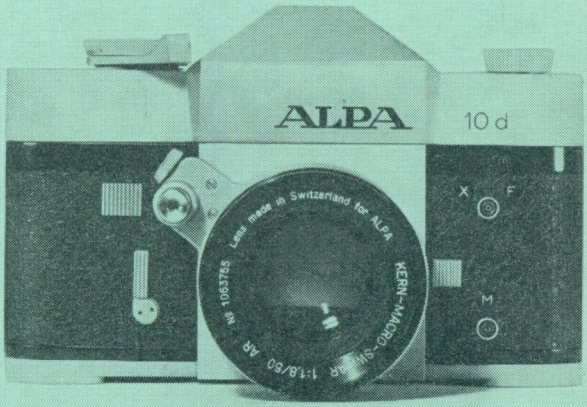
instructions for use of the ALPA 10 d

35 mm Single - Lens Reflex
and the ALPA System of Photography



Perfect knowledge of your ALPA, all its functions and features will give you the best protographic results.

Please study these instructions carefully, starting with the brief instruction guide attached to the inside back cover.

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Instructions for use of the ALPA 10 d

The ALPA 10d and the complete ALPA system of photography are the culmination of over 30 years of research and development, to meet the most demanding requirements of today's photographers.
Purpose of this manual is to give you complete instructions for the best possible performance from your ALPA equipment.
For general information on photography, please refer to the many excellent photographic handbooks available.

A. THE ALPA 10d - GENERAL DESCRIPTION

A masterpiece of Swiss precision engineering, the ALPA 10d is literally custom built to your order like the finest Swiss watch. It is an ALL-IN-ONE camera of unbelievable versatility with all desirable features, yet compact and lightweight for maximal convenience. Highly automated and functional—the ALPA 10d is virtually foolproof, for utmost handling ease. Easy to frame, easy to focus, easy to expose, it is the dream of picture taking simplicity. You can completely concentrate on your photographic assignment, without fumbling for a dial, a ring, or a knob—even when wearing gloves.
Automatic, instant exposure readings, clear visibility of exposure needle, dials and figures, rapid diaphragm and speed settings, quickchange bayonet lens mount, high speed, short stroke winding lever (without removing ALPA from your eye), high speed parallelogram rewind crank, etc.—everything is dynamically streamlined for instant fingertip controls, quickest operation and rapid action photography.
ALPA's ingenious, electronic behind-the-lens meter system thinks for your. Foregoing inaccurate and delicate linkage systems, it couples optically—with any lens, any lens accessory, at any distance, for an extreme film speed range from 3—6400 ASA. The 3 CdS cells with highly sensitive galvanometer compute absolutely precise exposure settings.
The precision ground prism with parallax-free, through-the-lens viewing system guarantees precise framing, focusing and depth-of-field control—with any lens, at any distance. You have your choice of attractive chrome or deep satiny black finish, with black, dark red or dark green leather covering that is scuff proof, sweat proof and unaffected by heat, cold and other climatic influences.
The ALPA 10d's uncompromisingly solid and exclusive light metal construction, is geared for more than 100,000 operations, withstands the most rugged use, for lifelong durability. It is virtually impossible to deform the ALPA body.
The complete range of functional accessories, more than 30 ALPA lenses and supplementary equipment fit the earlier ALPA models, 4–5–6–7–8, 4b–5b–7b–8b, 6c, 9d and 9f, with a few minor exceptions.
Every precaution has been taken to make the ALPA 10d as foolproof as possible. Nevertheless, we strongly recommend that you read at least the brief instruction guide (see inside back cover) before using your ALPA 10d.

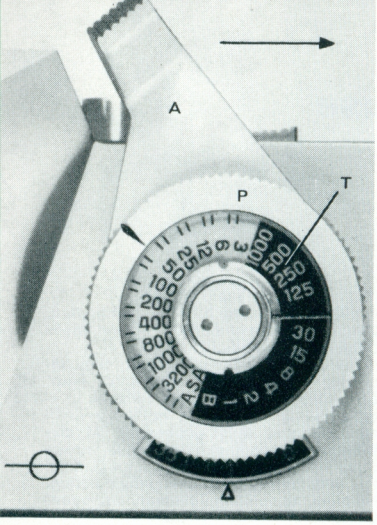


Fig. 1

B. EXTERNAL CONTROL

1) Winding

The high speed, short stroke winding lever (A Fig. 1) cocks the shutter, advances the film and counts the exposures. Because of the short travel of only 160° and its 3 separate functions you feel a certain resistance. If you do not wind the lever completely to its positive stop, the shutter release will be blocked. Just wind it once more, without any force, to unblock it.
The high speed winding lever never interferes with your viewing, so that you can rapidly release and wind your ALPA again and again, without ever removing it from your eye.

2) Setting of ASA Film Speed Rating

The equidistant click stop settings of the extreme film speed range are calibrated in black and correspond to international standards: 3–6–12–25–50–100–200–400–800–1600–3200–6400 ASA.

For fine adjustments you have a choice of 2 each intermediate click stop settings between (Fig. 1).
Depress the outer ring of the speed dial (P) and turn the black index mark opposite the desired black figure or any intermediate calibration in the blank sector. To facilitate the ASA setting you can turn the speed dial first to one of the 2 extreme speed settings of 1/1000 second or B (see below).

3) Setting of Shutter Speeds

The ALPA 10d features a Swiss precision movement with electronically tested, equidistant click stop speeds, calibrated in white on black (T).
Turn the outer ring of the speed dial (P) to the desired setting, indicated by the red line across the transparent disc. Do not try to force the red line past the black sector. Shutter speeds can be changed at any time, whether the shutter is cocked or not. Their calibrated range corresponds to international standards: 1/1000, 1/500, 1/250, 1/60, 1/30, 1/15, 1/8, 1/4, 1/2, 1 second.
B permits you to take time exposures of any desired length. The shutter remains open, as long as you keep the release knob depressed. For longer time exposure or if you mount your ALPA on a tripod, use a cable release with set screw.

Important: For slower speeds such as 1/8, 1/4, 1/2, 1 second or longer, either disconnect the automatic diaphragm control of your automatic lenses, or make sure that the shutter release remains depressed for the entire duration of the exposure. The setting of 1/60 second is marked in red, indicating that it is the fastest shutter speed for synchronization with electronic flash. If you try faster speeds, the moving slit of the focal plane shutter will only expose part of the frame.
Selection of the correct shutter speed usually depends on the mobility of your subject. Consider speed, direction, distance as well as focal length and stability of your camera. For maximal sharpness, use one of the faster shutter speeds.

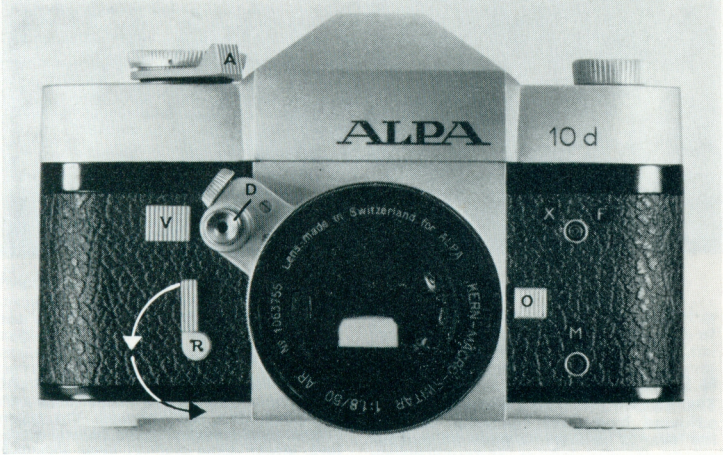


Fig.2

4) Shutter Release

Located on the front of the ALPA 10d D) Fig. 2) the hair-trigger release instantaneously operates the quiet, lightning-fast reflex-mirror and smooth-gliding, vibration-free shutter. Press your thumb against the camera back in the opposite direction, so as to hold your ALPA as steadily as possible. The conical thread inside the release button accepts a cable release (see page 21). All lenses with automatic diaphragm have integrated release buttons, which in turn depress the release button on the camera. The flip-up reflex-mirror immediately returns to its normal position, after the shutter is closed, even if you keep the release button depressed. Any vibration you may feel is caused by the flipping down of the mirror, which has no longer any influence on the sharpness of the picture.

Important: If you still depress the release button when starting to wind the camera, the mirror may not flip up for your next exposure and one frame would be lost.
The shutter release lock (V Fig. 2) provides for light readings, previewing depth-of-field and accidental exposure prevention. The lock does not function, it you use a cable release in the release button of the camera itself.

For extreme wide angle lenses with protruding rear elements, the ALPA mirror can be locked in its flip-up position. Wind the high speed winding lever, holding it in its extreme position and depress the camera release button. Then release both release button and lever. For smoothest possible shutter release with extreme telephoto lenses, for ultra close-ups, photomicrography, etc. depress the release button very slowly, so that the mirror flips up first and the shutter is released afterwards only.

