On-line camera manual library
This is the full text and images from the manual. This may take 3 full minutes for the PDF file to download.

If you find this manual useful, how about a donation of $3 to: M. Butkus, 29 Lake Ave., High Bridge, NJ 08829-1701 and send your e-mail address so I can thank you. Most other places would charge you $7.50 for a electronic copy or $18.00 for a hard to read Xerox copy.

This will allow me to continue to buy new manuals and pay their shipping costs.
It'll make you feel better, won't it?
If you use Pay Pal or wish to use your credit card,
click on the secure site on my main page.

ZEISS IKON

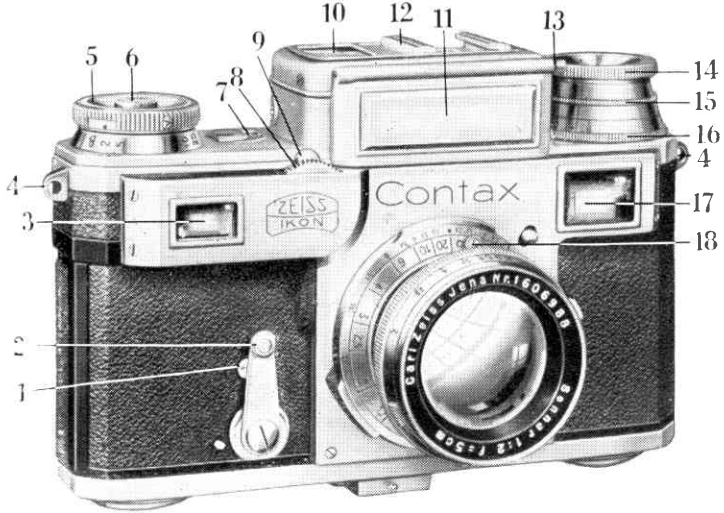
INSTRUCTIONS FOR USING THE CONTAX III CAMERA

C 2566 a E.

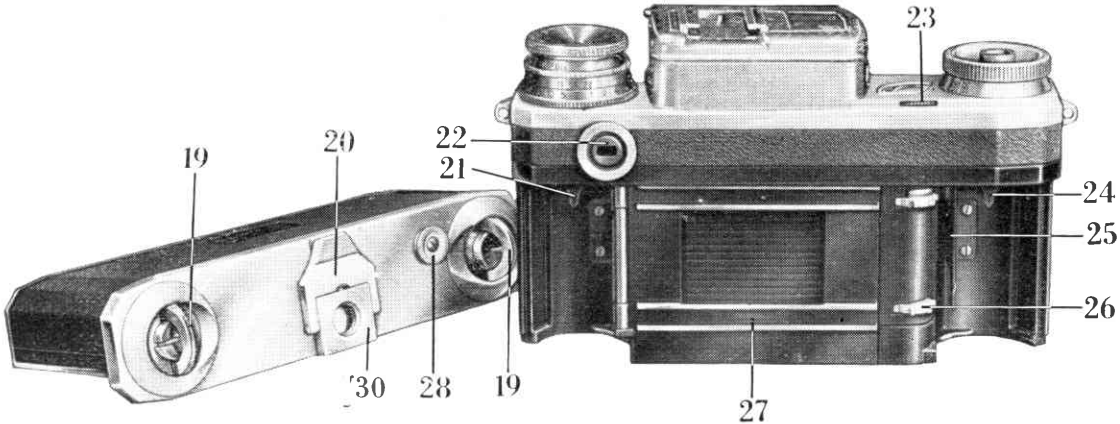
ZEISS IKON AG. DRESDEN

The Parts
of the Contax III:

1 = Release button for the delayed-action shutter release (almost hidden by the lever 2)
2 = Setting lever for the delayed-action shutter release
3 = Object glass of the distance meter
4 = Metal loops for carrying strap
5 = Shutter winding knob
6 = Shutter release button
7 = Window showing number of exposures made
8 = Milled wheel of the coupled distance meter
9 = Infinity stop for the distance meter
10 = Window of the exposure meter
11 = Prism window of the exposure meter with protective cover
12 = Finder shoe
13 = Knob for raising the cover 11 of the exposure meter
14 = Knob for rewinding film



