

Fig. 24

## E. MEASURING THE EXPOSURE WITH THE ALPA REFLEX MODEL 9d

### BASIC PRINCIPLES

Fig. 25 illustrates the electronic circuitry of the exposure-measuring mechanism. Current supplied by a mercury cell (or a rechargeable nickel-cadmium accumulator) is fed through the two cadmium sulphide photo-resistors (connected in parallel) which modulate the current according to the intensity of the light passing through the lens. The variations in the current flow thus induced by changes in the illumination brilliance are recorded by a precision galvanometer, the pointer deflection of which is visible on the ground-glass focusing screen. By turning the potentiometer knob (B) it is possible to centre the pointer so that it passes through the centre of

the fixed circular marker. The resultant exposure measurement may then be read off from scale (B).

Fig. 26 shows a close-up view of the pentaprism and clearly illustrates the two photo-resistors alongside the dismantled eyepiece. The third photo-resistor (top centre) faces towards the eyepiece and is intended for measuring the amount of straylight which enters the eyepiece from the rear and would otherwise falsify the light reading being made through the camera lens.

### METHODS OF TAKING LIGHT READINGS

First of all, the film speed must be set correctly on disc (B) by turning the central knob (A). You can then proceed in either of two ways:

- 1) By finding the correct aperture for a given shutter speed.
- 2) By finding the correct shutter speed for a given aperture setting.

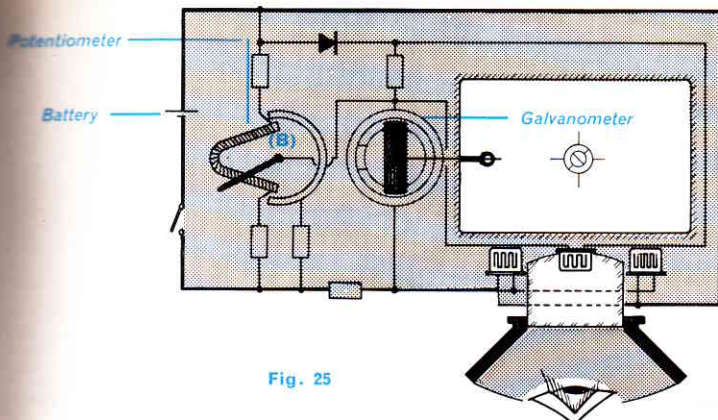


Fig. 25

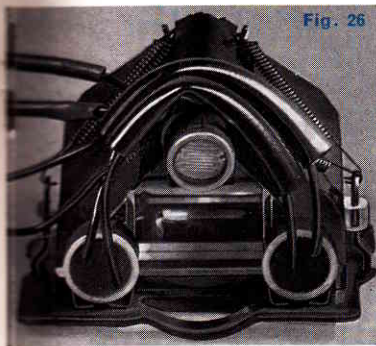


Fig. 26

Then tension the shutter by means of the rapid-wind lever (DD) and lock the release button with catch (C). Now point the camera towards the subject (with the lens at full aperture) and frame and focus your picture on the ground-glass screen. Depress the release button (E or EE) fully and turn the aperture-setting ring (F) until the pointer (G) immediately above the ground-glass screen is accurately centred within the circular marker. This completes the exposure-measuring operation. To take the picture, all you have to do is to slide back the catch (C) and depress the release button (E or EE).

If you find that you have reached the end of the aperture-setting range (either the maximum or minimum aperture) without being able to centre the exposure meter pointer, this indicates that the pre-selected shutter speed is either too fast or too slow.

**Case 2:** This procedure should be adopted whenever a certain definite depth-of-field range is required, making it necessary to take the picture at a specific aperture setting.

Set the aperture to the desired setting, tension the shutter and lock the release button with catch (C).

**Method 1** represents the more usual procedure, since it is the behaviour of the subject (i.e. moving or stationary) which generally determines the slowest possible shutter speed. Let us select 1/125 sec as an example: the exposure-measuring disc (B) and the shutter-speed setting knob (D) should both be set to 1/125, which is marked in red on both scales (see fig. 2) of the brief instructions sheet.

Then compose the picture and focus it in the reflex viewfinder, with the lens at full aperture. By pressing the release button (E or EE) the diaphragm will be stopped-down automatically to the pre-selected setting and the exposure should be measured at this aperture, by turning the potentiometer knob (B) until the pointer (G) is centred within the circular marker.

Now you can read off the required shutter speed from scale (B) and transfer the indicated value to the shutter-speed setting knob (D).

Finally release the catch (C) and take the picture by pressing the release button (E or EE).

Whatever method is adopted, it is always important to keep your eye as close as possible to the viewfinder eyepiece whilst taking exposure readings: for this reason the ALPA 9d has a large eyepiece cup made out of soft rubber, which can be rotated for taking vertical pictures. Since it is impossible to prevent some stray-light from entering the eyepiece (particularly when the user is wearing spectacles) a third photo-resistor is provided to measure this spurious illumination and correct the true reading (fig. 24).

#### DIRECT-READING EXPOSURE MEASURING RANGE OF THE ALPA 9d

| Film speed |      | Direct-reading shutter speed indications |               |
|------------|------|--|---------------|
| ASA        | DIN  | fastest speed                            | slowest speed |
| 6          | (9)  | 1/125                                    | - 4 second    |
| 12         | (12) | 1/250                                    | - 4 "         |
| 20         | (14) | 1/500                                    | - 3 "         |
| 25         | (15) | 1/500                                    | - 2 "         |
| 32         | (16) | 1/500                                    | - 1 1/2 "     |
| 40         | (17) | 1/500                                    | - 1 "         |
| 50         | (18) | 1/1000                                   | - 1 "         |
| 64         | (19) | 1/1000                                   | - 3/4 "       |
| 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 "     |

Never forget that an accurate exposure reading depends on the observation of the following rules:

Correct film speed setting, taking the reading at the same aperture setting as the exposure and ensuring that the shutter speed is the same on both scales (B) and (D).

If the exposure required lies outside these ranges, the correct settings can easily be calculated, bearing in mind that the ASA film speed values are directly proportional and likewise the sequence of shutter speeds and aperture values (with the exception of the maximum aperture setting on certain lenses).

Example: Assume that you wish to take a picture on a 3200 ASA film at a shutter speed of 1/30 sec. According to the table, it is impossible to take a direct reading at 1/30 sec, although one can be made at the 1/60 sec setting. If a reading taken at 1/60 sec indicates an aperture of, say f/2.8, then an aperture of f/4 should be used for 1/30 sec.

