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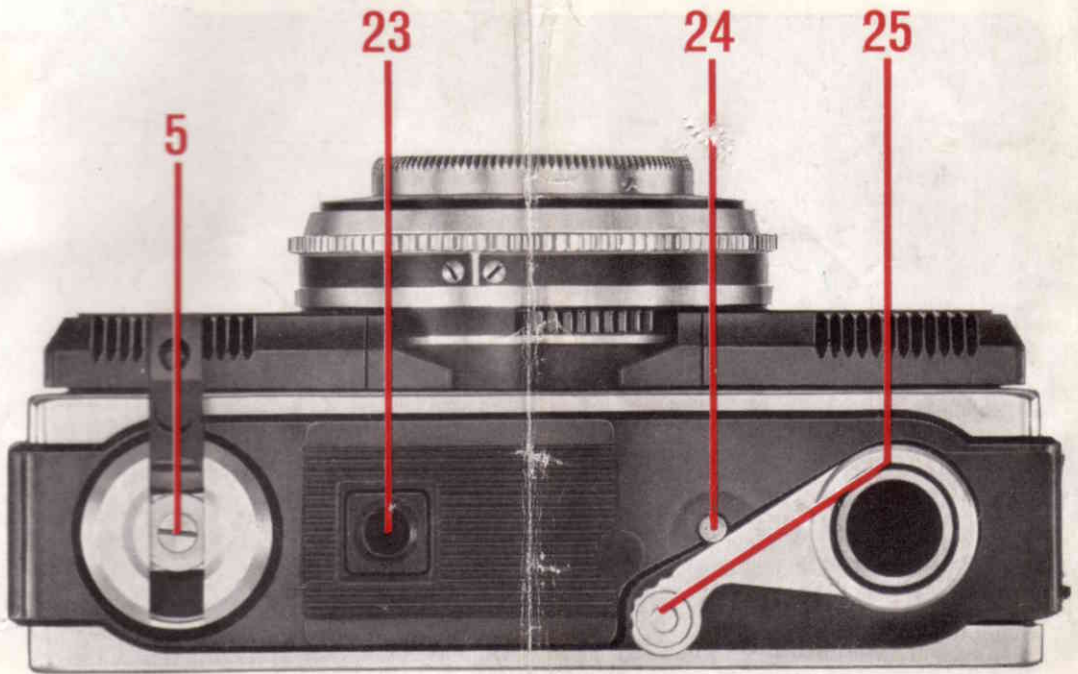
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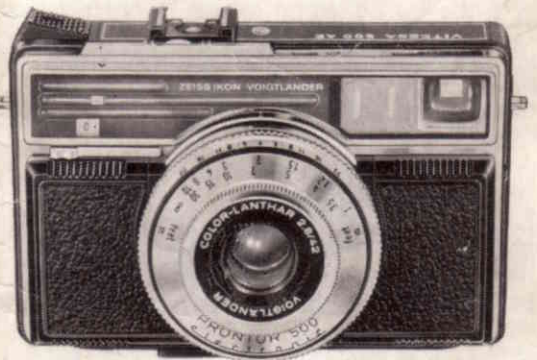
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Vitessa[®]