15 = Rotating diaphragm scale of the exposure meter
16 = Adjusting ring of the exposure meter
17 = Object glass of the distance meter and view-finder
18 = Spring catch of lens-changing device



The Parts of the Contax II:

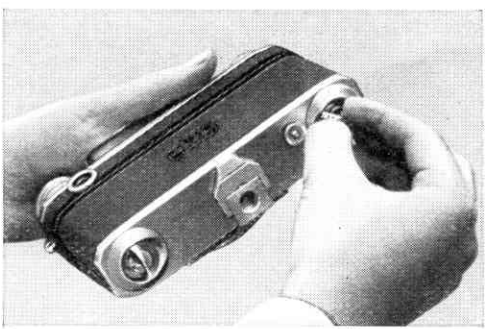
19 = Locks for opening and closing the camera
20 = Base support for the camera
21 = "Free-wheeling" claw holding full spool of film
22 = Eyepiece of the distance meter and viewfinder
23 = Wheel adjusting the film picture counter
24 = Claw holding take-up spool
25 = Spool retaining spring
26 = Film transporting sprocket
27 = Picture aperture
28 = Button releasing the film during rewinding
29 = Projecting piece of the cassette (see page 43)
30 = Tripod bush

Important Note!

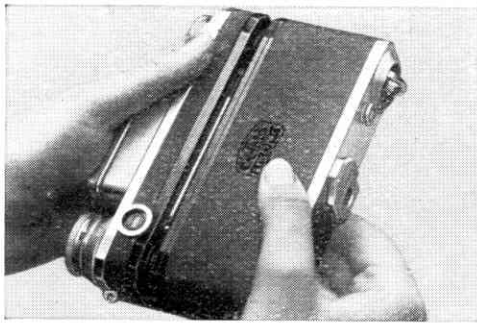
The Contax III is a precision miniature camera, the handling of which differs considerably from that required in ordinary types of cameras. With careful handling and intelligent use, the Contax will give excellent service and perfect photographic results, but it is essential that the instructions should be studied, and the various mechanical movements practised as described in the pages hereafter, before any attempt is made to use the camera with film in it. The instructions are consequently arranged to give all the information necessary for perfect service in practice. It is recommended in particular that the pages relating to the technique of exposure should be specially studied, and the handling of the camera practised without loading it with film. When an understanding of the Contax has been gained by this practice, the camera may be loaded with film and experience in practical work can then begin. The Contax spool of daylight-loading film is particularly recommended for use with all Zeiss Ikon miniature cameras, and when using it a film jam is absolutely impossible provided that it has been correctly inserted in the camera. Contax spools may be had loaded with either the Zeiss Ikon orthochromatic film, or with the special ultra-fast fine-grain Zeiss Ikon panchromatic film of speed $^{17}/_{10}{}^{0}$ DIN.

I. Loading the Camera with the Contax Spool

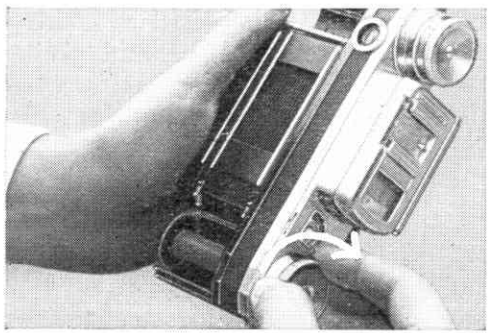
In order that the Contax spool should be made suitable for daylight loading, a paper leader is attached to the beginning of the film and a paper trailer to the end. The film is thus protected from light, but when loading or changing the film it is still necessary to take precautions. These operations must be performed in subdued or diffused light, and on no account should direct sunlight be allowed to reach the spool of film.



