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6 b

Instructions for use



b-Models

Only perfect knowledge
of all functions of the
ALPA will give you the
best results and avoid
unnecessary troubles.

It is therefore in your
own interest to study these
instructions carefully,
starting with the brief
instruction guide attached
to the inside back cover.

Instructions for using the *b-Models*

A. SPECIFICATION :

The ALPA camera is available in four different models, all of which are in current production.

Model 7 b : reflex focusing with penta-prism on a ground-glass screen with independent view rangefinder which is coupled to all 50 mm standard lenses and indicates also the image areas for 90 mm and 135 mm, for which focal lengths it is convertible. Built-in delayed action release (self-timer).

Model 6 b : reflex focusing with penta-prism on a ground-glass screen, in the centre of which a split-field rangefinder is built-in, indicating the correct distance regardless of the focal length of the lens in use. Optical viewfinder for the 50 mm image field. Built-in delayed action release (self-timer).

Model 5 b : reflex focusing with penta-prism on ground-glass screen. Optical viewfinder for the 50 mm image field.



Model 4 b : reflex focusing on ground-glass screen (without a prism).

All ALPA reflex models are equipped with the same focal-plane shutters and the same flash-synchronisation. All interchangeable lenses*) and all accessories can be used equally well with all ALPA models. For this reason these instructions apply to all models. At the end of this booklet, however, you will find a brief summary of the points which apply only to the model you have chosen.

The ALPA REFLEX is the result of years of research and experience in the manufacture of precision cameras and represents an attempt to meet the steadily increasing requirements of photographers. It may happen, however, as it has happened before, that further technical developments will involve changes in the design and construction of the camera.

The ALPA-b models differ from previous models in the introduction of the new *lightning reflex mirror* (operates by a hairtrigger release). In actual practice this means that the mirror not only flips up instantly, practically without image blackout, but returns into viewing position instantly after the exposure, even if the release button is kept depressed.

ALPA Model 8b is
the Model 7b plus
split-field rangefinder
of Model 6b.

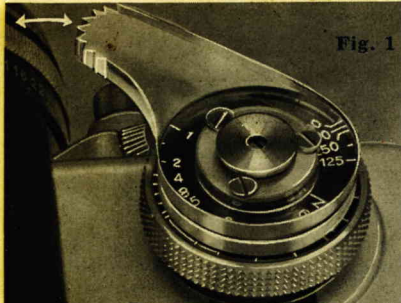


Fig. 1

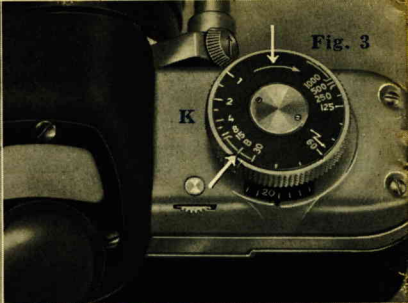


Fig. 3

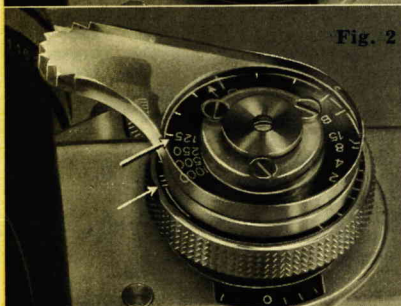


Fig. 2

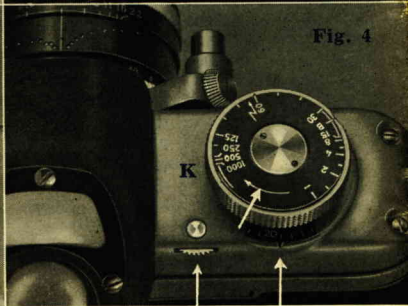


Fig. 4

W

Fig. 1. Rapid wind lever in tensioned position.

Fig. 2. Not tensioned, shutter run off.

Fig. 3. Shutter tensioned.

