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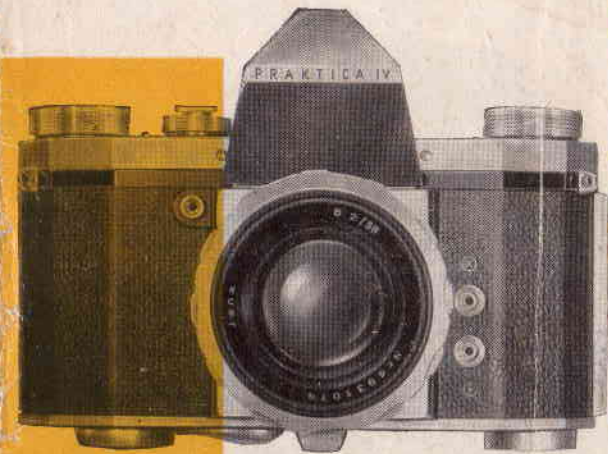
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PRAKTICA IV

INSTRUCTIONS OF USE



INSTRUCTIONS FOR USE



The PRAKTICA V is a single-lens reflex camera for the 24 x 36 mm picture format. The firmly built-in pentaprism reveals an upright, parallax-free finder image with sides unreversed.

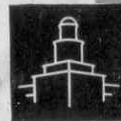
Special features of the PRAKTICA VF:

- Return mirror**
- Double focusing system**
- Rapid lever wind**
- Coupling of shutter wind and film transport**
- Lock against double exposures and blanks**
- Focal-plane shutter for 1/2 sec. to 1/500 sec. and B**
- Synchronization for electronic flash and bulbs**
- Interchangeable lenses with focal lengths from 20 mm to 1000 mm**
- Automatic pressure diaphragm and wide range of accessories**

**Subsequent model developed from the PRAKTICA VF:
PRAKTICA V FB with built-in photoelectric exposure meter**

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KE DRESDEN

How to Look After your Praktica IV

To protect your camera it is advisable to use an Ever Ready Case. This also protects the camera during shooting without any loss of speed and efficiency. It is advisable to store the Camera always in the Ever Ready Case and with a screwed-in Lens. The Camera must be kept scrupulously clean especially those parts which come into contact with the film. For this purpose use a Lens Brush.

The Lens Components must never be touched by hand. They must be cleaned with a Lens Brush. The lens blooming is not affected by this cleaning method.

Any faults developing out of neglect are not covered by the guarantee. Any tampering with the Camera Mechanism should be strictly avoided, and repairs should be carried out by the factory or qualified camera repairers. Any greasing can render the camera faulty or decreases the picture quality.

Information and advice are readily given by the Importers or the Manufacturers.

Through further developments in the camera technique some alterations from the above may result.

Abridged Instructions

1. Remove camera back.
2. Insert film. Teeth of transport sprocket must catch film perforation. The film must be drawn tightly across the picture gate (actuate rewind knob to tighten it).
3. Close camera back.
4. Set film speed indicator on speed or symbol of film in camera.
5. Cock shutter twice and release it each time (by means of winding knob or rapid wind lever).
6. Set exposure counter on „0“.
7. Set the exposure speed by means of speed setting ring.

Only for PRAKTICA V FB

- 7a. Lift rewind knob up as far as it will go. Set mark of stop value dial with setting knob against the corresponding film speed. Push rewind knob in.

Only for PRAKTICA V FB

- 7b. Direct camera towards object. Turn speed setting dial until follow pointer coincides with meter needle.

Having found the required combination of shutter speed and aperture, set the controls in accordance with 7., 8. and 10.

8. Move setting knob for speed groups to the mark for long or short exposure speeds (red or black mark).
9. Cock the shutter (full turn of winding knob or rapid wind lever).
10. Turn aperture setting ring on lens mount to diaphragm stop required for exposure.
11. Focusing is performed by actuation of distance setting ring.
12. To make the exposure, depress shutter release steadily as far as it will go.
13. After the last exposure on the film lift the upper section of rewind knob (in PRAKTICA V FB the rewind crank), depress rewind release knob and rewind the film in the direction of the arrow until resistance is felt.
14. Open the camera and remove the film.