Intentional double exposures can be taken as follows: After the first exposure press the rewind release knob at the bottom of the ALPA (Q Fig. 6), while operating the high-speed winding lever the second time. The film will not advance, so that a second exposure can be taken on the same frame. However, perfect registration cannot be guaranteed, as the take-up spool is still turning.

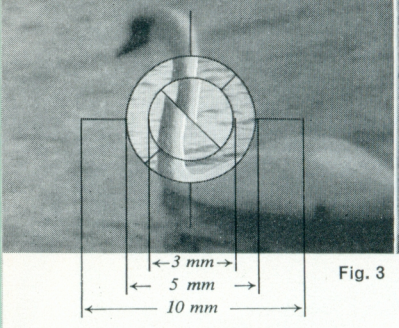


Fig. 3

Out of focus.

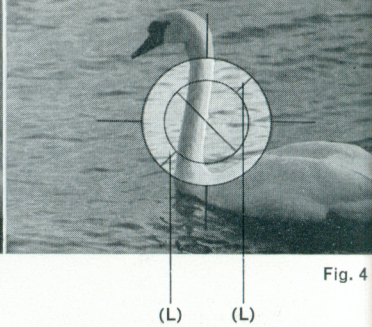


Fig. 4

In focus.

5) Selftimer

The built-in selftimer (R Fig. 2) can be adjusted from 1-20 seconds. Turning the lever to its extreme position corresponds to a delay of approximatively 20 seconds. If moved 90° only, the delay will be about 6 seconds.
Wind the ALPA first, set the selftimer, then depress the release button completely. This sets the delayed action into motion, giving you plenty of time to take up your position "in the picture".

Important: When using the selftimer, disengage the automatic diaphragm of your automatic lenses. Otherwise the picture will be taken at full aperture. If you use the selftimer with the shutter set on B, the exposure time will be about 3 seconds. This long exposure time is invaluable for pictures taken under poor lighting conditions or at very small apertures.
The extremely gentle release by the selftimer permits vibration free exposures, especially useful at slow shutter speeds. If for any reason a picture is not taken after the selftimer has been set, simply lock the release button (V Fig. 2), then keep the release button depressed until the lever (R) returns to its original position.

6) Flash Synchronization

The upper X and F contact (Fig. 2) is for synchronization with electronic flash at shutter speeds up to 1/60 second. If you try faster speeds, only part of the image will be exposed. At slow speeds up to 1/15 second, you can also use this contact with the more economical flashbulbs for central shutters, which have a short peak (class F bulbs with 5 milliseconds delay).
The lower M contact (Fig. 2) is for synchronization with class FP bulbs for focal plane shutters. They have a long peak that gives uniform illumination over the entire image, at most shutter speeds.
You find a complete synchronization chart for the various types of flashbulbs on the inside back cover of this manual.

C. FRAMING, FOCUSING AND DEPTH-OF-FIELD CONTROL

1) Single-Lens Reflex System

The precision ground ALPA prism provides a reinverted groundglass image of exactly 25 × 35 mm, i.e. 24 × 36 mm less a 1/2 mm safety margin on each side. This corresponds to the 23 × 35 mm frame of standard slide mounts, so that there are no cut-offs on the projection screen, which guarantees absolutely accurate composition.
The finest grain groundglass offers a brilliant image in 1:1 LIFE size (with standard 50 mm lenses). This means that the image appears just as large as the subject, when you view it with your

naked eye. And it can still easily be seen, when stopping down to small apertures for depth-of-field control.
When using longer telephoto lenses or close-up attachments, the upper edge of the image may become slightly shaded, because the reflex-mirror does not reflect the entire cone of light rays. However, this has no effect whatsoever on the actual picture.
The eyepiece of the ALPA 10d is equipped with a large, soft-rubber eyecup to exclude extraneous stray light. It can be rotated for taking horizontal and vertical pictures. Its bayonet mount offers instant interchanging with a magnifier or angle viewfinder. The standard 1:1 ocular of the ALPA viewing system can be replaced by a special 1: 0,7 eyepiece, so that people who wear glasses or have recessed eyes easily see the entire image. An adapter with standard diopter or prescription lenses snaps easily into the eyecup (see also page 22).

2) Focusing

Turn the focusing ring on the lens to set the proper distance. You have your choice of 3 focusing methods:

a) Groundglass. Turn distance setting ring until image is critically sharp.

b) 45° Diagonal Split-Image Rangefinder

The standard groundglass sreen has a built-in optical rangefinder with a 45° diagonal split-image, formed by a pair of prisms which appear as 2 semi-circles (Fig. 5). You can pinpoint focus for both horizontal or vertical lines instantly—with any lens, at any distance. Select a specific detail in the subject to be photographed and turn the focusing ring until the image in the 2 semi-circles is in perfect alignment, with no displacement at the dividing line. Now your focus is perfect (Fig. 3 and 4).

The clear glass ring (aerial image) around the rangefinder (diam. 5 mm) permits you to see everything visually sharp, which is in front or behind the depth-of-field zone of sharpness on the groundglass. You can also use it for rapid location of the subject you wish to photograph. And last but not least, it is indispensable for extreme close-ups at high magnifications and photomicrography. The image is in perfect focus when both the serial image and one of the two lines (L Fig. 4) appear equally sharp.
Both semi-circular prisms will appear uniformly bright under normal conditions. Under certain circumstances (smaller lens apertures, close-up photography) one of the semi-circular prisms may appear to be shaded. In this case you can align your image between the other, bright prism of the split-image and the clear glass ring.
Important: The perfected optical system of the ALPA 10d with 1: 1 LIFE size magnification on the groundglass makes focusing remarkably easy. However, this should not tempt you to take photographs of subjects which cover only a small part of the entire area. You can easily avoid this by comparison with the 3 rapid reference scales on the ALPA groundglass: The diameter of the rangefinder is 3 mm, the width of the clear glass ring is 1 mm which brings the total diameter to 5 mm. The overall length of the cross-hair is 10 mm (Fig. 3, 4 and 5). These 3 reference scales clearly indicate when a different (telephoto) lens ought to be used. They are even more useful for measurements and comparisons in macro-photography.

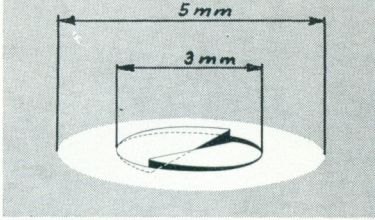


Fig. 5

c) Distance Scale

ALPA interchangeable lenses are calibrated with distance scales to preset a specific distance, where focusing on the

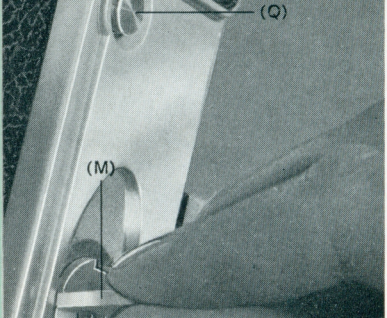
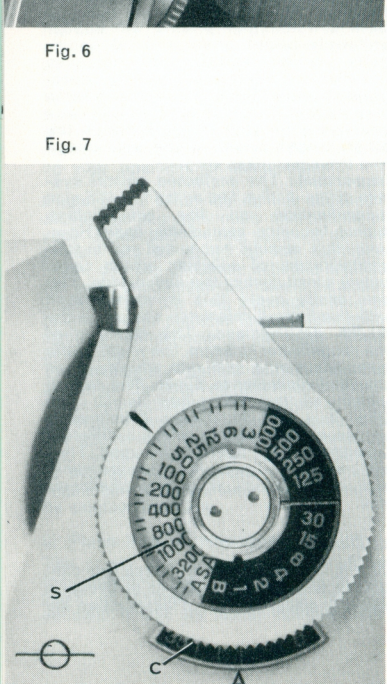


Fig. 6

Fig. 7



groundglass or with the rangefinder is impractical. When taking flash pictures, the available light may be so dim that groundglass focusing can become difficult, especially if the lens is stopped down to a smaller aperture. In sports photography you frequently have no time to do any focusing at all.
Location of the film plane is visibly indicated by the exacting calibration on camera top, to the right of the reflex-prism.

D. LOADING AND UNLOADING

1) Loading

Lift the hinged key (M Fig. 6) at the bottom and turn it to the right clockwise, as far as it will go. Pull the key to remove the combined camera back and bottom. Always lift off the back upwards and never downwards to avoid damaging the film pressure plate. Fig. 8 shows you the best method of how to hold the cartridge to insert the film leader in the slit (marked by an arrow) of the empty take-up spool. Keep the film edge against the lower flange of the spool. Pull out just sufficient film, so that the cartridge can be placed in its chamber. Turn the take-up spool by advancing the film with the high speed winding lever once, so that at least 1 lager of film is wound around it. Make sure that the sprockets engage in the film perforations. You do not necessarily have to wind the film until the sprockets engage the perforations on both sides (Fig. 9). After the film is correctly positioned, replace the camera back from above holding it by the key. Lock it by turning the key to the left counter-clockwise. Wind the high speed winding lever and **make sure that the central screw in the high speed parallelogram rewind crank rotates** (Fig. 11), **wich proves that the film is actually advancing.** Wind and release the shutter 2 or 3 times in succession, in order to eliminate the fogged film leader before you take the first picture.
The automatic frame counter (C Fig 7), which always starts 3 numbers below 0, advances simultaneously to 0.

