

PRAKTINA FX

Instructions
for Use





THE PRAKTINA FX
is too valuable

... for playful experimentation. This would, no doubt, only cause annoyance, and you would, after all, have to consult the Instructions for Use. That is why we ask you first to read this booklet, with your camera at hand, so that you may be able to examine every detail and start practising at once.

Knob for winding shutter and film transport

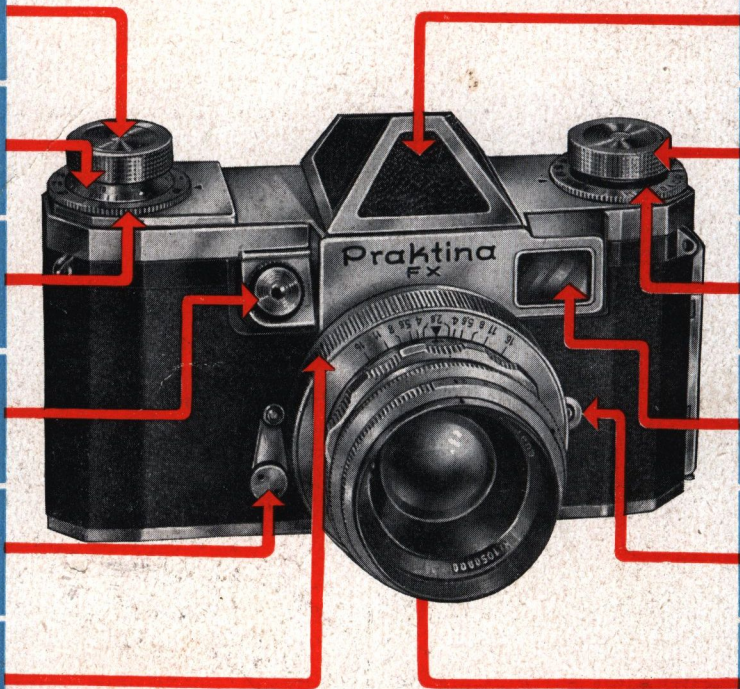
Picture counting disc

Disc for adjusting the shutter speeds

Shutter release knob with thread for cable release

Lever for winding up delayed-action mechanism

Milled adapter ring for exchanging lenses



Penta Prism, interchangeable with finder hood

Rewind knob

Film-marking disc

Newton finder

Flash contact

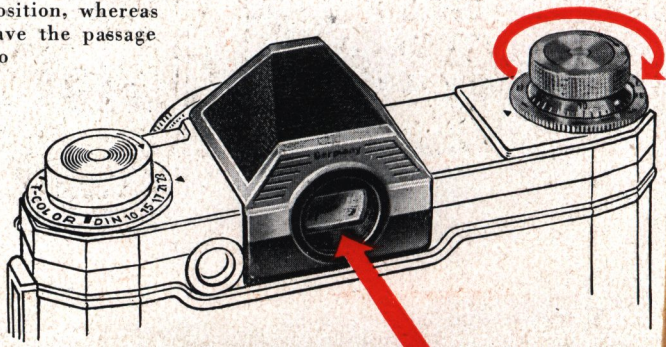
Catch for fastening finder systems

Do not load the film right away

it would only be exposed to no purpose. Film loading and all relating to it will, therefore, be described later on.

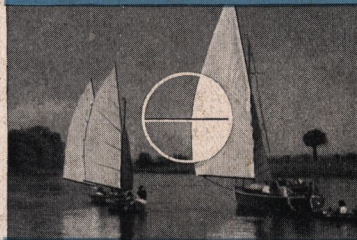
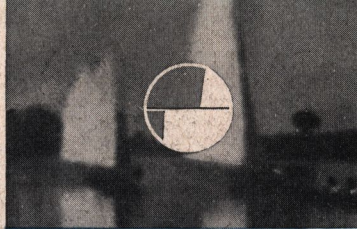
REGARDING PICTURE COMPOSITION AND FOCUSING,

the designers of the Praktina FX have forgotten nothing that is required in photographic practice. First of all there is the Penta Prism with its roof-like top and its finder window at eye-level. Just have a look in! You say that you see nothing,—complete darkness? Yes, of course, you have to wind the shutter anew after every exposure. This is done by turning the shutter-winding knob on top right of the camera. We shall have to say more about this yet. For the present, it is important for you to learn that with this manipulation the mirror, which belongs to the finder system, is flipped into viewing position, whereas up till now, it had to leave the passage open for the light rays to travel to the film, thus blacking out the finder.