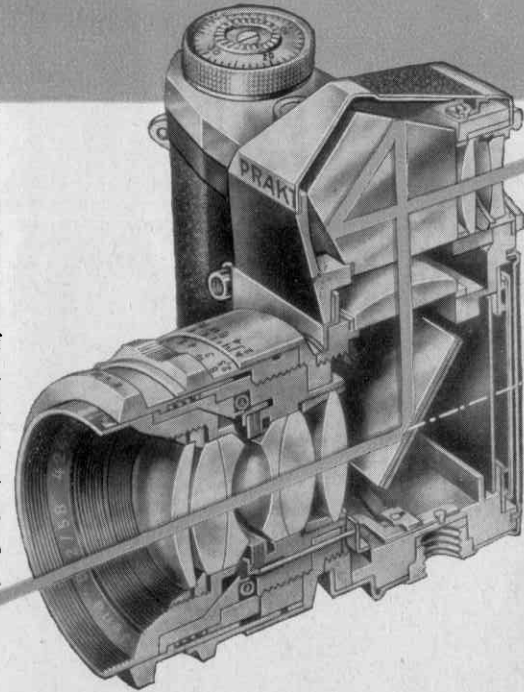
VEB PENTACON DRESDEN
Kamera- und Kinowerke

III-9-22 Jt 4435/64 1386E

The Interior of the Camera

The Interior houses the Reflex Mirror which is set at an angle of 45°. This mirror diverts the Lens Rays so that the image appears on the Ground Glass Screen. When the Body Release is depressed the Reflex Mirror moves out of its position and masks any detrimental light coming on to the Ground Glass Screen leaving the rays to enter through the Lens freely. In the course of the shutter being released the picture is projected on to the piece of film released by the shutter. This makes all additional viewing aids superfluous. With lenses of every focal length a parallax-free image and exposure result. This makes the Praktica IV specially suitable for Close-up Work when a so-called delayed release is adopted.

1



The Penta Prism

The built-in Penta Prism enables the photographer to view at eye level towards the subject. The great advantage of the built-in Penta Prism is that the image on the Ground Glass Screen is upright and correctly positioned. The movements of the subject are thus correctly viewed on the Screen, which is most essential for sports photographs. Especially useful is the Penta Prism for vertical exposures, here too, the image is upright and correctly positioned. Special corrective eyeglasses can be fitted to the Penta Prism for spectacle wearers. Detrimental side light can be eliminated with the

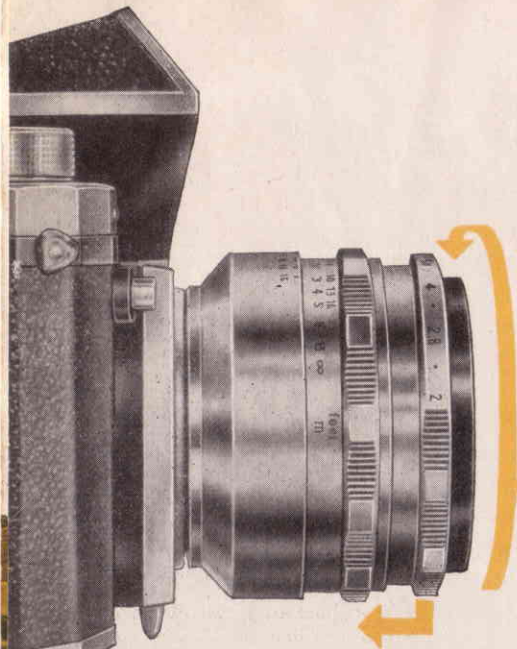
Rubber Eye Cup, which ensures great accuracy and speed when focusing.

Depth of Field Setting

The Depth of Field is set on the Distance Setting Ring on the Lens Mount. The Distance Setting Ring is rotated to the left or right until the image on the Ground Glass Screen is absolutely sharp. It is advisable to focus with the Aperture wide open as the Depth of Field range is then the smallest.

Aperture

This is done with the Aperture Setting Ring. Low numbers mean a wide and high numbers a small opening of the shutter. The amount of light coming through the lens and shutter is governed by the Aperture. Large Apertures require short and small apertures long exposure times, i. e. with every higher aperture stop the exposure time doubles. The Aperture also controls the Depth of Field with the different distance settings, as shown on the chart on page 9.



