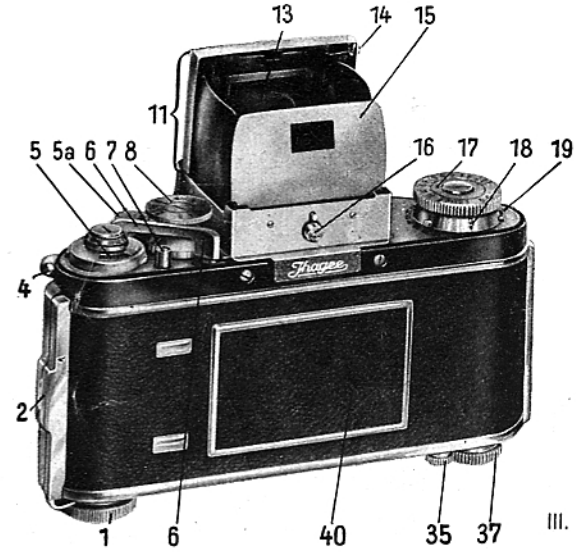
EXAKTA

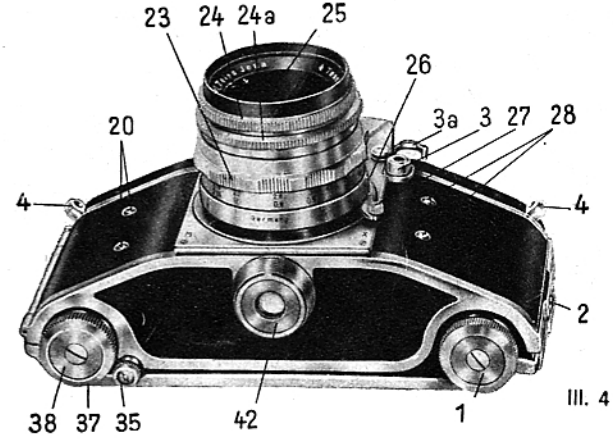
VX

The 35 mm Miniature Camera
with two alternative focusing systems:
Reflex Finder-hood
and eye-level Penta Prism