To take another instance, you may wish to take a picture in a dimly-lit room on a 25 ASA film. The reading (let us assume) indicates 1 second at f/2. To obtain sufficient depth of field, you may however wish to use an aperture of f/8. By simple calculation you can work out the required exposure time, which is 16 seconds. If you are accustomed to working with film speeds expressed in DIN degrees, then remember that each 3° DIN are equivalent to a doubling in film speed. A film rated at 17° DIN therefore requires an exposure half as long as one rated at 14° DIN.

#### COMPARISON OF ASA AND DIN FILM SPEEDS

Since the basic methods of measurement used for assessing film speeds in these two systems are fundamentally different, it is not possible to provide exactly equivalent pairs of figures. On most exposure meters, however, sufficiently accurate equivalent values are provided; these are given in brackets in our table.

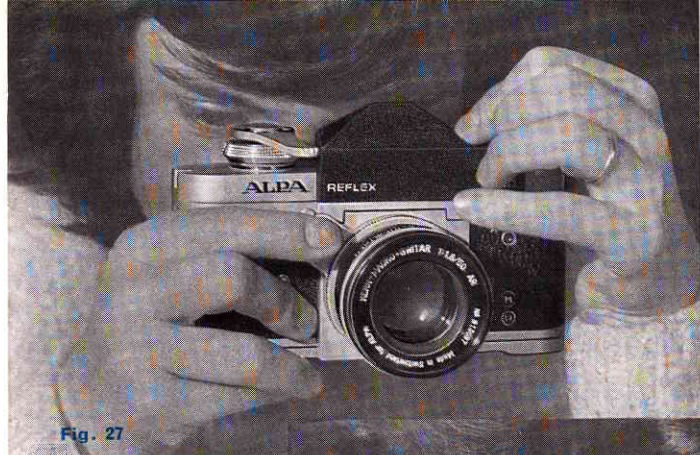


Fig. 27

#### F. HOW TO HOLD THE ALPA REFLEX CORRECTLY

This section is concerned only with two typical situations arising in determining the correct exposure with the ALPA Reflex 9d: Fig. 28 illustrates the method of holding the camera when the shutter speed has been pre-selected and the appropriate aperture setting must be determined. It is advisable to get into the habit of operating the diaphragm ring from below so as to avoid obscuring part of the lens with the hand.

Fig. 27 shows the method of holding the camera when the aperture setting has been pre-selected and the knob (B) of the potentiometer must be rotated so as to be able to read off the appropriate shutter-speed setting.

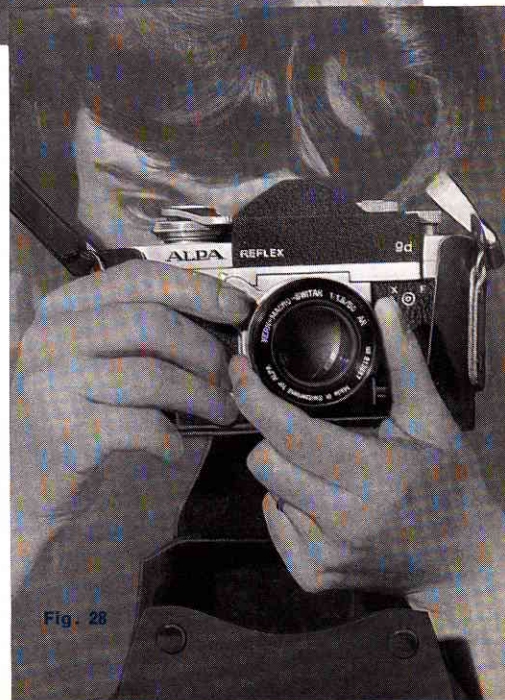


Fig. 28

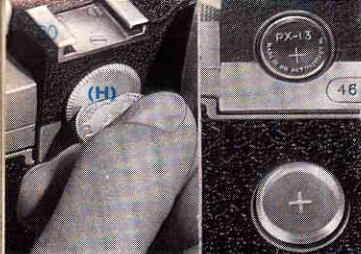


Fig. 29

## G. ALPA ACCESSORIES

**a) ALPA filters.** (Fig. 30) precision-ground from the finest dyed-in-the-mass optical glass, are of high quality, manufactured to the same standards as the lenses and coated on both surfaces. Their optical standard provides the best possible assurance of maintaining the definition and image quality provided by the finest camera lenses. The trademark "ALPA" is marked on the glass itself to provide a half-mark of quality. The mounts of the ALPA filters can with very few exceptions be fitted into the front mount of the lenses simply by pushing them into place. They are removed by pulling gently and rotating the filter at the same time. For colours which are not obtainable as dyed-in-the-mass glass filters, lacquered gelatine discs in ALPA mounts can be supplied. These

gelatine filters are **not mounted between glass** (cementing gelatine filters between glass flats will only give sufficiently high optical quality when the glasses are extremely thick in relation to their diameter: a thickness of over 15 mm is not uncommon. The price of such top-quality cemented filters is in the same order as that of the ALPA polarizing filter). On the other hand, unmounted gelatine filters are so thin that even when severely distorted they cannot affect the definition of even the fastest long-focus lenses.

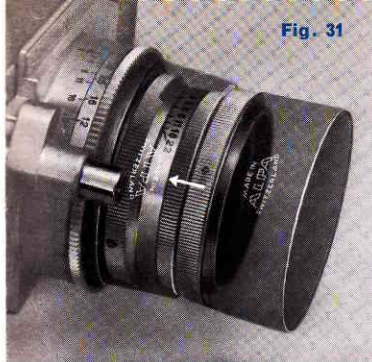
If required empty ALPA filter mounts can also be supplied.

When using filters together with supplementary close-up lenses, the supplementary lens should always be fitted immediately in front of the camera lens, with the filter on top of it.

**b) Supplementary close-up lenses.** (Fig. 32). These are available (in +1 diopter strength only  $\emptyset$  B in 0,5 d.) in mount A for the Switar, Xenar 75 mm and the Makro-Kilar 90 mm and in mount B for the Macro-Switar, Curtagon 35 mm and Alfitar 90 mm lenses. Whenever a supplementary close-up lens is used the diaphragm must be stopped down a little more than usual. When using both a supplementary close-up lens and a filter at the same time, the close-up lens should be mounted first, then the filter.