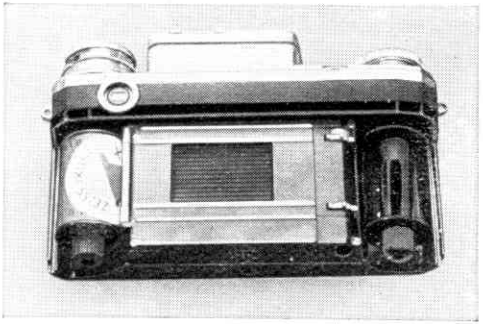
1. Open the camera by raising the two locking keys (19) on the camera base and giving them half a turn. In the open position the keys cannot be folded down against the camera body.



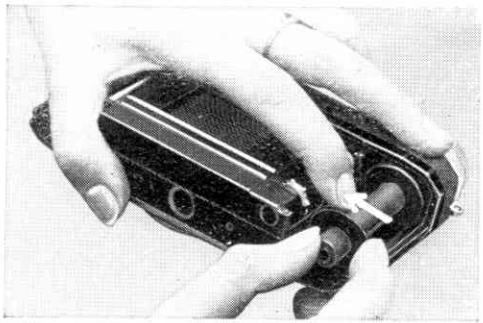
2. Draw the camera back slightly downwards, and then lift it away from the body of the instrument.



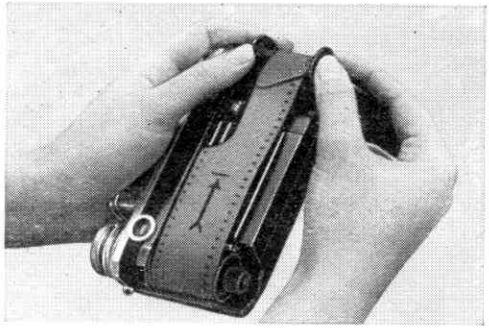
3. Wind up the shutter winding knob (5) as far as it will go in a clockwise direction, until a hard stop is felt. (A slight resistance may mean that the shutter is not fully wound, so that it is necessary to turn fully until the stop is reached.)



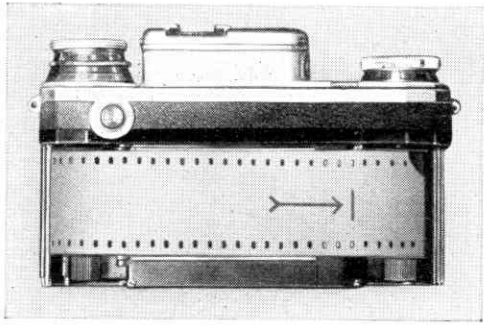
4. Place the Contax spool with its hollow end on the claw (21) of the left-hand spool chamber, and break the gumstrip that holds down the end of the paper leader.



5. Pulling the leaf spring (25) towards the film sprocket with the left forefinger, take out the empty spool in the right-hand spool chamber.

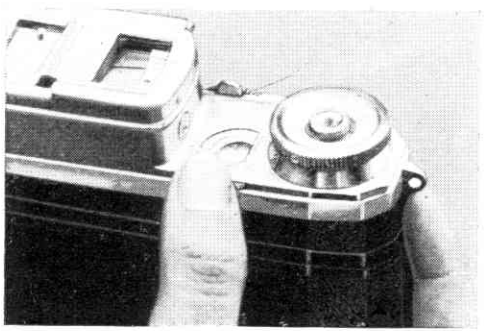


6. Now thread the end of the paper leader strip on the full spool into the wide slit of the empty spool, and when about 1 inch projects through on the far side, bend sharply backwards so that the black inner side of the paper faces outwards. Then replace the empty spool in the right-hand chamber with the claw (24) engaging in its hollow end.