500 AE

Instructions for use



englisch GA/10.0413

Printed in West-Germany 2 1267 / æ — 1 A
Author: W. Kaiser

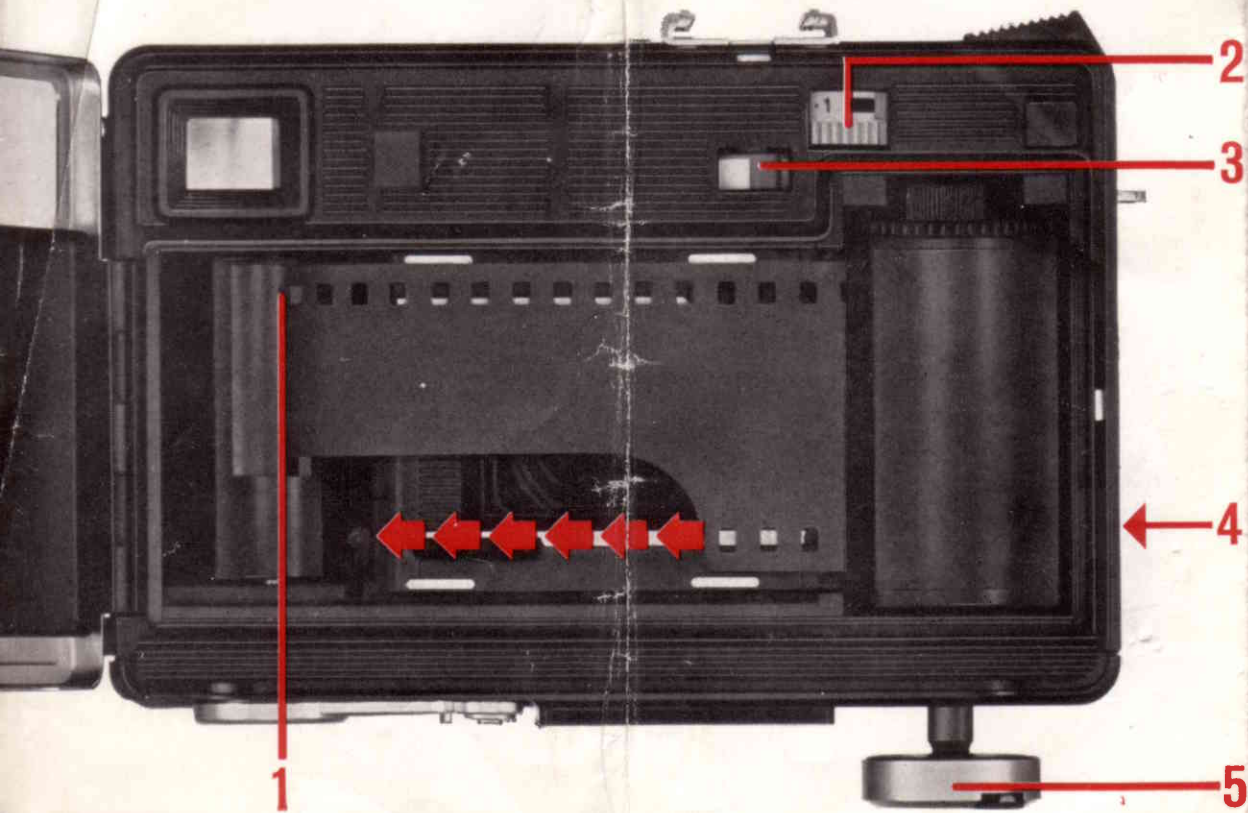
from the Golden Program

**ZEISS IKON
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Camera controls

- 1 **Take-up spool** with slot and hook for attaching film leader
- 2 **Film counter**
- 3 **Film transport control**
- 4 **Locks for opening camera back**
- 5 **Rewind knob** with folding rewind crank
- 6 **Window** for checking adjusted exposure corrections
- 7 **Slide** for adjusting exposure corrections
- 8 **Battery covers**
- 9 **Batteries**
- 10 **Focusing ring** with distance scale in metres and feet
- 11 **Lever** for setting the shutter to automatic and flash exposures
- 12 **Green battery testing key**
- 13 **Eyelets** for carrying straps
- 14 **Windows** for checking adjusted DIN and ASA film speeds
- 15 **Aperture scale**
- 16 **Setting mark** for automatic and flash exposures
- 17 **Setting mark for aperture and distance** with depths of field scale
- 18 **Accessory shoe** with M-contact for flash units
- 19 **Milled ring** for pre-selecting aperture
- 20 **Slide** with blocking key for setting film speed
- 21 **Shutter release**
- 22 **Control lamp** for timing the shutter action and battery testing

