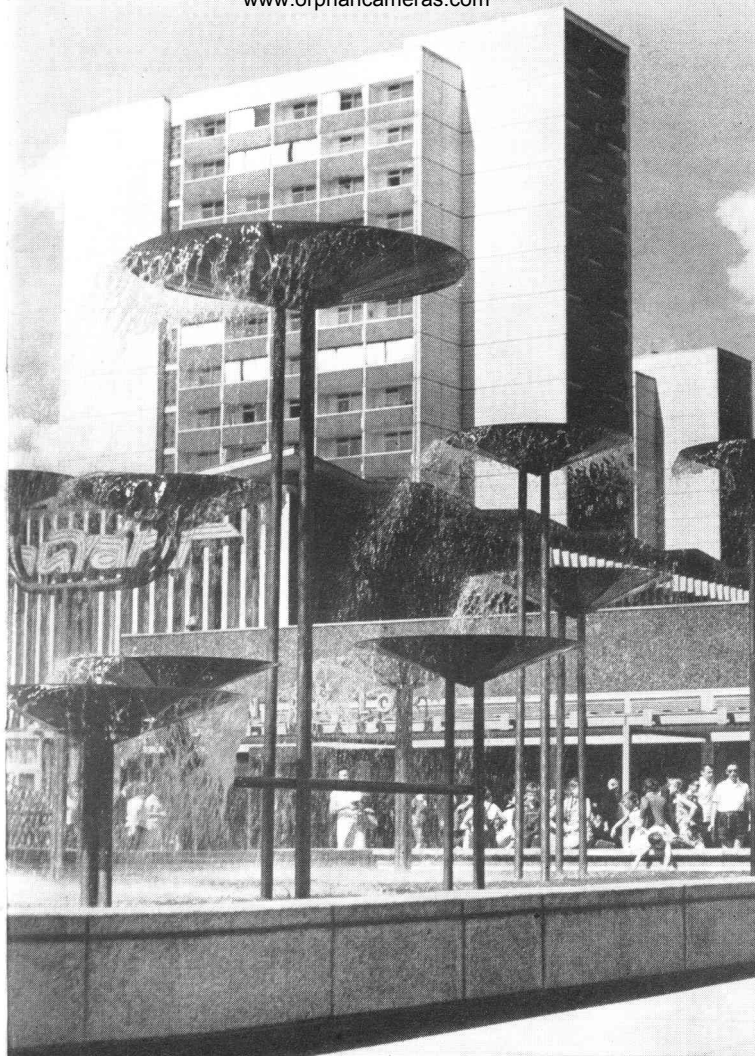
The PRAKTICA LB is a highly valuable precision instrument. Perfect functioning of the camera depends very largely on proper handling and careful maintenance.

The camera must, above all, be protected against shock and impact, dust and moisture. That is why the everready case should be used wherever possible.

From time to time the cartridge and spool chambers, also the film track and camera back with film pressure plate must be cleaned with a soft brush. But be careful not to exert pressure on the steel blades of the shutter nor to touch them with your fingers.

Neither should the optical surfaces (lens, eyepiece of viewfinder, mirror) be touched. Should this have happened accidentally, any fingerprints must be removed immediately with a piece of fine linen after a soft brush has been used to remove any possible dust. The mirror should be dusted only in urgent cases with a very soft brush.

Never interfere with the mechanism of the camera. Repair work should be carried out only by one of our special Repair Workshops.



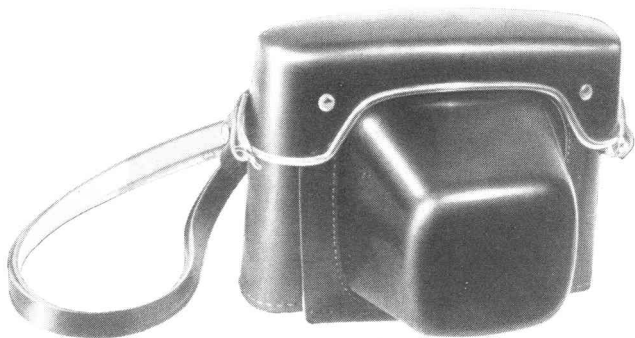


## Accessories

The various accessories make the single-lens reflex camera universally applicable and help to open up many new fields of activity.