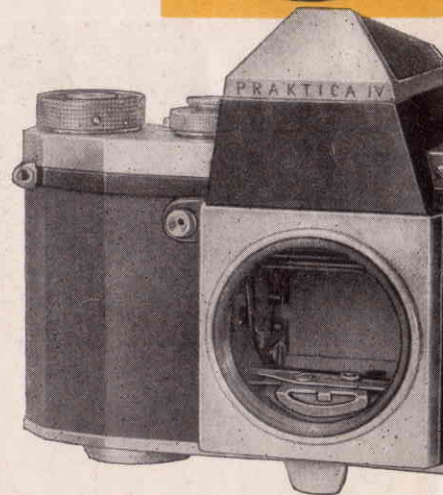
Aperture Setting

Depress Aperture Scale Ring backwards until it clicks into the required Aperture Stop. The Automatic Aperture is set by turning the Lever to the right (looking at the Camera from the front) until a resistance is felt. The picture can now be viewed with the largest aperture opening. When the Body Release is depressed the Aperture returns to its pre-selected stop.

Automatic Aperture

For Lenses with Automatic Aperture the PRAKTICA IV is equipped with a special release mechanism. Lenses of this type offer a considerable facility with regard to readiness for action, owing to the fact that the aperture closes down automatically to the pre-selected stop. On removal of the lens from the camera the release mechanism for the Auto Aperture becomes visible inside the camera front. This mechanism has to be disconnected if other lenses than those with Automatic Aperture are to be used. For lenses with Automatic Aperture the mechanism is put back into working position by pushing the Red Knob to the left, for other lenses to the right. To set the Automatic Aperture rotate the Front Ring of the Lens towards the right until a resistance is felt. The Aperture may be set on the same ring, either before or after the Automatic Setting.

Not Automatic Setting for Meyer Lenses.



Pre-Set Aperture

The Ring directly behind the Aperture Scale has to be pushed backwards and adjusted so that its marking meets the desired Aperture number and clicks in. You may now focus with the lens at full aperture and return to the pre-selected diaphragm stop without removing the camera from your eye.

For lenses with pre-set Apertures the Automatic Aperture has to be disconnected. This is done by moving the Red Knob in the Lens mount to the right (1). When Lenses with Automatic Aperture are used again the Mechanism is put back into working position by moving the Red Knob to the left.

Changing the Lens

The Standard Lenses have a focal length of either 50 or 58 mm. Interchangeable Lenses are available for the Praktica IV from a focal length of 35 mm up to 500 mm, and to an Aperture of 1:1,5, thus making the Camera adaptable to practically every situation.

With Lenses of a long focal length distant subjects are brought nearer, and with short focal lengths the picture angle becomes wider. All lenses are

easily and quickly interchanged; and they have a screw thread M 42×1. By turning the Lens in anticlockwise direction it can be easily removed. The Reflex Mirror can now be seen and, as this is a very sensitive part of the camera mechanism, it must be protected. For this purpose, depress Body Release which moves the Reflex Mirror upwards. Should there be any dust inside the camera it should be removed with a soft lens brush. The Ground Glass Screen is free of parallax with Lenses of every focal length. It is advisable not to change lenses in bright light when a film is inserted.

50 mm
focal length



180 mm
focal length

400 mm
focal length



Micro Exposures

A special Micro attachment is available which connects the Camera with the Microscope. For Jena Microscope an Attachment is made by Jena. For micro exposures it is advisable to use the special Rangefinder with Clear Glass Spot and Hairline Cross, especially when a large magnification is required.

Colour Filters

These are available in either screw-in or push-on holders; and the same applies to Lens Hoods.