23 **Tripod socket**

24 **Rewind key**

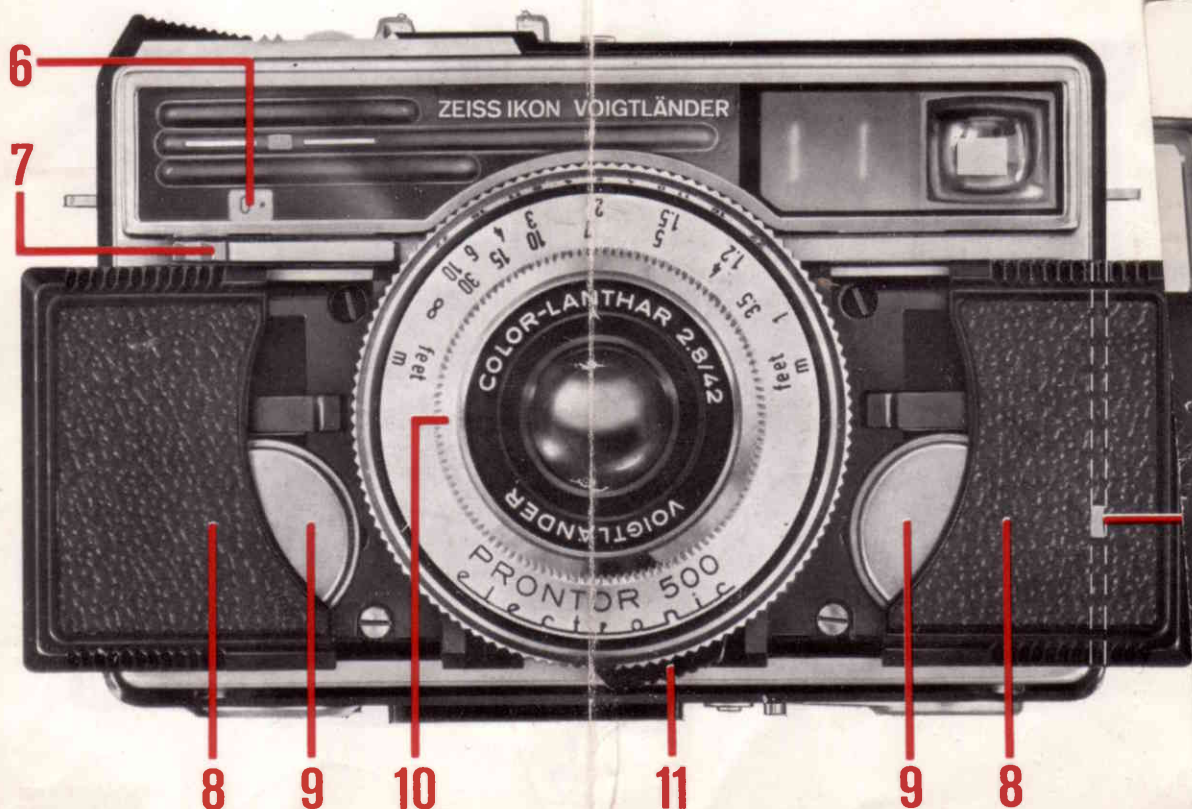
25 **Rapid winding lever**

Inserting the film (Do not load the camera in direct sunlight): Push locks (4) towards the camera base and open up the back. Press out rewind knob (5) at the shaft that protrudes into the camera. Attach the film leader with one of the perforations to the hook on take-up spool (1). Pull the cassette across the film track, insert in the film chamber and push the rewind knob firmly back in place. Turn the take-up spool by advancing rapid winding lever (25) as far as it will go **a few times** until the film perforations engage in **both** sprocket rings. If necessary, turn the take-up spool by hand to engage the film perforations in the sprocket rings. Close the camera back. Now operate rapid winding lever (25) and shutter release (21) alternately until the figure "1" appears in film counter (2). The camera is now ready for use.

Checking camera loading: Whenever a number is visible in the film counter, a film is always in the camera.

Film transport control: If the red-white drum (3) turns with the film transport, the film is definitely being advanced.

Setting the film speed: Press down blocking key (20) and, at the same time, move the slide connected to it either to the right or left until the required film speed number



(DIN or ASA) is indicated in one of the windows (14). Blocking key (20) should now be allowed to re-engage. The film speed value is given on the film pack.

Removing the film: After the final exposure has been made (the number indicated in the film counter is either 20 or 36), do not advance rapid winding lever (25), but rewind the film. To do this, press down rewind key (24), which is automatically held in this position by the rapid winding lever springing back. Then unfold the rewind crank from the rewind knob and turn it clockwise until a slight resistance is felt (a black field is now visible in the film counter). Open the camera back, pull out the rewind knob as far as it will go and take the film out of the camera. The rewind returns to its normal position when the rapid winding lever is advanced. Always keep the take-up spool and film track clean.

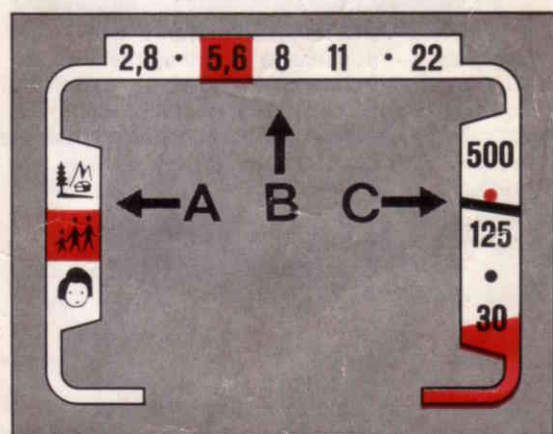
Please note: When the film transport is advanced beyond either 20 or 36 exposures, the rapid winding lever may jam half-way. Any attempt to force the rapid winding lever can damage the transport mechanism or tear the film from the spool, which then makes rewinding impossible. To avoid this, press down rewind key (24), advance the rapid winding lever as far as it will go and then let it spring back. The film can then be rewound as described above.