Fig. 4. Shutter run off.

W: Setting wheel for frame counter.

The bodies of all ALPA-Reflex cameras are made of light-alloy injection die-castings, which ensures the highest possible rigidity. The covering consists of a special plastic material which is impervious to sweat, cold and heat and all climatic vicissitudes. All operational knobs are easily accessible and can be operated even with thick gloves.

Everything has been done to prevent damage by handling the camera incorrectly. These instructions or at least the "Brief

Instructions" should be studied carefully.

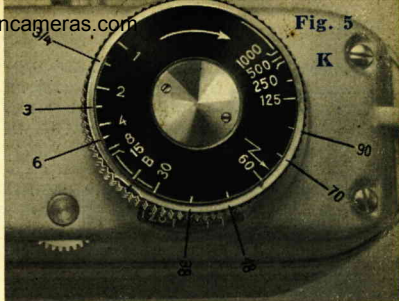
***) Important:** The earlier 50 mm standard lenses in collapsible mounts, such as Alorar f/3.5 and Alfinon f/2.8, cannot be used with the ALPA-REFLEX - b models. The reason is that that they cannot be pushed back into the camera body, since the new lightning mirror will not spring back automatically and would therefore be damaged by retracting the lens.

B. THE EXTERNAL CONTROLS AND HOW TO HANDLE THEM

The film wind knob (K) tensions the shutter, advances the film and operates the frame counter. By depressing the outer milled ring of this knob the shutter can be set to the shutter speed required. Shutter speeds between 1/1000 sec. and 1 second can be selected and there is also a "B" setting for time exposures.

Winding the knob only needs a rotation through less than 160° in a clockwise direction (arrow); since this knob performs several functions, a certain resistance has to be overcome when rotating it. If, by mistake, the film wind knob has not been wound to its fullest extent, that is to say, until it stops automatically, the shutter cannot be released but remains locked. With ALPA-Reflex cameras which are fitted with a **rapid wind lever** the rotation of the knob is replaced by that of the lever, the sweep of which is less than 160°. It returns automatically to its rest position. All the other instructions remain unaltered.

For setting the shutter speed the milled outer ring of the film wind knob should be pressed downwards and turned in either direction until the index mark is opposite the shutter speed required. The milled ring will snap in automatically when it is released. Setting the shutter speed can be done whenever it is shutter is cocked or not. The setting remains visible all the time. The position of the knob

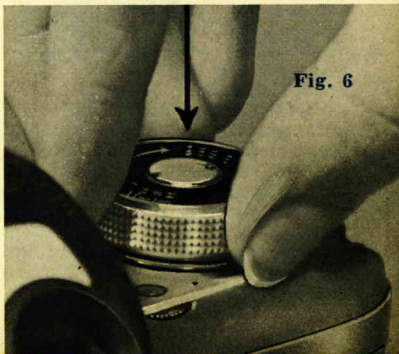


Shutter speeds: 1 (3/4) 1/2 (1/3) 1/4 (1/6) 1/8 1/15 - B - 1/30 (1/38) (1/48) 1/60 (1/70) (1/90) 1/125 1/250 1/500 1/1000 second.

The speeds shown in brackets () are only indicated by strokes on the scale, in the sequence in which they occur.

(see fig. 1-4) also indicates whether the shutter is tensioned or not.

It is also possible to set the shutter speed between the marked values, e. g. between 1/30 and 1/60 sec. This is not possible, however, between 1/15 and 1/30 sec., since between these values lies the "B" setting. All in all you have the choice between approx. 60 shutter speed settings.



Shutter speed setting.

Intermediate settings are not possible where there is a continuous stroke at the edge of the ring. Fig. 5 demonstrates the meaning of the intermediate strokes without a figure. The flash mark \searrow (beside 1/60) indicates the utmost limit of the X-setting for flash synchronisation. With electronic flashguns shorter shutter speeds cannot be used.