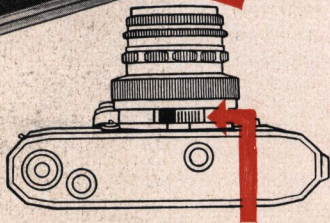
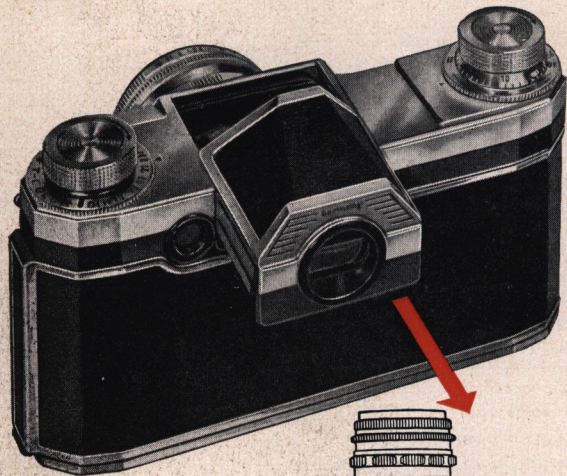


Should you have decided to purchase the model with distance meter, i. e. the measuring magnifier, you will also see a peculiar circle with a horizontal line across the middle. In this range finder, two partial images are set against each other. Now try! — but with the lens open to the widest aperture! Hold the camera in your right hand and turn the focusing ring on the lens mount with your left hand. Practise this manipulation thoroughly, for you will realize that this is the main thing in quick-action photography. Do the same with your camera at eye-level. You will see that the sharpness of the focusing screen image varies. Repeat once more, this time observing the above-mentioned circle. Turning the focusing ring on the lens mount causes the two partial images of the upper and lower clear sections to move towards or away from each other. This becomes most easily apparent with vertical lines. If these lines in the two halves of the circle meet exactly, the image is in proper focus. This distance meter should be used only with the lens at full aperture.

Focusing ring



PRAKTINA FX with Penta-Prism



Catch for exchanging finder systems (A = open, Z = locked)



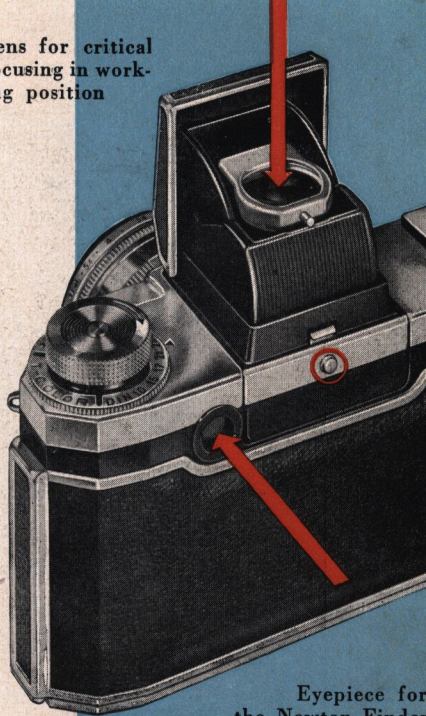
The Finder Hood

The Penta Prism is interchangeable with the finder hood. The finder system in the camera is unlatched by means of the little square knob at the bottom of the camera. It is then pulled out and replaced by the other finder system. The finder must be pulled out in the direction of the camera back and pushed in in the direction of the lens. Be very careful in handling the finders, for the efficiency of your camera depends largely on the precision workmanship of the finder guides. Fasten the catch again after exchanging finders.