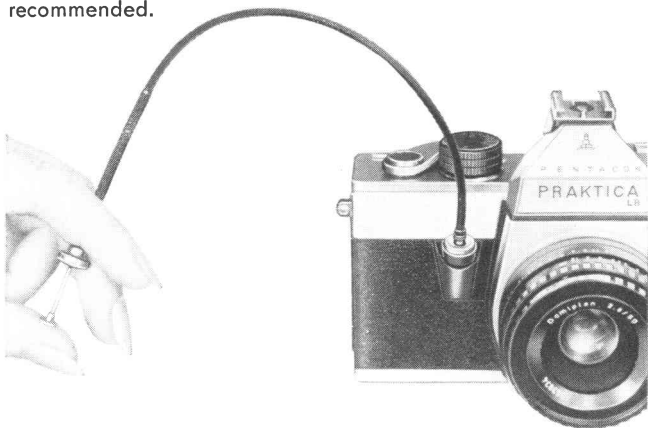
### **Everready case**

It protects the camera against shock and dirt.



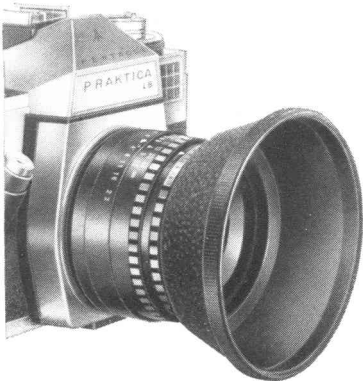
## Cable Release

For longer exposure periods involving the use of a tripod, and also in photomicrography it is indispensable. For long time exposures a cable release with arresting or locking devices are recommended.



## Lens Hood

Eliminates disturbing flares in counterlight photography and protects the lens surface in rainy weather from getting wet. The lens hood must be adjusted to the image angle of the lens.

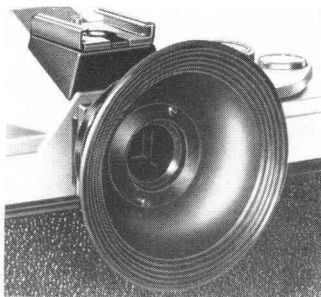


## Filters

These are screwed into the filter thread of the lens mount. The filters for black-and-white photography – except UV and polarizing filters – are not suitable for colour work, for which special types of filter are available.

## Rubber Eye Cup with Mount for Correcting Lenses

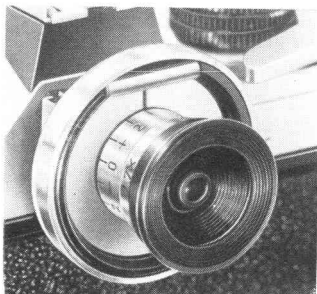
The eye cup keeps out extraneous light during focusing. Persons with defective eyesight may have a correcting lens corresponding to their long-distance glasses fitted into the mount designed for this purpose and are thus able to work without their spectacles on.



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## Focusing Telescope

The focusing telescope yields an additional 2.7-fold magnification of a section of the finder image. It is adjustable to faulty eyesight by means of a dioptre focusing mount.



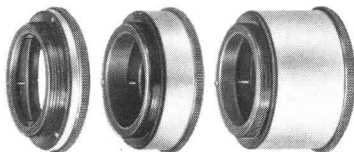
## Angle Finder

This finder also is attached to the ocular mount of the camera. It is rotatable and permits a convenient choice of any viewing direction. The angle finder reveals the complete finder image and is equipped with a diopetre scale.



## Intermediate Rings

For the PRAKTICA LB intermediate rings either with or without plunger are available. They are screwed in between camera and lens to increase the scale of reproduction in close-up photography.



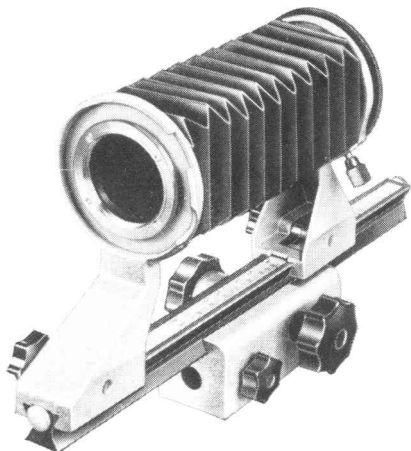
## Reversing Ring

To screw the lens into the camera by its filter thread for extreme close-ups with an image ratio exceeding  $\times 1.5$ .