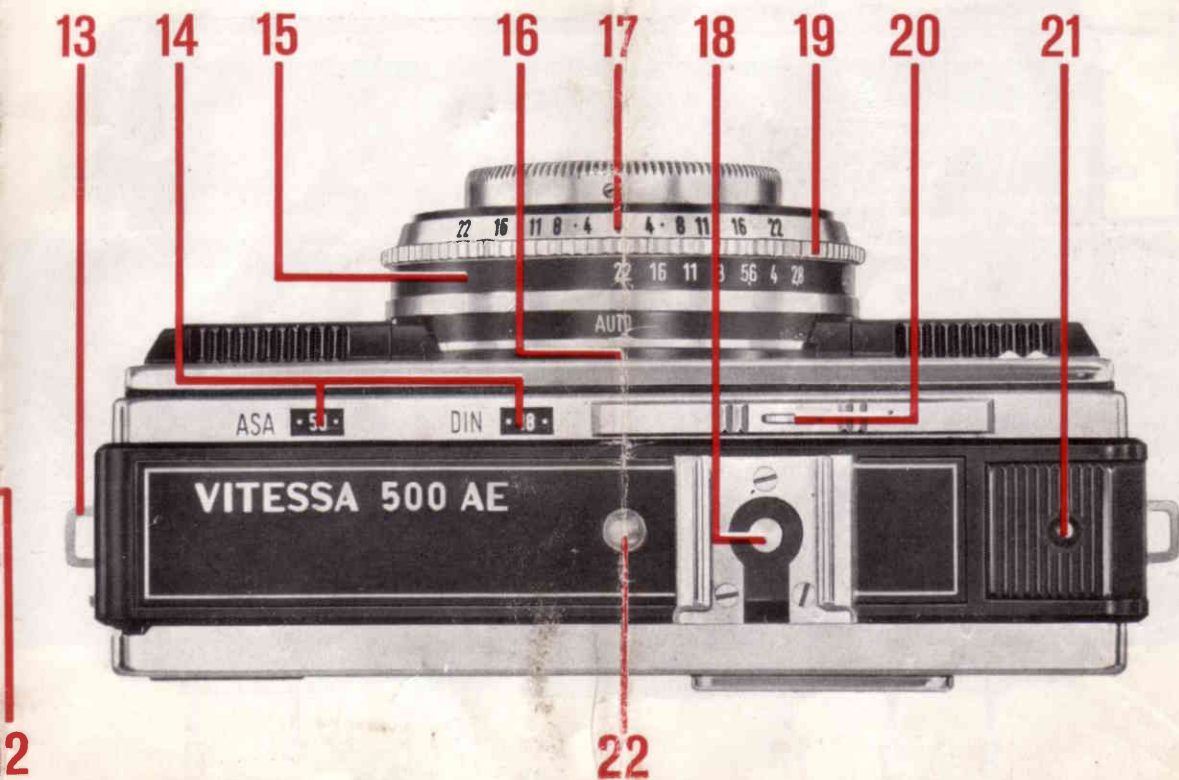
Changing partly exposed film: A partly exposed film can always be taken out bet-

ween exposures and another one inserted (e.g., black-and-white film for a colour film). Note the number of the last exposure (it is best to write it down) and rewind the partly exposed film back into the cassette. When re-inserting this film, the loading procedure is the same until "1" appears in the film counter.

Then press down the shutter release, let go and press down again and hold in this position (fixed position). Advance the rapid winding lever until the film counter indicates the frame number previously noted. Now let go the shutter release, advance the rapid winding lever and the film can be exposed as usual.

Focusing: Turn focusing ring (10) with the distance scale until the required number in metres or feet is opposite mark (17). The





click-in positions noticed when turning the focusing ring are indicated in the viewfinder by symbols (landscape, group, portrait). This device provides rapid focusing without moving the camera from the eye.

A = distance symbols —
B = aperture scale —
C = shutter speed scale.

Adjusting the exposure values (speed and aperture) The electronic control in the camera operates only when the word "AUTO" is clicked-in at setting mark (16). To do this, lever (11) has to be moved.

Electronic control of the shutter in the VITESSA 500 AE then automatically provides the required shutter speed for the pre-selected aperture.

The aperture depends on the depth of field that is required for the picture. Each photo-

graphic lens records a sharp image only for a limited area in front of and behind the focused distance. This zone of sharpness (depth of field) increases as the aperture is stopped down. Depth of field scale (17) indicates its range for the individual apertures:

Example:

distance setting 2 m
depth of field at aperture 22
from 1.2 m (4 feet) to 10 m (30 feet)

Please note:

large aperture (2.8) = small depth of field,
small aperture (22) = largest depth of field.
The aperture is set with milled ring (19). The aperture values are indicated in the viewfinder (upper scale below the red cursor) or on the lens panel at setting mark (17) on scale (15).