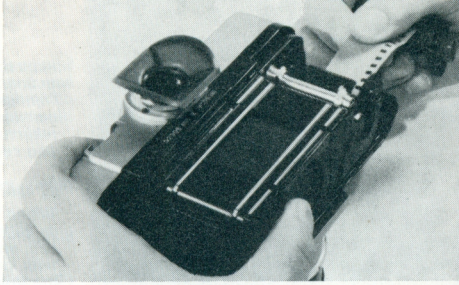
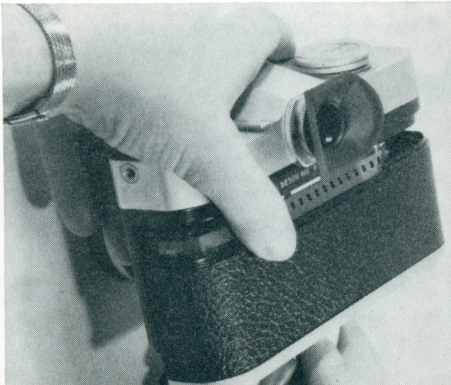


Fig. 8

Fig. 9

Fig. 10



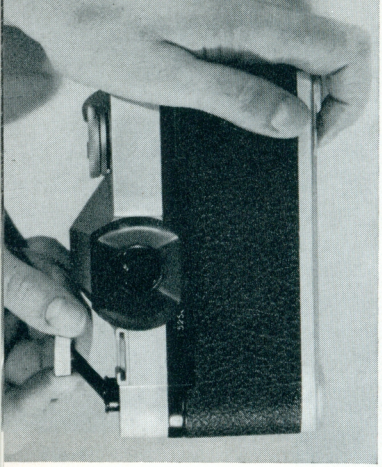


Fig. 11

Whenever possible load the ALPA in subdued light to prevent fogging of the film. If no other shade is available, turn your back to the light.

Important: If you have a partially exposed film, make a note of the number of exposed frames as indicated by the exposure counter, before rewinding the film into its cartridge and opening the camera back. The automatic counter returns instantaneously to zero when you remove the camera back.

Fig. 12

2) Unloading

When the counter indicates the 19th or 35th frame of your 20 or 36 exposure roll, wind the high speed winding lever with caution. According to your way of loading, you may obtain 1 or 2 exposures more or less than the specified number. If you feel a stronger resistance when winding, do not use any force. Otherwise you may tear the perforations or detach the filmend from the cartridge, which makes rewinding impossible.
The high-speed parallelogram rewind crank rewinds the fully exposed film quickly, within seconds. Depress the rewind release knob (Q Fig. 6), in order to disengage the sprockets. It remains depressed during rewinding and automatically jumps out, when you wind the high-speed winding lever again to advance the new film. Pull out the high-speed parallelogram rewind crank (Fig. 11) and turn it in the direction of the arrow. While rewinding the film, you feel a distinct resistance at first. Once the film has been completely rewound, you hear an audible signal that indicates the separating from the take-up spool. Open the ALPA and remove the original cartridge with the exposed film.

Important: If you depress the rewind release knob accidentally, while winding the camera, this may cause a double exposure (see page 3). Release shutter with lens cap over lens frame and advance the film once, making sure that the rewind release knob jumps out again, which re-engages the film transport sprockets.

E. THE USUAL ALPA LENSES

1) Changing of Lenses

All ALPA lenses are supplied in snug fitting, quick-change bayonet mount. Depress the lens lock button (Fig. 2),

turn the lens counter-clockwise and remove it (Fig. 12). Line up the 2 red dots (B Fig. 12), press lens lightly to ALPA body and turn it clockwise, until it clicks in.

2) Standard 50 mm Lenses with Automatic Diaphragm

a) Kern ALPA-Macro-Switar 50 *mm f*/1.8 *APOCHROMAT* (Fig. 13)

The extreme extension mount (E) focuses from infinity all the way down to 7″, from the front of the lens. The white figures indicate the distances in feet and inches. The red figures give the image-to-subject or reproduction ratio. The last figure 1/3 indicates that the photograph will be 1/3 of the actual size. The green figures give the exposure factors, which are also automatically indicated by the behind-the-lens CdS meter (see page 13).
The apertures with click-stops are set with the diaphragm ring (G). The knurled knob (H) changes the diaphragm from automatic (arrow in horizontal position) to manual (arrow in vertical position).
The Visifocus indicator (V) gives the depth-of-field with a series of orange color dots for each f/stop.

b) Schneider ALPA-Xenon 50 *mm f*/1.9 (Fig. 14)

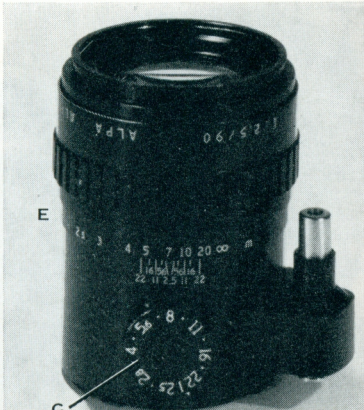
The lens mount (E) focuses from infinity to 18″, from the front of the lens. The

Fig. 14

Fig. 13

apertures with click-stops are set with the diaphragm ring (G). The small metal lever (H) on the release button changes the diaphragm from automatic (lever lined up with red dot) to manual (lever lined up with green dot).

Fig. 15



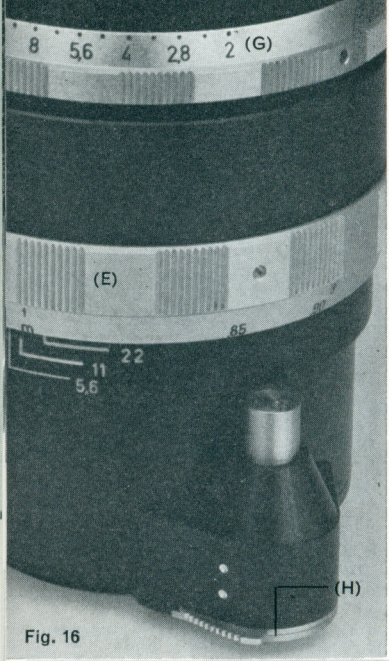


Fig. 16

3) Wide Angle and Telephoto Lenses with Automatic Diaphragm

a) Schneider Lenses

ALPA-Curtagon 35 mm f/2.8
ALPA-Tele-Xenar 135 mm f/3.5
Both lenses have similar lens mounts and operate identically as the Xenon 50 mm f/1.9.

b) Angenieux Lenses

ALPA-Retrofocus 24 mm f/3.5
ALPA-Retrofocus 28 mm f/3.5
ALPA-Alfitar 90 mm f/2.5 (Fig. 15)
ALPA-Alitar 180 mm f/4.5
All 4 lenses have a similar lens mount and operate identically. The distance is set with the focusing ring (E). The apertures with click-stops are set with the diaphragm dial on top of the lens mount (G). The lever underneath the lens changes the diaphragm from automatic (white color visible) to manual (red color visible).

c) Kinoptik Apochromats

ALPA-Kinoptik 100 mm f/2 Apochromat (Fig. 16)
ALPA-Kinoptik 150 mm f/2.8 Apochromat
The distance is set with the focusing ring (E). The apertures with click-stops

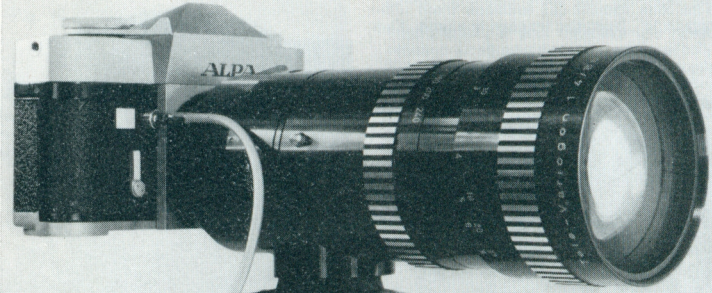


Fig. 17

are set with the diaphragm ring (G). The disc (H) on the release button changes the diaphragm from automatic (opposite two white dots) to manual (opposite single white dot).

d) Schneider Zoom Lenses

ALPA-Variogon 45-100 mm f/2.8
ALPA-Tele-Variogon 80-240 mm f/4 (Fig. 17)
The automatic diaphragm is controlled by the cable release and pistolgrip, and can be disconnected by removing them. The small metal lock on top of the camera mount allows instant rotation of camera from horizontal to vertical position (separate leaflet on request).