Distance Scale

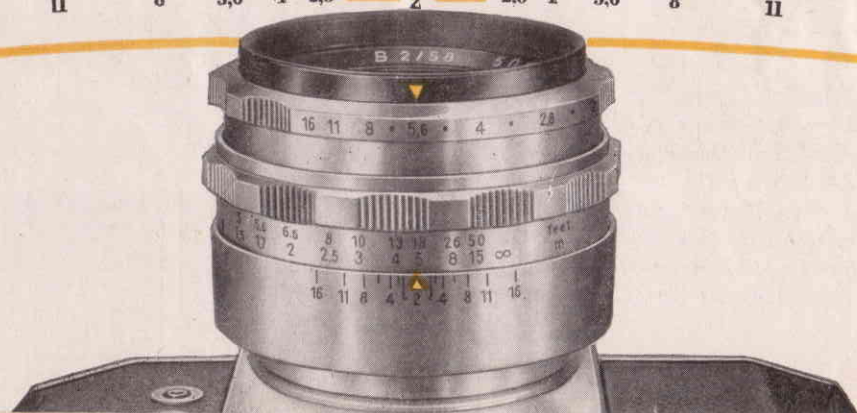
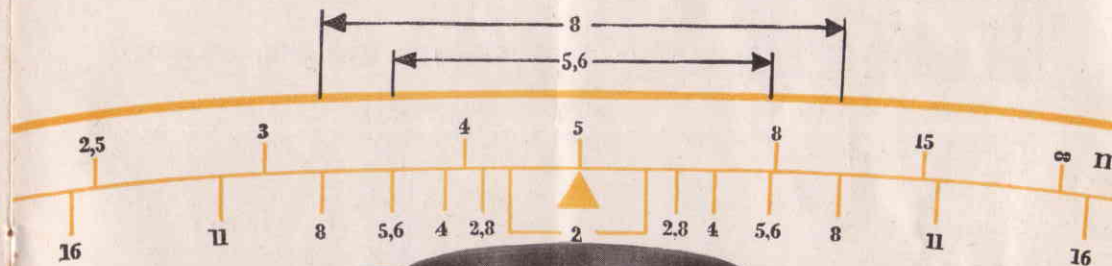
This is not such an important item with Praktica Lenses as focusing is done on the Ground Glass Screen. However, it is possible to set the distance on the Distance Scale. This Scale is more important in con-

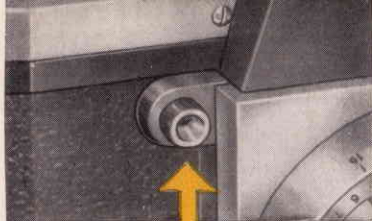
junction with the Depth of Field Scale, indicating the depth with the various distance settings.

Aperture and Depth of Field

The Depth of Field can be read from the Depth of Field Scale on the Lens Mount for every Aperture and Distance Pair, and it can be checked on the Ground Glass Screen. The picture range which is in sharp focus is the area on the Distance Scale between the Aperture Pair. The left Aperture Scale shows the Depth of Field in front and the right scale the Depth of Field at the back of the exposure.

Example: — When using a Lens with 58 mm focal length and when setting f. 8 and distance of 15 ft. everything between approx. 10 feet and 36 feet is sharp. With an aperture of f. 5,6 everything between 11 and 25 ft. is sharp.





Body Release

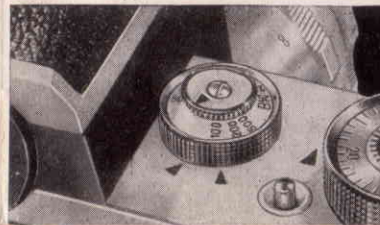
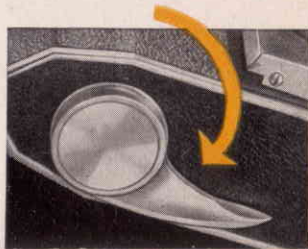
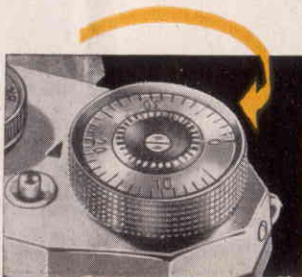
Slight pressure on the Button releases the shutter. To avoid any blurring keep your finger on the Body Release until the shutter has run down.

For longer exposure times it is advisable to use a cable release which is screwed into the socket of the Body Release. When the film is wound on the Body Release must not be depressed, therefore, any delayed action releases which are not built in must be wound up or removed. A full turn

of the Winding Knob in clockwise direction until a resistance is felt transports the film.

Winding knob and Film Transport

No blank or double exposures as the Winding Knob and Film Transport are coupled. The Winding Knob or the Rapid Lever Wind can be used. The film is advanced by one frame, the Reflex Mirror swings into the light channel of the Lens and the shutter is cocked. The film Counter moves one stop.



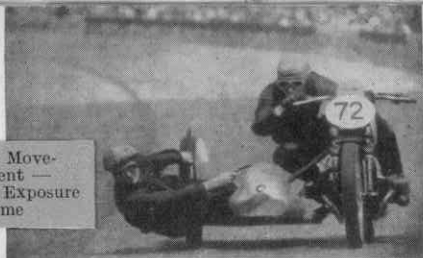
Setting the shutter speed

Set exposure time on the Exposure Time Setting Ring. You will find black figures for short exposure times ($1/500$ th to $1/25$ th and Flash $\frac{1}{2}$ = $1/40$ th) and red figures for long exposure times ($1/10$ th to $1/2$ sec) and „B“ for all Time Exposures.