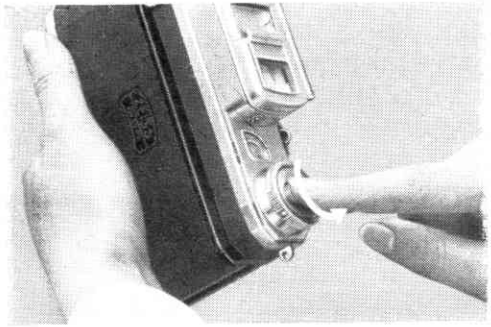
7. Turn on the empty spool until the line to which the arrow on the paper leader points lies over the teeth of the sprocket (26).

8. Now replace the camera back, holding the paper strip in contact with the teeth of the sprocket with the thumb of the left hand. The camera back is placed on the body (not slid on) as close as possible to the upper edge of the guiding grooves. When the back is flat on, slide it upwards to close the camera completely.

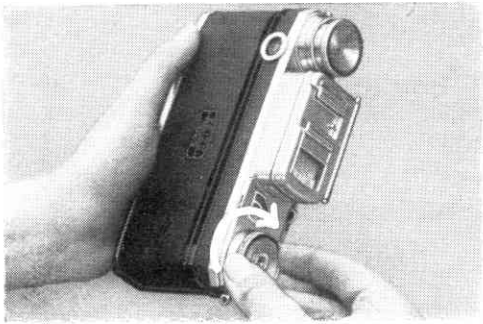


9. Give a half-turn to the locking keys on the under side of the camera to lock the back in place, and fold them flat once more.

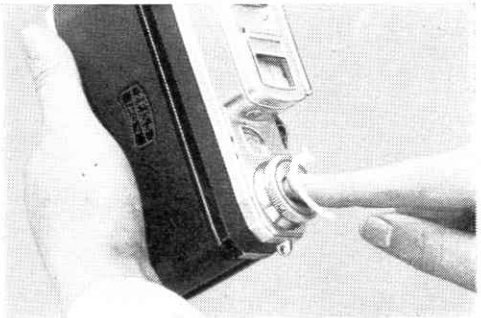
10. By means of the milled wheel (23) set the red dot on the picture counting disc (next the number "27") to the small triangular indicator on the edge of the window above the disc (also marked with a red dot).



11. Press the shutter release button (6) lying in the centre of the shutter winding knob (this will work the shutter), and—holding it down—turn it in an anti-clockwise direction until a stop is felt. In this position the shutter button will stay permanently in the lower level.



12. Wind up the shutter winding knob nine times, until the picture counter shows the number "36". If the rewinding knob (14) does not rotate during this operation, there is something wrong inside the camera, and the back must be removed to find out the cause of the trouble.



13. By pressing the shutter release button (6), and turning it in a clockwise direction to its original position, it once more returns to the upper level. The red dot on the shutter button should now be opposite the red dot on the winding knob.

14. Wind up the shutter by the knob (5), and press the shutter release (6), (to do three or four times) until the picture counter disc shows "1" when the shutter is wound up. ("1" comes after "0".)

The camera is then ready for the first exposure.

Instructions for loading when using cassettes and cartridges are given on pages 39—43.

II. Unloading the Camera (after the 36 exposures have been made)

1. Press down the shutter release button and lock it as directed in I, 11. Then wind on the shutter winding knob (5) until the end of the paper trailer is reached. This point is found by noticing when the rewinding knob (14) no longer revolves when the shutter winding knob is turned.

2. Again release the shutter release button (6) as in I, 13.

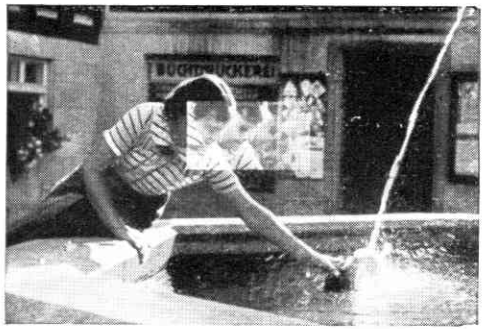
3. Take off the camera back as in I, 1, 2.

4. Remove the full spool and stick down the end of the paper trailer with the gum-strip provided.

5. Transfer the now empty spool from the left-hand chamber to the right-hand chamber. Always hold the leaf spring (25) away from the spool when removing it from the camera.

