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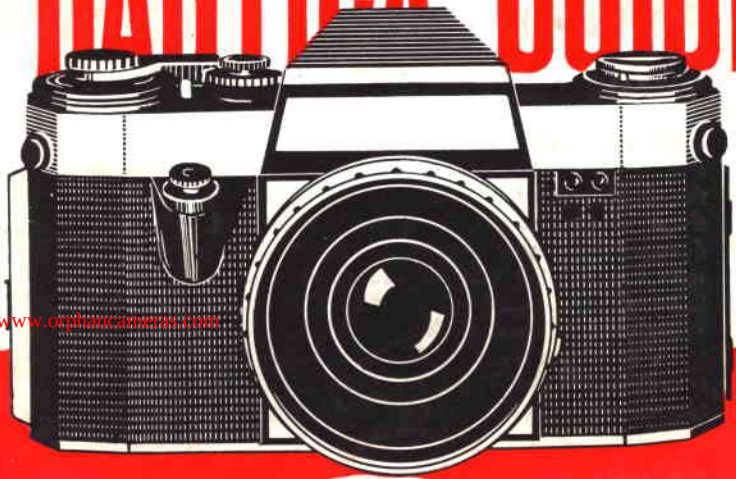
PRAKTICAMAT

PRAKTICA GUIDE



PRAKTICA SUPER TL
PRAKTICAMAT
PRAKTICA NOVA and B
PRAKTICA NOVA I and IB
PRAKTICA VF
PRAKTICA VFB
PRAKTICA IVF
PRAKTICA IVFB
PRAKTICA IV

PRAKTICA IVB
PRAKTICA IVBM
PRAKTICA IVM
PRAKTICA FX3
PRAKTICA FX2
PRAKTICA FX
PRAKTICA
PRAKTIFLEX

THE PRAKTICA SYSTEM

The modern Praktica is a 35 mm. single lens reflex camera with a viewing system designed for accurate focusing and exact viewing.

The die-cast body has a hinged-on back and is covered in black material with exposed metal parts black anodised or satin chrome finished. The camera yields up to 36 negatives $1 \times 1\frac{1}{2}$ in. (24×36 mm.) on perforated 35 mm. film.

It has an eye-level reflex finder which shows the image in natural size. The built-in pentaprism produces an upright and right-way-round view. The centre of the reflex finder area contains a microprism or split image rangefinder focusing and this is surrounded by a ground glass ring. The image is brilliant and evenly illuminated right into the corners with the aid of a fresnel field lens. An indicator appears in the top left hand corner of the viewfinder of models with instant-return mirror to show when the shutter has not been set. Early models are fitted with a chest-level-reflex finder with folding hood and built-in magnifier.

The taking lens itself is used to form the finder image; in consequence the finder shows exactly the same field as will be obtained on the film without any parallax. The reflex image remains fully correct at any distance with any lens including close up supplementary lenses, extension bellows, extension tubes and other attachments.

The screw-mounted standard lens is interchangeable and a wide range of tele and wide angle lenses is available. Lenses designed for some other cameras will also fit the Praktica camera.

Most Praktica lenses have an automatic preset diaphragm. An internal link between the shutter release and the lens mount couples with lenses in such a way that the aperture is stopped down only during the actual exposure. At other times, it is fully open to permit viewing with maximum brilliance of the reflex screen and minimum depth of field for greatest accuracy.

The lens mount carries a depth of field indicator and a

focusing scale in both feet and metres as well as an infra-red mark. Focusing is effected by a helical movement which is part of the lens mount. Some of the most recent automatic-iris lenses are equipped with a depth-of-field preview device.

Models from VF (1964) onwards have an instant-return mirror, avoiding the image blackout of the early Prakticas.

The shutter of the Praktica is a focal plane type travelling across the film from right to left. With this type of shutter, lenses can be changed while the camera is loaded.

The shutter is synchronized for flash bulbs and electronic flash with standard co-axial outlets on the camera body.

The camera takes standard 35 mm. cassettes. The film runs from the cassette to the take-up spool and is rewound after exposure. The film transport is effected by a lever movement through 210°; one swing advances the film and the film counter arranged around the centre shaft of the transport lever.

A film-speed indicator is located on the rewind knob, which is also marked to indicate the number of exposures of the film inserted into the camera. A film type indicator is shown in the centre of the transport lever.

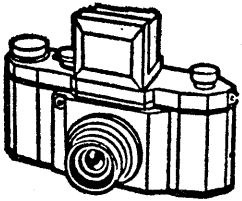
The shutter release is conveniently set at an upwards angle into the front of the body and reduces the danger of camera shake. It can be locked against accidental depression and has a cable release thread in its centre. A tripod bush is placed in the camera's base, slightly off centre.

The Prakticamat and the Praktica Super TL feature a through-the-lens internal light-measuring system with a CdS meter which is coupled to shutter speed and aperture. It works semi-automatically with the lens at the shooting aperture. Either the shutter speed or the aperture can be pre-set.

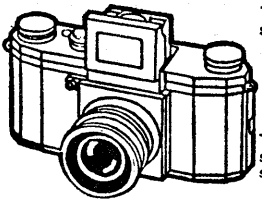
Praktica Models

PRAKTIFLEX. The original camera in this series was introduced in 1938. It conformed generally with the basic description given above but the back was completely removable and the mirror returned to the viewing position only when the film was wound on. It had shutter

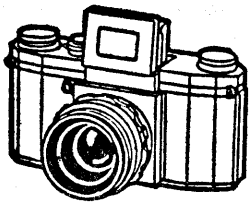
PRAKTICA EVOLUTION



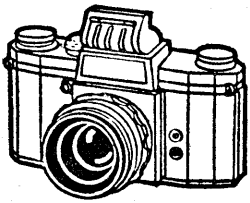
The original Praktica with the smaller diameter lens mount.



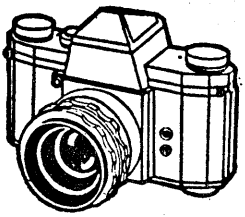
The 1952 Praktica with improved shutter and condenser type screen.



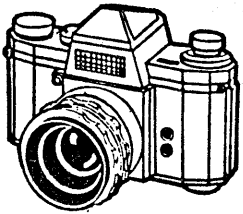
The FX model of which there were four versions with different types of flash contacts.



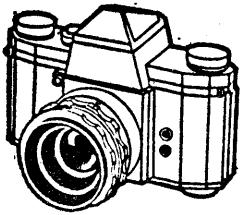
Praktica FX2 permitted the attachment of a pentaprism and had semi-automatic aperture setting. Later versions had fully automatic iris control.



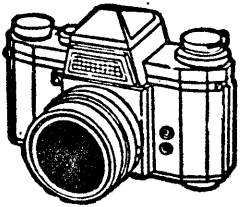
Praktica IV with fixed pentaprism. The IVM had a rangefinder centre in the screen. The IVF had a fresnel screen with rangefinder centre.



Praktica IVB with built-in exposure meter. The IVM and IVF models were also fitted with exposure meters as IVBM and IVFB.

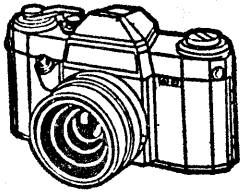


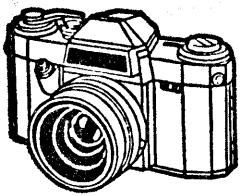
Praktica VF introduced the instant-return mirror and the modern shutter-speed range.



Praktica VFB was a Praktica VF with built-in exposure meter.

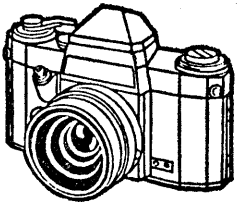
Praktica Nova is an improved VF with hinged-on back, lever wind on top, angled shutter release and self-zeroing exposure counter.

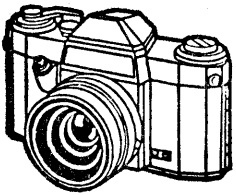




Praktica Nova B is a Praktica Nova with built-in exposure meter.

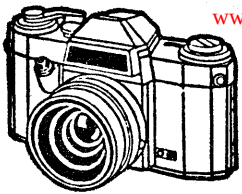
Prakticamat is similar to Praktica Nova but has through-the-lens automatic exposure control.