**c) ALPA lens hoods:** (Fig. 33.) Snapped on the outside of the lens mounts they are independent of the

Fig. 31



filters and can be removed again by a pressure on the loop of the flat spring. Most of the lens hoods can be reversed and slipped over the lens when not in use, so that they fit into the ALPA ever ready or lens cases. Among the wide angle lenses only the Curtagon requires a lens hood. A lens hood for the 24 and 28 mm lenses would be enormous, yet practically useless. Accordingly, the inside of their lens-mounts, behind the large front element, has been constructed in such a way that it functions as a built-in lens hood.

### Alpa lens caps :

see page 10.

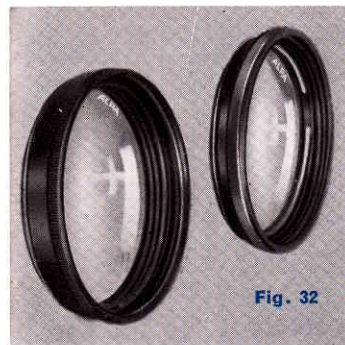


Fig. 32

Fig. 33

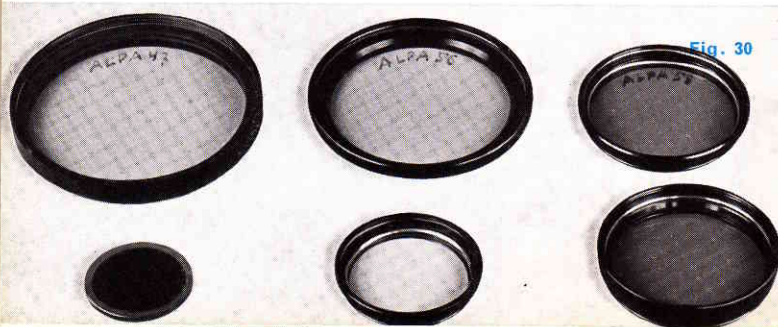


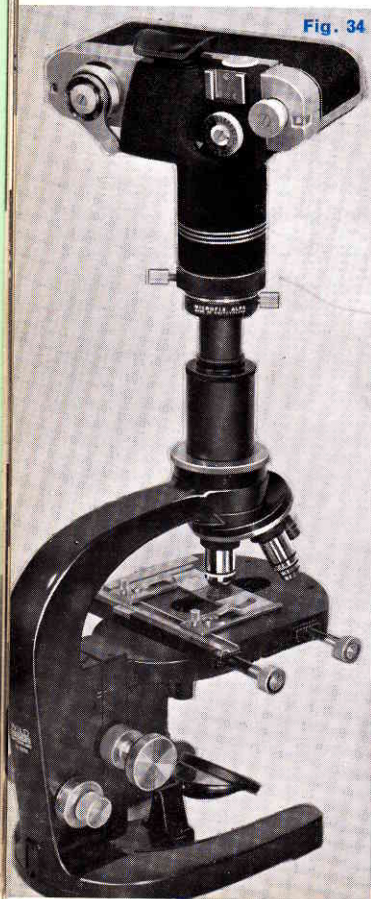
Fig. 30



Fig. 34

ALPA-Reflex Mod. 9d mounted on a Wild research microscope.

Fig. 34



**d) Microscopic adapter:** A simple clamping ring adapts the ALPA for attachment to any microscope for Photomicrography. (See separate leaflet.)

*To attach Alpa tenses on a microscope, the Inversbag is needed. (see page 30)*

Fig. 35

Microfix clamping-ring

Fig. 35



**e) ALPA Tuban extension Tubes :**

Fig. 36 shows the complete set, consisting of the following components: The 2 intermediate rings Tuban A (outside bayonet, inside thread) and Tuban B (inside thread and outside bayonet) and the actual Tuban extension tubes 4 (48 mm), 3 (24 mm), 2 (12 mm) and 1 (6 mm), Tuban A and B together have a total extension of 6 mm. The normal use is shown in fig. 37, with Tuban A and B between camera body and lens, while the actual extension tubes fit between the rings A and B according to the required extension. Fig. 38 indicates how the tubes are used **without** Tuban A and B rings, if a lens with detachable extension mount is used, as the ALPA Xenar 75 mm f/3.5 and Tele Xenar 360 mm.

**f) Bellows attachment:** Two different types of bellows near-focusing attachment are available for the ALPA: one model has dual adjustment controls whilst the other has only a single control (fig. 40). The maximum extension is the same with both types. The dual adjustment model makes it particularly easy to set up the camera so as to obtain the desired image scale, since it permits the entire camera to be rocked backwards and forwards. A special leaflet is available giving further details.

The bellows attachments can also be combined with the extension tubes to permit focusing at particularly short distances.

Fig. 39

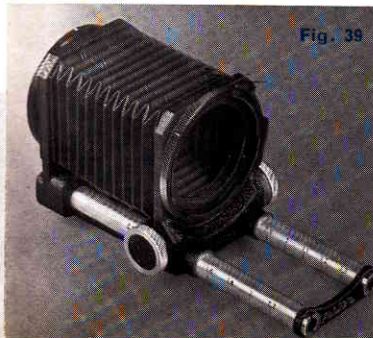


Fig. 40

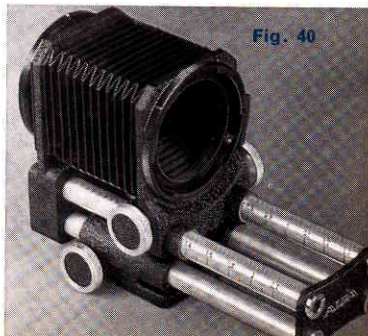


Fig. 36



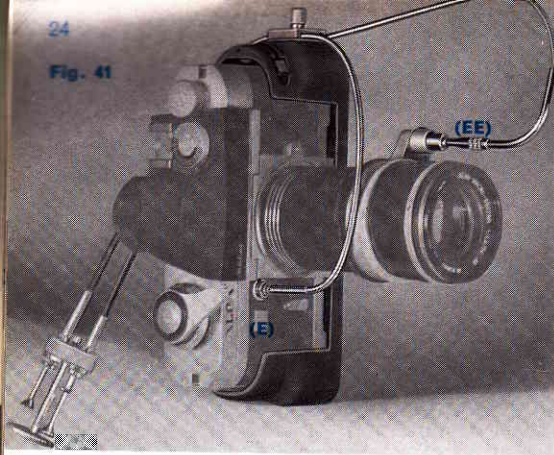
Fig. 37



Fig. 38



Fig. 41



Cameraholder with twin cable release.

