

To ensure complete safety, it is always advisable to take flash pictures using the protective shield supplied with every camera. The two pins of the shield are fitted into the openings 24 (Fig. 4), so that the shield stands in front of the flash reflector. After taking each picture, pull the reflector backwards gently. The hot, burned-out flashbulb will then be freed from its holder and can be dropped out by tilting the camera forwards.

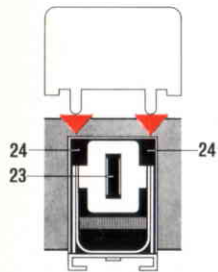


Fig. 4

The manufacturers reserve the right to introduce modifications in the interest of technical progress.

Accessories

Eveready case

Code
23.0104

Colour filters G (= yellow)-Gr-O-R-UV
S 27 mm dia.

Ikolor -B, -C and -F S 27 mm dia. 20.1000
1 Filter set, G-Gr-O-UV, S 27 mm dia.,
with case 20.7071

Lenshoods

Flexible, A 27 mm dia. (remains on camera) 20.0713
Leather case for A 28.5 mm lenshood
and 3 S 27 mm filters 20.7841

ZEISS PROXAR lenses

A 28.5 mm dia. for close-up exposures
from 39½ to 19½ in (f = 1 m) 20.0800
from 20 to 13½ in (f = 0,5 m) 20.0801
from 13½ to 9¾ in (f = 0,3 m) 20.0802
from 8¾ to 6½ in (f = 0,2 m) 20.0803
1 Proxar lens set with depth-of-field
calculator and case 20.7070
ZEISS PROXAR double element lens
from 4¼ to 3½ in, S 27 mm dia. 20.0804

Other equipment

IKOPHOT photo-electric exposure meter 20.2402
Locking cable release 20.0281
IKOBLITZ LD capacitor flashgun 22.0011
IKOBLITZ 6 capacitor flashgun 22.0004



www.orphancameras.com
ZEISS IKON

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Operating Instructions

english

with built-in
flashholder for
AG 1 flashbulbs

Colora

Colora F





Key to controls

- 1 Flash contact (COLORA only)
- 2 Diaphragm setting ring with indicator
- 3 Shutter speed setting ring with indicator
- 4 Focussing indicator, with depth-of-field scale
- 5 Focussing ring
- 6 Shutter speed scale
- 7 Diaphragm scale
- 8 Cable release socket
- 9 Shutter release
- 10 Camera back locks
- 11 Pull-out rewind knob
(with aperture calculator on COLORA F)
- 12 Viewfinder eyepiece
- 13 Accessory shoe
Can be swung upwards on COLORA F,
revealing flash reflector beneath it.
- 14 Rapid wind lever, advances film and sets
shutter
- 15 Release button, for rewinding film
- 16 Film transport sprocket
- 17 Take-up spool, with slot and prong for
attaching film
- 18 Bayonet-lock cap of battery chamber
(COLORA F only)
- 19 Lever for opening flashholder
(COLORA F only)

- 20 Tripod socket
- 21 Frame counter
- 22 Spool flange for turning the take-up spool

Loading and unloading the camera

Loading the film (see illustration, p. 2)

The camera should not be loaded in direct sunlight.

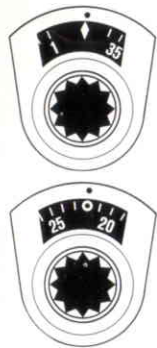
Remove the camera back by pressing the two locks No. 10. Pull out the rewind knob No. 11 and insert the film cassette. Push the rewind knob fully home, turning it slightly if necessary.

Fit the tongue of the film into the slot in the take-up spool No. 17, and hook the prong in the slot into the 2nd or 3rd perforation hole. Holding down the release button No. 15, turn the take-up spool by means of the knurled flange No. 22 to wind on enough film for the perforations to engage with the teeth of the film transport sprocket No. 16 on both sides. Now close the camera back.

Setting the frame counter and checking the film advance

Turn the rewind knob No. 11 in the direction of the arrow until resistance is felt (the film will then be taut inside the cassette). The exposure counter 21 (underneath the camera) can then be set by means of the black knurled edge (fig. 1).

Next, operate the rapid wind lever No. 14 twice, taking it to the full extent of its travel and firing



Setting for
36-exposure films

Setting for
20-exposure films

Fig. 1

the shutter release No. 9. As this is done, the rewind knob No. 11 should move in the reverse direction of the arrow. This is a means of checking that the film is being wound on correctly. A third movement of the rapid wind lever will now bring the frame counter to the number corresponding to the full number of exposures on the film in use (e. g. 20 or 36).