Look into the finder hood straight from above, i. e. at an angle of 90 degrees in viewing direction. Open the finder hood by pressure on the little knob at the back, whereby the ground-glass image and the circular area will become visible. All that has been said with regard to picture composition and sharp focusing holds good also here. We only have to draw your attention to the hinged achromatic lens which magnifies the finder image 6 times and offers great facility in focusing sharply.

The third finder system of the ingeniously designed Praktina FX is the little Newton Finder. It is firmly built into the camera, with the eyepiece at the back left next to the interchangeable finder. The extremely bright image formed by the Newton finder still permits judging the picture area if, for instance, in poorly lighted interiors the ground-glass screen does not show a sufficiently distinct image (flash photography). The Newton finder is also a valuable supplement to the finder hood in sport snapshotting, it helps you to "follow" your object more easily.

Lens for critical focusing in working position



Eyepiece for the Newton Finder



Diaphragm
pre-setting ring

Diaphragm
adjusting ring

It is employing the diaphragm

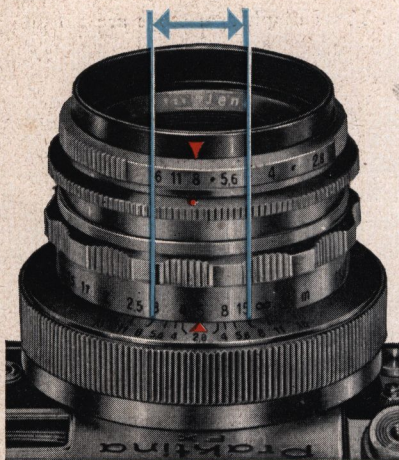
that puts life into photography. A perfect command of the use of the diaphragm will help to develop all the possibilities of exposure technique. The ground glass clearly shows that there are certain limits to the sharpness of the image before and behind the focusing line. This may suffice for quite a number of photographic tasks. As a rule, however, the perspective of the selected motifs will reach a long distance into space, i. e. the depth, thus requiring a wider distribution of the sharp area. This depth of sharpness is obtained by setting the diaphragm. Have a look into the front of your camera lens and turn the milled diaphragm ring. With the diaphragm at full aperture, you have the minimum depth of field, as it is originally produced by the optical system. On the other hand, if you close down the diaphragm as far as

possible, you obtain the greatest depth of field that your lens will yield. The largest aperture is expressed by the smallest number (e. g. for the Tessar $f/2.8 = 2.8$), and the smallest aperture by the largest number (e. g. $f/16 = 16$). These diaphragm stops are set by means of the red triangle on the black lens mount.

This is how the diaphragm pre-setting ring operates

Now you may lift your camera to eye level again and snapshot — or, technically speaking, release the shutter. You will discover that stopping down the diaphragm does not merely mean greater depth of focus, but also loss of light and, consequently, a darkened screen image. But for focusing, you need a ground-glass image as bright as you can possibly get. The diaphragm preselecting ring is positioned immediately next to the diaphragm setting ring and is loosened by slight pressure in the direction of the camera body, whereby it becomes rotatable. Turn the ring until the little red dot stands opposite the selected diaphragm number and let the ring snap in gently. Make sure that the preselection ring clicks in quite close to the setting ring and that it is locked tightly. You may now view and examine the image with the aperture wide open, and just before releasing the shutter, you turn the stop ring clockwise as far as it will go. You now have the diaphragm at the desired setting without having to remove the camera from eye-level.