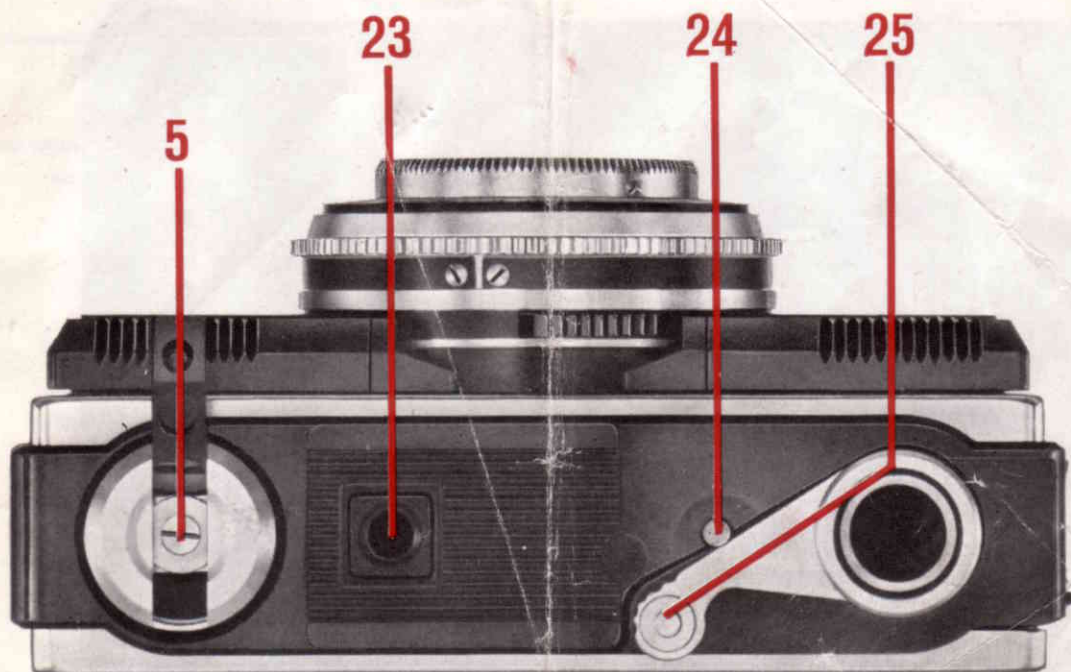
The shutter speed that is automatically selected for the aperture by the camera depends on the prevailing light conditions. Another factor on which the shutter speed also depends is the rate at which the subject is moving; the faster movement, the shorter the exposure time.

Please note: The larger the aperture, the shorter the exposure time.

The smaller the aperture, the longer the exposure time.

The shutter speed is indicated in the viewfinder on the right-hand side under the exposure meter needle. The numbers on the scale indicate fractions of a second,





whereby $\frac{1}{250}$ sec and $\frac{1}{60}$ sec are marked by dots. Turn milled ring (19) to set the speed-aperture combination required for the exposure and press the shutter release.

When taking the picture, always press the shutter release gently and smoothly — never jerkily, as this would result in "blurred pictures". Also take care when using the camera that the measuring cell is not covered. It is accommodated below window (6) and distinctly marked. If the exposure meter needle lies above $\frac{1}{500}$ sec, it must be brought down by selecting a smaller aperture, in order to avoid incorrect exposures. If the needle enters the orange zone below $\frac{1}{30}$ sec owing to poor light conditions or because a small aperture has been selected to suit the requirements of a particular subject, the camera must either be placed on something firm or attached to a tripod, since the electronic exposure system continues to operate up to an exposure time of approximately 10 sec. In the case of extremely low brightness (e.g., night exposures) the electronic mechanism governing the shutter action should be given additional time to operate before taking the first picture.

The shutter release should be pressed down only briefly. The shutter closes automatically after the time set for the exposure. The timing of the shutter action is indicated by control lamp (22).

The thread socket in the shutter release is used for attaching a cable release.

Rapid winding lever: After each exposure advance the rapid winding lever until it stops. This tensions the shutter, transports the film and advances the film counter (check film transport). A locking mechanism prevents it being advanced again before the next exposure has been made; similarly, the shutter release can only be pressed down after the rapid winding lever has been advanced.

