Instructions for using the EXAKTA 6x6cm
Please turn over this page to the left, so as to have reference charts before you while studying the text.
Explanation of Numbers in the Illustrations

1 = Lighthood
2 = Lighthood cap
3 = Lighthood flap with eyepiece
4 = Magnifying-lens
5 = Magnifying-lens panel
6 = Knob for fastening magnifying lens panel
7 = Locking lever for lighthood latch
8 = Lighthood finder flap (hinged)
9 = Neckstrap holders
10 = Knob for fastening the lighthood
11 = Locking lever for ground-glass magnifier
12 a = Red dot on bayonet ring
12 b = Red dot on lens mount
13 = Depth-of-field scale on lens mount

Fig. 3
14 = Focusing ring with distance scale
15 = Diaphragm presetting ring
16 = Diaphragm scale ring
17 = Lens
18 = Knob for fastening lens
19 = Flash-connecting nipple (DIN 19003)
20 = Adjusting disk for flash connection
21 = Tripod socket on side of camera
22 = Camera support
23 = Shutter release knob
24 = Speed-setting knob for 1/10th sec. to 12 secs., and 1/5th sec. to 6 secs. with self-release (speed-regulating mechanism)
25 = Locking lever for shutter release
26 = Reverse knob for exposure counter
27 = Winding disk
28 = Speed-setting knob for 1/25th to 1/1000th sec., T and B
29 = Exposure counter
30 = Camera back
31 = Locking lever for camera back
32 = Blank plate for film notes
33 = Extinguisher for blank plate (32)
34 = Window for film-wind indicator
35 = Film-key
36 = Feeler device for film leader
37 = Film pressure plate
38 = Large film-sliding roller
39 = Lower film chamber
40 = Flap for lower film chamber
41 = Driving mechanism (upper film chamber)
42 = Upper film chamber
43 = Ratchet wheel
44 = Film gate with focal-plane shutter

Instructions for using the EXAKTA

6x6cm
2 1/4 x 2 1/4 in.
Before inserting the first film, you must become perfectly familiar with your EXAKTA 6x6 and learn exactly how to handle it. This is why the instructions for inserting and changing the film have been left to the last.

Removing and attaching the camera back
To unlock the camera back (30), the lever (31) must be swung along the surface of the camera body, clockwise, half a rotation upwards, i.e. in the direction of the lighthood (1). Push the camera back (30) about 3 to 4 mm to the left (looking at the back of the camera) and take it off. — When replacing the camera back, take the camera into your left hand, the camera back into your right hand and attach the back so as to leave a space of not more than 3 to 4 mm between the projecting part of the camera body and the right-hand edge of the camera back, as in Fig. 4. Place the back in an angular position to the camera and let the bottom edge of the back exactly into the groove of the camera body. Now fold the upper part of the back against the camera body and push it 3 to 4 mm to the right, until it stops. Swing the locking lever (31) of the camera back half a rotation anti-clockwise downwards in the direction of the camera base. Camera body and camera back are now firmly connected again.

Opening and closing the lighthood
Tilt the locking lever (7) towards the camera back: the lighthood (1) springs open. — When closing the lighthood, turn in the flaps one after the other, as marked by the numbers 1, 2 and 3: first the flap with the eyepiece, then the right-hand and after this the left-hand flap, and lastly, the lighthood cap which will click in audibly.

Shutter and filmtransport
are coupled (no inadvertent double exposures, and no blanks!): the shutter is released by pressure on the shutter release knob (23), shutter wind and film transport are actuated by means of winding disk (27). Should there be no reflex image visible in the finder-hood (shutter not wound up), take hold of the grasps on the winding disk (27) and turn the disk half a rotation clockwise until it stops, and let it run back. In resting position, the red dot of the winding disk (27) has to be at upper left. Only in this position can the shutter be released. Releasing is impossible at any between stops. If a number is visible in the exposure counter (29), the winding disk (27) cannot be rotated as long as the shutter is wound up. With the red F in the exposure counter (this appears after the number 12), the shutter release is locked, but the winding disk (27) can be turned (important for film transport without shutter winding, at the beginning and end of each film). To set exposure counter on the number 1 in place of the red F (or the numbers 2 to 12): push the reverse knob (26) upwards in the direction of the lighthood (1).

The shutter
Instant exposures of 1/50th to 1/1000th sec.: Lift the speed-setting knob (28) before or after winding the shutter, turn the knob until the desired speed stands against the marking dot in the center and let the knob (28) jump back. The knob (28) may be turned in either direction, however, there is no transition between T and 1/10th sec. The numbers indicate fractions of a second, e.g. 25 = 1/25 th sec.
Time exposures of any desired length: Set the knob (28) on T or B. T—shutter is opened by first pressure on release knob (23) and closed by second pressure. B—shutter remains open until pressure on release knob (23) is relaxed.