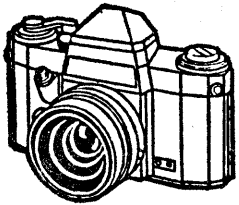




Praktica Nova I has all shutter speeds on one dial and a quick-load take-up spool.

Praktica Nova IB is a Nova B with additional features of Nova I.





Praktica Super TL is a simplified Prakticamat with no 1/1000 sec. and with quick-load take-up spool.

speeds from 1/25 to 1/500 sec. and B. The lens was interchangeable but the lens mount thread was smaller than the later cameras in this series, namely 40 mm. in diameter. Therefore, lenses designed for the current Praktica cameras cannot be used on this model. It was fitted with a chest-level reflex finder with ground glass.

PRAKTICA (1952) had an improved focal plane shutter, ½—1/500 sec. It also had the larger screw thread (42 mm.) for interchangeable lenses which has remained unchanged for all successive Praktica models. In place of the flat ground glass screen, a condenser type screen was introduced into the reflex finder, giving improved brightness in the corners of the finder picture. The latest version of this Praktica had a slightly modified body shape.

PRAKTICA FX (1955) was fitted with pre-select iris lenses and was FX synchronized. It should be noted, however, that the F of those days represented about 10 ms. delay for the then available GE No. 6 flash bulbs. The flash contact was situated on the base of the camera. Later models of the Praktica FX had the flash contacts on the camera front. The last version was X synchronized only with the standard 3 mm. co-axial plug.

PRAKTICA FX2 (1956) allowed a pentaprism to be inserted into the reflex finder hood for eye level viewing. This model introduced semi-automatic aperture setting and the latest version had fully automatic iris control. This latter was offered in some countries as the Praktica FX3. The latest version of the Praktica F·X2 (dot between the F and X!) had, in addition to X synchronization, also the now international standard F synchronization for flash bulbs.

PRAKTICA IV (1959) introduced, in place of the chest-level reflex finder, a permanently fixed pentaprism. This model was also the first Praktica with quick film-wind lever, which was in the base plate of the camera, in addition to the transport knob on the camera top. The rewind knob was in two parts, the top part swinging out to act as a rewind crank, and incorporated a film type indicator disc. The rewind release button stayed in the pressed-in position automatically while winding and sprang back automatically when the shutter release was operated. It also featured a little foot acting as a counterpoise.

PRAKTICA IVB (1959) was a Praktica IV but with built-in, uncoupled photo-electric meter. This same model was introduced in 1962 with a rangefinder centre in the reflex image as model IVM for the camera without exposure meter and model IVBM for the camera with built-in exposure meter. In the last version of the Praktica IV series, the condenser reflex finder lens was replaced by a fresnel lens with wedge rangefinder and ground glass focusing ring with an optical system above it to produce the maximum of even illumination right into the corners of the finder image. These last versions were called IVF for the model without exposure meter and IVFB for the model with exposure meter.

PRAKTICA VF (1964) was the first Praktica with the now standard

geometrically-arranged shutter speeds, an instant-return mirror and a red signal indicator in the finder to show whether or not the film is wound on. The shutter speeds ran in the usual progression from 1/500 to ½ sec. but there was no setting for 1/15 sec.

PRAKTICA VFB was a Praktica VF with the built-in uncoupled photo-electric exposure meter.

PRAKTICA NOVA (1965) is basically a Praktica VF but slightly smaller. The lever transport has been transferred to the top of the camera and a fold-out crank permits the quick rewinding of the film. The camera back is hinged on, the exposure counter is self-zeroing and the shutter release is angled to the camera front and can be locked against unintentional releasing. Shutter speeds as on Praktica VF.

PRAKTICA NOVA B (1965) is similar to the Praktica Nova but with built-in photo-electric exposure meter, as in Praktica IVB.

PRAKTICA NOVA I (1967) is basically a Praktica Nova with all shutter speeds on one dial (incorporating also 1/15 sec.), a quick load take up spool and improved styling.

PRAKTICA NOVA IB (1967) is basically a Praktica Nova B with the additional features of the Praktica Nova I.

PRAKTICAMAT (1965) is similar to the Prakticanova with built-in coupled CdS meter with automatic exposure system measuring the light through the lens in a novel and extremely efficient way. The focal plane shutter is fully speeded from 1—1/1000 sec. The shutter speeds are around the rewind knob. The pentaprism has a micro-screen circle around the central rangefinder wedge. With lenses which have no depth-of-field preview device, depth of field can be checked before shooting by depressing the meter switch-on button.

PRAKTICA SUPER TL (1968) differs from the Prakticamat by having no 1/1000 sec. It uses a one-cell CdS meter with light concentrator. Focusing is by micro focusing centre with ground glass surround and fresnel rings. It has a quick-load take-up spool.

HANDLING THE PRAKTICA

In order to simplify the description and handling of the Praktica camera without being confused by different features of individual models, this guide is divided into a general section which applies to all Praktica models, while the individual requirements and different handling of each model are found on pages **27–40**. *To avoid bulk and confusion slight variations in manipulation on earlier models which become self evident have not been included.*

For convenience, a symbolic reference system is also used in the general section. Wherever the sign ■ appears, further details will be found in the camera pages.

Holding

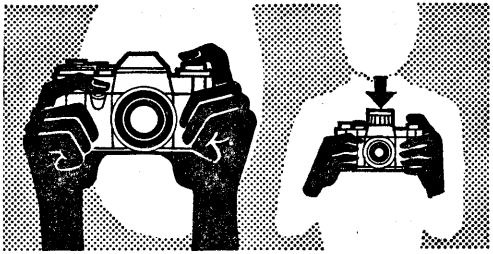
It is obvious that the camera should be held as steady as possible as the slightest shake, even if not seen in the negative, will become visible in the enlargement.

FOR HORIZONTAL PHOTOGRAPHS hold the camera in the palm of both hands, the fingers gripping the front of the body, the thumbs against the back. Use thumb and middle finger of the left hand to move the lens focusing mount, and the index finger of the right hand to operate the release button. Keep the elbows pressed against the body. Either the right or the left eye may be used on the finder.

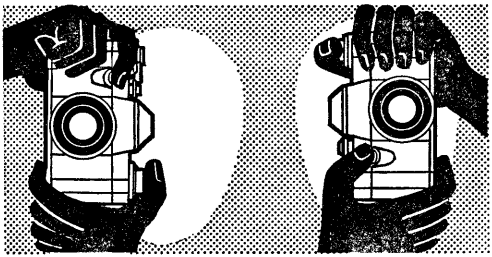
Always stand with your legs apart.

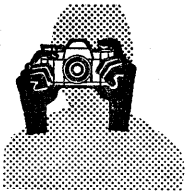
FOR VERTICAL PHOTOGRAPHS turn the camera through 90° so that the left hand presses the camera against your forehead from above. Use the thumb and the index finger to move the focusing mount. The right hand holds the camera from below with the index finger on the release button. It is of no consequence if the position of the hands is reversed; you can suit your own convenience.

To release the shutter, press the release button with the ball of the finger. Use finger pressure only, and keep the hand and its grip on the camera steady. The actual pressing

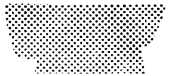


For horizontal shots (*above*) hold the camera in the palm of both hands, the fingers gripping the front of the body, and the thumbs against the back. Focus the lens with the thumb of the left hand.
For upright shots (*below*) turn the camera through 90° so that the left hand supports it from underneath. Alternatively, turn it round in the other direction, so that the left hand presses the camera against the forehead from above. In this case the thumb of the right hand presses on the release button, while the palm of the right hand supports the weight of the camera.



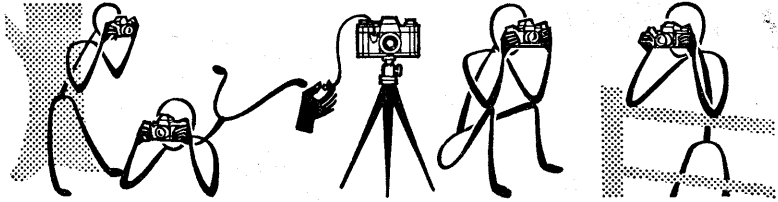


Press the elbows close to the body,



always stand with your legs well apart,

and hold quite still while you release.