III. The Distance Meter — View-Finder Combination

Focussing in the Contax III is done exclusively with the distance meter—view-finder combination, which guarantees sharp focus under all circumstances, since the distance meter is coupled to the lens. The view-finder field shows the camera

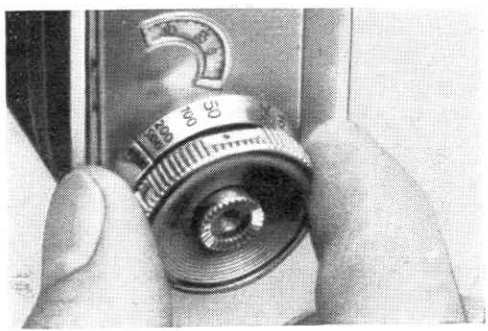


field when using the normal Contax lens of 2″ (5 cm) focal length. For all other lenses special finders are used, that fit into the finder shoe (12) on top of the camera.

By looking through the eyepiece (22) of the distance meter and view-finder, a lighter rectangular portion of the field in the centre of the picture will be seen to have a lighter shade, in which a double image of the object included in that portion of the field is easily detected. By turning the small wheel (8) one of these images will be seen to move sideways, and when the two images fuse into a single one, the lens is accurately focussed at the distance of the object seen in that portion of the field.

It should be noted that this adjustment must be made with the object on which focus is desired in the centre of the lighter rectangular field, and not at the left or right-hand edges.

The small lever (9) behind the focussing wheel (8) releases the infinity catch on the mechanism. When the wheel (8) is turned to focus, the catch is automatically pressed down and the focussing device is put into action.



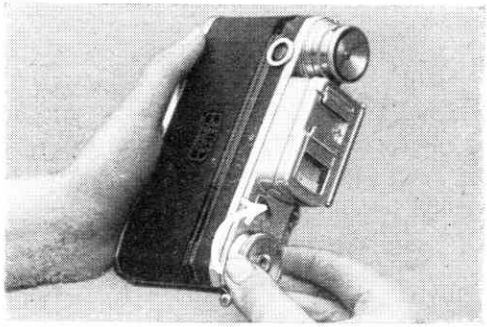
IV. The Focal-Plane Shutter

1. Setting the shutter speeds

Shutter speeds are set by adjusting the shutter winding knob (5). This is done by lifting the knob (5) against a strong spring and turning it (still in the raised position) until the

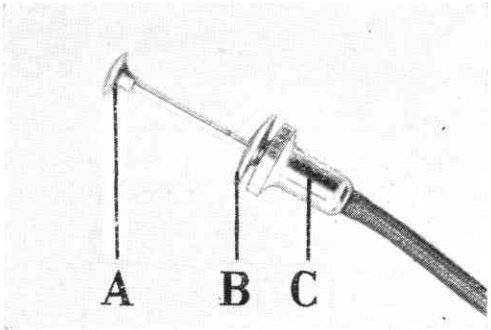
black dot on its peripherie is opposite the exposure time desired. (The engraved numbers 2, 5, 10, 25, etc. indicate speeds of $^1/_2$, $^1/_5$, $^1/_{10}$, $^1/_{25}$ sec.) At this point the knob is released, and it will drop into position, since a catch (not seen) holds the knob against the exposure time that has been selected. The catches for the $^1/_{500}$th and $^1/_{1250}$th of a second speeds are very close to each other. The $^1/_{500}$th speed is set by lifting the knob and turning forward from $^1/_{250}$th second until the catch allows the knob to drop into position. When setting the shutter to $^1/_{1250}$th second the knob is raised and turned as far towards the marking $^1/_{1250}$ as it will go, and in the correct position it drops into place as the catch is reached. By this means the correct exposure times are set with certainty.