Automatic speed regulation from 1/10th sec. to 12 secs. (Immediate running down of the shutter): Wind up the shutter. Set the knob (28) on T or B. Turn the large speed-setting knob (24) clockwise as far as it will go (winding up of the speed-regulating mechanism). Lift the outer ring of the knob (24), rotate it until the desired black number stands against the marking dot on the middle disk, and then let the outer ring jump back.

Exposures with self-release (delayed action):

a) Shutter speeds from 1/100th sec. to 6 secs.: Set the shutter as described just before, but adjust the knob (24) to the desired red speed number.

b) Shutter speeds from 1/25th to 1/1000th sec.: Set the knob (28) on the desired speed number, e.g., 1/100th sec., but not on T or B. Lift and turn the outer ring of knob (24) as described before and set it on any one of the red numbers.

In connection with knob (24), the black numbers mean immediate exposure, whereas the red numbers indicate self-release (delayed action):

13 seconds expire before the shutter opens.

The release knob (23) is designed to take a cable release. A locking device prevents unintentional actuating of the shutter: By half a rotation of the locking lever (25) clockwise upwards in the direction of the lighthood (1), the release knob (23) is bolted.

The lens and its adjustment

The lens (17) is interchangeable: Push the knob (18) in the direction of the camera back, turn the lens to the left (looking at the camera front) until the red dots 12a and 12b (Fig. 5) stand against each other. Lift the lens off the camera front. — When installing the lens, first place it on the camera so as to make the red dots meet and then turn it to the right until it clicks in.

Focusing is performed by rotating the focusing ring (14) with distance scale. To set the diaphragm, turn the diaphragm ring (16). (The small numbers 2, 8/3, 5 = large aperture = short exposure, less depth of field, the large numbers 22/16 = small aperture = longer exposure, greater depth of field). Details are given on the depth-of-field scale (13): To the left and right of the focusing mark is the desired diaphragm number, opposite which is indicated the range of distance within which the exposure will be sufficiently sharp.

Lenses with diaphragm presetting device have an adjustable stop ring for the diaphragm ring. On most lenses, the pre-setting ring (15) behind the diaphragm scale has to be pushed back towards the camera (Fig. 5), whereupon the diaphragm ring (16) must be rotated until the aperture (= diaphragm number) with which the exposure is to be made, stands against the red marking dot. Now let the presetting ring (15) spring back into its original position. Focusing can be performed with the lens at full aperture and, immediately before releasing the shutter, without changing the position of the camera, the diaphragm ring (16) is turned back to the "pre-set stop". — With other lenses, there may be slight deviations concerning the employment of the "diaphragm presetting device".

Fig. 5
How to use the lighthood

The ground-glass image is enlarged by the interchangeable ground-glass magnifier underneath the lighthood (1). Additional enlargement is gained by the magnifying lens (4), Fig. 2: Push the knob (6) downwards in the direction of the arrow. With the magnifying lens (4) in working position, push the two side flaps of the lighthood slightly inward, using light pressure of thumb and index finger, causing the flaps to snap into the panel (5) of the magnifying lens (protection against outside light). When using the magnifying lens (4), hold the camera close to your eye.

To fold the magnifying lens (4) back into its original position, raise the mount of the lens, thereby disconnecting the lighthood flaps from the lens panel and push the lens panel into the lighthood until it clicks in.

The lighthood may also be converted into a direct-vision frame finder: bring the magnifying lens (4) into working position and open up the hinged lighthood finder flap (8). The square opening in the rear flap (3) of the lighthood serves as eyepiece. — Subjects in very rapid horizontal movement should be taken with the camera held in the horizontal position (Fig. 6).

The lighthood is interchangeable (extra focusing systems are in preparation): Close down the lighthood before removing it from the camera. Press down the knob (10), lift the lighthood above the knob (10) and take it carefully out of the bearings. When replacing the lighthood, first slip it into the bearings from the back of the camera (two pins in the lighthood fit into two holes in the frame of the bearings) and then fasten it at the front above the knob (10). (The latch snaps in audibly).

To exchange the magnifying lens (ground-glass magnifier), take off the lighthood. Push up the locking lever (11) as far as
it will go (Fig. 7), tilt the camera carefully, at the same time taking hold of the magnifying lens in the light hood frame. To insert the ground-glass magnifier, or a special magnifying lens, push up the locking lever (11), place the lens (its flat surface towards the camera mirror), cut-in groove first, into the camera from the rear and let it slide into the frame at the front. Not until this has been accomplished, may the locking lever (11) spring back into its original position. Take care not to touch the ground-glass surface of the lenses with your fingers!

Loading the film

Negative material: Roll film 6 x 9 cm for 12 exposures 6 x 6 cm (2 1/4 x 2 1/4”). While the film is being loaded, the red F must be visible in the counting mechanism (29). If necessary, turn the knurled knob on the counting disk until the F appears. Remove the camera back, as described in section 1.