Example 1: Desired depth of field
3—15 m



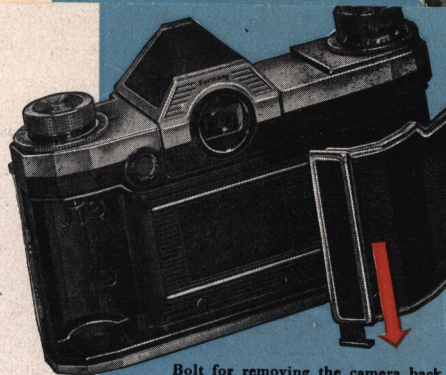
Example 2: Desired depth of field
1—2 m, Diaphragm stop required: f/16

Judging the depth of field

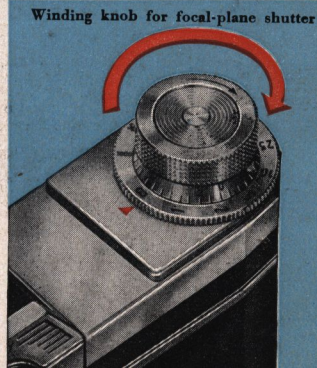
is made possible by the two depth of field scales, complementing one another, on the lens mount. One of these is rotatable with the focusing ring of the lens and is engraved with a distance scale. The other scale is rigid, with diaphragm numbers engraved on the left and right of the red triangle. Try it out yourself, looking for a diaphragm stop relative to a depth of field covering the distance between 3 meters and approx. 15 meters. You turn the distance ring of the lens until the two numbers 3 and 15 meet the same diaphragm number on the right and the left. In our example (Tessar f/2.8, focal length 5 cm) this would mean the diaphragm stop f/8, covering a range between 2.8 meters and 15 meters, whereby — speaking incidentally of the Praktina FX — the distance shown by the red mark is approx. 5 meters. Focusing is thus performed automatically.

The exposure

is determinant for the negative picture. No more correcting is possible, for with the running down of the focal-plane shutter the exposure time has elapsed, and the shutter is ready to be wound up for the next exposure. Let us look and see what happens here. For this purpose, the camera back has to be removed by pulling out the bolt at the bottom left and lifting the back plate slightly to the right. This is where the film is inserted, too, but we shall read about that later. First watch the little black-draped window, while your right hand turns the transport knob on top of the camera as far as it will go in the direction of the arrow. What is happening? The focal-plane shutter is being wound up and the curtain drawn from left to right. Now adjust the shutter speed ring, setting a long exposure speed against the little red triangular mark. The shutter speeds range between $\frac{1}{1000}$ th second and 1 second, and „B“ for time exposures.

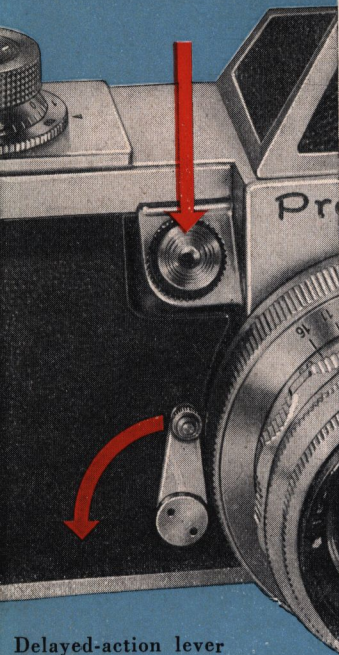


Bolt for removing the camera back



Winding knob for focal-plane shutter

Shutter release knob with cable release connection



It is all the same whether you turn the knob to the left or the right, nor does it matter if focusing is performed before or after winding up the shutter. The whole mechanism has been so well pre-planned, that all controls work without any complications. With the shutter set to 1 sec., watch the small black window once more. Press down the shutter release knob, and the shutter will run down, causing the light to act on the film for one second. At the „B“ setting the shutter remains open as long as the release knob is being pressed down or, in case a special wire release is being used, until the stopping device is unlocked. You should also try other shutter, i. e. exposure, speeds, so as to become perfectly acquainted with the mechanical movements. But do not more than look at the shutter. It is an extremely sensitive element.