Above: With the Praktica it is specially important to keep the camera really steady during the exposure and for a fraction of a second after pressing the release button. Whenever possible support your body against something solid, such as a tree or wall or prop up your hands against your knees or a table, particularly with slow speeds. Use a cable release for time exposures from a tripod (page 12).

down will have to be done slowly and smoothly. The slower the exposure time, the smoother must be the release.

For slow exposures in the hand, it is advisable to rest the elbows or at least to lean the body against some support in order to avoid shake. In this way, even 1/8 sec. can be risked without incurring camera shake.

Such a support is also desirable for faster exposures, as quite a lot of movement takes place inside the camera after pressing the release button. A slightly unsteady hold may thus easily lead to blurred pictures.

The use of a tripod is necessary when taking time exposures and it is also recommended for speeds slower than 1/30 sec. For upright photographs from the tripod use a ball-and-socket head to allow changing from horizontal to vertical position.

Carrying

To be ready for quick action, it is best to carry the camera on a short strap round the neck so that it lies on your chest. Lifting it up to the eye is then a matter of a split second.

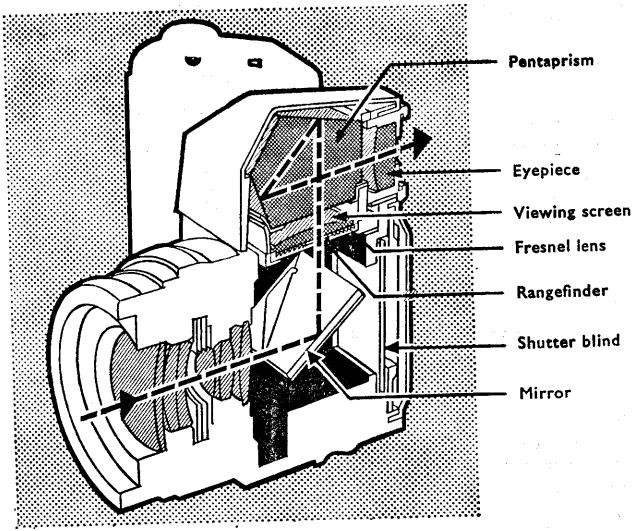
For convenience and protection, the Praktica should always be carried in its ever-ready case. This case is designed to hold the camera ready for use. The flap of the case is removable when the camera is in continuous use to enable quicker working.

Viewing and Focusing

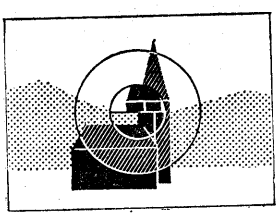
The image reflected by the lens on to the screen is always visible except during the actual exposure. The image of the earlier Praktica models is only visible after the film has been wound on. It disappears immediately the shutter is released.

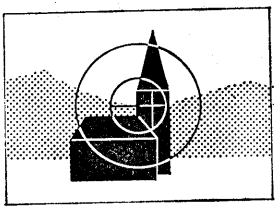
The brilliant image appears in natural size, free from parallax. A fresnel lens ensures even illumination into the very corners. A viewing pentaprism shows the image upright and right way round at eye level.

The picture should be viewed with fully opened aperture

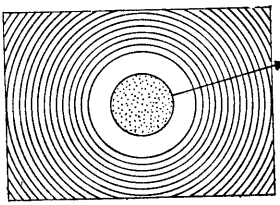


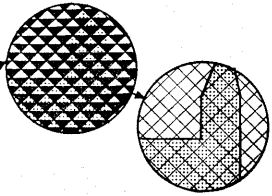
Above: The viewing system of the models from Praktica IV onwards presents a right-way-up, right-way-round image at the viewfinder eyepiece. This sectional view shows the light path through the lens via the angled mirror and the pentaprism to the eyepiece.





Right: The split image rangefinder in the centre of the viewing screen shows discontinuous images (*top*) when the lens is not properly focused. These images are brought into coincidence when correct focus is attained. The microprism (*bottom*) show a shimmering image when the lens is not properly focused, steadying to a clear image when correct focus is attained.





to ensure brightest reflex image. This is automatically the case with the automatic pre-set diaphragm lenses.

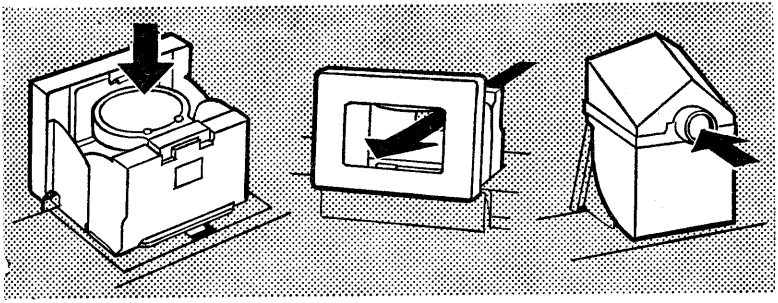
The best way to arrive at critical definition is to turn the focusing mount of the lens slowly to and fro while observing on the ground glass ring in the centre of the reflex image the subject to be focused. As you turn the mount, the image becomes more and more sharp up to a certain point, beyond which it will again lose definition. At this "beyond" stage turn the mount back again, narrowing down the degree of movement until you arrive at the point of best definition. The whole reflex image should not be used for visual focusing as it might be not fully accurate—depending on the user's eyesight.

The later models have a microprism centre showing fuzzy outlines while the lens is not accurately focused becoming clear on setting the lens correctly. Some of the earlier models have a split-image centre. Two small prisms are mounted in a clear spot in the centre of the screen, and the image in that spot appears split in the middle. On turning the lens focusing mount the two halves are brought into line so that one continuous image is seen. In this position the lens is correctly focused.

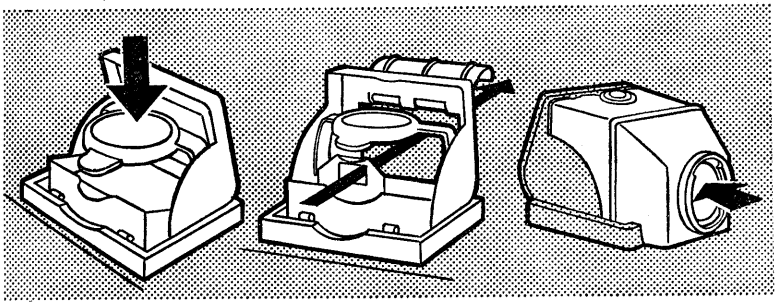
Early Praktica models up to FX3 were fitted with a chest-level reflex finder. The folding hood of these models is opened up, permitting observation of the ground glass screen image up to the moment of exposure. The screen in the later versions is actually one side of a plano-convex lens, the lower side of which forms a ground-glass screen; the lens also acts as a magnifier. Therefore, the reflex image seen in the finder hood is bigger than the actual image on the negative, while the outlines and definition remain identical. For even more critical focusing a built-in magnifier may be employed. The magnifier is normally folded away and moved into position for use.

The reflex finder image seen is the picture produced by the camera lens and reflected by the mirror on to the screen.

The image of all earlier models up to and including the Praktica IV is only visible after the film has been wound on. It disappears immediately the shutter is released.



Original Praktiflex, Praktica and Praktica FX systems.
Left: Chest-level viewing and focusing arrangement with magnifier to aid critical focusing. *Centre* The chest-level viewer adapted for use as frame finder. This does not permit focusing. *Right:* Pentaprism attached to focusing hood to permit eye-level focusing and viewing.



Praktica FX2 and FX3 systems.
Left: Chest-level viewing and focusing arrangement with magnifier to aid critical focusing. *Centre:* Front opened outwards to provide frame finder facilities. *Right:* The later version of the pentaprism to permit eye-level focusing and viewing.

On the Praktica V, the Praktica Nova and Prakticamat the image is visible all the time except for the actual instant of release.

The orthodox way of focusing with the ground glass or rangefinder may be adopted for taking photographs of subjects that are fairly stationary. A different method of focusing is required when taking subjects in motion. Set the lens to a distance at which the subject will be in a given moment, or focus at some spot which it actually has to pass, and press the release button when the subject is reaching the pre-focused point.