The film counter will always show the number of pictures still to be exposed.

Unloading the film

After the last exposure has been made the frame counter will show the number 1. To rewind the film keep the release button pressed down while turning the rewind knob in the direction of the arrow. As soon as a slight resistance is felt and overcome, it indicates that the end of the film has detached itself from the take-up spool. The back of the camera can then be opened, and the cartridge removed after pulling out the rewind knob. Be sure to keep the take-up spool and film track clean and dust-free.

Using the camera

Setting the distance

The focussing ring No. 5 is turned to bring the correct subject-distance of feet or meters in line with indicator No. 4.

Depth-of-field

Camera lenses will record subjects sharply only over a certain limited distance in front of and behind the point focussed upon; the smaller the aperture, the greater the range called "depth-of-field". The extent of depth-of-field at various distances and apertures is indicated on scale No. 4.

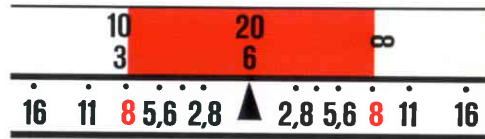
REMEMBER:

Large aperture (f/2.8) = limited depth-of-field
Small aperture (f/22) = great depth-of-field

Example (see fig. 2):

At 20 ft (6 m), depth-of-field at f/8 extends from 10 ft (3 m) to infinity.

Fig. 2



Setting the aperture

Turn the diaphragm setting ring No. 2 to bring the white indicator in line with the desired aperture on the scale No. 7.

Setting the shutter speed

The shutter speed used will depend upon the amount of subject movement; the greater the movement, the higher the shutter speed will have to be. The figures on the scale No. 6 represent fractions of a second (e. g. 60 stands for 1/60th sec). To set the speed, turn the shutter speed ring No. 3 to line up the red mark with the desired number on the scale.

On the "B" setting the shutter will stay open as long as the shutter release No. 9 is depressed.

(For time exposures the camera should be placed on a tripod).

Rough guide for black-and-white exposures:

Outdoors in bright sunlight – film speed 40 ASA, $\frac{1}{125}$ sec at f/8. Outdoors, cloudy – film speed 40 ASA, $\frac{1}{60}$ sec at f/5.6.

Taking the picture

Hold the COLORA up to your eye and look through the viewfinder. You will see a bright-line frame, which shows exactly what will be recorded on the film.

When taking pictures at a distance of 3 feet (1 m), the upper edge of the subject must not appear above the two marks on the sides of the viewfinder frame.

The shutter is fired by a firm but gentle pressure on the release No. 9; a jerky movement must be avoided.

After taking the picture, move the rapid wind lever No. 14 as far as it will go; the camera will then be ready for the next exposure. The shutter may be left tensioned for long periods of time without harm.

Flash pictures: COLORA

The flashgun can be attached to the camera either on the accessory shoe No. 13 or by means of the tripod socket No. 20. The synchronizer fitted into the flash contact No. 1 (this should be done be-

fore inserting flashbulb). When using flashbulbs, set shutter speed at $\frac{1}{30}$ th sec; with electronic flash, any speed ($\frac{1}{30}$ – $\frac{1}{125}$) may be used. The camera has X-type synchronization.

For detailed information check the operating instructions supplied with flash equipment.

Flash pictures: COLORA F

The COLORA F is fitted with a built-in flash-unit, which takes Type AG 1 flashbulbs. By pulling lever 19 towards the right, the reflector will spring into position for taking flash pictures.

A 15-volt battery is needed to power the flash unit, and must be inserted into the battery-chamber in the camera. Using a coin, gently turn the bayonet-locking cap of the battery chamber to the left until it can be opened.

Slide the battery (+ pole foremost) into its chamber, replace the cap (red dot to red dot) and turn it to the right until it locks.

On the rewind knob 11 there is an aperture calculator, based on the guide number for AG 1 flashbulbs. It is only necessary to set it to the speed value of the film in the camera, and then the correct aperture for any desired distance can be read off immediately.

Example (Fig. 3) Film speed 50 ASA (18 DIN)



Distance 2 metres
= Aperture f/8



Distance 7 ft
= Aperture f/8

Set the indicated aperture on the shutter by turning the diaphragm setting ring 2 and then set the shutter speed to $\frac{1}{30}$ sec. As soon as a flashbulb has been fitted into holder 23 (Fig. 4), then the camera is ready for action.