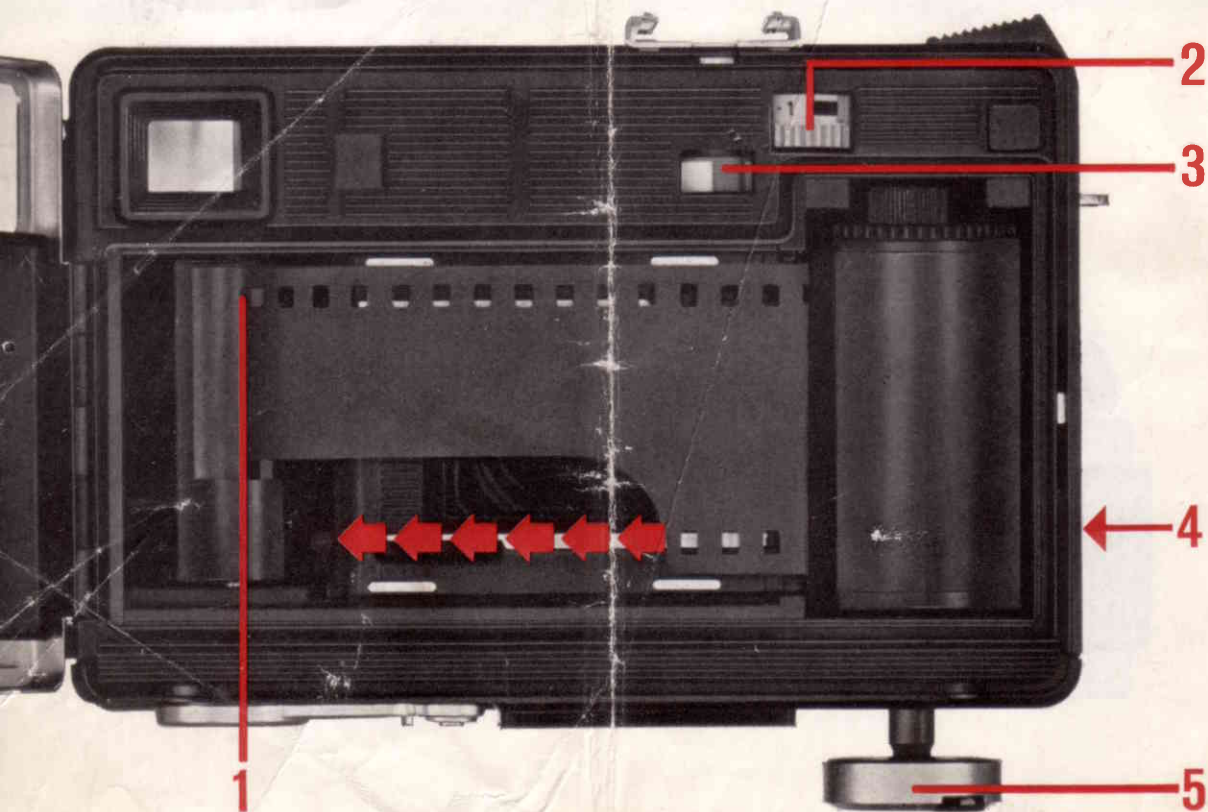
Electronic exposure system: The light falls on a CdS photocell which controls the electronic setting of the shutter speed.

It provides exact exposure times from $\frac{1}{500}$ sec to 10 sec. Moreover, the shutter can remain open up to 60 sec, depending on the prevailing light conditions. The timing is checked by means of lamp (22).

It lights up:

1. when the camera is tensioned and the shutter release is pressed down and held in this position
2. when the shutter has been released and the pressure removed from the shutter release, should the prevailing light conditions cause the shutter to remain open (long exposure time check)
3. when testing the batteries (battery check).

In the range of the long exposure times (theoretically from $\frac{1}{30}$ sec) the shutter can always be closed by changing lever (11) from "AUTO" to "flash".



The electronic exposure system has standard calibration and gives correct exposure for average conditions. When conditions are somewhat different, for instance, open landscapes with large areas of sky and especially with backlight, inaccurate readings can result.

Corrections are made by pulling out slide (7). The required correction value should be set in the centre of window (6). The numbers 1 and 2 indicate light values equivalent to filter factors 2 and 4x.

Intermediate settings can be made. When using slide (7) a red triangle appears in the viewfinder as an indication that a correction value is being used. At the same time, the exposure meter needle changes its position. If a particular shutter speed is required, the needle can be re-adjusted with the aid of the aperture ring (whereby the aperture setting will change accordingly).

The batteries type "Mallory PX 825" which are used in the camera for operating the electronic system will last for about 1 year with normal use. In order to ensure a constant current supply, they must be protected from extreme temperatures (below -10°C). When the camera is not in use, the batteries should be switched off by setting the flash symbol at mark (16), as this will save current.

Testing and changing the batteries

Press down battery testing key (12). Control lamp (22) should then light up. If the

control lamp fades during this test within approximately 5 seconds, both batteries must be changed.

They are accommodated underneath the covers (8) which can be pushed to one side.

Place the new batteries in the holders so that the writing is visible (+pole facing upwards).

New batteries are obtainable from photographic dealers.

The accuracy of the electronic exposure system is maintained even when the batteries start to run down. With batteries that are completely run down or with no batteries in the camera, the shutter can still manage $1/500$ sec whether set at "AUTO" or "flash". The exposure value can then only be adjusted with aperture ring (19) using your own judgement.