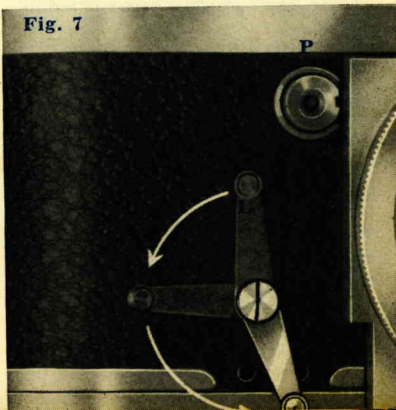
The selection of the shutter speed, by the way, depends on the rapidity of the movement of the subject to be photographed, its distance from the camera, the direction of its motion and the focal length of the taking lens. Shutter speeds slower than 1/30 sec. can hardly ever be used with the hand-held camera. Since the film wind knob (K) rotates when the shutter is released, its movement should not be obstructed.

The shutter release knob (P) is on the camera front. The best way to release the shutter is to depress it with the index finger of the right hand whilst the thumb exerts a slight counter pressure against the back of the camera in order to prevent camera shake. The release knob has a conical thread into which a cable release can be screwed (see page 20). Lenses with automatic pre-set diaphragms are fitted with a release knob of their own. This knob is exactly opposite the camera release knob, which is automatically released when the lens release knob is depressed. If by mistake the release button (P) is depressed during cocking of the shutter (either by the knob (K) or the rapid wind lever) the mirror will not flip-up on the next release and this picture will fail.

The delayed action release (self-timer) (fig. 7)

The ALPA-Reflex models 6b and 7b have a built-in delayed action release, usually called "self-timer". The tensioning lever (L) of the selftimer can be set to a higher or lesser degree of tension and this will control the length of delay. When the lever is turned right through to the final stop, the delay will be approx. 15 to 20 seconds; if it is turned through 90° it will be approx. 6 seconds. The selftimer should be used as follows: First cock the shutter (K) then turn the lever (L) as far as required. The delayed action mechanism will start when the shutter release knob (P) is firmly depressed. If you wish to appear in the picture yourself there is ample time to move into the position provided. If a lens with fully automatic pre-set diaphragm (APS) is used, the automation of the diaphragm should be disengaged under all circumstances, since the exposure will otherwise be made at the full aperture.

Fig. 7



If the shutter is set to "B" instead to a definite shutter speed the selftimer will produce an exposure time of approximately 2—3 seconds. The very gentle vibrationless release of the shutter by means of the selftimer can be used to advantage for exposures at slow shutter speeds (e.g. $\frac{1}{2}$ sec.) from a tripod, when a cable release is not available.

Setting the aperture. The aperture should be set according to the indication given by the exposure meter. Aperture setting is different with the various types of lens, either by setting ring or knob (see page 13-14). The choice of the f/number depends on the shutter speed chosen, the speed of the film in the camera and the illumination of the subject. It also determines the depth of field.

Distance setting. The distance is set by turning the helical mount of the lens. There are three ways to obtain correct distance setting:

- a) *Determining the definition by reflex focusing on the ground-glass screen.* With the ALPA models 7b, 6b and 5b the picture visible on the ground-glass screen is upright and laterally correct, thanks to the built-in penta-prism. With the model 4b, however, the picture is upright but laterally reversed in horizontal pictures and upside down in upright pictures.

The eyepiece for reflex focusing permits viewing the entire image field (23×35 mm) on the ground-glass screen. This image field is smaller (by 1 mm) than the film gate in the camera, since the usual slide-masks are cut to this size. This slight reduction makes sure that everything visible on the focusing screen can be shown later in projection. The picture on the focusing screen is very bright and magnified ($\times 4.8$) so that it appears to be "in natural size" even if a standard lens of only 50 mm is used.

The image is amazingly bright right up to the corners, even when relatively small apertures are used, making it easy to judge the depth of field.

The eyepiece is arranged so that it permits viewing the image at an angle of 45° , as if it were placed on an oblique desk. (With model 4b the image is viewed at an angle of 90° .)