Fig. 42

Pistol-grip with bellows and special twin cable release.



g) „usan" camera cradle: (Fig. 41) although the body of the ALPA Reflex is provided with a reliable tripod bush, the „usan" camera cradle will prove extremely useful when employing a tripod and in conjunction with the Macrostat unit. The cradle is equipped with three tripod bushes (making it possible to take vertical pictures without a ball-and-socket head and has in addition a device for supporting both single and twin cable release in order to prevent their weight and movement from shaking the camera at the moment of exposure.

This cradle can be employed universally for all types of tripod screw (3/8" continental thread and 1/4" ASA thread).

h) Pistol-grip (Fig. 42) with shoulder support: This device is especially recommended for use when taking pictures with long focus lenses. It is also frequently used with standard lenses and close-up accessories (and often with flash units also) for such purposes as photographing living insects.

When using an automatic-diaphragm lens which is not screwed directly into the camera body, a special type of twin cable release must be used so that the diaphragm can be stopped down and the shutter released merely by fingertip pressure.

A special twin cable release designed for this purpose is available under the code designation „combipan". If the direct trigger release „presscombi" is also obtained, then the „combipan" twin cable release can be employed

Fig. 43



independently of the pistol grip (in place of the normal „biclon" twin cable release).

i) Cable release: In order to avoid all traces of vibration when using the ALPA Reflex on a tripod, it is advisable to release the shutter by means of a cable release. The robust „Panzer" cable release should always be bent at a sharp angle in order to prevent the thrust of the plunger from being transferred to the camera itself. Two different types of cable release are available: the conventional straight pattern and an angled type. (Fig. 44.) Whenever a lens with a fully-automatic pre-set diaphragm is used with extension tubes or other devices for close-up work separating it from the camera body, it will be necessary to use a twin cable release in order to preserve the pre-set diaphragm facility. The twin cable release (Codeword: biclon) should be employed for this purpose: the plungers should be adjusted so that the lens diaphragm closes before the camera shutter is released. A special type of cable release is required when using the pistol-grip holder, to enable the diaphragm and shutter to be actuated with a single pressure (codeword: combipan).

Fig. 44



k) Correction lenses for Reflex Viewing: Most wearers of glasses can focus perfectly on the ground glass or with the split-image rangefinder of the ALPA 6c. Only certain people who should wear glasses but don't, especially long-sighted people, may have difficulties in accommodating their eyes. For this purpose there is a „montur" adapter which is attached to the eyepiece of the reflex finder and



Fig. 45

can be supplied with correction lenses of +1, +2, +3 and +4 diopters. Other correction lenses can be built into the empty mount by a local optician.

**l) Ever-ready case:** (Fig. 45 & 46) made of first-quality washable hide and available in dark brown („cidark“) or black („ciblak“). Attractive, functional design (protected), will accept camera fitted with any of the following lenses: Switar, Makro-Switar, Curtagon, 40 mm Makro-Kilar or 75 mm Xenar. The drop front is attached by means of snap (oe) (Fig. 46) fasteners and can easily be detached from the body of the case.

The camera is held securely inside the case by means of a captive screw, which is provided with a tripod bush to allow the camera to be mounted on a tripod without removing it from the case.

**m) „Suswit“ carrying strap:** (Fig. 47) this carrying strap will prove extremely useful when using the camera without its ever-ready case. The ALPA carrying strap is made of plaited leather and is supplied with carabiner-pattern spring fasteners; its length is adjustable. The normal pattern is white and will not mark clothing by rubbing against it. A black carrying strap (Codeword: Susblak) is also available but is supplied without any

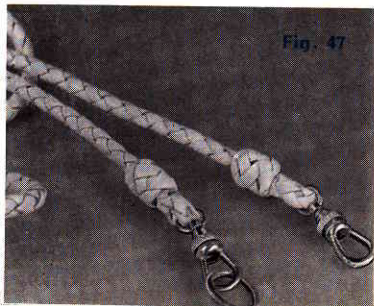


Fig. 47

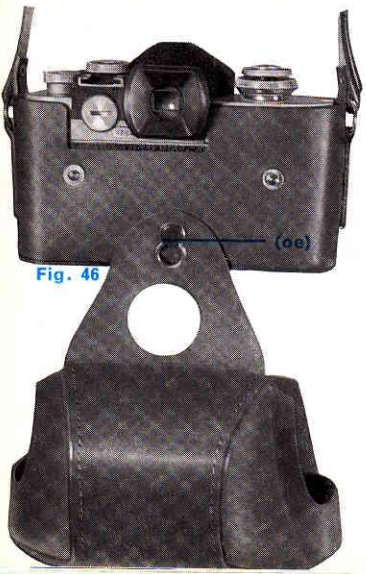


Fig. 46

warranty against the colour rubbing off. The spring clips need not be attached directly to the camera since a pair of split rings may be fitted to the eyelets on the camera body.

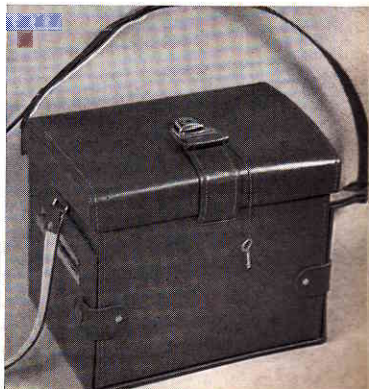
**n) ALPA leather cases for individual lenses:** (Fig. 48.) A set of leather cases, appropriately graduated in size, is available for all ALPA interchangeable lenses. The lenses are held securely inside the cases so that they cannot rattle about even when carried threaded to a shoulder strap; cushioned padding ensures a snug fit regardless of whether or not lens caps are fitted to the lenses. All cases are equipped with zip fasteners. A list of these cases and the lenses they will accommodate will be found in the table on page 31.



Fig. 48

**o) ALPA special holdall cases:** (Fig. 49.) Available in brown (codeword „lefdark“) or black („lefbalak“), these are extremely practical gadget bags for accommodating the ALPA Reflex with standard lens, lenshood and also 3 or 4 additional lenses and other accessories. The cases are designed extensible to make the contents more readily accessible. A special model is obtainable designed to accommodate two ALPA camera bodies with accessories. Handy clamps made from moulded nylon hold all accessories firmly in position without scratching their finish. All cases are provided with reliable locks to ensure the safety of their contents. Dimensions of case when closed: 19 x 25 x 22 cm deep (7 5/8 x 10 x 8 7/8 in. approx.)