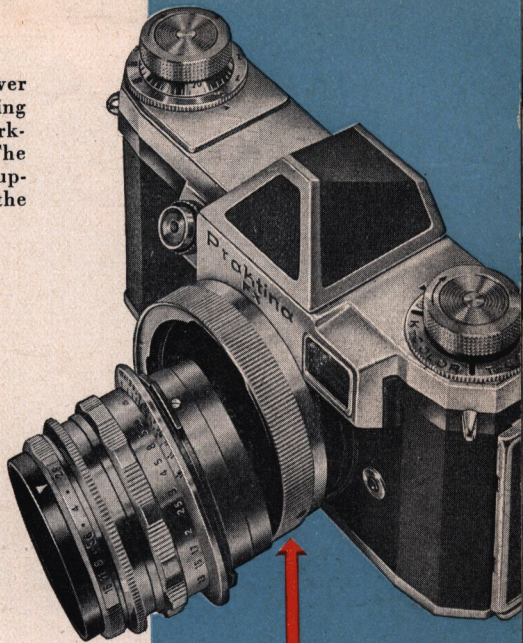
Underneath the release knob of the Praktina FX you will see a swing lever, with which the delayed-action mechanism of the built-in self-release is wound up. The shutter itself is wound up in the usual manner

Delayed-action lever
for built-in self-release

by means of the winding knob, whereupon the lever is moved downward by 90 degrees and, on releasing the lever, the delayed-action mechanism is set working. After 10 seconds, the shutter is released. The camera must stand firmly (on a tripod or other support) to avoid any movement while winding the shutter and setting the lever.

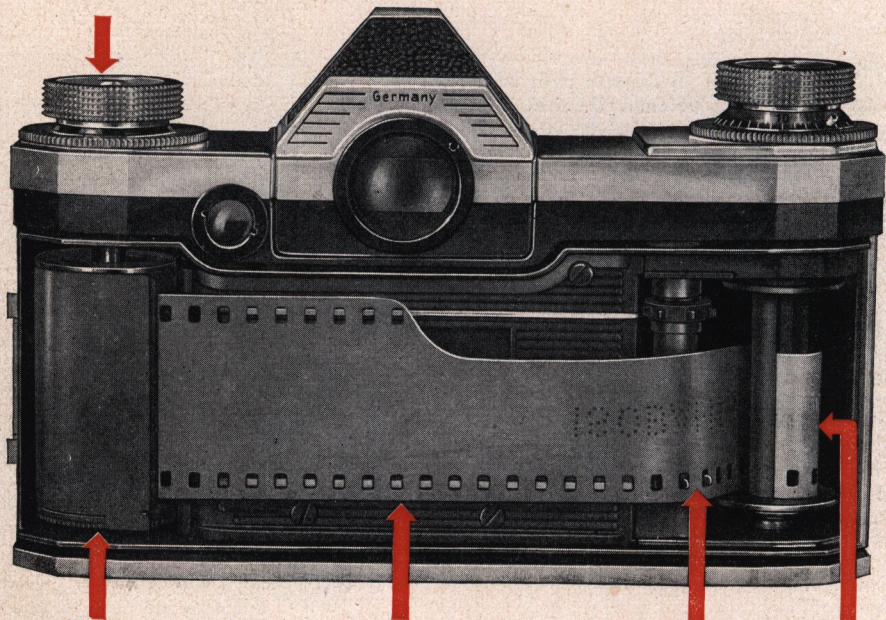
Exchanging the Lenses

is as easy as any of the other manipulations with the Praktina FX. A slight anti-clockwise turn of the large milled ring on the camera body (seen from the front) unlocks the lens mount, so that it can easily be taken out. Be careful not to let it drop! To replace the lens into the camera, you must start with the red triangular mark on the depth-of-field scale at the top. Never use force, either here or elsewhere on the Praktina FX, if you do not want to cause damage to camera or lens. Having re-installed the lens into the camera, fasten it by turning the milled ring clockwise as far as it will go.