When setting shutter speeds it is essential that the shutter is either fully wound up or fully run down. In both these positions the black dot may be set to the desired figure. It should also be noted that when changing from a slower speed to a higher one, a certain amount of resistance is felt when turning the knob. This is due to the spring loading of the shutter slit, which must be altered for the different speeds, and the knob must be wound against the extra tension. If it is desired to have the shutter open fully, set the knob to "B" and then lock the shutter release button down by pressing it to release the shutter and turning it in an anti-clockwise direction. The shutter may be closed later by turning the knob back in the clockwise direction until it rises to its normal working level.



2. Shutter and film wind

The shutter is wound up by turning the winding knob as far as it will go—a full turn. The knob must be wound up until a hard stop is felt. Winding the shutter simultaneously winds on the film for the next picture. The exposure is made by pressing the shutter release button (6).



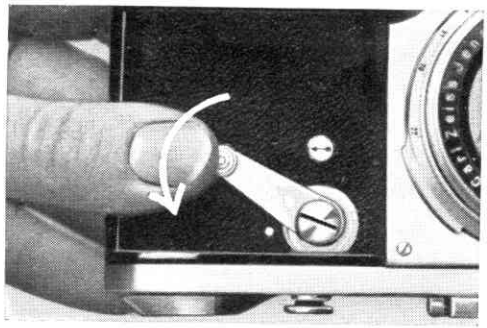
3. Flexible wire release

For long "Time" exposures a special flexible wire release is delivered with the Contax III which is screwed into the thread of the shutter release button (6). This release is different from ordinary types in having a moveable plate (B) between the pressure stud (A) and the socket (C). By setting the shutter to "B" and pressing the stud (A) of the wire release,

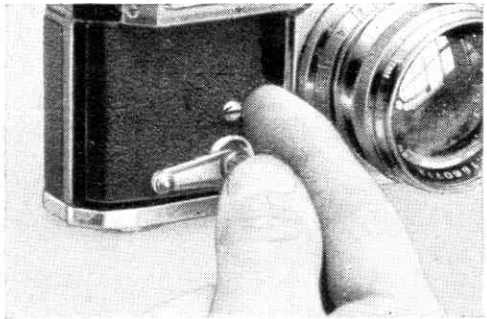
the shutter opens, and remains open until the plate (B) of the release is pressed with the thumb.
This wire release can be used for short time exposures and for ordinary snapshot exposures merely by turning the moveable plate (B) to the right, which presses it down into the socket (C). In this position the release works just in the same way as the ordinary type.

4. Delayed-action shutter release

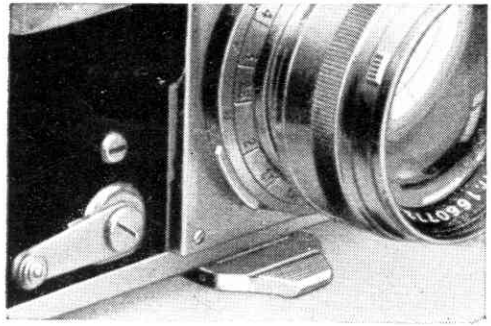
The Contax III has a built-in delayed-action shutter release, which operates the shutter some ten seconds after the mechanism has been set in action. The shutter is first wound up in the normal way, and then the delayed-action mechanism is wound by pulling the lever (2) to the left (anti-clockwise) as far as it will go.



The clockwork is set going by pressing the release button (1) in the direction of the arrow engraved on it, and the same exposures may be given in the normal way. With the shutter set to "B", the delayed-action mechanism will give an exposure of approximately one second, and then close the shutter. Even