When choosing short exposure times the Red Triangular Mark on the Knurled Knob must point towards the Black Triangular Mark on the Camera Top. For longer exposure times the Red Triangular Mark on the Knurled Knob must be set opposite the Red Triangular Mark of the Camera Top. For this purpose the thumb or one finger is used to rotate the Knurled Knob. When using „B“ set the Knurled Knob on short speeds.

To set the Exposure Time lift the outer ring of the Speed Setting Knob and rotate until the Red Dot clicks in opposite the required exposure time. $1/2$ sec and $1/25$ th sec have the same click stop. „B“ is for all Time Exposures, i. e. the shutter remains open as long as the Body Release is depressed. The Exposure Time may be set before or after the shutter is cocked.

Quick Move-
ment —
Short Exposure
Time



Very little
Movement —
Long Exposure
Time



Night
Exposures —
Time Exposure



Exposure time setting in brief

Short Exposure:

Red Triangular Mark opposite Black Triangular Mark of the Camera Top.

Long Exposure:

Red Triangular Mark opposite Red Triangular Mark of the Camera Top. For Exposure Times $\frac{1}{2}$ sec, $\frac{1}{5}$ th sec, $\frac{1}{10}$ th sec.

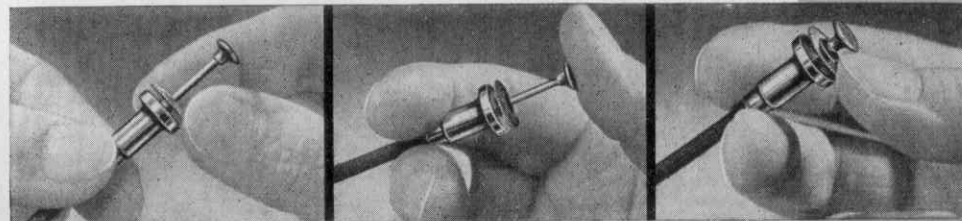
Time Exposure:

When using „B“ the Red Triangular Mark is set opposite the Black Triangular Mark on the Camera Top.

A Special Cable Release is required.

Special Cable Release

When a longer exposure time is required it is advisable to use a Cable Release, which is screwed into the thread of the Body Release. The Exposure Time is set on „B“. Beneath the Press Stud of the Cable Release is a Knurled Ring. When this fits firmly into the Cable the Cable Release operates like any standard one. When, however, this is turned slightly in anticlockwise direction the Knurled Ring loosens and when the Knob is depressed the Cable stays in this depressed position until the Knurled Ring is pressed lightly. This releases the Cable again.



Flash synchronisation

There are two Flash Sockets on the Camera Front.

The upper one is X-Socket for electronic flash with a shutter setting on $\frac{1}{40}$ (1/40th) or longer. This socket remains closed after the shutter has been released. The lower socket is F for short burning flash bulbs.

The chart below gives the exposure times for the various flash bulbs. It is immaterial whether the bulb is inserted before or after the shutter has been cocked.

Manufacturer	Type	Exposure Times to be set	Manufacturer	Type	Exposure Times to be set
RFT	X 1	$\frac{1}{40}$ (1/40th) 1/25 th	General Electric	M 2	1/30 th *)
	X 2			No. 5	1/30 th *)
OSRAM	XM 1	1/30 th *) 1/30 th **)		No. 8	1/30 th *)
	XM 5			No. 11	1/25 th
PHILIPS	PF 1	1/30 th *) 1/30 th **) (**)		No. 22	1/30 th **) (**)
	PF 5		SYLVANIA	Bantam 8	1/30 th **) (**)
				Press 25	1/25 th
				type FPO	1/25 th
	Press 40	1/25 th			
			type 2	1/25 th **)	
			type 3	1/30 th *)	