4) Other Lenses

Diaphragms and apertures are set with the usual focusing and diaphragm rings (see also separate leaflet).

a) Kilfitt Lenses with preset diaphragm

ALPA-Macro-Kilar 40 mm f/2.8 Model D focuses down to 2″ (reproduction 1:1 ratio)
ALPA-Macro-Kilar 40 mm f/2.8 Model E focuses down to 4″ (reproduction 1:2 ratio)
ALPA-Super-Macro-Kilar 90 mm f/2.8 focuses to 5″ (reproduction ratio 1:1, Fig. 18) attaches without standard mount to Combextan bellows for focusing from infinity to ultra close-ups (see page 20).
ALPA-Pan Tele-Kilar300 mm f/4 focuses to 5 1/2
ALPA-Tele-Kilar 600 mm f/5.6

b) Schneider Lenses with preset diaphragm

ALPA-Xenar 75 mm f/3.5
ALPA-Tele-Xenar 360 mm f/5.5

c) Kinoptik Lenses

ALPA-Super-Tegea 1.9 mm f/1.9 (image of 8.7 mm diam.)
ALPA-Tegea 9.8 mm f/1.8 (18 × 24 mm coverage)
ALPA-Kinoptik 18 mm f/1.8 Apochromat (18 × 24 mm coverage)
ALPA-Kinoptik 210 mm f/2.8

Fig. 18

Fig. 19

ALPA-Kinoptik 300 mm f/3.5
ALPA-Kinoptik 500 mm f/5.6
ALPA-Kinoptik 1000 mm f/8 focuses to 9

5) Special Lenses

a) Schneider ALPA PA-Curtagon 35 mm f/4 (Fig. 19)

With the perspective adjustment of this lens you can suppress part of the foreground and photograph a high building without converging lines, so that it does not appear to be collapsing. The distances are set with the focusing ring (E) from infinity down to 12″. The apertures with click-stops are set with the diaphragm ring (G). The perspective adjustment ring (K) indicates the distances from the optical axis, from 0 to 7 mm. The lens has 4 positions spaced at 90°, so that you can adjust it upwards, downwards, to the left or right (separate leaflet on request).

b) Zeiss ALPA-Luminar 25 mm f/3.5 Special Close-up Lens

This unique lens for ultra close-ups from 2:1 to 20:1 magnification does not have the standard ALPA bayonet mount, because it is used exclusively with extension tubes and/or bellows attachment (separate leaflet on request).

6) Depth-of-Field

You can visually determine the depth-of-field on the groundglass (see page 4). In addition, ALPA lenses have the usual depth-of-field scales calibrated on the lens mounts, which indicate the zone of sharpness between the two identical f/stop numbers. The depth-of-field is calculated for a circle of confusion of 1/30 mm.
You always get the best possible sharpness by focusing on the main subject. Sharpness decreases in front and behind this plane, but is still acceptable within the depth-of-field (depth-of-field chart on request).

7) Relation between Distance and Image-to-Subject or Reproduction Ratio

Formula: Divide the distance by the focal length, deduct 1 and you get the denominator of the fraction for the image-to-subject or reproduction ratio.
Problem: Distance: 1000 mm or 3 feet. Focal length: 50 mm. Reproduction ratio ?
Solution: 1000 : 50 = 20 minus 1 = 19. The reproduction ratio is 1:19, i.e. the picture will be 1/19 of the actual size of the subject.
By the same formula in reverse, you can also determine which distance you need for a reproduction ratio. Add 1 to the denominator of the fraction for the ratio and multiply by the focal length of the lens.
Problem: Reproduction ratio: 1/9, Focal length: 50 mm. Distance ?
Solution: 9 plus 1 = 10 × 50 = 500 mm or 20″.
All distances are figured from the film plane.

8) Exposure Factors

The ALPA's unique behind-the-lens CdS meter system automatically compensates for any exposure factors caused by light loss when extending the lens mounts for close focusing or when using close-up attachments such as bellows, extension tubes, etc. (see also page 13).

9) Lens Caps

Interchangeable ALPA lenses are supplied with front and rear caps. Most front caps snap into the front of the lens (or on top of a filter) with slight pressure. Remove them by a gentle pull and slight turn.
The rear caps fit the ALPA bayonet mount and lock into position with a slight turn.

10) Infra-Red Photography

No lenses (not even Apochromats) are corrected for infra-red wave lengths. For taking pictures on infra-red film use the

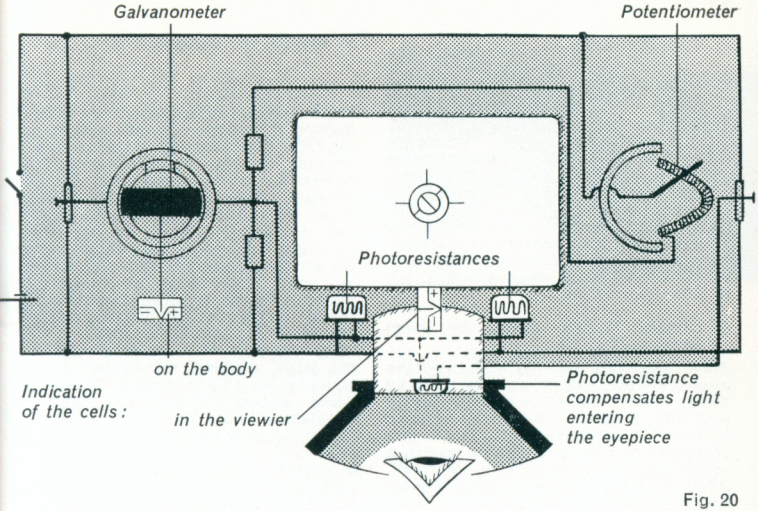


Fig. 20

infra-red filter (No. 64) and increase the lens extension slightly by using the red mark for infra-red settings near infinity. After focusing visually (without filter), line up indicated distance opposite the red mark for infra-red settings.
Since the maximum sensitivity of infra-red films varies, the infra-red mark may not always be exact. Make a few test exposures at differently corrected distance settings, so as to determine the best results. Infra-red photographs should always be taken at the smallest possible aperture.
Test exposures are also recommended to establish the correct shutter speed, as the behind-the-lens meter system cannot pinpoint the high exposure factor of the dark infra-red filter.

F. EXPOSURE READINGS

1) Basic Principles

Fig. 20 illustrates the ingenious, electronic behind-the-lens CdS meter system which couples optically—with any of the more than 30 lenses, any lens accessory, at any distance, for an extreme film speed range from 3–6400 ASA.
All f/stops, shutter speeds and ASA ratings are directly cross-coupled to the highly sensitive galvanometer for instant exposure settings, automatically—or manually. Two CdS cells take accurate overall light readings with predominance on the center area, while the third CdS cell electronically compensates for light entering the eyepiece, for absolutely precise exposures. The well illuminated needle is always clearly visible, either at eyelevel in a separate window below the viewing screen, or at waistlevel in a second window in the accessory clip on the camera top. The camera release button automatically activates the 2 standard Mallory mercury batteries (PX 450), extending battery life to 2 years or more. Goldplated contacts guarantee accurate functioning of the meter system, even while battery voltage decreases.
Important: Always check ASA rating. when changing your film (see page 2)

2) Two Methods

a) Correct Aperture for given Shutter Speed (Fig. 24)

Usually you set your shutter speed first, based on the moving or stationary subject (Fig. 7). Slide shutter release lock towards lens (V Fig. 21). Keep release button (D. Fig. 21) depressed and turn diaphragm ring until the well illuminated needle is centered (see page 13). If your picture is properly framed and focused, simply slide back lock (V) and press release button (D) to take your picture.

b) Correct Shutter Speed for given Aperture (Fig. 23)

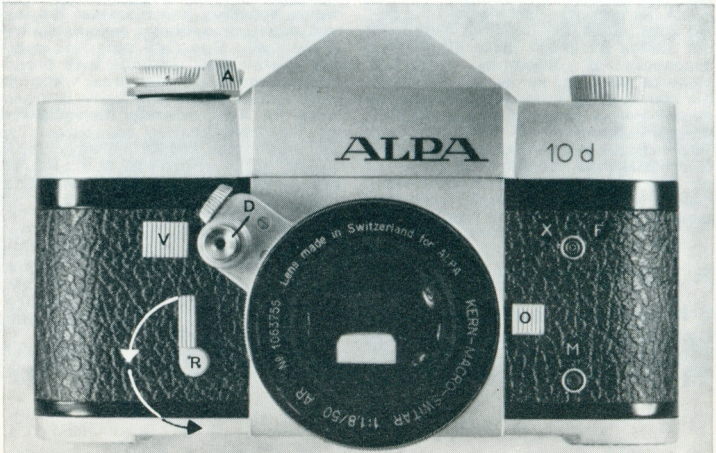
As an exception you may wish to set the aperture first, based on the required depth-of-field. Slide the shutter release lock (V) towards lens. Keep release button (D) depressed with diaphragm stopped down to preset f/stop and turn speed dial until needle is centered. Slide back lock (V) and press release button (D) to take your picture.