With subjects liable to react self-consciously (e.g. children) set the lens to a suitable distance, and then approach the subject, exposing as soon as the image appears sharp.

Alternatively, focus at some object which is at the same distance from the camera as the subject, but in a different direction. When you have found the range swing round to press the release button as soon as the victim slips into the field of view of the finder.

Pre-Viewing the Depth of Field

You can examine the precise depth of field you get with the pre-selected aperture on some of the latest lenses with automatic diaphragm before taking the picture. Press down the depth of field preview key on the base of the lens mount of the automatic pre-set aperture lenses, and the aperture closes to the selected opening. The image will of course become darker but you can see the extent of sharpness to the foreground and the background from the subject you have focused on. On Prakticamat the iris diaphragm can be closed down to the chosen value for previewing also on lenses not equipped with this device simply by pressing the meter switch-on button. See also "Aperture and Depth of Field", page 56.

Infra Red Film Indicator

When infra red film is used, focus in the ordinary way. Then read off the distance on the lens mount scale and turn

On the Praktica V, the Praktica Nova and Prakticamat the image is visible all the time except for the actual instant of release.

The orthodox way of focusing with the ground glass or rangefinder may be adopted for taking photographs of subjects that are fairly stationary. A different method of focusing is required when taking subjects in motion. Set the lens to a distance at which the subject will be in a given moment, or focus at some spot which it actually has to pass, and press the release button when the subject is reaching the pre-focused point.

With subjects liable to react self-consciously (e.g. children) set the lens to a suitable distance, and then approach the subject, exposing as soon as the image appears sharp.

Alternatively, focus at some object which is at the same distance from the camera as the subject, but in a different direction. When you have found the range swing round to press the release button as soon as the victim slips into the field of view of the finder.

Pre-Viewing the Depth of Field

You can examine the precise depth of field you get with the pre-selected aperture on some of the latest lenses with automatic diaphragm before taking the picture. Press down the depth of field preview key on the base of the lens mount of the automatic pre-set aperture lenses, and the aperture closes to the selected opening. The image will of course become darker but you can see the extent of sharpness to the foreground and the background from the subject you have focused on. On Prakticamat the iris diaphragm can be closed down to the chosen value for previewing also on lenses not equipped with this device simply by pressing the meter switch-on button. See also "Aperture and Depth of Field", page 56.

Infra Red Film Indicator

When infra red film is used, focus in the ordinary way. Then read off the distance on the lens mount scale and turn

this to the red dot engraved on the distance scale somewhat to the right of the distance marker. For example, if the focusing scale points to 30 ft., turn the focusing ring so that the 30 ft. mark comes to lie opposite the red dot.

Film Plane Indicator

If extremely critical focusing with a tape measure is necessary (not required for general photography) you can measure the distance from the subject to the film plane, which is indicated by a line through a circle -⊖- engraved on top of the camera body of the Prakticamat beside the pentaprism.

On all other models measure from 3 mm. inside the rear edge of the top plate of the camera.

Shooting ■

Practise the following operations first with an empty camera until you can do them practically automatically.

1. **Work the film transport.** This advances the film and film counter and tensions the shutter ready for the next exposure.
2. **Set the exposure.** Adjust the shutter for the right amount of light for the subject conditions (p. 49).
3. **Select the aperture,** smaller aperture for greater depth of field (p. 56).
4. **Focus** and determine the picture area to obtain a sharp picture and the view you want.
5. **Release the shutter gently.**

LOADING AND UNLOADING

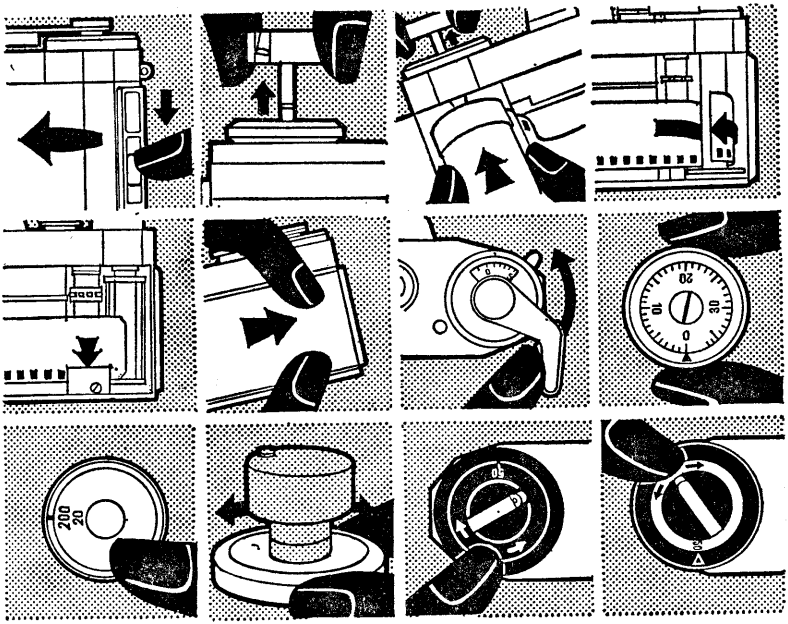
The Praktica uses standard perforated cine film, 35 mm. wide, as used in the majority of other 35 mm. miniature cameras. It is available in various packings (see also p. 23), the most convenient being standard daylight cassettes. These are light-tight containers with a ready cut and trimmed length of film for 36 to 20 exposures and are loaded into the camera in daylight.

Avoid loading or unloading the camera in brilliant sunlight, though; choose a shady spot or do it in the shadow of your own body if nothing better is available.

Loading

1. **Open the camera back** by pulling down the sliding catch at the side of the camera body.
2. **Pull up the rewind knob** as far as it will go, then place a loaded film cassette into the empty film chamber (below the rewind knob) with its hollow part towards rewind key. The mouth of the cassette with the film end must point towards the take-up spool. Push the rewind knob fully back.
3. **Attach the film leader to the take-up spool.** Hold the cassette in position with the left thumb, while pulling with the right hand 4 to 4½ in. (10 to 11 cm.) of film from it. Push the free end of the film into the slot in the take-up spool of the camera. The take-up spool can be turned on its axis to bring a slot into the most convenient position for inserting the film. Turn the flange of the take-up spool in a clockwise direction (as the film is wound inside out on the take-up spool) until the film slack is taken up. Before closing the camera back, make sure that the perforations of the film engage in the teeth of the film transport sprockets.

   With quick-load take-up spool (Nova I and Super TL), push the beginning of the film underneath the support piece and over the transport sprockets so that the film



Top, left to right: Open the camera back (1, All Praktica except L range. 2, Opening back of L range); pull up the rewind knob, insert the cassette and push the rewind knob back; attach film to take-up spool, so that it winds emulsion out on all models since Praktica IV. Models from Nova I onward have quick-load take-up spools.

Middle, left to right: On models since Nova I insert film leader under guide below take-up spool; close camera back; transport film twice; set film counter on models before Praktica Nova.

Bottom: Set film speed on models with built-in exposure meter.

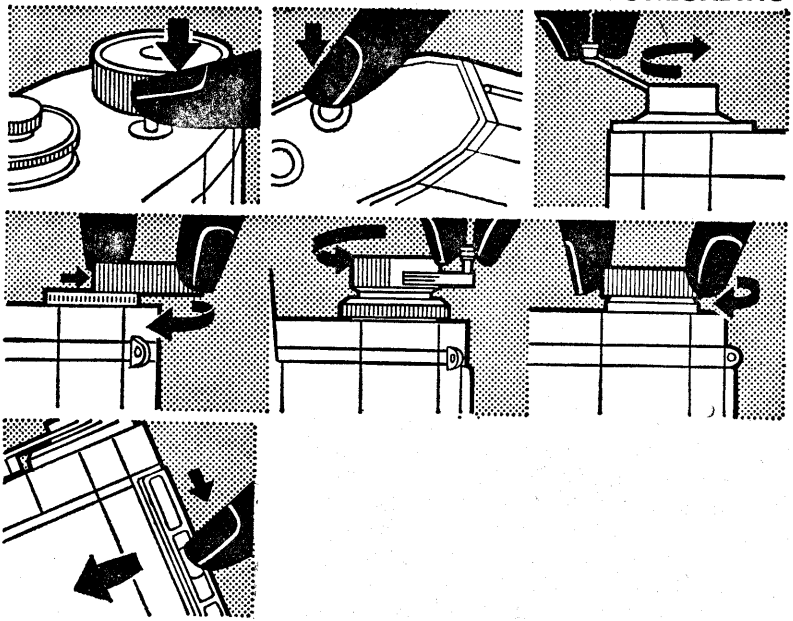
rests on the core of the take-up spool (wire bracket must *not* stand upwards) as far as the green marking point.