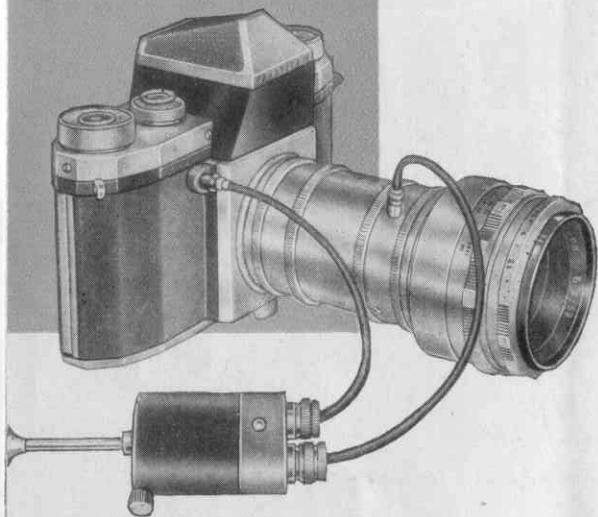
*) when using 1/30th with the Praktica, set on 1/5th without brake mechanism, i.e. the red mark of the setting knob for time groups must be opposite the black mark on the top plate of the camera.

**) set the following longer time eventually.

Close-ups

The helical focusing of the standard lenses permits approaching the subject up to a distance of approx. 1½ ft. For exposures at closer range you will require Extension Tubes. These may be inserted, singly or in various combinations, between the camera body and the lens. The complete set of Extension Tubes 1—3 yield a picture ratio 1:1. Please note that only the Tube marked 3 can be used for lenses with Automatic and pre-set Apertures. With these Extension Tubes inserted bet-





ween the Camera Body and Lens the Automatic Aperture is put out of action. But should you wish to make use of the Automatic Aperture a special Intermediate Ring with a double Cable Release will be required which maintains the function of the Automatic Aperture also when Extension Tubes or Bellows are used.

The Intermediate Ring is fitted behind the Lens in every case. After this the Double Cable Release is screwed into the Body Release and the Socket on the Intermediate Ring. The Adjusting Screws should be set so that the Aperture closes to the smallest stop (the Aperture Ring is set on the highest figure).

Insertion of film

Push the Back Latch in the direction of the arrow, undo Camera Back and take it off. Pull Rewind Knob out. Place the Cassette into the empty Film Chamber with the Film Leader pointing towards the Take-up Spool. Push in Rewind Knob. Draw the beginning of the film across the film gate and insert into the slot of the Take-up Spool. Pull it through the slot and bend down 3 mm to 4 mm. The Sprockets must engage on both sides of the film perforation. Cock the shutter by rotating the Transport Knob.

Having made sure that the film is properly inserted replace the Camera Back. Before closing the camera completely make sure that the film pressure plate is perfectly clean.

With the Camera Back locked in place, you make two blank exposures, watching at the same time that the Rewind Knob rotates in the opposite direction of the arrow. After these two blank exposures set the Film Counter on 1 and the Camera is ready for the first exposure.

Removing the film

When 36 (or 20) exposures have been taken you will feel a certain resistance when winding the shutter. This is a sign that the entire film has been exposed and must now be rewound into the Cassette. Depress Release Knob of the Rewind Mechanism and rotate in the direction of the arrow.

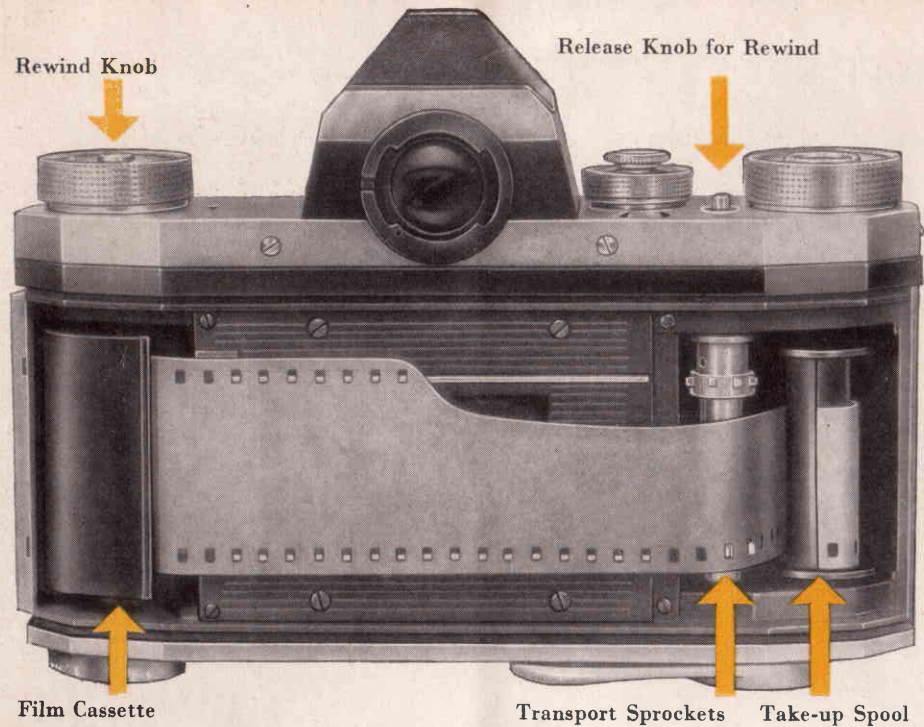
If the film was inserted according to the instructions the film leader will slip out of the Take-up Spool when the rewinding is complete.