Milled
ring to hold lens mount

Rewind knob with driving shaft



Film cartridge

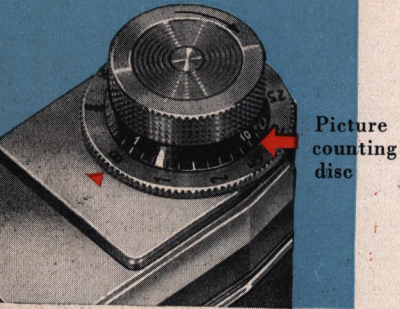
Film

Sprocket teeth

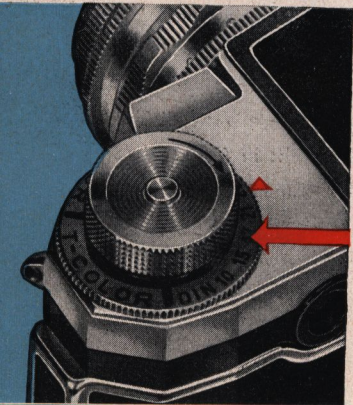
Receiving spool

To load the Film

the camera back has to be removed. This has been described before, so you can take hold of the film cartridge right away. The cartridge has to be inserted into the cartridge bearing, but you will find that there is a driving shaft in the way. This leads to becoming acquainted with a new knob — the so-called rewind knob, the counterpart to the transport knob. The re-wind knob has to be pulled out as far as possible, and it will take the driving shaft with it. The film cartridge can now be put in, with the concave part at the top of the camera, and the beginning of the film will come to lie with its coating (light side) directed into the camera, towards the receiving spool. Now push the rewind knob back into the camera carefully and turn it until the driving shaft catches the bar in the film cartridge. The trimmed film leader has to be pulled across to the receiving spool and fastened into the spool slit, pointing in the direction in which it will be advanced. Turn the transport knob, making sure that the film does not slip out of the slit in the receiving spool and that the sprocket teeth catch the perforation holes. The camera back can now be replaced on to the camera. Special care should be taken in fixing it into the right-hand groove. For the first exposure, it is necessary to wind up the exposed film leader until



Picture
counting
disc



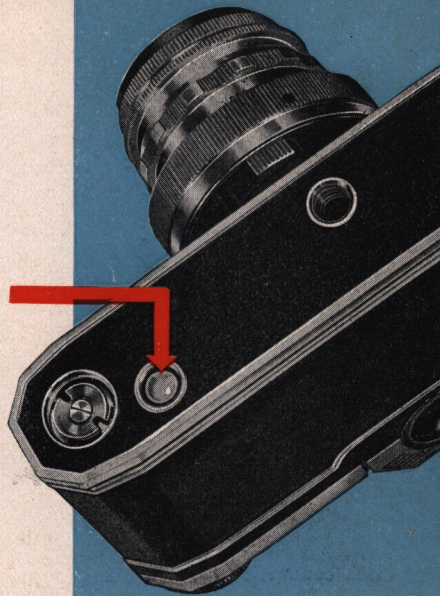
Film
marking
disc

an unexposed section of film is in the film gate. As a rule, this will mean two turns, during which the rewind knob must be watched to make sure that it turns as well, a sign that the film is being properly transported.

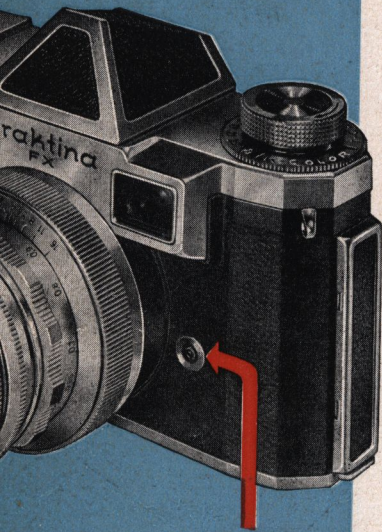
At the base of the transport knob is a scale belonging to the automatic picture-counting device. As soon as the camera is ready for the first exposure, the number 1 on the scale must be turned to meet the triangle. The scale now moves on to the next number each time the shutter is wound up. You will thus be able to see all along how many exposures have been made. Another reminder is the filmmarking disk on the rewind knob to show which film is in the camera.