Fig. 49



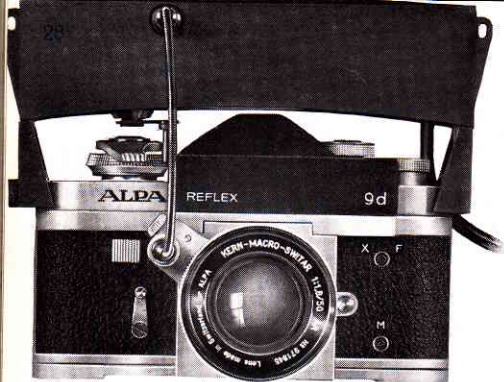


Fig. 50

**p) ALPA Electric Motor:** (Fig. 50.)

This motor is fitted to the ALPA camera and will wind and release the shutter in a fraction of a second. It can be set to take individual pictures, or to produce serial photographs at the rate of 1 exposure per second. The motor may be connected to the mains (via a transformer) or to a nickel-cadmium accumulator providing sufficient power for approx. 500 exposures, which can be recharged from the mains within 14 hours. The device may be operated by cable (up to 100 metres/yards long) to take pictures by remote control; it is also possible to actuate it without any physical cable connection. A special

leaflet is in preparation covering the innumerable uses of this apparatus.

**q) ALPA Film Magazine** (Fig. 51)

for 30 metres (100 ft) daylight-loading spools: The detachable back of the ALPA camera can be exchanged for a film magazine taking 30 m (100 ft) daylight-loading film spools, which provide sufficient film for about 780 exposures. A cutting knife is provided for cutting off the exposed footage (which can only be removed in a darkroom). The frame counter works both additively and subtractively. A detailed leaflet is in preparation. Available in 1965.

Fig. 51



Fig. 52

**The ALPA Macrostat** (Fig. 52)

This collapsible stand allows the photographer to exploit the full potential of the ALPA in copywork as well as in indoor and outdoor macrophotography.

Complete information and catalogue can be obtained.

You see above an application to copywork.

Fig. 53



**Inversbag rings a b c d e** (Fig. 53)

This universal set of rings allows following uses :

Adaptation of binoculars (Fig. 54) to ALPA lenses

- ∅ B a + c
- ∅ A a + b + c

Use of the reversed **Curtagon** for macro-photography over 1 : 1 (Fig. 56) and of the **Macro-Switar** over 3 : 1

Use of the reversed **Switar** for macro-photography over 3 : 1, of **Xenar 75 mm** over 1 : 1 a + b + d + e (Fig. 56)

Use of ALPA camera for microphotography with lens ∅ B a + d + microfix

Use of ALPA camera for microphotography with lens ∅ A (Fig. 57)  
a + d + b + microfix

Inversbag : ring a code inversbag

- b ,, inversred
- c ,, inverstel
- d ,, inverstar
- e ,, inersfil

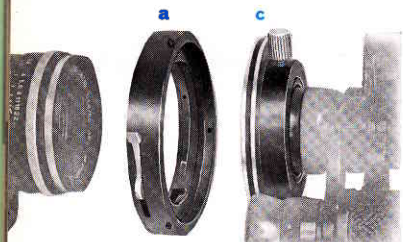


Fig. 54

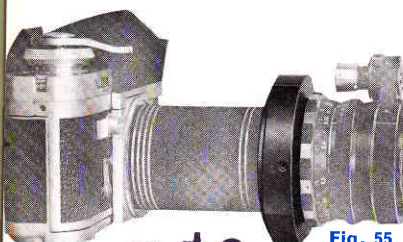


Fig. 55

a.d.e

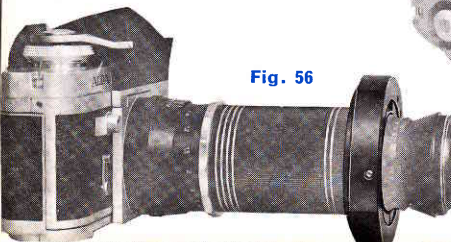


Fig. 56

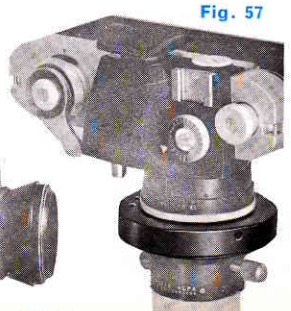


Fig. 57

**Table of Interchangeable ALPA Lenses, lenshoods, filters and cases**

|              | focal length mm | f/stop | lenshood | filter   | case   |
|--------------|-----------------|--------|----------|----------|--|
| Retrofocus   | 24              | 3.5    | none     | filtrado | reblak                                       |
| Retrofocus   | 28              | 3.5    | none     | filtrado | reblak                                       |
| Curtagon     | 35              | 2.8    | curtabe  | filtrabe | w/o lenshood<br>reblak with lenshood         |
| Makro-Kilar  | 40              | 2.8    | built-in | ecrana   | reblak                                       |
| Switar       | 50              | 1.8    | omxana   | filtrana | reblak                                       |
| Macro-Switar | 50              | 1.8    | omxabe   | filtrabe | reblak                                       |
| Xenar        | 75              | 3.5    | omxana   | filtrana | xetdark                                      |
| Alfitar      | 90              | 2.5    | omxabe   | filtrabe | redark w/o lenshood<br>muldark with lenshood |
| Makro-Kilar  | 90              | 2.8    | built-in | filtrana | nodark                                       |
| Apochromat   | 100             | 2      | parso    | filtrado | nodark                                       |
| Tele-Xenar   | 135             | 3.5    | omxabe   | filtrabe | muldark                                      |
| Apochromat   | 150             | 2.8    | parso    | filtrado | kindark                                      |
| Alitar       | 180             | 4.5    | omxabe   | filtrabe | mulblak                                      |
| Tele-Xenar   | 360             | 5.5    | parante  | xfiltran | texdark                                      |

**Color Rendition:** The Switar and Macro-Switar 50 mm f/1.8 APO-CHROMATS are known for their warm color rendition. Other lenses render colors somewhat coldly in comparison and may therefore be criticised as being not fully color corrected.

To match the color rendition of the various lenses, in particular with the standard Switar and Macro-Switar lenses, the use of the following filters is suggested :

- 40 colorless haze filter
- 610 pale pink haze filter
- 615 pink haze filter

| Retrofocus     | Curtagon | Makro-Kilar | Switar & Macro-Switar | Xenar | Alfitar | Apochromat | Tele-Xenar | Apochromat | Alitar | Tele-Xenar |
|----------------|----------|-------------|-----------------------|-------|---------|------------|------------|------------|--------|------------|
| 24 & 28        | 35       | 40          | 50                    | 75    | 90      | 100        | 135        | 150        | 180    | 360        |
| Filter numbers |          | none        | none                  | 40    | 40      | 40         | 40         | 40         | 610    | 40         |
| 40             | 40       | 40          | 40                    | 610   | 610     | 610        | 610        | 610        | 615    | 610        |
| 610            | 615      | 610         | 610                   | 615   | 615     | 615        | 615        | 615        | 615    | 615        |

It is essential to limit the comparison of color rendition to identical parts of the same subject, which appear in both pictures.