Material used

The film used in the Praktica IV is perforated 35 mm film, which is available in cassettes of 36 or 20 exposures. It can also be supplied in any lengths required. The length of film in one cassette is sufficient for 36 exposures, but sometimes cassettes are also available in half this length. When loading cassettes yourself a film length of approx. 4'6" is the equivalent to 36 exposures. Naturally, shorter lengths can be inserted. This applies to both b/w and colour films.

The Praktica IV is particularly suitable for colour photographs as the whole picture can be viewed on the Ground Glass Screen before the exposure. All Praktica Lenses are specially colour corrected.



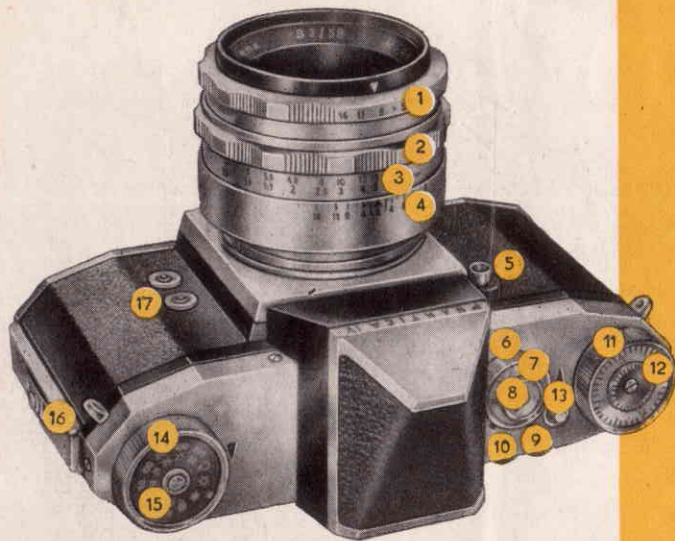
PRAKTICA IV, the Miniature Single Lens Reflex Camera

This Camera is a master piece of German precision workmanship which opens interesting fields to both the Amateur and Professional Photographer.

Prior to taking a photograph a bright parallax-free image is seen on the Ground Glass Screen as well as the Depth of Field and in fact, the whole effect of the final exposure can be designed in every detail. The built-in Penta Prism of the Praktica IV camera gives a clear, upright and correctly positioned image, which is of special advantage with vertical exposures.

Standard Lenses with Automatic Aperture and Supplementary Lenses of various focal lengths make it a versatile and universal Camera, especially for Close-up Work, Tele-photo and microscopic Photography. To adapt the Camera to the requirements of a rapid sequence of shots the Praktica IV has a Rapid Lever Wind in addition to the Winding Knob.

Description of Camera Parts



- 1 Aperture Setting and Tension Ring
- 2 Distance Setting Ring
- 3 Distance Scale
- 4 Depth of Field Scale
- 5 Body Release
- 6 Exposure Time Setting
- 7 Exposure Time Scale
- 8 Speed Groups Setting
- 9 Mark for long Exposure Times
- 10 Mark for short Exposure Times
- 11 Winding Knob

- 12 Film Counter
- 13 Rewind Release Knob
- 14 Rewind Knob
- 15 Film Speed Indicator
- 16 Camera Back Lock
- 17 Flash Sockets
- 18 Viewfinder Window
- 19 Film Transport Sprocket
- 20 Take-up Spool
- 21 Rapid Lever Wind
- 22 Film Chamber