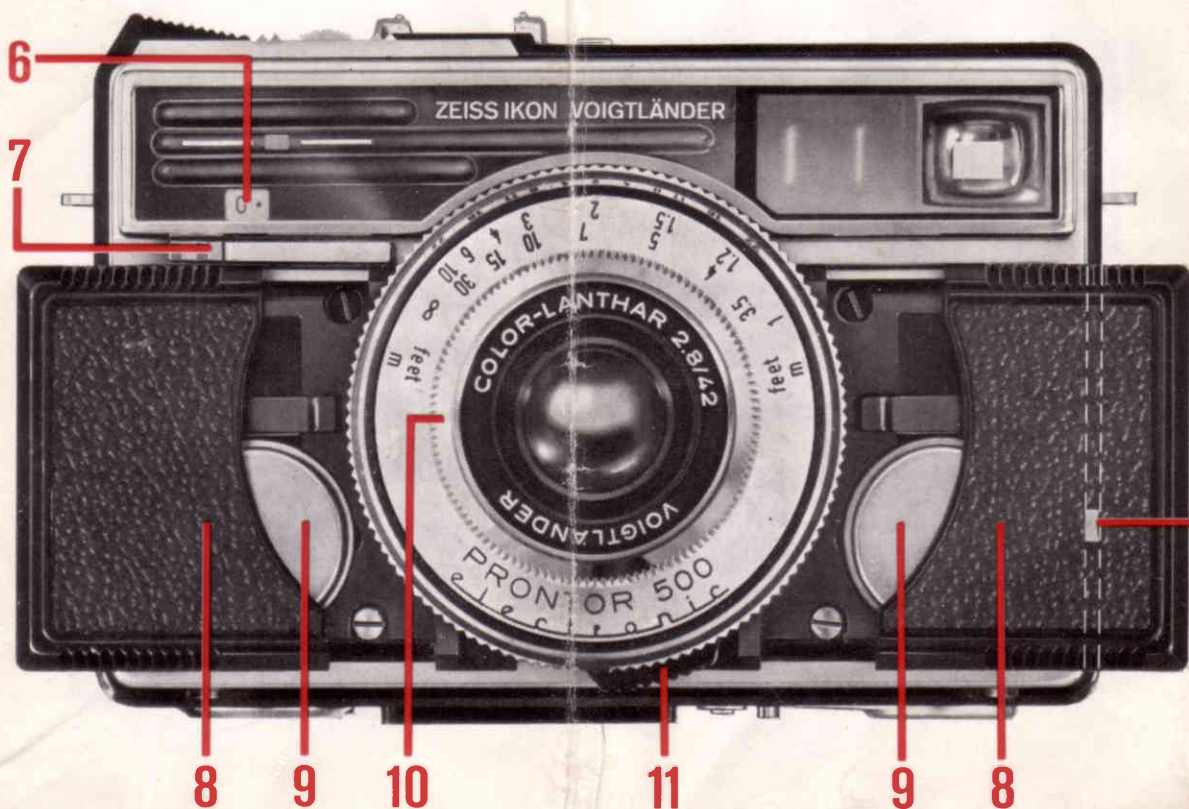
Filters

The colour filters yellow, green and orange can only be used with black-and-white films — UV and SF filters, on the other hand, can also be used with colour material. Each filter (with the exception of UV and SF) requires a somewhat longer exposure time, which is obtained by pulling out slide (7). (See "Electronic exposure system")

Yellow Filter

Soft filter effect for outdoor exposures. Ideal for snapshots, sport and low sun level. —

Filter factor: 1.5x, equivalent to a light value of 0.5.



Green Filter

Lightens the "green" tones in landscapes. Recommended for portraits in artificial light and reproduction of colour pictures. —

Filter factor: 4 x, equivalent to a light value of 2.

Orange Filter

Pronounced filter effect through strongly subdued blue tones. Penetrates atmospheric haze in distant landscapes. —

Filter factor: 5 x.

In this case, set slide (7) at 2 and reduce the film speed by $1\frac{1}{2}$ numbers (e.g., instead of 18 DIN, set at the dot between 18 and 15 DIN).

Ultra-Violet Filter

Absorbs the ultra-violet rays in mountain regions and near the sea. In colour exposures, prevents the dreaded bluish cast. —

No filter factor.

Skylight Filter

Effect similar to UV filter, combined with slight correction filter. Absorbs UV light completely. —

No filter factor.

Flash exposures

Flash units with M-contact are connected electrically to the camera direct through accessory shoe (18). Flash units with synchronizing cable can also be attached to the accessory shoe, but only with an adapter obtainable from photographic dealers.

The VITESSA 500 AE is x-synchronized. The shutter is set at a fixed shutter speed ($1/30$ sec) by moving the flash symbol to mark (16). This speed applies for all types of flash equipment. The electronic exposure system is now disconnected.

For setting the aperture, "guide numbers" are given on the packing or in the instructions for the flashbulbs or electronic flash units. The correct aperture is obtained by dividing the appropriate guide number by the distance (in m) between the flash unit and the subject. Set the aperture (on scale 15) with the milled ring at mark (17).