3) Recommendations

Light readings can also be taken without locking the shutter release. Either you read the exposure before the camera is wound, or you carefully press the release button and stop down the diaphragm, before releasing the shutter. If you cannot center the needle, there is not enough (— sign) or too much (+ sign) light and you have to change the shutter speed or f/stop accordingly. At your convenience you can also change f/stops or shutter speeds manually, independent of the meter system, for personal exposure control.

Keep your eye as close as possible to the large, rotating soft-rubber eyecup while taking a light reading. This eliminates strong reflections caused by eyeglasses or incident light, which may not sufficiently be compensated by the third CdS cell. If you center the needle at waistlevel in the window on top of the camera, cover the eyepiece either with your hand or the lens cap.

Fig. 21



4) Range of CdS Meter System

Film Speeds ASA	DIN	*Range of Shutter Speeds* fastest	slowest
3	6	1/60	1 second
6	9	1/125	»
12	12	1/250	1 »
25	15	1/500	1 »
50	18	1/1000	1 »
100	21	1/1000	1/2 »
200	24	1/1000	1/4 »
400	27	1/1000	1/8 »
800	30	1/1000	1/15 »
1600	33	1/1000	1/30 »
3200	36	1/1000	1/60 »
6400	39	1/1000	1/125 »

If the speed required is outside these ranges, the correct setting can be easily determined, as the ASA film speed ratings are directly proportional to the shutter speeds and f/stops (with the exception of the maximum apertures on certain lenses).
Example: You wish to take a picture with an ASA 12 film at a shutter speed of 1/1000 second. The fastest possible shutter speed is 1/500 second. Assuming the correct f/stop with 1/500 second is f/5.6, you simply open the aperture to f/4 and set the shutter speed to the desired 1/1000 second.
If the shutter speed exceeds 1 second, you can easily determine the exposure based on the ASA film speed rating.
Example: You wish to take a picture with a 25 ASA film. The lens is set at full aperture and the shutter speed at 1 second, but the needle still cannot be centered. Change the ASA setting on your dial until the needle is centered. Assuming that it indicates 100 ASA, i.e. 2 stops above your film speed of 25 ASA, you easily determine the exact shutter speed of 4 seconds.

5) Battery Change

If the needle no longer moves, while you depress the release button, the batteries have to be changed. Make sure there is no film inside your ALPA—(counter must be 3 numbers below 0, see page 6)—and remove the camera back. Unscrew the large lid of the battery housing at the bottom with a coin.

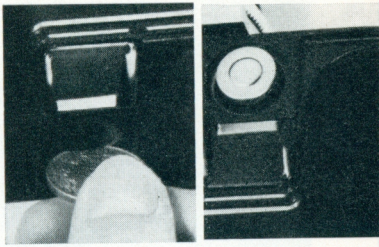


Fig. 22

Insert 2 new standard Mallory Mercury PX 450 batteries, both with the + sign facing outwards i.e. towards the camera bottom(Fig. 22).

6) Filter Factors

Exposure factors caused by filters are automatically compensated for by the behind-the-lens CdS meter system, except for certain red filters (see also E. 10).

Fig. 23

Fig. 24

G. HOW TO HOLD YOUR ALPA

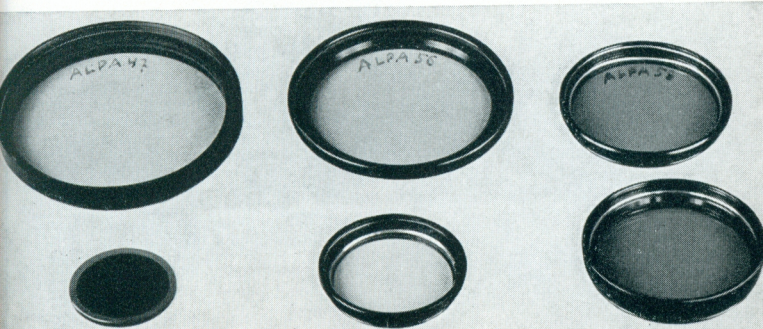
The right hand sets the speed dial, winds the ALPA with the high speed winding lever and releases.
The left hand adjusts the exposure by turning the aperture ring and focuses the lens.
The ALPA remains in perfect balance and at eye level at all times.
Fig. 24 shows the method of holding the ALPA with preselected shutter speed and turning the diaphragm to center the needle.
Fig. 23 shows the method of holding the camera with preselected f/stop and turning the speed dial to center the needle.

H. COMPLETE RANGE OF ALPA ACCESSORIES

1) ALPA Filters (Fig. 25)

The complete set of solid snap-in filters, precision ground of finest optical glass dyed-in-the-mass, plane parallel and coated on both surfaces, match the superior quality of the ALPA lenses.
ALPA tradename and the filter number for the various color tints are marked on the filter itself.
Polarizing filters are also available for most ALPA lenses.
Gelatine discs in ALPA filter mount or empty mounts can be supplied for color tints not available as dyed-in-the-mass glass filters.
Each filter is individually inspected and carries an unconditional guarantee for optical excellence.
Most ALPA filters snap into the front of the lens or on top of another filter with a slight pressure. Remove them by a gentle pull and a slight turn (separate filter leaflet on request).

Fig. 25



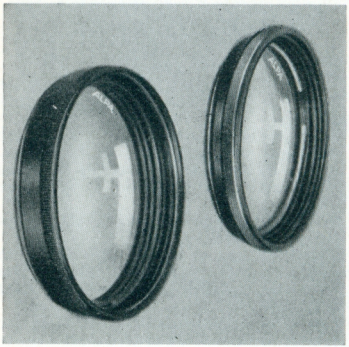


Fig. 26

2) Supplementary Close-Up Lenses (Fig. 26)

You have your choice between + 1 (for size A and B diam.) and + 0,5 diopters (for size B diam, only).
Whenever a supplementary close-up lens is used, the diaphragm should be stopped down further to get a sharp image. When using both a supplementary close-up and a filter, mount the close-up lens first, then snap the filter on top of it.

3) ALPA Lens Hoods (Fig. 27)

Most lens hoods snap on the outside of the lens mount, independent of the filters, by a slight pressure on the loop of the flat spring. When not in use, they can be reversed and slipped over the lens, so that they fit into the everready, lens or compartment cases.

4) Photomicrography (Fig. 28)

The microfix adapter fits the ALPA without lens to any standard microscope with 25 mm outside diameter, for photomicrography. The special micran adapter can be made to order to fit other microscopes.
The inversbag lens inversion ring system fits the ALPA with lens to microscopes. (See also 8 below.)
Both combinations require the use of the tuban A 4 and 3 extension tubes or a bellows attachment and a cable release. The behind-the-lens CdS meter system offers precise exposure readings through the microscope (separate booklet on request).

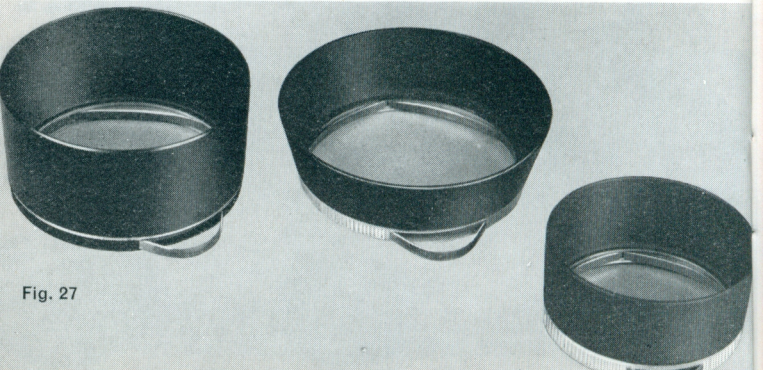


Fig. 27

Fig. 28

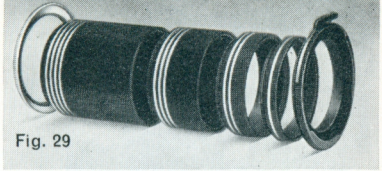


Fig. 29

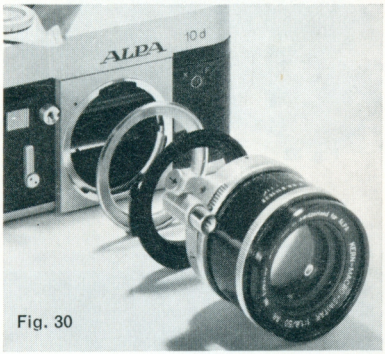


Fig. 30

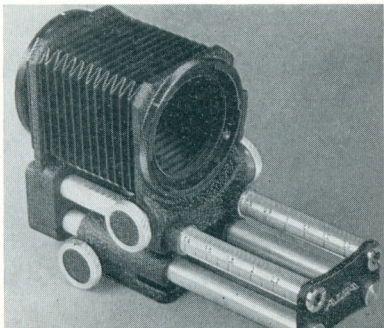
5) Endoscopic Photography etc.