Inserting an empty film spool into the upper film chamber:

Turn the film key (35) quarter of a rotation to the right, and the red dots will no longer be opposite each other. Draw out the film key (35) until it stops. Place an empty film spool with the long slit on the left, i.e., on the side where the ratchet wheel (43) is, on to the driving mechanism (41) in the upper film chamber (42). On the right-hand side (film-key side) the spool must be laid into the film chamber (42) and the film key (35) pushed in, so that the peg of the film key catches the round hole in the spool. Now turn the film key (35) with slight pressure quarter of a rotation to the left, and the red dots (above and below) will meet again. The empty film spool is held tight on both sides.

Inserting the unexposed film into the lower film chamber:

Open the lower film chamber (39). Unfold the flap (40). Completely remove the gumstrip from the film. Unroll about 10 cm (4”) of the protective paper, but hold the film tight to avoid penetration of light. Put the roll film into the lower film chamber, with the colored, printed surface inward, so that the paper leader can be drawn around the large film-sliding roller (38) and across the film pressure plate (37) to the empty spool (Fig. 8). The black surface of the protective paper must be visible! Hold the protective paper tight. Close the lower film chamber (39). Introduce the pointed leader of the protective paper into the long slit of the empty spool (the slit must be completely filled out with the paper). Turn the ratchet wheel (43) in the direction of the film pressure plate (37), i.e., towards the protective paper, thereby rolling up the paper leader until the spool core is covered by one layer of paper. Turn down the paper point projecting from the spool slit with your finger. The paper strip must now lie perfectly flat and tight on the film pressure plate (37), black surface upwards.

What to do before taking your picture

Attach camera back as described. Take care that the back is attached from the far right as shown in Fig. 4 (space between camera back and projecting part of the camera body not more than 3 to 4 mm), otherwise protective paper might be damaged! Turn the winding disk (27) seven times from its resting point to the stop, letting it run back each time. Before this performance,
the red F must be visible in the exposure counter! After the seven rotations, make only short movements with the winding disk (27), closely observing the progress of the film and the window for film-wind indicator (34). As soon as the film leader reaches the feeder device (36), the light signal in the window (34) will jump about 2 to 3 mm to the right (Fig. 9), whereupon the red dot of the winding disk (27) has to be wound only for about 10 to 15 mm more, with noticeable draught of the film. The first section of film is now in the film gate. Push the reverse knob (26) for the counting mechanism upwards in the direction of the light liood, and the exposure counter (29) is set on No. 1. With the locking mechanism out of action, the camera is ready for the exposure. Make no adjustments on the counting mechanism during the 12 exposures, otherwise film transport will be uneven.

The blank plate (32) is designed for making notes concerning the kind of negative material in the camera, e.g. DLC = daylight color film, or ISS 21/10, etc. Only use blunt writing material (a match or something similar), and no scratching points. To extinguish the writing, turn the knob (33).

Making the exposure

1) Open the lighthood
2) Set the shutter speed (exposure time)
3) Focus and view the reflex image
4) Stop down the lens
5) Release the shutter
6) Wind the shutter and film transport (simultaneously setting the mirror and counting mechanism) by turning the winding disk (27) without further observing the signal in window (34).

The performances No. 2 to 4 can, if desired, be carried out in different succession. All the performances are repeated until, after the 12th exposure, the red F appears in the exposure counter (29).

Exposures at 1/200th sec. and shorter can be made from your hand, without a tripod. For longer exposures, a tripod should be used, in fact it may be necessary. There are two tripod sockets, one in the base plate and one in the right-hand side of the camera, for fitting it either in the vertical or horizontal position (21), as seen from the front.

Changing the film

After the red F appears in the exposure counter (29), actuate the winding disk (27) repeatedly until the light signal in the window (34) recedes to the left and winding becomes easier. Remove the camera back, turn the film key (33) quarter of a rotation to the right and pull it out. The exposed film can now be easily taken out of the camera and the gumstrip pasted down to avoid unrolling. — Place the empty spool out of the lower film chamber (39) into the upper film chamber (42) as described before.

Flashlight connection

is designed for regular flashes (Vakublitz) and flash tubes (electronic flashes). In both cases, the cable cord is connected to the contact nipple (19). The ignition of flash tubes being practically without delay, the adjusting disk (20) is set on 0 by turning the milled control knob in the direction of the arrow (the 0 is underneath the red dot). In connection with flash tubes, the focal-plane shutter is set at 1/200th sec. — Regular flashes ignite at various speeds: the adjusting disk (20) is set according to a special table still in preparation in which are contained numbers referring to the flash bulb and to the corresponding shutter speed (these numbers are only reference values and not milliseconds marking the ignition delay). Never turn the adjustment disk (20) against the direction of the arrow. This might lead to an unintended contact.
Important Accessories for the EXAKTA 6x6

Eveready pouch
Camera case
Penta Prism (in preparation)
Special lenses (in preparation)
Flashgun
Tubes and Bayonet-Adapter Rings for close-ups
Copying stand with Bellows attachment
(for close-up and magnifier work, reproduktions, photomicrography, etc.)
Intermediate bellows for micro work
on the copying stand
Lens Magnifier