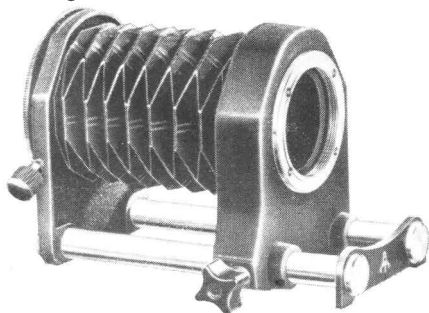
### **Miniature Close-up Bellows Attachment**

This equipment permits an infinite variation of the image ratio in close-up work within a range of about 0.7 x to 2.5 x in combination with the standard lens.



### **Close-up Bellows Attachment**

Infinite variation of the image ratio with the 50 mm lens from 0.7 x to 4.4 x.





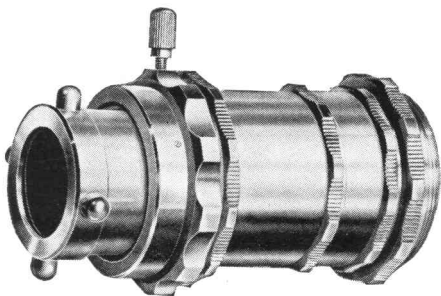
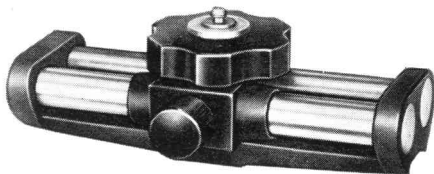
## Universal Tripod

Extremely rigid,  
permits varying  
position of the camera  
from close to ground  
up to approximately  
eye level. All-direction  
pan and tilt movement  
of camera.



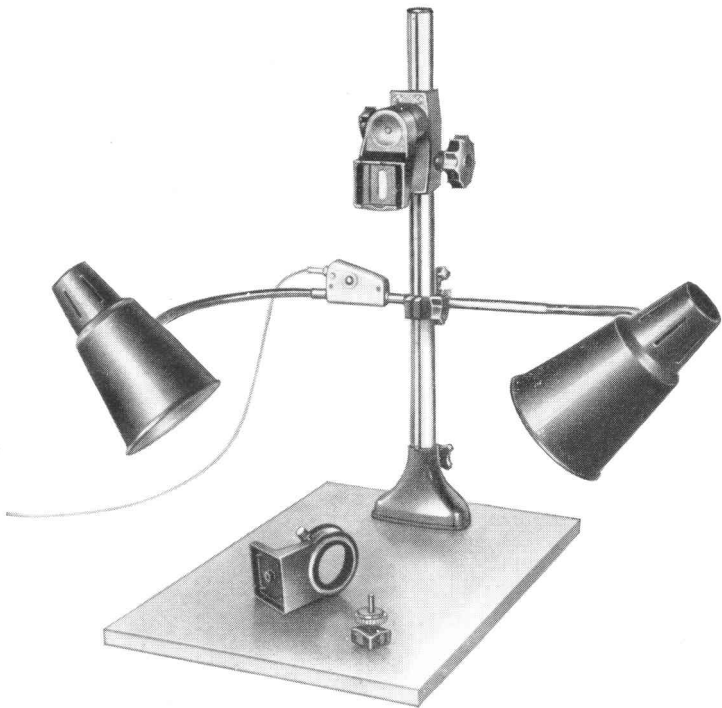
### **Focusing Slide**

Of great advantage in close-up work with a tripod (e.g. the Universal Tripod) makes it possible to adjust the camera-to-object distance without having to move the tripod.



### **Microscope Attachment Piece**

For connecting camera and microscope.



### **Reproduction stand, Illuminating Device, and Copying Arm**

Of advantage for photographing plane documents or for use as table stand — providing various combinations of application. In connection with the copying arm (fastened by filter thread) or the close-up bellows attachment it is intended for diapositive-copying work or for macrophotography and photomicrography as well.