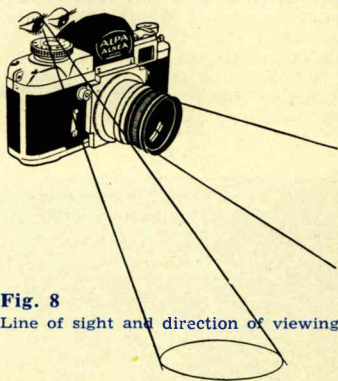


Fig. 8
Line of sight and direction of viewing.

Fig. 7

◀ Delayed action release (selftimer).

This kind of viewing is a special advantage of the ALPA-Reflex, since it permits judging the image framing and the definition of the picture with the greatest of ease, since the other eye (if it has not been closed) sees only a foreground of no importance at all, with the result that any confusion with the sighted subject is impossible (see fig. 8).

With pictures at ground level or with the camera pointing downwards in a vertical direction (copying, photomicrography), viewing at an angle of 45° has its special advantages which are particularly popular with wearers of glasses, especially bifocal glasses. Generally, it can be said that spectacles will on no account impair reflex focusing (see page 21).

When taking upright pictures, the 45° viewing angle can be regarded almost as using an "angle finder", although it has to be admitted that this needs some experience; but when you got used to it you'll like it too.

b) ALPA-Reflex 6 b with split-field or split-image view/rangefinder

The model 6 b of the ALPA has an additional split-image viewfinder in its focusing screen. There is a clear circular field in the centre of the ground-glass screen, in the middle of which lie two crossed crescent-shaped prisms. When sighting a sharp vertical or horizontal line or edge of the subject, it will appear divided and displaced until the optimum definition is obtained (see fig. 10).

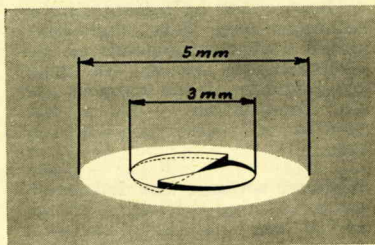


Fig. 9

Ø of prism wedges.

As shown by the split-image rangefinder.

Fig. 10

Unsharp



Fig. 11

Sharp



The transparent circular zone around the rangefinder makes it easier to find a suitable spot in the subject on which to focus for best definition. When taking photomicrographs this ring zone permits focusing on the aerial image when the two small horizontal strokes permit the accurate locating of the focusing plane. The diameters of the ring zone and the prisms provide an accurate standard of comparison for the actual image—size on the film.

The ALPA models 7b, 5b and 4b have a cross division in the centre of the focusing screen, the significance of which is shown in fig. 12. In model 4b this figure is laterally reversed.

It should be mentioned here that the magnifying system of the ALPA produces a highly magnified screen image. This magnification may induce photographers to take pictures of subjects, the image-size of which on the film will be much too small. The standards of comparison (cross division of the focusing screen or the diameter of the transparent circular field) are provided to save the photographer from taking, for instance, a picture of a distant ship, the image-size of which on the film

would be hardly more than 1 mm.

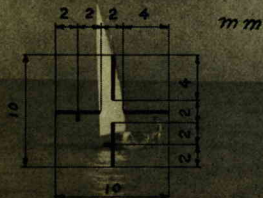
c) *The view/rangefinder of the ALPA-REFLEX, model 7b*

The view/rangefinder, sometimes called the measuring viewfinder, is fully independent of the reflex focusing device. It is coupled, however, to the stroke of the focusing mounts of the 50 mm lenses. The vertically arranged base of the rangefinder permits focusing on the superimposed images of horizontally placed details until they are brought to coincidence. The reflected second picture is of gold-yellow colour and is visible in the centre of the picture. By turning the focusing ring of the lens the two separate images are brought to coincidence, thus indicating the highest possible definition. This type of measuring is possible for all distances from infinity to $3\frac{1}{4}$ feet. If the distance is less than $3\frac{1}{4}$ feet focusing can be performed only with the reflex focusing device.