4. **Close the camera back** by pressing the hinged back on to the body; the locking latch will automatically engage to secure it in this position.
5. **Wind on the film and release the shutter twice.** This advances the first two frames which have been exposed to the light while inserting the film into the camera. These two wasted leader frames do not count as part of the number of exposures on the film.
6. Set **the film counter** (on earlier models) by turning the disc in the direction of the engraved arrow until the pointer shows to O. Now wind the transport once more and the first film frame is ready.

   The exposure counter of the latest Praktica models is self setting and will automatically point to No. 1 after having made the two blind exposures and cocked for the first exposure.

When inserting the film, check it is properly loaded by observing the rewind knob (at the opposite end of the camera to the transport). When you advance the film, the rewind knob should turn in an anti-clockwise direction. This proves that the film is being pulled out of the cassette on to the take-up spool. In the case of films shorter than 36 exposures, it is advisable to take up the possible film slack in the cassette by first turning the rewind knob in a clockwise direction until a resistance is felt.

7. **Set film type** reminder on the disc set into camera transport lever. The symbols stand for black and white film, colour transparency film (daylight and artificial light types) and colour negative film (daylight and artificial light types).
8. **Set film speed** on models with built-in exposure meter by turning the appropriate speed of the film in ASA or DIN opposite the indicator. On the Praktica Nova the speed is set against one of the numerals 36, 20 or 12 to indicate at the same time the length of film inserted.



Top, left: Depress rewind button on camera top plate on all models except Prakticamat. *Top, centre:* On L models and Prakticamat depress rewind button in camera base plate. *Top, right:* On Prakticamat, Praktica Nova, fold over rewind crank and rewind film.

Middle row: Rewind arrangements on Praktica IV and V (*left*), VB (*centre*), and earlier models (*right*).

Bottom: Open camera back and remove cassette. *Left:* All Praktica models.

Unloading

After all exposures have been made (the number of the exposures taken is automatically shown on the film counter disc), unload the camera.

1. **Set for rewinding.** Depress reversing button in top plate of camera and, on Praktica FX3 and earlier models, keep it depressed while rewinding.
2. **Rewind the film.** Rewind the film into its original cassette by turning the rewind knob clockwise. Later models have a fold-out crank to facilitate rewinding. Winding becomes distinctly easier the moment the film is fully wound back.
3. **Open the camera back** (see Loading No. 1), remove the cassette, then close the camera back (Loading, No. 4) or reload with a new film.

Cutting off Exposed Lengths

If a film which is only partly exposed has to be processed, set the shutter for the next exposure and in the darkroom or in complete darkness cut off with a pair of scissors the frame which lies in the film aperture. Retrim the remainder of the film (see p. 24), fix it again on the take-up spool, and close the camera.

It is ready for the next exposure once the film counter has been set three numbers forward (the amount of film lost through cutting and re-loading). This cannot be done with the self-zeroing counter on the latest models. A note has to be made of the number of exposures remaining.

The re-inserting can be done in daylight. In this case a total of about 6 frames are lost, for, after inserting and closing, two blind exposures have to be made.

Some makes of colour film which are returned to the manufacturers for processing are for technical reasons only accepted in their full length and should, therefore, not be cut.

Changing Partly-exposed Films

To replace a partly-exposed film by another one, for

instance if you want to take a few colour photographs in between some black-and-white shots, proceed as follows:

1. **Check the number of exposed frames** on the film counter.
2. **Rewind the film** but stop immediately you feel a slight resistance. This resistance comes from pulling the film end from the take-up spool. If the film is to be reloaded again, you must not pull the whole film into the cassette, otherwise the film end would have to be extracted by opening the cassette in the darkroom.
3. **Unload the re-wound film** and note the number of exposures taken on the beginning of the film. Now you can load the camera with any other type of film.

   When reloading, load the partly exposed film in the usual way (p.18.), cover the lens with a lens cap (or hold some opaque material against the lens) and, where possible as additional precaution stop fully down.

   Wind and release until the film counter has advanced by the number of frames already exposed. To be on the safe side it is advisable to allow one more frame to pass.

   The rest of the film can now be exposed in the usual way.

Film Packings for the Praktica

Black-and-white 35 mm. film is also available in various loose packings for loading into cassettes. This is a cheaper way of using film as you do not have to buy a new cassette every time with the film. The following packings are available.

DARKROOM REFILLS are lengths cut and trimmed for 36 exposures and have to be loaded into a cassette in total darkness (e.g. in a darkroom, a really well darkened room or a light-tight changing bag).

BULK FILM is supplied in lengths of 18 to 200 ft., and is the most economical way of using film. A suitable length is cut off to be loaded into a cassette in total darkness. Working in total darkness for loading darkroom refills or bulk film is not difficult. It is, however, advisable to practise filling with a dummy film first in daylight before starting the darkroom work.

Handling, Winding and Trimming the Film

When handling the actual film, particular care must be taken not to touch its emulsion (matt) side. Always handle it and wind on to the centre spool of the cassette by holding the film by either side of its edge, preferably between thumb and index finger. At the same time, it is of no less importance that the spot on which the loading is done should be perfectly dry, clean and dust free.

When using bulk film in loading cassettes, the edge of the workbench can be marked with notches or drawing-pins to indicate various

distances, let us say for 12, 24, 36 exposures of film. This considerably simplifies the measuring of film lengths in the darkroom.

The film ends need trimming. At the beginning of the roll of film make either a straight or wedge-shaped cut for the centre spool of the cassette and measure off the required length of film (see table below). At the end of this make the curved cut for the take-up spool. The curved cut should start between the fifth and sixth bottom perforation—when emulsion is towards you—and must not go through a perforation hole.

LENGTH OF FILM REQUIRED FOR ANY NUMBER OF EXPOSURES

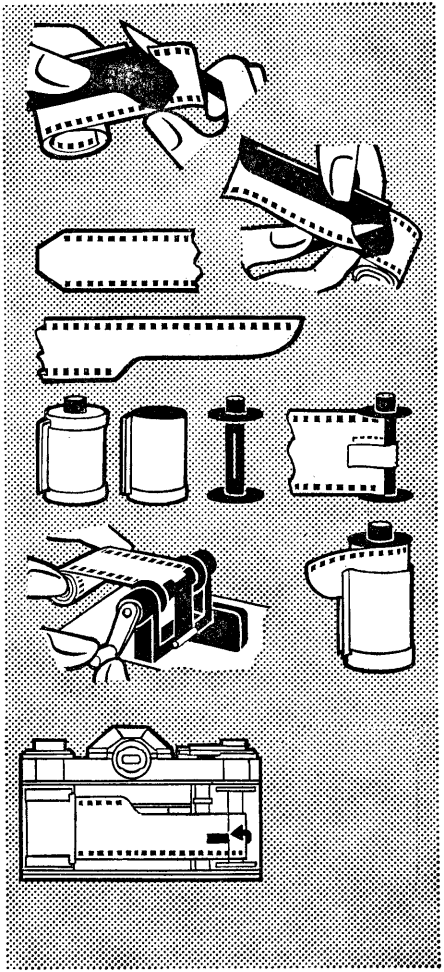
Number of Exposures	Length of Film Required		Number of Exposures	Length of Film Required		Number of Exposures	Length of Film Required	
	in.	cm.		in.	cm.		in.	cm.
1	11¾	30	14	31¾	80	27	51	130
2	13⅝	34	15	33	84	28	52½	133
3	15	38	16	34½	88	29	54	137
4	16¼	41	17	36¼	92	30	55½	141
5	17¾	45	18	37¾	96	31	57	145
6	19¼	49	19	39¼	100	32	58½	148
7	20¾	53	20	40½	103	33	60	152
8	22	56	21	42	107	34	61½	156
9	23¾	60	22	43¾	111	35	63	160
10	25¼	64	23	45	114	36	64½	164
11	26¾	68	24	46½	118	37	66	167
12	28½	72	25	48	122	38	67½	171
13	30	76	26	49½	126	Including trimming		

The ready-cut film is now spooled on the centre spool of the cartridge or cassette. While winding on, hold the film only by its edges.