Instruction Booklet

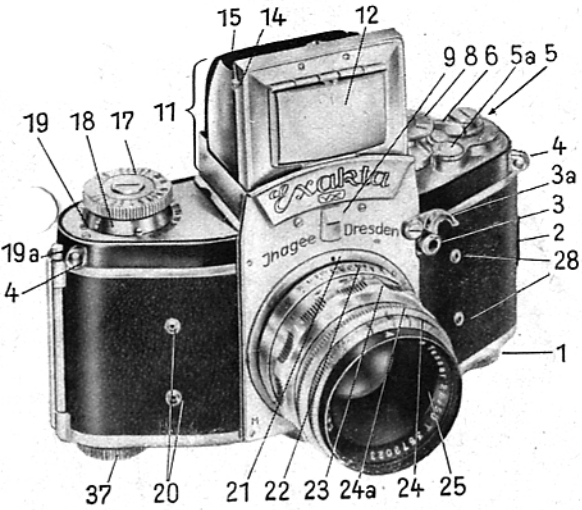


III. 3

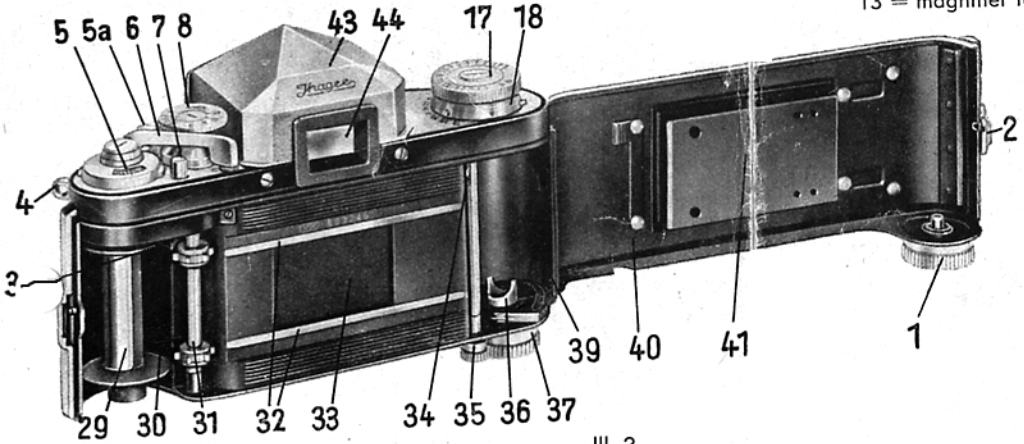


III. 4

44 important parts of the EXAKTA VX



III. 1



III. 2

1 = button for opening camera-back (see also III. 4)
2 = camera-back lock (operated by botton No. 1)
3 = shutter release knob
3a movable shutter release guard
4 = neck-strap eyelets
5 = exposure counter
5a knob for setting exposure counter
6 = film transport and shutter winding lever
7 = press button for rewinding mechanism
8 = fast speed knob for $^1/_{25}$ - $^1/_{1000}$ sec., "T" and "B"
9 = Viewfinder Hood and Penta Prism release
11 = reflex Viewfinder Hood
12 = cover of hinged focusing magnifier
13 = magnifier for critical focusing (folded down)
14 = button to operate No. 13
15 = back wall of Finder Hood with sportfinder back opening
16 = Finder Hood catch
17 = slow speed ($^1/_5$ - 12 sec.) and delayed-action ($^1/_5$ - 6 sec. with delaying time) knob
18 = film-speed indicator
19 = revolving control disc for film transport
19a removable pin of camera-back hinge

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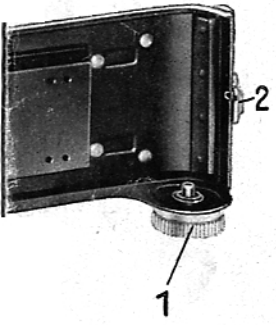

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20 = "M" contact sockets for regular flashbulbs
21 = red mark guide on camera body for changing lenses
22 = depth of field scale
23 = distance setting ring with scale
24 = stop setting ring with scale
25 = camera lens
26 = red mark guide on lens (see No. 21)
27 = lever to catch and release the lens bayonet mount
28 = "X" electronic flash contact sockets
29 = take-up spool for exposed film
30 = film chamber for take-up spool or cassette
31 = film transport sprockets
31a cassette holder
32 = film tracks
33 = film gate
34 = knife for cutting of partly exposed film
35 = knife releasing screw
36 = fork of film rewinding knob
37 = film rewinding mechanism
38 = middle part of film rewinding mechanism (push in to engage spool)
39 = film chamber for feeder cartridge (unexposed film)
40 = hinged camera-back
41 = film pressure plate
42 = tripod socket
43 = eye-level Penta Prism viewfinder
44 = ocular of Penta Prism

To open and lock the camera-back

Pull out button (1) and turn it either to the left or the right until it snaps into position. Open camera-back (40). When closing the camera, press back (40) lightly towards camera body. Turn button (1) clockwise or anticlockwise until it locks in its neutral position. If the back is to be separated from the camera, extract the pin (19a) and the back (40) will become disengaged.

To open and close the waist-level Finder Hood

Press catch (16) and the hood opens automatically into position. – In order to close the hood (11), fold down the side-walls, the back-wall (15) and finally the front cover. Press until it clicks in. When the Finder Hood is closed, the shutter cannot be released!

Shutter and film transport

are coupled so that there is no danger of unintended double exposures. Winding the lever (6) winds up shutter and transport films. Swing the shutter release guard aside. The shutter is released by pressing the release knob (3). Always wind lever (6) as far as it will go and let it spring back slowly. If lever (6) is not wound fully, then it cannot return to its neutral position and it is impossible to release! The image is visible on reflex groundglass only after shutter has been wound. Do not push back the film transport lever (6) by using force, otherwise the mechanism will be damaged. Catch the lever (6) in its backward rotation with your thumb. Between exposures swing shutter release guard (3a) over shutter release knob.

To set the shutter speeds

Fast speeds from $^1/_{25}$ *to* $^1/_{1000}$ *sec:* Lift knob (8) either *before or after* winding the shutter, turn it in the direction of the arrow so that the exposure time required comes to be opposite the index mark on the knob center, and let knob (8) drop back. The engraved figures indicate fractions of seconds, so e. g. 25 means $^1/_{25}$ sec. etc.

Time exposures: Set button (8) on "T" or "B". – "T" = Shutter will open upon pressure of release knob (3) and by second pressure it closes again. – "B" = Shutter will remain open as long as release knob (3) is pressed.

Slow speeds from $^1/_5$ *sec. to 12 sec.:* Wind shutter and set fast speed knob (8) on "T" or "B". Now wind slow speed knob (17) clockwise as far as it will go (winding up slow speed mechanism). Lift outer rim of slow speed knob (17), turn it until the required **speed mark in black** is opposite the index mark on the knob center, and let outer rim drop back.

Delayed-action release (self-timer):

a) *Slow shutter speeds from* $^1/_5$ *sec. to 6 sec.:* Proceed as described above, but bring required **speed mark in red** opposite index mark.

b) *Fast shutter speeds from* $^1/_{25}$ *to* $^1/_{1000}$ sec. Set fast speed knob (8) to the speed required (e. g. $^1/_{100}$ sec.). Then wind slow speed knob (17) as described above, and, lifting it, turn it **any speed in red** against index mark.