The actual viewfinder within the view/rangefinder can be adjusted to indicate the image framings of 50, 90 and 135 mm focal length lenses. This can be used for a quick judgment of the effect of the various lenses (without actually changing the lens). It is

Fig. 12

Meaning of the cross divisions on the groundglass screen of models 4b, 5b and 7b.



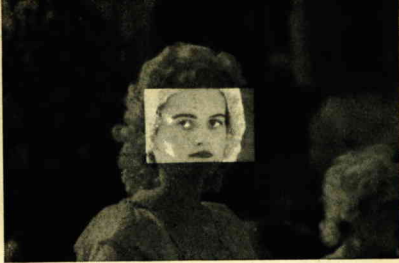


Fig. 13 and 14

Unsharp

Sharp

As shown in the measuring viewfinder of model 7b.

also possible to assess the image framing when the lens is already focused on a definite distance (such as the finishing line in races, the goal in football games, etc.)

Exchanging the lenses

Depress the knob (H) fig. 16 and turn the lens to the left (fig. 15); lift out the lens.

When inserting another lens the red dot on the lens mount should exactly coincide with the red dot on the camera front. By less than a quarter turn to the right, exerting a slight pressure, the lens will be brought to its correct position. This will be reached when it snaps in audibly.

Summarizing, it should be noted that irreproachable pictures can be obtained only after the following adjustments have been made:

- a) the shutter speed should be set according to the indication of the exposure meter,
- b) the correct stop should be chosen according to the indication of the exposure meter,
- c) the lens should be focused accurately on the subject.

Fig. 15

Changing the lens.





Fig. 16

Flash synchro-connection.

Flash synchronisation (fig. 16)

The shutters of all ALPA-REFLEX models are fitted with two different flash synchronisations:

For flashbulbs: "M" contact

This contact has a Kalart-Graflex socket. An additional "interpris" device is available, however, which permits the use of flash-lamps with cables and German type coaxial plugs.

This synchronisation is designed for the use of class FP (focal plane) flashbulbs. A uniform illumination of the entire image field can be obtained only when these long-peak flashbulbs are used. This type of synchronisation can be used with all shutter speeds from 1/30 sec. to 1/1000 sec. It is advisable, however, to use

a capacitor flashgun. The brief instructions at the end of this booklet contain a table of the types of flashbulb to be used, as well as the shutter speed preferable for the bulb concerned.

For electronic flash units: "X" contact

This contact is designed for electronic flash units at shutter speeds up to 1/60 sec. It has a German type coaxial plug. (1/60 sec. = exactly to the flash mark on the shutter speed setting disc, see fig. 5 on page 3).

It is also possible to use this contact for flashbulbs with a very short delay to peak (class F). (See table in the brief instructions).

Faster speeds than 1/60 sec. can only be used on the "M" setting with flashbulbs.

C) LOADING AND UNLOADING THE ALPA-REFLEX

The body of the ALPA-REFLEX is closed by a cross-bar which is folded around the tripod bush at the bottom of the camera. To open the camera unfold the key (fig. 17) and turn it to the right. Lift the back (including the bottom) upwards, holding it by the key, and remove it. (Do not move it sideways, pull it upwards immediately the cross-bar is opened). Holding the film cartridge in the right hand, push the tapered beginning of the film beneath the clamp of the take-up spool in the camera (fig. 18). Pull out a short length of film from the cartridge, but no more than necessary for inserting the cartridge into the empty spool chamber. The prong of the rewind knob (**R**) should engage correctly with the recess at the top of the film cartridge (fig. 19). Make the film taut by turning the rewind knob (**R**). Make sure that the perforations engage the teeth of the sprocket properly. The take-up spool should be turned by hand so that one layer of the film is wound around it. Now close the camera and turn the film wind knob (**K**), thus advancing the film and cocking the shutter. Release the shutter by operating the shutter release (**P**) and repeat this operation two or three times. When advancing the film make sure that the rewind knob turns in the direction opposite to the arrow. Set the frame counter by means of the small wheel (**W**) to "O". The camera is now ready for action. When the frame counter indicates that the last frame of the film or

the last but one frame (19 - 20 or 35 - 36 according to cartridge) has been reached, the following operation of the film wind knob or, particularly, the rapid wind lever, needs the utmost caution, since one must avoid under all circumstances pulling the end of the film from its cartridge or damaging the perforations.