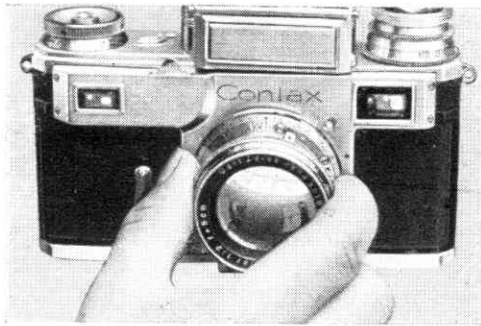


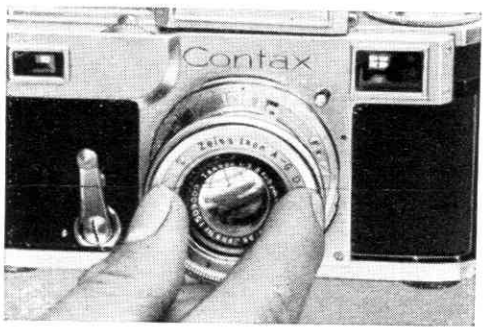
when the delayed-action mechanism is fully wound the shutter time may be set or the shutter wound up, but this can only be done with the delayed-action device either fully wound or else fully run down. In order to preserve the spring tension of the delayed-action mechanism, never leave it fully wound for any length of time.



5. Using the Contax III without a Tripod

On the rectangular camera bush of the Contax III is a hinged foot (20), which is usually folded backwards against the base of the camera. When, however, it is desired to hold the camera firmly, particularly when using the large-aperture Sonnar lenses, the foot may be turned over and pointed forwards, so that the camera will stand up on a table or other flat surface. When using the foot for this purpose the camera is quite firm and well balanced.

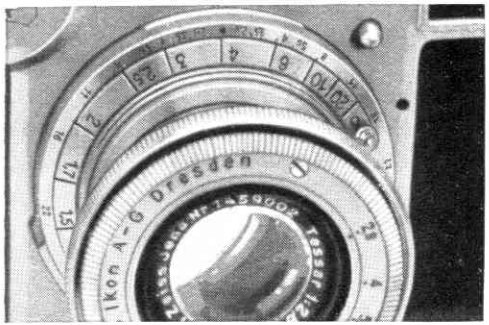




V. The Lens and the interchangeable Bayonet Mounting

When the camera is not in use, the collapsible 2″ (5 cm) lenses—Tessar *f*/3.5, Tessar *f*/2.8, and Sonnar *f*/2—are pushed backwards into the camera body, and before making an exposure they must be pulled forward into the correct position. This is simply done by holding the lens by the larger milled ring, pulling it out from the camera body as far as it will go, and then locking it into position by turning it to the right until a stop is felt. After exposure the lens may be turned to the left once more and pushed back into the body of the camera for convenience in carrying.

The adjustment of the lens aperture is made by turning the milled ring on the lens, which is made in different patterns in the various lenses. It is important to set the lens aperture before focussing, since the latter adjustment



may be altered by turning the lens aperture ring to adjust it correctly.

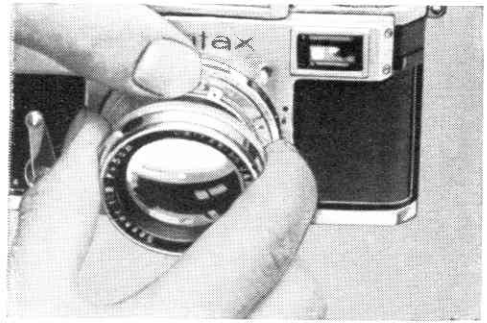
The camera has a scale of focussing distances for the 2″ (5 cm) focus lenses. On either side of the focussing mark (a black dot or line) are also a number of aperture numbers that indicate the depth of focus. With this device the appropriate depth of focus for any particular aperture and focussing distance can be read off. For example: with the Tessar $f/2.8$ (2″ = 5 cm) focussing on a distance of 8 feet, the depth of focus at $f/8$ lies between 12 feet and 6 feet. The depth of focus scale is based on a circle of confusion of $^1/_{500}$ inch. (See also the special tables of depth of focus used in miniature camera work.)

Changing the lenses

Lenses of 2″ (5 cm) focal length are placed in the inner bayonet mounting of the camera, and all other lenses in the outer mounting.