The endobag adapter fits the ALPA to endoscopes, bronchoscopes and other instruments, for endoscopic photography etc.

6) TUBAN Extension Tubes

Fig. 29 shows the complete set, consisting of the following components:
2 intermediate rings tuban A (outside bayonet, inside thread) and tuban B (inside thread and outside bayonet) with a total extension of 6 mm, plus the actual extension tubes tuban 4 (48 mm), 3 (24 mm), 2 (12 mm) and 1 (6 mm), with a total length of 96 mm. Their use is shown in Fig. 30 with tuban A and B between camera body and lens, while the actual extension tubes tuban 4, 3, 2, 1 fit between the rings A and B according to the required extension. The extension tubes can also be used without tuban A and B rings, if a lens with detachable mount is used like the ALPA-Xenar 75 mm f/3.5 or the ALPA-Tele-Xenar 360 mm f/5.5.

Fig. 31



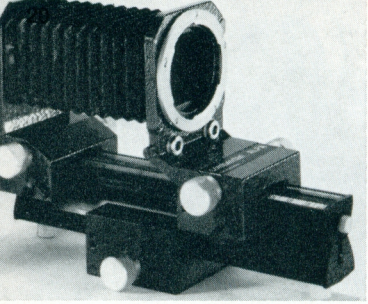


Fig. 32

Fig. 33

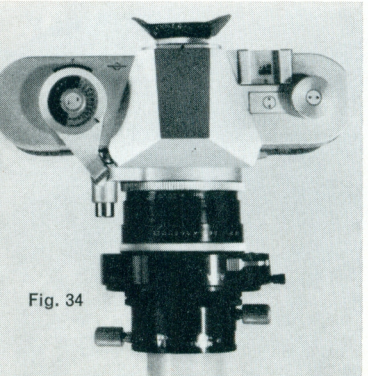


Fig. 34

7) Bellows attachments

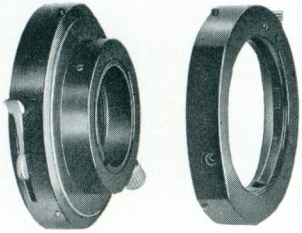
a) NIVEX and DOVEX Bellows

The Nivex has a single pair, the Dovex a double pair of rails (Fig. 31). The dual adjustment makes it easier to obtain the desired image scale, since the entire set-up can be moved back and forward. Both bellows attachments can be combined with the extension tubes to permit focusing down to closest distances (separate booklet on request).

b) ALPA COMBEXTAN Bellows System (Fig. 32)

A miniature optical bench of exceptional precision, sturdiness and versatility, the ALPA Combextan literally solves any problems of close-up photography. Supported by 2 rigid rails and smooth gliding riders with closest tolerances, the ALPA can be rigidly fixed in horizontal or vertical position—without any play whatsoever—for absolutely precise focusing with exclusive ball bearing fine adjustment.
Bellows extensions range from 38 mm up to 300 mm, for reproduction ratios from 1:1 up to 12:1 and more, as indicated by the easily interchangeable extension and ratio scales. You can also attach the ALPA Super-Macro-Kilar 90 mm f/2.8 (without its standard mount) with the Kibag adater and tuban A to the Combextan, for a continuous focusing range from infinity all the way down to utlra close-ups.

Fig. 35



8) INVERSBAG Lens Inversion Ring System (Fig. 35)

The complete set has multiple purposes:
- Reversing lenses for macro-photography (Fig. 33)
- Fitting ALPA with lens to such instruments as microscopes, oscilloscopes, etc. (Fig. 28 and 34)
- Adapting of binoculars, monoculars and other optical and mechanical accessories
- Support of ALPA in 2 places for extremely rigid mounting
- Support of ALPA lenses (separate booklet on request).

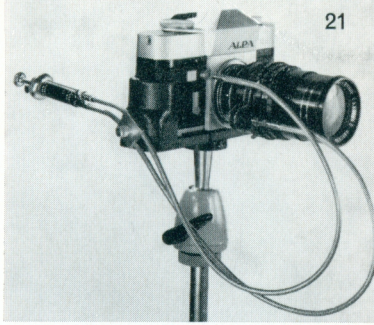


Fig. 36

9) USAN Camera Cradle (Fig. 36)

This rigid camera support with sockets on all 3 sides is especially useful for mounting the ALPA on a tripod or the ALPA Macrostat. The special support for the standard or twin cable release prevents their weight and movement from vibrating the camera. A spring-loaded lever lock provides instant mounting and removing of the ALPA for reloading without any readjustments (separate booklet on request).

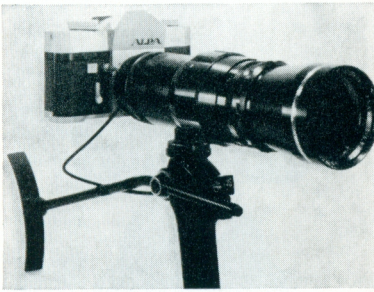
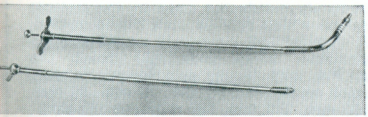


Fig. 37

10) KIGRIP Pistol Grip with Shoulder Support (Fig. 37)

This accessory is especially recommended for use with longer lenses as well as lenses with bellows or extension tubes. It can be attached to the ALPA or to such ALPA lenses which have a tripod socket. The pistol grip has its own tripod socket as well. The shoulder support can be adjusted to any individual requirement. A separate adapter accepts a shoulder strap for added stability.

Fig. 38



The special Combipan twin cable release retains the automatic lens diaphragm feature with bellows or extension tubes (separate booklet on request).

11) Cable Releases

Always use a cable release to eliminate vibration at slow shutter speeds or for pictures taken on a tripod. 2 types are available, the diclad straight and the coudal angle cable release, both with set screw for time exposures (Fig. 38). Bend the straight cable release at a sharp angle, so as to prevent the thrust

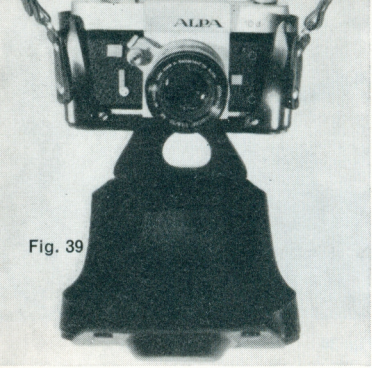


Fig. 39

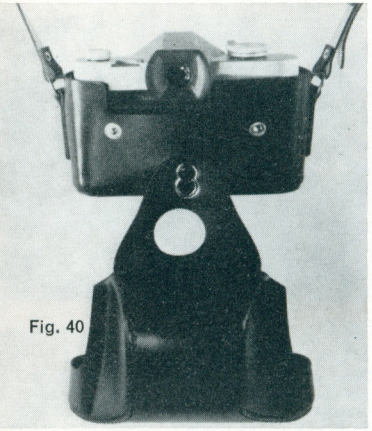


Fig. 40

Fig. 41

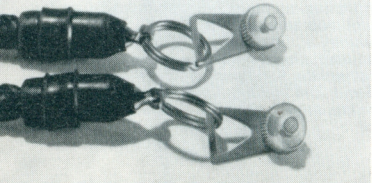


Fig. 42

of the plunger from being transferred to the ALPA itself.
When using a wide angle lens such as the 28 mm or 24 mm, check the position of the cable release, so that it does not interfere with the picture.
The automatic lens diaphragm feature is retained by using the bipres twin cable release (Fig. 36). Its plungers must be adjusted in such a way that the lens diaphragm closes before the camera shutter is released.

12) Prescription Lenses for Viewing (Fig. 42)

Most wearers of glasses can focus perfectly on the groundglass or with the split-image rangefinder of the ALPA 10d. For photographers who have difficulties in accommodating their eyes, the montur adapter for prescription lenses is recommended. It snaps easily into the reflex eyecup and can be supplied with standard coral correction lenses of + 1, + 2, + 3, + 4, and — 1, — 2, — 3 diopters. Special prescription lenses can be fitted to the adapter by a local optician.

13) Everready Cases (Fig. 39/40)

Available in dark brown or black washable, top quality cowhide, the streamlined everready case protects the ALPA 10d with any lens from 35 mm to 75 mm focal length. The drop front with snap fastener (Fig. 40) can easily be detached from the main case. The camera is held securely inside the case by the bottom screw which has its own tripod socket. A special soft case with round shaped shoulder strap (benblak) holds the ALPA with larger and longer lenses, such as 24 mm, 28 mm, 75 mm, 90 mm, 100 mm, 135 mm, 150 mm and 180 mm.