To remove the Film

it must first be rewound into the cartridge. Unlock the transport mechanism by pressing in the little knob on the camera base (next to which is the connection for spring motor and magnetic release). With your finger pressed on this little knob, turn the rewind knob in the direction of the arrow, until you notice, by slight resistance, that the film is being pulled out of the slit in the receiving spool. This concludes the rewind manipulation, and the camera back may be opened to remove the film. But not in bright sunlight, please. Until development, the film cartridge should then be wrapped up in the original packing material.



Release knob to
rewind the film



Flash connection

The little socket on the camera front has no doubt attracted your attention. This is the

Contact Socket (X-Contact) for flash connection

a) Flash tubes (electronic flashes)

With this contact, all types of flash tubes may be synchronized. Cameras without delay should be set to $\frac{1}{50}$ th sec., and for cameras with delay the shutter speed may be $\frac{1}{25}$ th sec., or longer.

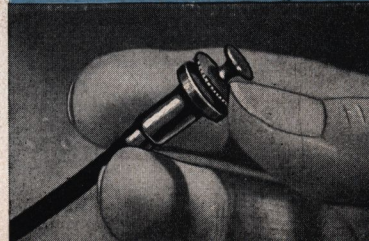
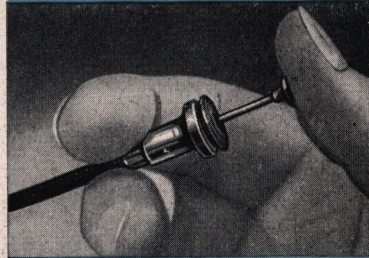
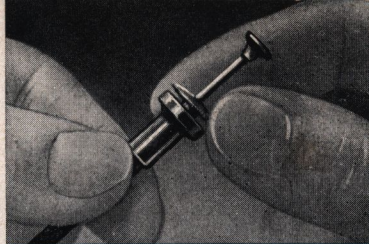
b) Regular flashes (flash bulbs)

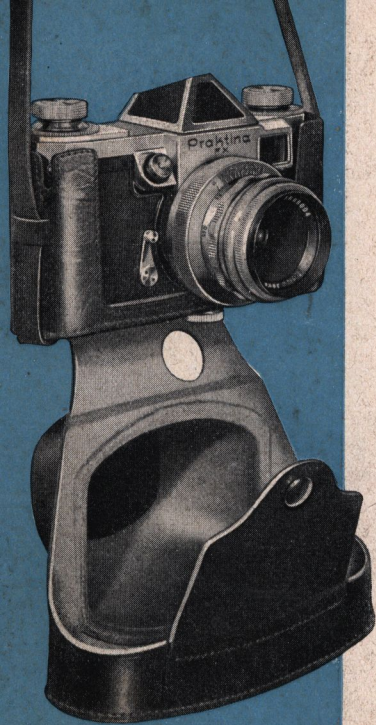
If you use flash bulbs with your Praktina, the whole flash falls into the open shutter (open flash method). Use the guide number given by the lamp manufacturer. In the table on the 6th cover page of this booklet, you will find shutter speeds and ignition time = exposure time for a number of flash bulbs.

Important: Put in the flash lamp only after the shutter has been cocked.

The Special Wire Release

is indispensable for long time exposures (small diaphragm apertures and unfavorable light conditions). As long as the little milled locking plate lies close to the release socket, the release works just like any other wire release. Turn the milled plate slightly to the left, and it will slide away from the socket. Now after pressure the release plunger remains in this position, keeping the shutter open, until the plate is unlocked by downward pressure.





An Everready Case should be the first accessory for your Praktina FX. It protects the camera from dust, moisture, and blows, facilitates carrying, by means of a neckstrap, and permits quick snaphooting, too. By opening the pressbutton locks on the back of the leather case, you are able to let down or to take off protective cover, and the camera is in working position. The knurled knob on the bottom of the case keeps the camera fastened to the tripod bushing.