## GENERAL RECOMMENDATIONS

All ALPA cameras are renowned for their rugged construction, which has been proved abundantly under the most rigorous climatic conditions, in many expeditions to the arctic, the tropics and up the highest mountains in the world. One should never forget, however, that the ALPA is a precision instrument which must be handled with the appropriate care in order to maintain its high standards of performance. This applies equally to the interchangeable lenses and accessories.

In particular, pay special attention to the following points:

- 1) The camera should be protected against sudden blows and falls, and should not be subjected to continuous vibration (i.e. it should not be carried on the floor of a car close to the propeller shaft, nor on the luggage grid of a motor-cycle), since this may result in the loosening of sealed screws.
- 2) Do not leave the shutter tensioned during prolonged periods of disuse.
- 3) Keep the camera away from dust, wind-borne sand and humid atmospheres. When not in use it can be protected by storing it in a plastic box; in tropical countries, the camera should be kept in an airtight container together with a desiccating agent which can be regenerated easily such as silica gel.
- 4) In winter, when carrying the camera from outdoors into a warm room, the metal and glass surfaces will become misted over with condensation. This should not be wiped off: wait until it disappears of its own accord as the camera warms up.
- 5) Every time the camera is re-loaded, the film track and pressure plate should be cleaned with a piece of fluff-free cloth (never use cotton wool). Occasionally the film track guides and pressure plate should be rubbed over with **just a trace** of paraffin (Kerosine) oil, taking care to wipe away all the surplus.
- 6) Never lubricate the mechanism yourself! The shutter can be operated

many thousand times without needing oiling. The special lubricants employed at the ALPA factory are **not compatible with other oils.**

7) Do not attempt to dismantle the camera yourself. This operation requires not only extensive knowledge but also special tools. **The maker's guarantee will be rendered void if the camera has been tampered with by any unauthorized person.**

8) A special water-tight case is available for taking underwater photographs. The camera itself is **not** watertight! If the camera is dropped accidentally into the water, it should be dried out immediately and then sent as soon as possible to a service agent or direct to the factory. If the camera is dropped into **salt** water, it must first be rinsed several times in fresh water, preferably concluding with a rinse in distilled water, before being dried. If sea water is allowed to dry in the camera, the increasing salt concentration will erode all metal components (including chrome). The resulting corrosion will result in the effective destruction of the entire mechanism.

9) If the camera is lost or stolen, report the serial number of both the camera body and the lens immediately to your dealer, the ALPA agents in the country where you are, and also to the manufacturers. This provides the only possible method of detecting the camera and restoring it to its rightful owner, in the event of its ever being sent in for repair, etc.

10) Commercial film cassettes are more frequently faulty than one might suppose. When loading the camera, make certain that the film can move easily and that the mouth of the cassette is not too tight or dented. If the film will not pull out freely, it may be assisted by gently inserting a penknife blade between the lip of the cassette and the **back** of the film. Make sure that there are no loose velvet threads hanging from the cassette mouth; these may become detached and get caught in the film track.

## Synchronization for different flashbulbs

| Shutter setting | Flashbulbs TYPE:               |        |                     |              |            |   |   |            |         |                               |               |                                |           |            |
|-----------------|--------------------------------|--------|---------------------|--------------|------------|---|---|------------|---------|-------------------------------|---------------|--------------------------------|-----------|------------|
|                 | Philips                        |        |                     | Osram        | Sylvania   |   |   |            |         | General Electric/Westinghouse |               |                                |           |            |
|                 | PF 1<br>PF 5<br>PF 38<br>PF 60 | PF 100 | PF 24<br>PF 25<br>* | XM 1<br>XM 5 | M- 2<br>SF | 3 | Bantam 8<br>Press 25<br>Press 40<br>O 2 | FP 26<br>* | 2A<br>* | PH/M2<br>PH/SM                | AG-1<br>PH/50 | PH/8<br>PH/5<br>PH/11<br>PH/22 | PH/6<br>* | PH/31<br>* |
| 1/15 sec.       | ** X                           | X      |                     | ** X         |            | X | X                                       |            |         |                               | ** X          | X                              |           |            |
| 1/15 - 1/1000   |                                |        |                     |              |            |   |   |            | M       |                               |               |                                |           |            |
| 1/30            |                                | M      |                     |              | X          | M |   |            |         | X                             | M             |                                |           |            |
| 1/30 - 1/1000   |                                |        | M                   |              |            |   |   | M          |         |                               |               |                                |           | M          |
| 1/60 - 1/1000   |                                |        |                     |              |            |   |   |            |         |                               |               |                                | M         |            |

### Note:

These indications follow strictly the technical data given by the bulb manufacturers. In practice the allowed tolerances are greater.

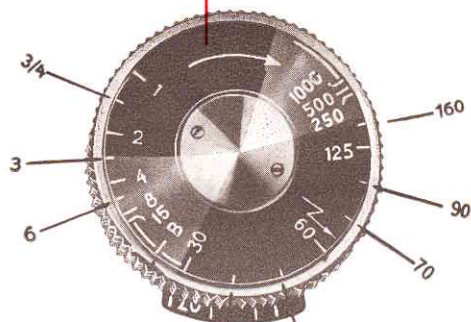
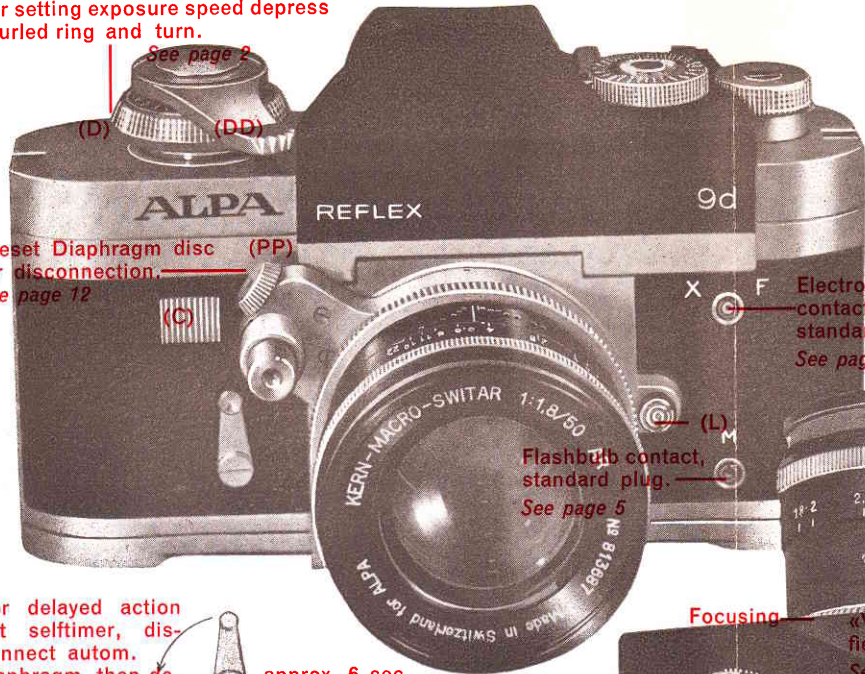
The blue flashbulbs for color film synchronize identically to the ones for black and white film.