Care of the camera and lens

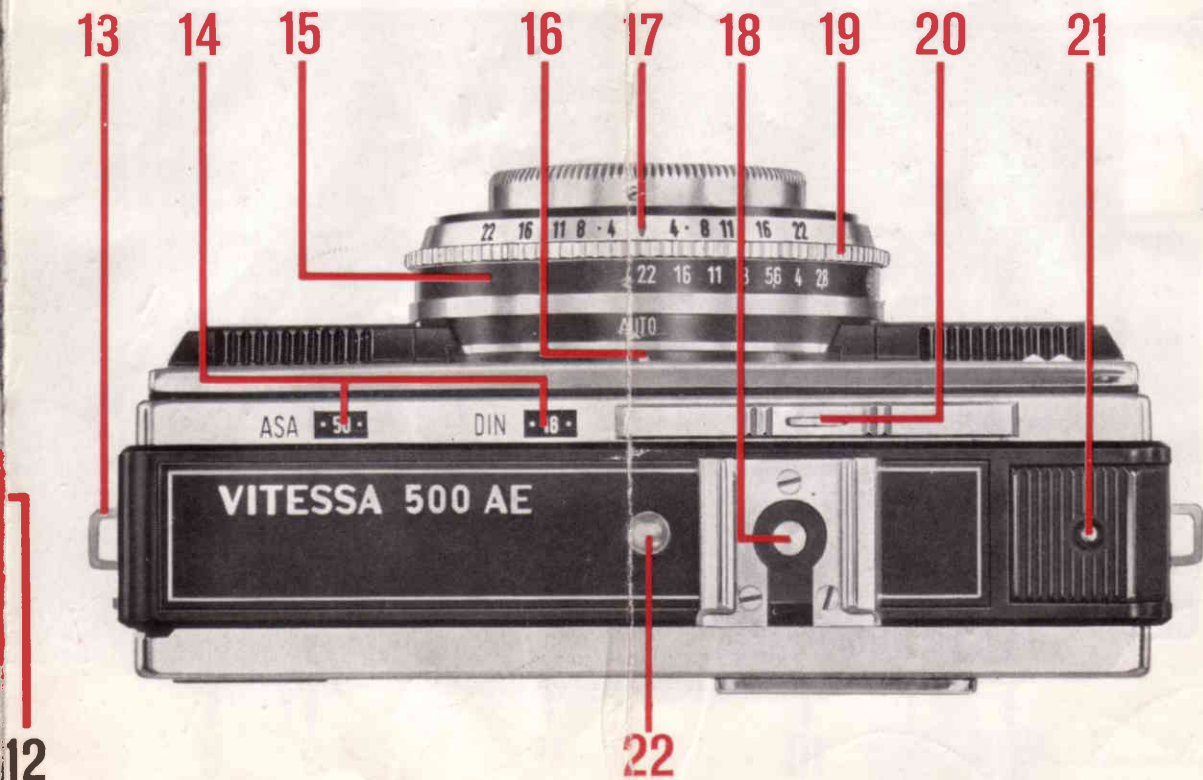
Good picture performance and long use of the camera depends to a considerable extent on good care and correct handling.

Always handle the camera with great care and never use force. Do not subject it to hard knocks or drop it and never put it in the glove compartment of the car. The electronic exposure system would not withstand this "shake test" for any length of time.

Use only a soft, lint-free cloth for cleaning the lens; thick dust or sand particles must be carefully removed beforehand with a soft hair brush. Fingermarks and other grease marks on the lens or viewfinder can be removed with a cotton-wool pad moistened with pure alcohol spirit or ether.

Accessories:

		Order No.
Filter yellow	S 30.5 ϕ	20.6000
Filter green	S 30.5 ϕ	20.6002
Filter orange	S 30.5 ϕ	20.6003
Filter UV	S 30.5 ϕ	20.6005
Filter Skylight	S 30.5 ϕ	20.6008
Lens hood, collapsible	S 30.5 ϕ	20.5702



Lens hood	S 30.5 ϕ	20.5780
Supplementary lens F 1 f = 1,0 m 1.0 dptr.	S 30.5 ϕ	20.5801
Supplementary lens F 2 f = 0.5 m 2.0 dptr.	S 30.5 ϕ	20.5802
Rangefinder, slip-on type		20.6502
Cable release with locking device		20.0281

Cases and containers

Ever-ready case		20.8009
Leather case for rangefinder		20.7031

Your photographic dealer will gladly give you further information on other ZEISS IKON-VOIGTLÄNDER accessories, such as flash units and projectors, and also advice on any photographic problems. This also applies for the photographic advisory service of ZEISS IKON-VOIGTLÄNDER Vertriebsgesellschaft mbH, 7 Stuttgart, Postfach 540, who will advise you free of charge on all photographic problems and supply any information that you may require.

ZEISS IKON-VOIGTLÄNDER offer a world-wide guarantee — a valuable service covering all countries and frontiers. A guarantee certificate is provided with each camera. Make sure that your photographic dealer confirms the date of purchase with his signature on the back of the certificate.

Please take good care of this certificate in your own interest as it contains a list of the repair agents throughout the world for ZEISS IKON-VOIGTLÄNDER products.

We reserve the right to make alterations in line with technical progress.

They are PX 825's batteries ,
you need two,
and you can get them from
The Small Battery Company via internet.
That web site is
<http://www.smallbattery.company.org.uk>