Also, take care not to press too hard on the film, and don't squeeze the film-ends when drawing through the hand. Failure to take the first precaution may result in fogging, while neglect of the latter precaution may give rise to peculiar kinds of exposure effects known as "lightning flashes". These are due to electrical discharges, and appear as dark, zigzag lines running from the edge of the film towards the centre of the picture.

Loading Standard Cassettes

The majority of cassettes consist of a centre spool which is in a shell with top and bottom cover. The film leaves the shell by a light-trapped slot. The centre spool can be removed from the shell by removing either top or bottom of the cassette, according to the construction of the particular container.



Top: The standard trims of film end and leader with trimming template. The full trim need not be made for the Praktica. A small trim of the leader is, however, necessary to enable it to be inserted in the take-up spool.
Centre: The parts of the film cassette and a recommended method of attaching the end of the film to the spool before winding the film on either by hand or with a mechanical winder. The film is inserted into the cassette with the leader protruding.

Most cassettes are actually intended by their makers to be used once only, and with the film originally supplied in it. However, provided they are reasonably robustly made, and the light-trapping velvet slot is in good condition, these cassettes *can* be reloaded many times, and will give perfectly satisfactory results—*if handled carefully*.

Loading with Bulk Film or Darkroom Refills

Work in total darkness and prepare the film as described (p. 24).

1. **Open the cassette.**
2. **Fix the film to the centre spool.** If the centre spool is fitted with a film catch, thread the tapered end of the film into it. In cases where the centre spool is fitted with a spring, thread the end under it and fold it sharply back. If the centre spool is without any suitable fitting to hold the film, it has been proved best to wind a $1\frac{1}{2}$ in. (4 cm.) piece of cellulose tape round the centre spool, so that on either side about $\frac{1}{2}$ in. tape is used to secure the film.
3. **Wind the film on the centre spool.**
4. **Insert the centre spool into shell,** leaving the first 2 in. of film protruding through the light-trap.
5. **Close the cassette.** Where top and bottom are originally fastened by the outside label, fix the top and bottom cover to the shell, preferably with a length of cellulose tape.

THE PRAKTICA, MODEL BY MODEL

The following pages deal with the individual Praktica models in detail.

Self-contained sections for each model cover points of loading, unloading, shooting and specific controls.

For a fuller explanation of aspects common to all Praktica cameras, compare these sections with the same headings in the main text.

THE PRAKTICAMAT AND PRAKTICA SUPER TL

These have all the features as described on pages 4 and 6.

The shutter has a speed range from 1 sec. to 1/1000 sec. (Super TL, 1/500) and B in geometrical progression (i.e. 1/30, 1/60, 1/125 sec.). On Prakticamat the speeds are set on a disc surrounding the rewind knob. On Super TL the speeds are set on the shutter speed knob. The Prakticamat and Super TL shutters are XF flash synchronized.

All models have an eye-level pentaprism with built-in split-image rangefinder (microprism in Super TL) surrounded by a focusing screen (microgrid) circle. A fresnel lens combined with an additional image field lens ensures an even light distribution of the brilliant reflex image which appears almost normal size. The exposure meter needle is seen in the finder (see below) also a warning signal, indicating when the film has not been transported.

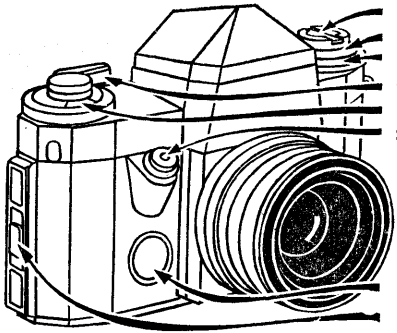
The reflex mirror is of the instant-return type and permits constant viewing before and after exposure. The viewing image is only blacked out for an instant during the actual exposure.

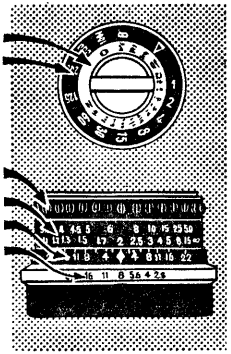
The film transport is by quick wind lever, rewinding by swing-out re-wind crank. The rewind button remains depressed during rewinding and returns to the locking position when the shutter release is operated. The exposure counter is self-setting.

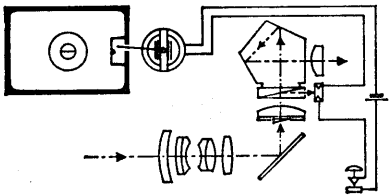
The camera body has a hinged-on back and a built-in release mechanism for use of automatic diaphragm lenses. The shutter release is fitted obliquely on the front of the camera body and can be locked against accidental release. The film runs from the cassette under the take-up spool and winds emulsion outwards. The TL has a quick load take-up spool.

The outstanding feature of these models is the built-in through the lens CdS metering system, which in case of Prakticamat covers the whole viewing field and on TL has centre of image emphasis. The reading is correct whether a wide angle, normal or telephoto lens is used, and even when a filter, extension tubes, extension bellows or the photo-micrographic attachment is employed. The film speed is adjustable from 6 to 3200 ASA (1600 ASA on TL). The stop down metering is coupled to both aperture and shutter speeds; either can be pre-set for exposure measuring by turning a needle visible in the viewfinder to a fixed position.

THE STANDARD LENSES for these models are the
Oreston 50 mm. *f* 1.8,
Pancolor 50 mm. *f* 2,
Tessar 50 mm. *f* 2.8,
Domiplan 50 mm. *f* 2.8







The Prakticamat and Praktica Super TL have through-the-lens exposure meter systems illustrated diagrammatically above. The *exposure meter switch* is on the front of the camera. Film transport is by lever wind and the rewind knob has a fold-out crank. The *shutter release* is angled and the flash contacts (not shown) are on the camera front opposite the meter switch. The camera back is hinged on and is secured by a *back latch* at the side of the camera.

Shooting with the Prakticamat and Praktica Super TL. *Left to right:* Transport film and tension shutter with the rapid wind lever; set shutter; focus image on screen, switch on meter and pre-select correct aperture by lining up meter needle; press shutter release smoothly and gently. Alternatively ,set aperture first and turn shutter speed dial until meter needle is lined up.

INTERCHANGEABLE LENSES from 20 to 1,000 mm. are available see page 62.

OTHER ACCESSORIES include extension tubes and extension bellows for close up work, angle viewfinder, focusing magnifier, accessory clip, photomicrography attachment, copying stand, lens hood, filters.

Loading (see page 18)

1. **Open camera back.**
2. **Insert film.**
3. **Attach film leader to the take up spool.**
4. **Close camera back.**
5. **Wind on film and release the shutter twice.**
6. **Set film type indicator.**
7. **Set film speed.**

Unloading (see page 22)

1. **Set for rewind.**
2. **Rewind film.**
3. **Open camera back.**

Shooting

1. **Transport film** if the red warning signal on left hand side near the top in the viewfinder is visible. If not, that indicates the film has been wound on.
2. **Pre-set the shutter speed** required by rotating the speed dial until the required shutter speed (engraved figures represent fractions of seconds—i.e. 4=¼, 8=1/8, 15=1/15, 30=1/30 . . . 500=1/500, 1000=1/1000 sec.) is opposite the triangular mark of the top plate of the camera body. See page 49.
3. **Select aperture** by light measuring. Depress the switch-on key and turn lens aperture ring until the meter needle in the right hand side of the viewfinder points to the index line. Release the switch key (see p. 56).

   The procedure 2, 3 can be changed if it is required to pre-set the aperture. In this case the shutter speed ring is turned to bring needle to point to the index line in the viewfinder. When using lenses without automatic aperture control see "Using meter without automatic diaphragm lenses", on page 31.