14) Shoulder Strap (Fig. 41)

Made of round shaped, braided leather the adjustable shoulder strap attaches to the 2 recessed sockets on both sides of the ALPA 10d. This is an invaluable accessory, whenever you use your ALPA without case.

15) ALPA Lens Cases (Fig. 43)

A complete set of well padded leather cases with zippers protects the interchangeable ALPA lenses against dust and shock (see charts on page 27).

16) ALPA Gadget Bags (Fig. 44)

These sturdily built carry-all cases come in black leather with red velvet lining. Special "velcro" dividers can be moved and compartments re-arranged according to the equipment used. 1 or 2 ALPA camera with standard lens, lenshood, 2-4 ALPA lenses and a number of accessories will easily fit. The inside cover accommodates the pistol grip with shoulder support, filters and additional accessories. The case is locked with a key for best possible protection. Dimensions: 11″ long, 5″ deep and 9″ high.

17) ALPA Electric Motor (Fig. 45)

The electric motor converts the ALPA into an automatic camera for rapid action and sequence photography. Operated by a compact, rechargeable battery rod 12 Volt DC or a transformer-rectifier 110 Volt AC/12 Volt DC, it

Fig. 43

Fig. 44

Fig. 45

automatically transports the film, counts the exposures and cocks the shutter. You press the red button for automatic one-by-one shots, the blue button for uninterrupted automatic sequences (separate booklet on request).

18) ALPA Remote Releases

The ALPA electric motor can also be operated by remote control from distances up to 300 ft., or with a wireless remote release from up to 2 miles (separate booklet on request).

19) ALPA 100 Ft. Magazine (Fig. 46)

Completing the ALPA electro-automatic recording system is this indispensable tool for large volume photography. Accepting standard 100 ft. daylight loading reels, the ALPA 100 ft. magazine offers uninterrupted sequences of up to 800 exposures, without winding and reloading.
It is equipped with a built-in cutting knife and a resettable exposure counter that both adds and subtracts. Exacting pin registration, as found only in the most sophisticated 35 mm professional movie cameras, guarantees an unbelievable spacing accuracy of 0.02 mm ! (separate booklet on request).

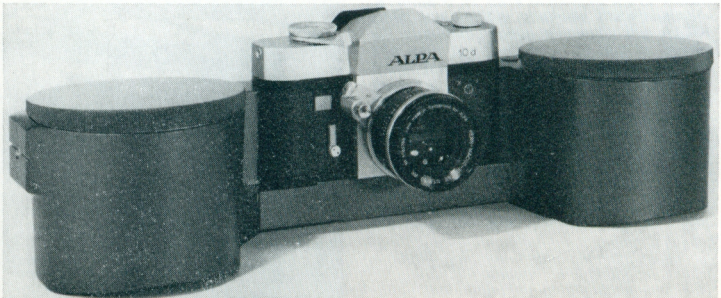
20) ALPA 18 × 24 mm (17 × 22.5 mm) Half Frame Cameras

When used with the 100 ft. magazine these special ALPA 10d models provide up to 1600 uninterrupted exposures, with the same spacing accuracy of 0.02 mm ! They are ideally suited for filmstrips, education, sales promotion, training, any AV application, etc.

21) ALPA Timer and Programmer

The tempo timer provides preset intervals from 1–72 seconds and time exposures from 1/1000–36 seconds.
The intermo programmer offers one-by-one shots with preset intervals from 1 second to 27 hours, or sequences of 1–10 exposures with preset intervals from 1–100 seonds. Time exposures can

Fig. 46



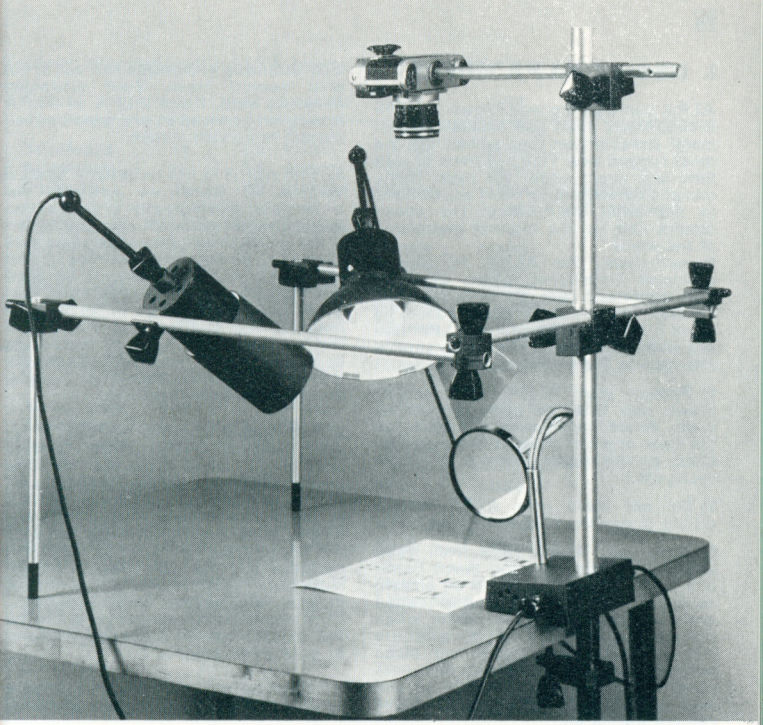


Fig. 47

be set from 1/1000–100 seconds (separate booklet on request).

22) ALPA Macrostat (Fig. 47)

This collapsible, easily portable miniature photo studio is ideally suited for copy work as well as indoor and outdoor close-up (Macro-) photography. It combines light-weight compactnes, rugged stability, closest tolerances and extreme versatility with utmost ease and speed of operation. Thanks to the ingenious modular design for multiple combinations it is the only system that easily solves any problems of copy work and macro-photography, including ultra close-ups, copying of small and large documents, duplicating of slides and film-strips, etc.

Special components such as reflectors, close-up light, adjustable macro and micro-stages, two-way mirror, film, duplicating attachment, groundspikes, camera cradle, etc. give the Macrostat literally unlimited possibilities.

Originally designed for the ALPA, the Macrostat can also be used with any other 35 mm and most 2 1/4 × 2 1/4" cameras.

I. USEFUL ALPA HINTS

ALPA cameras are well known for their exceptionally solid and exclusive light-metal construction that withstands the most rugged use. This has been proved time and again under the most trying climatic conditions, in many expeditions to the artic, the tropics, the ocean depths and up the highest mountains of the world.
Nevertheless, the ALPA is also a precision instrument, which deserves your continued care, so as to maintain its high performance standards. The same principle applies to all ALPA lenses and accessories. Please pay special attention to the following points:

1) Protect your ALPA from sudden blows and falls, by using a carrying case. Avoid continuous vibration (on the floor of a car close to the propeller shaft, on the luggage grid of a motor-cycle, etc.)

2) Do not leave your ALPA wound during prolonged periods of time.

3) Keep your ALPA away from dust, wind-blown sand and too much humidity. In the tropics keep it in an airtight container together with a desiccating agent such as silica gel. In winter, when carrying your ALPA from outdoors into a warm room, metal and glass surfaces may become misted over with condensation. Do not wipe this off, but wait until the mist disappears as the camera warms up.

4) Clean the film channel and pressure plate from time to time with a piece to fluff-free cloth (never use cotton or wool).

5) Do not touch the reflex-mirror with your fingers, which may smudge or scratch its surface. Your nearest dealer or service station will be happy to clean it for you.

6) Do not try to lubricate the ALPA mechanism and shutter. They are geared for more than 100,000 operations without lubrication.

7) Do not attempt to dismantle the ALPA. This operation requires not only extensive knowledge and skills, but also special tools. Your guarantee becomes void, if the ALPA or ALPA lenses are serviced by any unauthorized person or service station.

8) The ALPA is not watertight. Special water-tight cases are available for underwater photography. If the camera is dropped accidentally into the water, it should be dried immediately and sent at once to an authorized service station or to the ALPA factory. If dropped into salt water, the camera must first be rinsed several times in fresh water before being dried. If salt water dries inside the camera, the increasing concentration of salt will erode the metal components including chrome, and destroy the mechanism.

9) Standard 35 mm film cartridges may sometimes be faulty. When loading your ALPA make sure that the film moves easily out of the cartridge and that its lips are not too tight or dented. If the film does not pull out freely, gently insert a penknife blade between the back of the film and the lip of the cartridge and open the mouth slightly. Make sure that there are no loose velvet threads hanging from the cartridge lips. They may tear lose and get caught in the film window, which produces shadows on your photographs.

10) Register your ALPA with the agent in your country to validate the warranty.

11) If your ALPA is lost or stolen, report the serial number of both camera and lens to your dealer, the ALPA agents in your country or the ALPA factory immediately. This is the only possible method of finding the camera and returning it to you. We strongly recommend that you insure your ALPA equipment.

12) Over 40 % of the ALPA factory are engaged in most severe, total quality controls, certified by an inspection label attached to every ALPA. And each ALPA carries a world-wide guarantee for highest mechanical, electronic and optical performance.