If the flashbulbs are used with the X-contact, do not operate the release button before winding the camera, as the flashbulbs would fire uselessly.

**PF** is the abbreviation for flashbulbs made by Philips, while **FP** means bulbs for focal plane shutters.

For setting exposure speed depress knurled ring and turn.

Shutter wound up.

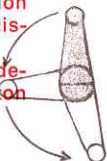


Preset Diaphragm disc (PP) for disconnection. See page 12

Electronic flash contact, German standard plug. See page 4

Values of shutter speeds indicated by strokes on the scale. Other intermediate settings are possible but not where there is a continuous stroke at the edge of the ring.

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



approx. 6 sec.

max. = approx. 20 sec.

See page 4

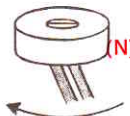
Flashbulb contact, standard plug. See page 5

Diaphragm setting ring (F)

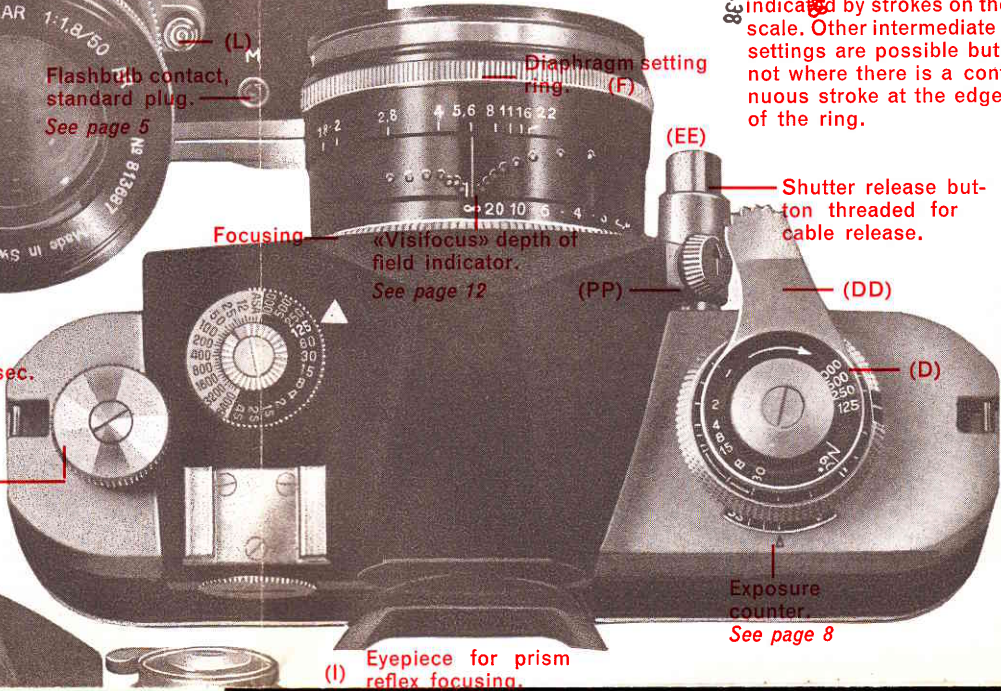
Focusing

«Visifocus» depth of field indicator. See page 12

Shutter release button threaded for cable release.



For rewinding exposed film, pull out knob and turn the crank. See page 10



Exposure counter. See page 8

(I) Eyepiece for prism reflex focusing.

Eyepiece can be turned for vertical pictures.

(H)

465

See page 20

46502 MADE IN SWITZERLAND

Loading camera:

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

See pages 8-9

Coupling knob to be pressed before rewinding film.

See pages 9-10

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

See pages 7-8

(M)

(O)

## Brief instructions for use of the ALPA 9d Camera

- 1) **Setting the film speed:** This should be done when loading film in the camera. Place one finger on the central knob of dial A (Fig. 2) and turn the outside of the dial B (Fig. 2) until the ASA speed is opposite the index. In Fig. 2 the setting is for 100 ASA.
- 2) **Locking the shutter release:** The release lock C (Fig. 1) must be pushed towards the lens to lock the shutter release. The shutter can be wound before or after this operation. \*
- 3) **Setting the shutter speed** on dials D and B (Fig. 2)  
Fig. 2 shows both settings at  $\frac{1}{30}$ th sec. The most frequently used speed in outdoor conditions,  $\frac{1}{125}$ th sec, is marked in red on both dials.
- 4) Focusing and framing the picture is then done carefully and the release button EE (Fig. 2) is depressed completely. This closes the diaphragm and activates the electric circuit for the photo-resistances. Maintain the pressure and set the diaphragm by turning ring F (Fig. 2) until the needle is in the centre of the fixed circle. This operation automatically sets the diaphragm correctly. (Fig. 2 shows f/4.)
- 5) If you first preset your diaphragm at desired aperture, depress the release button EE completely, which closes the diaphragm and the electric circuit. Turn the dial B (Fig. 2) until the needle is centered, which automatically indicates the correct shutter speed. Then set the same shutter speed on dial D as well.
- 6) **Remember to release the shutter lock before exposure.**