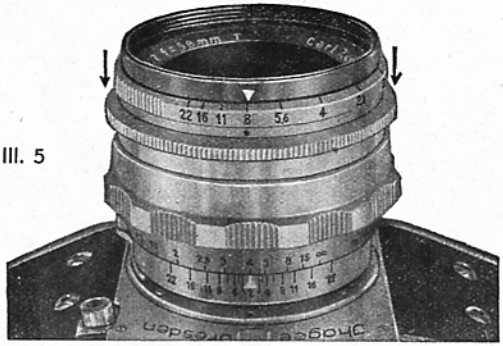
Note: **Black figures** of the slow speed knob (17) will give **immediate exposure, on the red ones** exposure takes place after a **delay** of about 12 sec. (self-timer).

A cable release can be screwed into the shutter release knob (3).

Lenses and focusing

The camera lenses (25) are interchangeable: Press lens catch (27) (Ill. 4) towards lens, turn lens to the left until the red marks on camera and lens (21 and 26) come to lie opposite each other, and the lens can be lifted from the camera body. – To install a lens, the procedure is reversed. Focusing is effected by turning the distance ring (23). The diaphragm is adjusted by turning the stop ring (24). Low

figures (2/2,8/3,5) = large aperture = short exposure time, but little depth of field – high figures (22/16) = small aperture = longer exposure time, but great depth of field. The depth of field scale engraved on the lens mount has the aperture values on either side of the distance indicator. The distance figures lying against the aperture required indicate the extent of sharpness to the foreground and to the background.



Ill. 5

The stop ring of *pre-set diaphragm lenses* has adjustable click stops. When using ZEISS lenses (f/3,5 50 mm. TESSAR, f/2,8 50 mm. TESSAR, f/2 58 mm. BIOTAR) push the milled ring behind the diaphragm stop scale towards the camera and turn the stop ring until the aperture figure required for the exposure comes to lie opposite the red dot. Then let the milled ring spring back. The 58 mm Meyer Primoplan f/1.9 is operated in the same manner, except that in this case the milled ring has to be pulled towards the front of the lens. Now it is possible to view and focus at full aperture. Immediately before releasing – and without changing the

taking position of the camera – turn the stop ring as far as it will go, i. e. up to the "pre-set diaphragm" stop.

The Viewfinder Hood for eye-level focusing

The reflected image is magnified by the ground-glass, a plano-convex lens. In order to use the built-in magnifier for critical focusing (13) (Ill. 3), swing it into position by pushing up the release button (14). To bring magnifier (13) back to its neutral (vertical) position, the procedure is reversed. When using the magnifier (13), hold the camera close to your eye. – Control of ground-glass image is also possible when turning camera up-side down and looking up into the Finder Hood. Vertical pictures may be taken at right angles to the subject. – The Finder Hood can be adjusted to be used as a sportfinder: lift magnifier (13) as before, open cover (12) and look through at eye-level (15). – Before interchanging finders make sure that hood is closed. Then press down release (9) and lift the closed finder (11) from the camera body. – When replacing the finder care must be taken that it is inserted perpendicularly into the corresponding opening in the camera's top plate. Press finder gently towards camera base until it clicks, but do not use force.

The Penta Prism Viewfinder

With the prism viewfinder the camera is held at eye-level and provides *a laterally correct, upright image* for both vertical and horizontal shots, and therefore it is ideal for sport and fast speed photography. As the direction of movement in the finder is the same as that of the subject, it is easy to follow moving subjects by moving the camera in the same direction, even in cases of extreme speeds (motor-car races). The Penta Prism is installed into and removed from the camera the same way as the Finder Hood, but it does not possess a shutter-locking lever (10). A Special eyepiece is available for it as an accessory.

To load the camera

The EXAKTA VX takes standard 35 mm film in cartridges of 36 and 20 exposures. Open camera back and pull out rewinding knob (37). Insert the cartridge with fresh film into film chamber (39). Push back rewinding knob (37) by pressing its rim towards camera and turning it at the same time. Care must be taken that the central part (38) (Ill. 4) of rewinding knob is not pushed in! Make sure that the film runs parallel along the film tracks (32) to the take-up spool (29) in the film chamber (30), with the emulsion side towards the lens, and push leader of film underneath the spring tongue of the take-up spool (29). It is also possible to remove the take-up spool (29) from the camera in order to fix the film to it. When replacing take-up spool (29) care must be taken that the fork of the film transport lever (6) engages the recessed end of the center of the spool. The perforation of the film should engage properly the teeth of the film sprockets (31). Close camera back. Now two blind exposures must be made: wind film transport lever (6) as far as it will go and release shutter (First blind shot). Wind lever (6) again and release again (Second blind shot). Wind lever (6) a third time and the first unexposed frame is brought into position into the film gate (33). The exposure counter (5) is set by turning the knob (5a) with the index-finger in the direction of the arrow until the stroke preceding "1" comes to be opposite the indicator (The exposure counter disc advances after the exposure!)