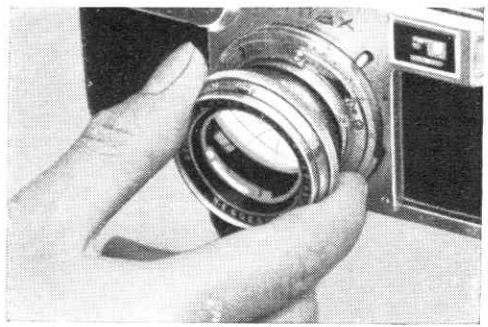
1. Removing the 2″ (5 cm) lenses

The camera focussing mount is first set at infinity. Then the thumb is pressed on the

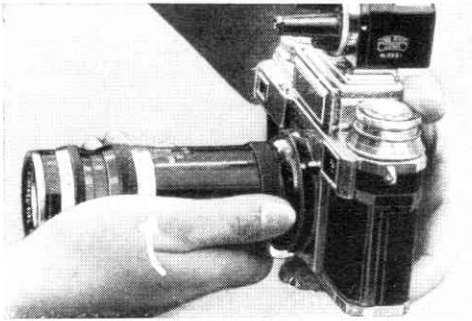


spring (18) so that the projection on the lens barrel, marked with a red dot, slides out of the spring catch holding it. A slight turn of the lens in a clockwise direction releases it, and it may then be carefully drawn out of the helical focussing mount.

2. Replacing the 2″ (5 cm) lens

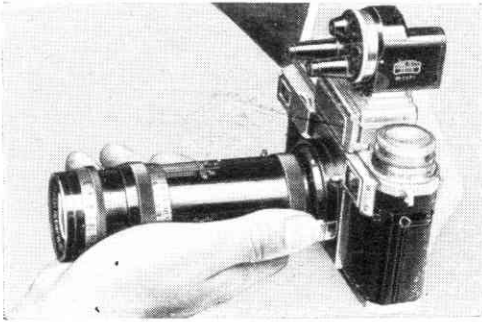


The lens is inserted into its mounting by reversing the operations mentioned above. It is important to remember that the lens will only fit easily into the mount when the two red dots are opposite each other, and when the lens is held in the same plane as the front of the camera. By slightly turning to the left, the lens slips past the catch (10) and the latter snaps back, holding the lens firmly in the infinity position.

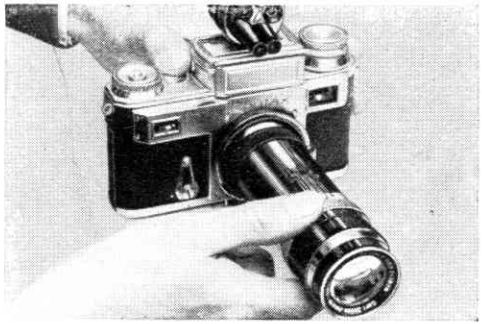


3. Inserting other lenses than 2″ (5 cm) focal length

All lenses other than those of 2″ focal length are placed on the outer bayonet mount. The lens is held so that the two red dots, one on the camera front and the other on the lens itself, are opposite each other, and the lens is then turned to the left until a stop is felt. The catch on the side of the lens will then be heard to snap into position.



The removal of the lenses fitting the outer bayonet follows the procedure of inserting them. The side catch must first be lifted with the thumb, and then the lens is turned through 90° to the right, in which position it may be removed from the camera. The long-focus lenses are also coupled to the distance meter for focussing, and in order to make sure that the mechanism is working correctly, the focussing ring on the lens



should be turned. When this is done, the focussing wheel (8) on the camera should also revolve.

It is extremely important to note that when using long-focus lenses the focussing must be done by adjusting the ring on the lens and not by turning the usual focussing wheel (8) *on the camera.* The gear ratio of the mechanism is so high with these lenses that turning the usual wheel may damage the mechanism.

Since the centre of gravity lies in the lens when using a long-focus lens, it is desirable to hold the camera for exposure by grasping the lens with the left hand. This hand will then attend to the focussing, while the right hand steadies the camera and operates the shutter. The special finders for long-focus lenses are placed in the finder shoe on top of the camera, since the distance meter view-finder is not equipped with masks.