Fig. 1

Fig. 2

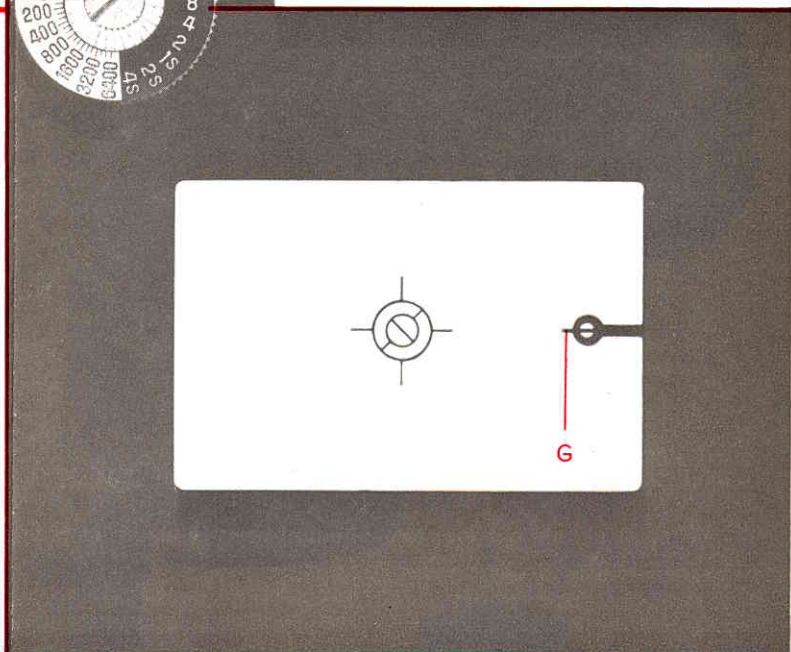
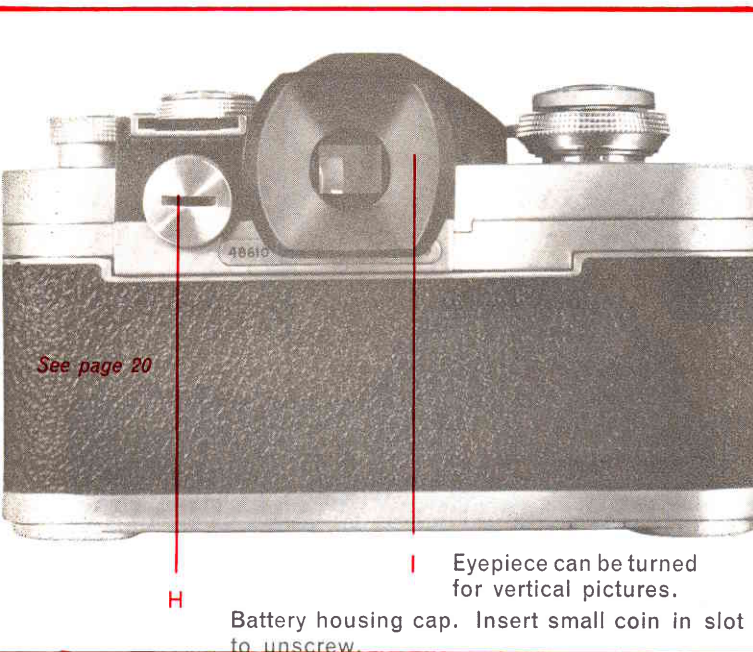
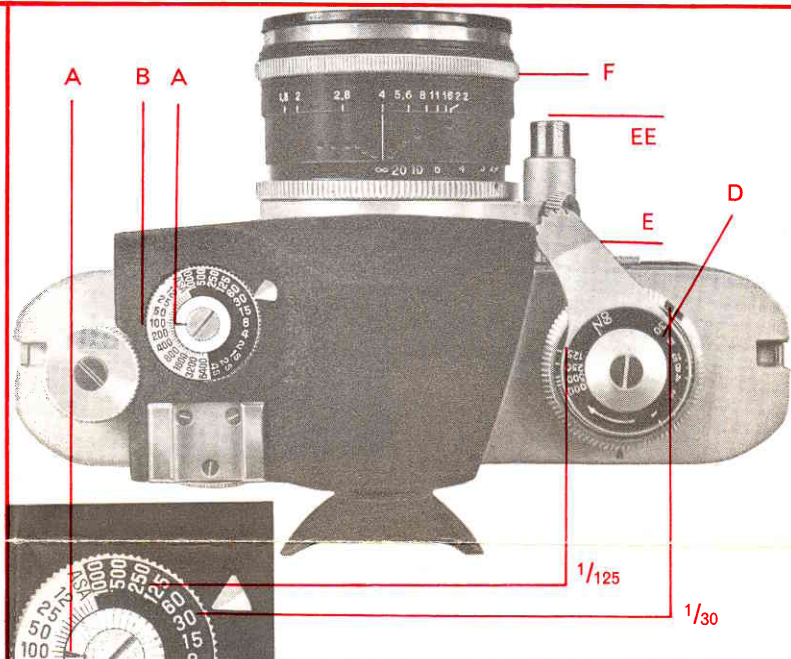
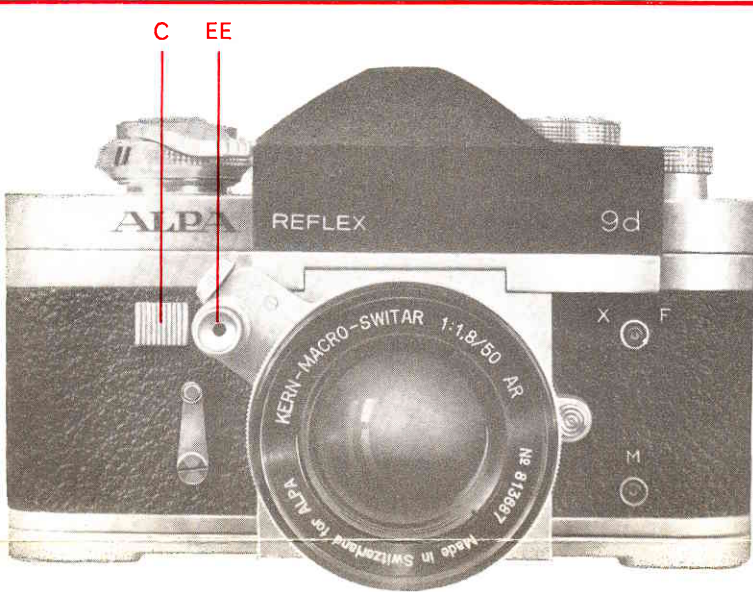


Fig. 3

Fig. 4

\* If a cable release is inserted directly in the shutter release E (Fig. 2), the shutter lock C is ineffective and the reading should be taken before the shutter is wound on. When a cable release is fitted into the release EE (Fig. 2), the operation of the lock C is not affected.

# Brief instructions for exposure determination with the ALPA 9 d.