Table of interchangeable **ALPA** lenses, lenshoods, filter and cases

Lens	*f = mm*	*1 :*	*lenshood*	*filter*	*case*
Retrofocus	24	3,5	aucun	filtrado	reblak
Retrofocus	28	3,5	aucun	filtrado	reblak
Curtagon	35	2,8	curtabe	filtrabe	reblak w/o lenshood et reblak with lenshood
PA-Curtagon	35	4,0	curtabe		
Macro-Kilar	40	2,8	—	ecrana	reblak
Xenon	50	1,9	omxabe	filtrabe	reblak
Macro-Switar	50	1,8	omxabe	filtrabe	reblak
Xenar	75	3,5	omxana	filtrana	xetdark
Alfitar	90	2,5	telebe	filtrabe	reblak w/o lenshood mulblak with lenshood
Macro-Kilar	90	2,8	aucun	filtrana/ filkitt	noblak
Apochromat	100	2	parso	filtrado	noblak
Tele-Xenar	135	3,5	telebe	filtrabe	reblak
Apochromat	150	2,8	parast	filtrado	kinblak
Alitar	180	4,5	alibe	filtrabe	mulblak
Pan-Tele-Kilar	300	4,0	parast incl	filkitt	trade
Tele-Xenar	360	5,5	parante	× filtran	texblak
Sport-Fern-Kilar	600	5,6	parast incl	filkitt	trave
Variogon	45-100	2,8	incl	filvar	pafour
Tele-Variogon	80-240	4,0	incl	befil	pafour

TABLE OF CONTENTS OF THE DIRECTIONS FOR USE

Synchronization for flashbulbs with X F and M Contacts

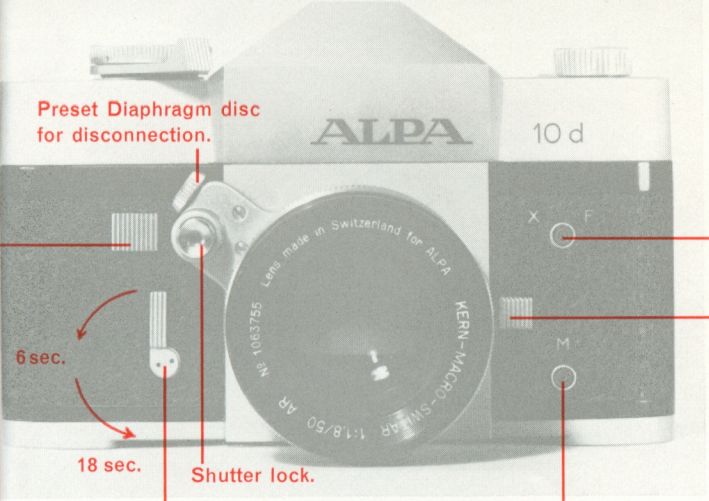
Shutter Speed in seconds	General Electric			Sylvania			Westinghouse etc.	
	AG-1 AG-1B	Flash-Cubes	M 2 M 2 B	M 3 M 3 B	No. 5 No. 5 B	No. 6 No. 6 B	Press 25 Press 25 B	FP 26 FP 26 B
1/30	X,F	X,F	X,F	X,F	M	M	M	M
1/60	M	M		M	M	M	M	M
1/125	M	M		M	M	M	M	M
1/250	M	M		M	M	M	M	M
1/500	M	M		M	M	M	M	M
1/1000	M	M		M	M	M	M	M

These indications were obtained by practical tests and the times must not be overstepped.
The blue flashbulbs for color film synchronize identically to the ones for black-and-white film.
FP means bulbs for focal plane shutters.

ALPA

PIGNONS S. A. Ballaigues (Switzerland)

Printed in Switzerland 668 1.2 E



Preset Diaphragm disc for disconnection.

Shutter lock.

Electronic flash contact, German standard plug.

Lens catch.

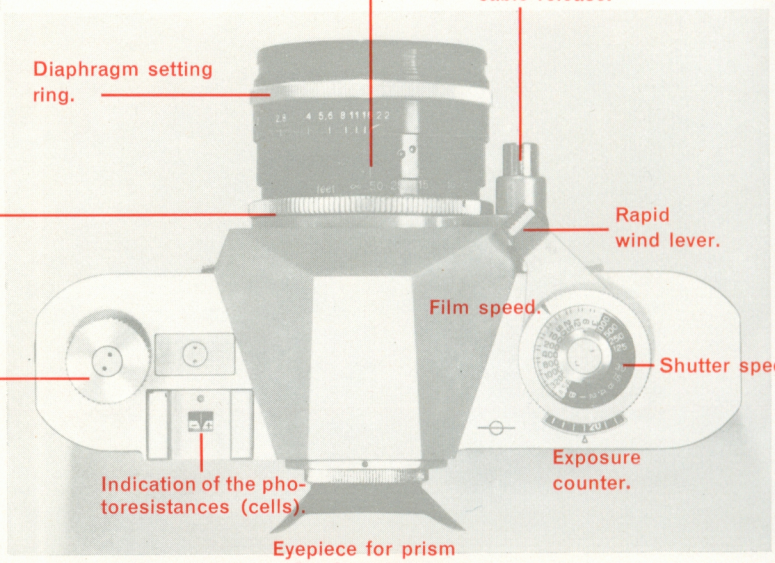
Flashbulb contact, standard plug.

Shutter release button.

For delayed action set selftimer, disconnect autom. diaphragm, then depress release button completely.

«Visifocus» depth of field indicator.

Shutter release button threaded for cable release.



Diaphragm setting ring.

Focusing.

Rapid wind lever.

Film speed.

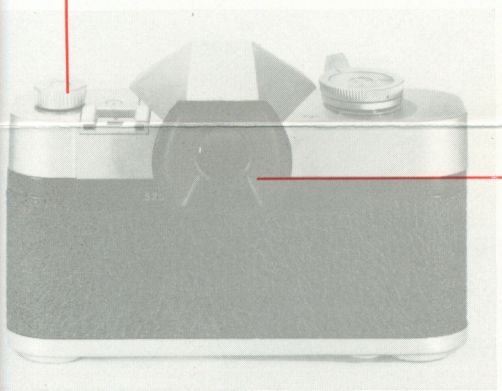
Shutter speed

Exposure counter.

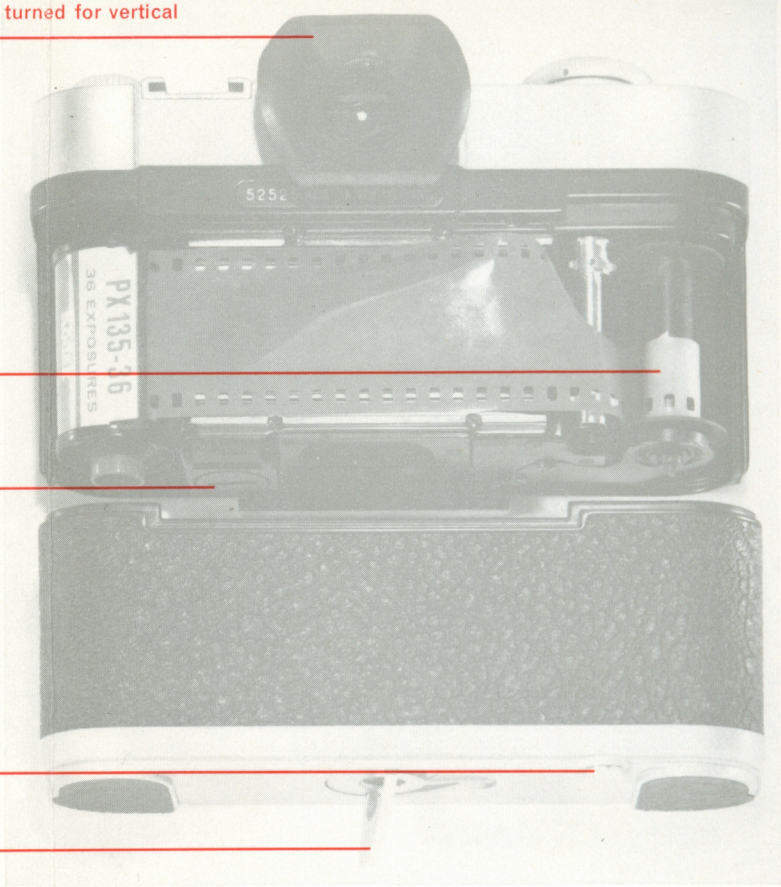
Indication of the photoresistances (cells).

Eyepiece for prism reflex focusing.

For rewinding exposed film, pull out knob and turn the crank.



Eyepiece can be turned for vertical pictures.



Loading camera:
The take-up spool should be turned by hand until one layer of the film is wound around it.

Battery (sign + facing towards you).

Coupling knob to be pressed before rewinding film.

To open camerabody, turn key to the right, then pull.

Brief instructions for use of the ALPA 10 d Camera

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