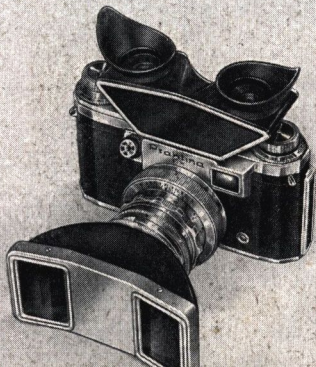
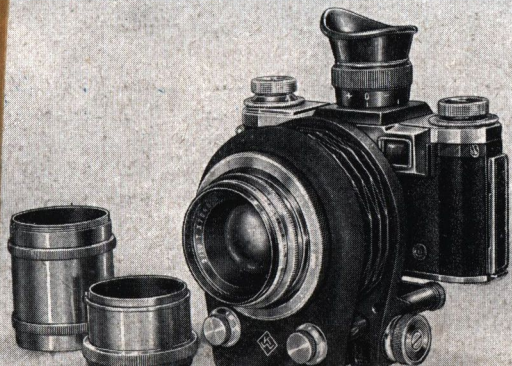
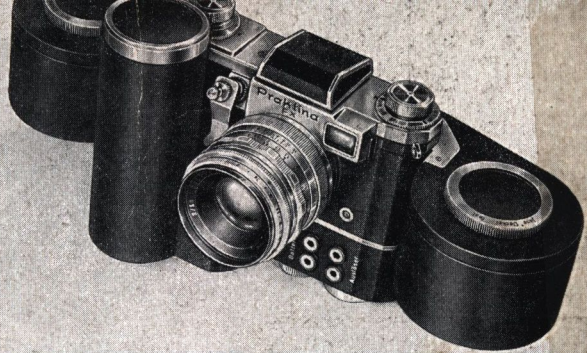
There are yet many accessory equipments to complete the Praktina FX. Application and handling of these are described in separate instructions.

It has been our intention to save you annoyance, which is generally caused by uncertain experimentation. If you have now learned to know and estimate your camera, and if you have become a zealous photographer — this little „course“ has been a success. May your Praktina FX be a source of boundless pleasure to you!

Alphabetical Index

Winding the Focal-plane Shutter	7
Setting the Shutter Speeds	7
Penta Prism	2
Loading the Film	11
Focusing	1
Flash Connection	14
Finder-hood	2
Exchanging the Lenses	9
Exchanging the Finder Systems	2
Employing the Diaphragm	4
Depth of Field	6





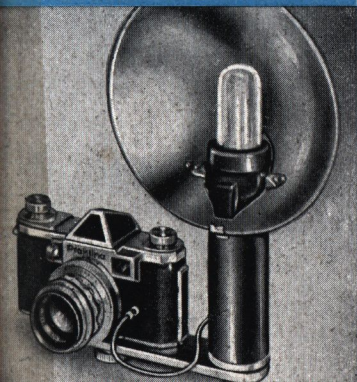
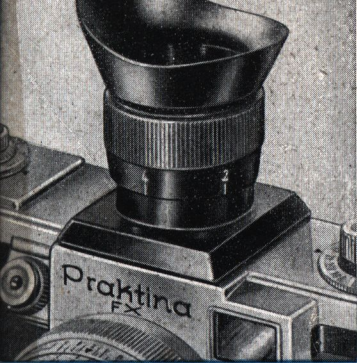


Table showing Shutter Speeds and Ignition periods of Flash Bulbs

Manufacturer	Type	Shutter speed secs	Effective Exposure Time approx. secs.
R-F-T	F 19	1/25	1/200
	F 20	1/10	1/100
	F 32	1/10	1/150
	F 40	1/10	1/100
	DF 20	1/10	1/30
	DF 40	1/10	1/40
	DF 70	1/10	1/30
Osram	F 0	1/25	1/250
	F 1	1/25	1/200
	F 2	1/10	1/170
	X 0	1/25	1/250
	XP	1/25	1/100
	XM 1	1/25	1/100
	Philips	PF 1	1/25
PF 3		1/10	1/80
PF 14		1/10	1/60
PF 25		1/10	1/50
PF 56		1/10	1/50



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