   If the needle will not centre this could mean that insufficient light (needle below mark) or too much light (needle above mark) is available for correct exposure with the selected pre-set speed (or aperture) which has to be adjusted accordingly.

   Should the needle refuse to move altogether, test battery, see "Testing and exchanging battery" below.

In strong side light it is feasible that false light falls through the eyepiece on to the meter causing incorrect reading. To avoid this on Prakticamat and STL a black plastic conical cap with small rectangular aperture is provided with the camera to push into the eyepiece.

4. Focus and determine picture area. See also "Viewing and Focusing", page 12.
5. Release the shutter gently.

Special Controls

FOR TIME EXPOSURES set the speed ring to B. The shutter will stay open as long as the release is kept pressed down. A cable release screws into the centre of the release button.

RELEASE LOCK. The shutter release can be locked against accidental depressing by turning the milled top of the release button until its red dot is opposite the red dot on the base of the release tube.

FLASH. The Prakticamat and Super TL have two flash contacts F, X in the camera front plate.

Using Camera and Meter without Automatic Diaphragm Lenses

When using lenses without automatic diaphragm control on the Prakticamat only, the automatic mechanism in the camera has to be disconnected. After removing the lens lift up the instant return mirror carefully by its frame. Do NOT touch the mirror surface itself. Slide the protruding knob inside the base of the camera body with a red dot in its centre to the right as far as it will go and let the mirror swing back.

To bring the automatic mechanism back into action move the protruding knob to the left.

Should the mirror be pushed up too far while the shutter is cocked it will stay up and one has to release the shutter to get it into position again—losing a film frame in the process.

Some older lenses not designed specifically for this camera do not permit depressing the meter switch-on key at all. In this case depress the shutter release—as deep as it goes freely—to first pressure point and take the meter reading in this position.

Testing and Changing Battery

These Praktica models use a type PX625 Mallory button battery cell, the average life of which in the camera is two years.

To replace battery, unscrew the cover plate in the bottom plate of the camera, remove old battery and replace by new one with the + sign towards the screw cover which should be replaced tightly.

THE PRAKTICA NOVA, PRAKTICA V AND IV SERIES

These models have the features as described on pages 4 and 6. The shutter has a speed range from ½ sec. to 1/500 sec. and B. It is XF flash synchronized. An eye level pentaprism is built in. The film transport is by quick-wind lever and by transport knob. The rewind is by crank action, the rewind button remaining depressed during rewinding. An actuating mechanism for use of automatic diaphragm lenses is built into the camera body. The film winds itself inside out on to the take-up spool.

Praktica IV has in its pentaprism a condenser screen for even light distribution. The camera back is removable.

Praktica IVB is a Praktica IV but has a built-in uncoupled exposure meter.

Praktica IVM is a Praktica IV but has a split image rangefinder built into the finder.

Praktica IVBM is a Praktica IVB with a split image rangefinder into the finder.

Praktica IVF is a Praktica IV with a fresnel screen and split image rangefinder in place of the condenser screen.

Praktica IVFB is a Praktica IVF with built-in uncoupled exposure meter.

Praktica VF has its shutter speeds geometrically arranged. The eye level pentaprism viewfinder is equipped with fresnel screen with split image rangefinder. It also has an instant return mirror which permits constant viewing before and after the exposure. The finder image is only blacked out for an instant during the actual exposure. The camera back is detachable.

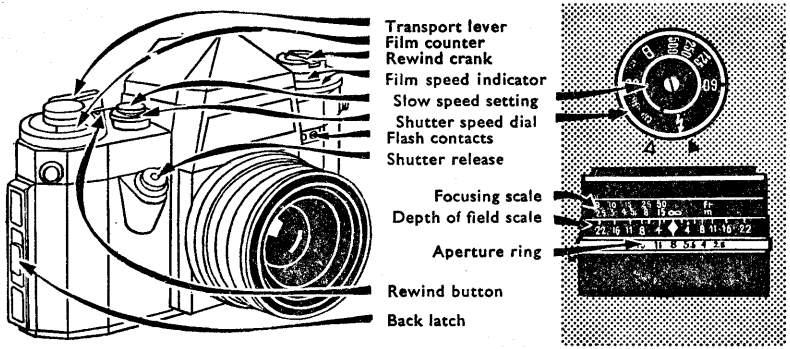
Praktica VFB is a Praktica VF with built-in uncoupled exposure meter.

Praktica Nova is a more streamlined-body version of the Praktica V. The transport knob has been omitted and an improved quick wind lever is situated on the camera top. The rewind knob has an improved fold-out crank. The exposure counter is self setting. The camera back is hinged on. The shutter release has been arranged oblique on the camera front and is fitted with a locking device against accidental exposure.

Praktica Nova B is a Praktica Nova with built-in uncoupled exposure meter.

Praktica Nova I is a Praktica Nova, with shutter speeds from 1 to 1/500 sec. (including 1/15 sec.) on a single dial, quick-load take-up spool and improved styling.

Praktica Nova IB is a Praktica Nova B with the addition of Praktica Nova I features.



The Praktica Nova has its *transport lever* on top instead of in the base plate as on the Praktica IV and V. It has a fold-out *rewind crank* and angled *shutter release*. The *flash contacts* are on the camera front. The *shutter speed dial* bears the modern standard speed figures, with the exception of 1/15 sec. The back is hinged on. In the earlier models it was removable.

The larger illustration above is of the Praktica Nova. The smaller illustrations (*left to right*) are of the Praktica Nova B, Praktica VF, (and IV, IVM, IVF) and Praktica VFB (and IVBM, IVFB).

Shooting with the Praktica Nova. *From left to right:* Transport film and tension shutter with the rapid wind lever; set the shutter speed; focus the image on the screen; pre-select the aperture; press the shutter release smoothly and gently.

THE STANDARD LENSES for the Praktica Nova, Praktica V, IV are

Oreston 50 mm. *f* 1.8
Tessar 50 mm. *f* 2.8
Domiplan 50 mm. *f* 2.8
for the LLC and VLC
the Pentacon (electric) 50 mm. *f* 1.8

INTERCHANGEABLE LENSES from 20 to 1000 mm. are available (see p. 64).

OTHER ACCESSORIES include extension tubes and extension bellows for close up work, angle finder, focusing magnifier, accessory clip, photomicrography attachment, copying stand, lens hood, filters.

Loading (see page 18)

1. **Open camera back.**
2. **Insert film.**
3. **Attach film leader to the take-up spool.**
4. **Close camera back.**
5. **Wind on film and release the shutter twice.**
6. **Set the film counter.** (This is not required on the Praktica Nova models which have self-zeroing counters.)
7. **Set film type indicator.**
8. **Set film speed on models B** (with built-in exposure meter). See "Handling the built-in exposure meter" on page 36.

Unloading (see page 22)

1. **Set for rewind.**
2. **Rewind film.**
3. **Open camera back.**

Shooting

1. **Transport the film.**
2. **Set the shutter speed** knob until the speed required points to the orange triangle on the camera top plate. On all other models lift the outer ring on the shutter speed dial until the red mark points to the required shutter speed. The outer ring will spring back on letting it go. The speed figures engraved represent fractions of seconds, e.g. 30=1/30, 60=1/60 sec. etc. (25=1/25, 50=1/50 sec.). The black figures (on Prakticanova=white figures) 30 (25) to 500, indicate instantaneous speeds while the red figures 2=$\frac{1}{2}$ to 8=1/8 sec. represent slow speed figures.

   The mark on the centre disc of the speed dial has to be set opposite the red or black (Praktica Nova=white) triangle on camera top plate behind the shutter speed dial according to the shutter speed range one wants to select from. The speed can be set before or

after the shutter has been transported. On Praktica Nova I and IB, turn shutter speed dial until engraved speed figure points to red triangle on camera body.

The ⚡ flash symbol between the shutter speeds is required for use of electronic flash (see p. 60).

3. **Focus** the image on the reflex screen or with the central focusing aid (not on models IV, IVB). See also "Viewing and Focusing" on page 12.
4. **Select aperture** with the aid of either the built-in meter (where applicable, see below "Handling the built-in exposure meter") or a separate exposure meter or exposure table (see p. 49).
5. **Release** the shutter gently.

Special Controls

FOR TIME EXPOSURES set the speed ring to B. The shutter will stay open as long as the release is being kept pressed down. A cable release screws into the centre of the release button.