If an unusual resistance is felt, the film has arrived at the end and should no longer be forced to advance; on the contrary, it must be rewound into its cartridge.

Fig. 17
Opening the body.



Fig. 18

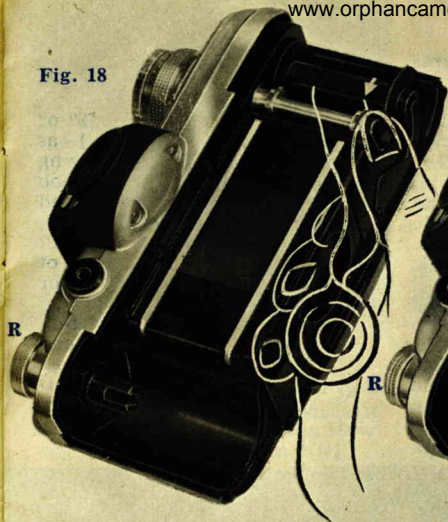


Fig. 19

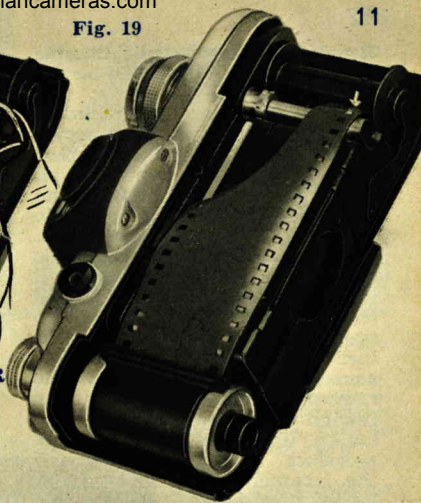


Fig. 18. Attaching the beginning of the film to the take-up spool.

Fig. 19. Film inserted correctly.

Fig. 20

K

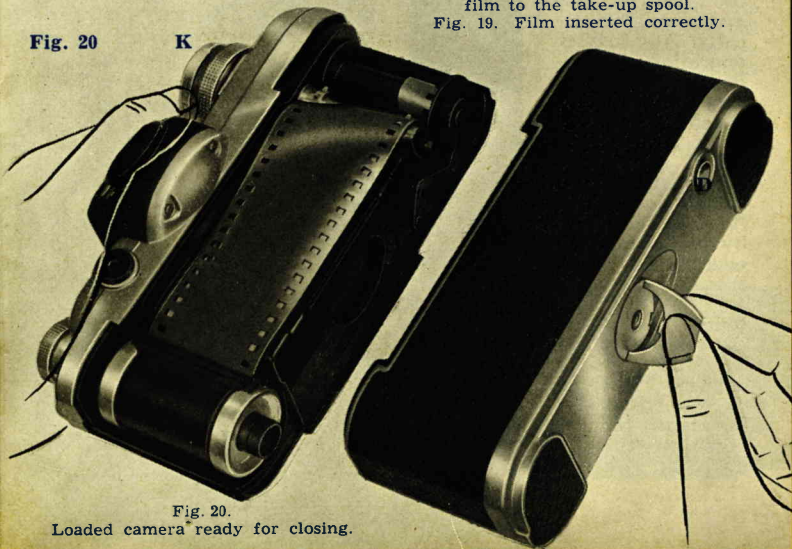


Fig. 20.

Loaded camera ready for closing.