The camera is ready now for picture taking. – Instead of the take-up spool (29) a take-up cassette (an empty cartridge) may be inserted into the film chamber (30). Fix film leader to

the spool and insert cassette so that the fork of the film transport lever (6) engages with the recessed end of the center of the spool. The film must be wound with the emulsion side inwards. The control disc (19) permits to observe whether the film is transported properly. It turns as long as the spool of the feeder cartridge rotates. – With the film-speed indicator (18) you record the type of film the camera is loaded with: BW = black-and-white
black C = color, outdoors
red C = color, indoors

By turning the ring (18) the respective letter is set against the film speed number engraved on camera top plate.

To unload the camera

Even after exposing 36 frames one or two more exposures can be made, until the film transport lever (6) cannot be wound any more. When using the take-up spool (29), it is necessary to rewind the exposed film into the cartridge: lift reversing lever (7), push in central part (38) of rewinding mechanism (37) press button (7) and hold it down, and turn outer rim of (37) clockwise. As long as the film is being rewound the control disc (19) and the slotted axle of the film transport lever (6) will rotate. With rewinding finished the slotted axle (6) stops turning. Button (7) springs back to its original position when pressure is relaxed, whereupon the camera is ready for advancing the next section of film. Now open camera, pull rewindig knob (37) outwards and remove the cartridge with the exposed film. Push back rewinding knob (37) by pressing its rim towards the camera. – Should the film transport lever (6) stop midway and refuse

to move further, as there is no film left in the cartridge, press button (7) – as described – and complete winding film transport lever (6) until it stops and let it go back to its normal position.

When using a take-up cassette there is no need for rewinding As soon as all the film is used up, the film transport lever (6) will refuse to operate. Now cut off the film with the built-in film cutting knife (34): unscrew milled knob (35) and pull it out as far as it will go (about 1 $^1/_2$ in.). Then push knob (35) back and screw it in again. Before opening the camera, make two blind exposures so that the tail of the film will go into the take-up cassette. – The procedure is the same when partly exposed film has to be removed from the camera in a take-up cassette.

Flash contact sockets

The EXAKTA VX is fully synchronized for regular flashbulbs and electronic flash.

An EXAKTA Flashgun using flashbulbs is avialable. Instruction booklet is enclosed with the gun. When using regular flashbulbs (OSRAM, PHILIPS, SYLVANIA) the flashgun connecting cord is plugged into the "M" pair of contact sockets (20) on the left hand front wall of the camera (below slow speed knob 17). Attention, the shutter must be wound up! Details when "X" contact sockets (28) must be used, will be found in a special leaflet. – Electronic flashtubes can be released with speeds of $^1/_{50}$ sec. or more. In this case the connecting cord must be plugged in into the "X" pair of contact sockets (28) on the right hand side of the camera front wall, below the fast speed knob (8).

Useful EXAKTA Accessories

EXAKTA Genuine leather eveready case
EXAKTA Penta Prism eye-level prismatic viewfinder
EXAKTA Wide-angle and telephoto lenses, from 40 to 500 mm.
EXAKTA Flashgun
EXAKTA Set of extension tubes with adapters
EXAKTA Microscope adapters – Models I and II
Special focusing glasses for the waist-level reflex viewfinder and the Penta Prism eye-level view-finder: Ground glasses with clear spot, and all-clear glasses, with center cross.
EXAKTA Lens Magnifier
EXAKTA The Zeiss-Distance Meter
(Focusing glass with split-image finder in the center)
EXAKTA Stereo picture accessories (in preparation):
Model I – for close-ups up to 2 meters
Model II – ranging from 2 meters to infinity
EXAKTA Vielzweck – the Vielzweck is a combination of accessories used individually or collectively (assembled) for duplicating transparencies, macrophotography and photomicrography, and stereoscopic pictures with the sliding rail.
EXAKTA Adapters for medical instruments, for example: Cystoscope, endoscope, gastroscope, ophthalmoscope (for observation or picture taking)
EXAKTA Kolpophot for medical work (photographing cavities of the human and animal body)
EXAKTA Filters, Soft focus discs, Eyepiece for Penta Prism Viewfinder, Giant Release Knob
Descriptive booklets:
1) The Exakta Camera
2) Macrophotography – Photomicrography
3) Flash Technique
4) Further Possibilities
5) The Lens Magnifier
6) The Zeiss-Distance Meter

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