RELEASE LOCK. Praktica Nova models have a release which can be locked against accidental depression by turning the milled top of the release button with its red dot opposite the red dot on the base of the release tube.

Using Camera without Automatic Diaphragm Lenses

When using lenses without automatic diaphragm control, the automatic mechanism in the camera has to be disconnected. On Praktica Nova and Praktica V (after removing the lens) lift up the instant return mirror carefully by its frame. Do NOT touch the mirror surface itself. Slide the protruding knob inside the base of the camera body with a red dot in its centre to the right as far as it will go and let the mirror swing back.

To bring the automatic mechanism back into action move the protruding knob to the left.

Should the mirror be pushed up too far while the shutter is cocked it will stay up and one has to release the shutter to get it into position again—losing a film frame in the process.

On Praktica IV series disengage automatic mechanism as described above, while the mirror is up, that is, after the shutter has been released.

Handling the Built-in Exposure Meter of the Nova and Earlier Models

The Praktica Nova B and IB, Praktica VFB, IVFB, IVBM and IVB have built-in exposure meters.

Handling is as follows:

1. **Set film speed** on Nova B by turning the disc around the rewind knob until the speed of the film used (in ASA or DIN) appears in the window of the disc. On models VFB, IVFB, IVBM and IVB pull up the rewind knob fully, turn the disc with the aperture values engraved on it, to bring the marker of the window to point to the speed of the film (in ASA or DIN) used. Push the rewind knob back again.
2. **Point camera to object.** See also page 38.
3. **Turn meter setting ring** to match the follow pointer with the needle position in the light meter window.
4. **Read off the correct aperture** opposite the shutter speed value you want to use (see p. 49 Exposure) and transfer both to the camera. In practice one will pre-set the required shutter speed, read off the corresponding aperture and transfer this to the lens.

   On Praktica VFB, IVFB, IVBM and IVB the red and black numbers correspond to the red and black figures on the shutter speed scale while the blue numerals on the dial represent full seconds which have to be used with B setting.

THE PRAKTICA FX2, 3, F·X2, PRAKTICA AND PRAKTIFLEX

Note: In some countries the Praktica FX was supplied under the name of Praktiflex FX.

These models have the basic features as described on pages 4 and 5. In place of the eye level pentaprism finder they are fitted with a chest-level reflex finder with folding light hood and built-in magnifier also incorporating an eye level frame finder for direct vision of the subject. The reflex finder is equipped with a condenser screen for even light distribution and magnified image, except original Praktiflex which has a ground glass screen.

The shutter speeds range from ½ sec. to 1/500 sec. (original Praktiflex from 1/25 sec.) and B. The film transport is by a transport knob and rewinding by a rewind knob. The camera back is detachable. The film winds itself over the take-up spool.

The original Praktiflex has a smaller diameter lens screw thread (40 mm.) and does not accept the Praktica lenses or attachments made for the Praktica cameras and screwing into the lens mount.

Praktica FX is, in addition, flash synchronized. Originally it had three non-standard contacts, one X without built-in delay, the second one F with a delay of 10 ms. before *commencement* of running down of the shutter, the third acted as earthing pin. This was followed on later models with two non-standard contacts for X synchronization only. Finally, the last FX models were fitted with the by then introduced standard, the 3 mm. co-axial plug for X synchronization only.

Praktica FX2, FX3, F·X2 have, in addition, an actuating mechanism for use of automatic diaphragm lenses. The flash synchronization consists of two non-standard contacts—F and X as described above for Praktica FX. The last version indicated by a dot between F and X=F·X2 has two standard contacts and is FX synchronized. The F synchronization has a delay of 10 ms. before *complete opening* of the film field.

Praktica FX3 is a model FX2 characterized by being fitted with an automatic diaphragm lens.

THE STANDARD LENSES for original Praktiflex and Praktica FX were fitted with normal or pre-set diaphragm lenses. FX2 models could be supplied with semi automatic or fully automatic diaphragm lenses. The standard lenses are:

Zeiss Biotar 58 mm. *f* 2
Zeiss Tessar 50 mm. *f* 2.8
Zeiss Tessar 50 mm. *f* 3.5
Meyer Primoplan 58 mm. *f* 1.9
Meyer Primotar 50 mm. *f* 3.5
Meritar 50 mm. *f* 2.9

INTERCHANGEABLE LENSES from 20 to 1000 mm. are available, except for original Praktiflex.

OTHER ACCESSORIES include extension tubes and extension bellows for close up work, a pentaprism for eye level focusing and viewing (there are separate models for Praktica and Praktica FX series). photomicrography attachment, copying stand, lens hood and filters.

Loading (see page 18)

1. **Open camera back.**
2. **Insert film.**
3. **Attach film leader to the take-up spool.**
4. **Close camera back.**
5. **Wind on film and release the shutter twice.**
6. **Set film counter.**

Unloading (see page 22)

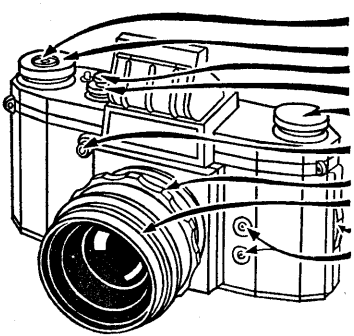
1. **Set for rewind** by depressing the small stud beside the film transport knob and keep it depressed while rewinding.
2. **Rewind film.**
3. **Open camera back.**

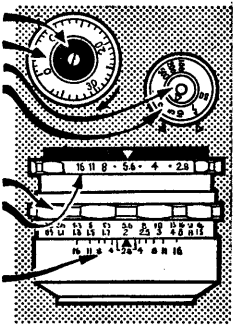
Shooting

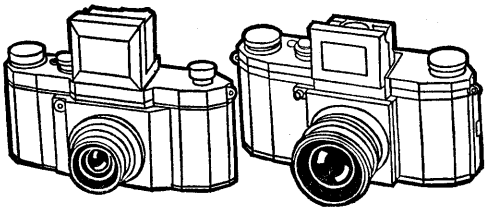
1. **Transport the film.**
2. **Set the shutter speed** by lifting the outer ring on **the shutter speed** dial until the red mark points to the required shutter speed. The outer ring will spring back on letting it go. The **speed** figures engraved represent fractions of seconds, e.g. 25=1/25, 50=1/50 sec. The black figures 25 to 500 indicate instantaneous speeds while the red figures 2=$\frac{1}{2}$, 10=1/10 sec. represent slow speed figures. The mark on the centre disc of the speed dial has to be set opposite the red or black triangle on camera top plate behind the shutter speed dial according to the shutter speed range one wants to select from. The speed can be set before or after the shutter has been transported. The ⚡ flash symbol on FX2, 3 on the shutter speed disc represents 1/40 sec. setting. It is required for use of electronic flash (see p. 60).
3. **Focus** the image on the reflex screen (see p. 12).
4. **Select aperture** with the aid of an exposure meter **or exposure table** (see p. 49).
5. **Release** the shutter gently.

Special Controls

FOR TIME EXPOSURES set the speed ring to B. The shutter will stay open as long as the release is kept pressed down. A cable release screws into the centre of the release button.







The early Prakticas, except the Prakticaflex, had a *slow speed selector* on the *shutter speed dial, a rewind knob* with no crank and a *shutter release* close in to the back plate of the lens mount. *Flash contacts* were in the base on some early models but were later moved to the camera front. The back was completely removable and was fastened by a *back latch.*

The larger illustration is of the Praktica FX2. Below are the Prakticaflex (*left*) and the first Praktica model (*right*).

Shooting with the earlier Praktica models. *From left to right:* Transport film and tension shutter; set shutter speed: focus picture on reflex screen; select aperture; press shutter release smoothly and gently.

Using Praktica FX2, FX3 with Lenses having no Automatic Diaphragm Control

When using lenses without automatic diaphragm control, the automatic mechanism in the camera has to be disconnected. After removing the lens and while the shutter is released and the mirror therefore up against the reflex screen, slide the protruding knob inside the base of the camera body with a red dot in its centre to the right as far as it will go. This disengages the diaphragm release mechanism.

To bring the automatic mechanism back into action, move the protruding knob to the left.