

Fig 63

Shutter speeds: 1 s to 1/500 s and B. The B setting enables you to make exposures lasting more than one second. The shutter remains open as long as the shutter release remains depressed. Use a cable release at slow shutter speeds. The numerals '1' to '500' designate the speeds 1, 1/2, 1/4, 1/8, 1/15 s, etc.

The green scale is used for calculating exposures when lighting is so weak that a 1 s exposure is inadequate.

Exposure values are set on the red scale.

Exposure values (Fig. 63)

The aperture/shutter speed combination opposite the central index (12) determines the exposure. Each such combination has an equivalent exposure value (6).

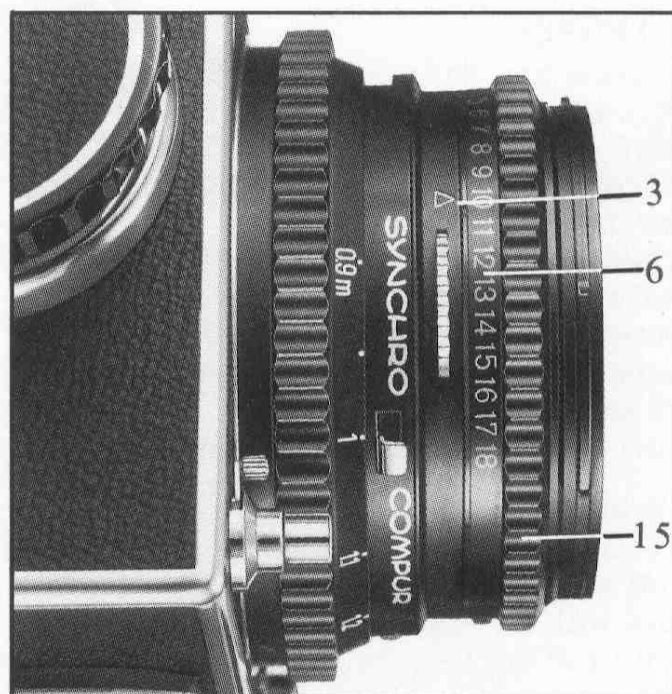
The exposure value is determined with an exposure meter, such as the Hasselblad knob with exposure meter.

The value obtained is set opposite the index (3). Once the correct exposure value is set this way, a correct exposure will be obtained with any shutter speed/aperture combination set opposite the central index (12) using the grip ring (15). (Not applicable to B.)

Time exposure

C lenses have a green shutter speed scale to facilitate the calculation of correct exposures lasting longer than 1 s. The green figures on the scale designate **full seconds** from 4 s to 125 s (B stands for 2 seconds).

Example: The exposure meter indicates an exposure value of 7. This would be equivalent to an exposure of e.g. f/2.8 at 1/15 s. If f/22 is preferred for more depth of field, turn the grip ring (15) for shutter speeds/apertures to B. Read off the number on the green scale opposite 22, i.e. 4 (seconds) in this case. Re-



tain the B setting. Uncouple the diaphragm ring so that 22 is opposite the central index. Then make a 4 s exposure with the aid of a cable release.

Note! Some films may display a loss of sensitivity (reciprocity failure) at very long exposures. Any exposure compensation necessary will be indicated on the data sheet supplied with the film.

Focusing (Fig. 64)

The distance is set with the focusing ring (2). The ring is turned until the subject is as sharp as possible on the focusing screen. "Rock" the ring back and forth past the point of apparent sharpest focus before you stop. This will make it easier to ensure that the lens is focused properly. The distance from the subject to the film plane is read off on the distance scale (10) opposite the central index (12).

Objects on the near or far side of the set distance may also be in focus within certain limits. The limits for this area of sharp focus, depth of field, vary with the aperture. A small aperture yields wide depth of field, a large aperture yields shallow depth of field.

The depth of field available at any given aperture is automatically designated on the distance scale by the depth-of-field indicators. There is greater depth of field on the far side of the distance set than on the near side.

Depth-of-field indicators (Fig. 65)

The automatic depth-of-field indicators (11) greatly simplify focusing. They consist of two moving pointers. The distance between the pointers changes when the aperture setting is changed. The largest aperture provides shallow depth of field, so the distance between the pointers is narrow at this f/stop. A small aperture, such as f/22, yields wide depth of field, and the distance between pointers is then wide. See Fig. 65. The thin ring shows the position of the depth-of-field indicators at the largest aperture (f/2.8). The thick ring shows the position at the smallest aperture (f/22).

Some practical tips

Proceed as follows if you have predetermined a desired depth of field. Focus on the closest part of the subject and read off the distance on the distance scale. Do the same thing for the most distant part of the subject. Set the depth-of-field indicators so they point to the two distances obtained. In sports photography, for example, you can preset the depth-of-field indicators to the desired depth of field. All the action within these preset distance limits will then be in sharp focus.

Fig 64

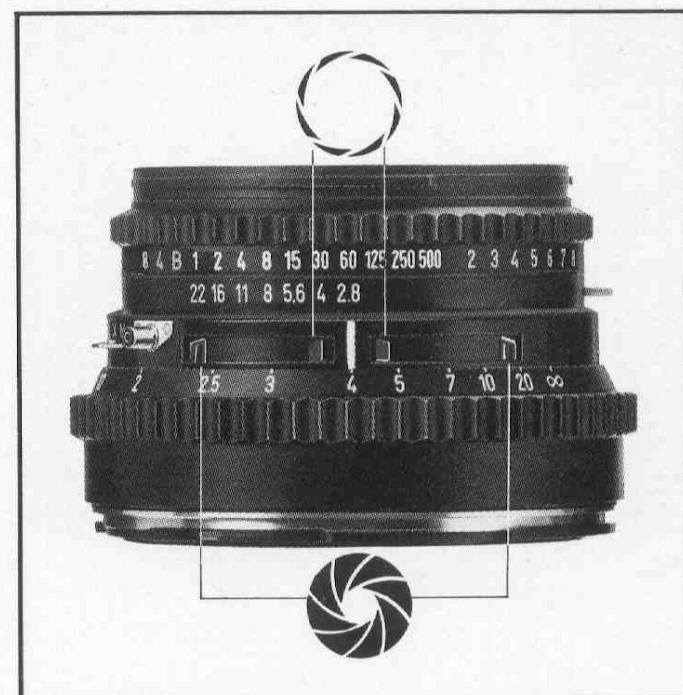
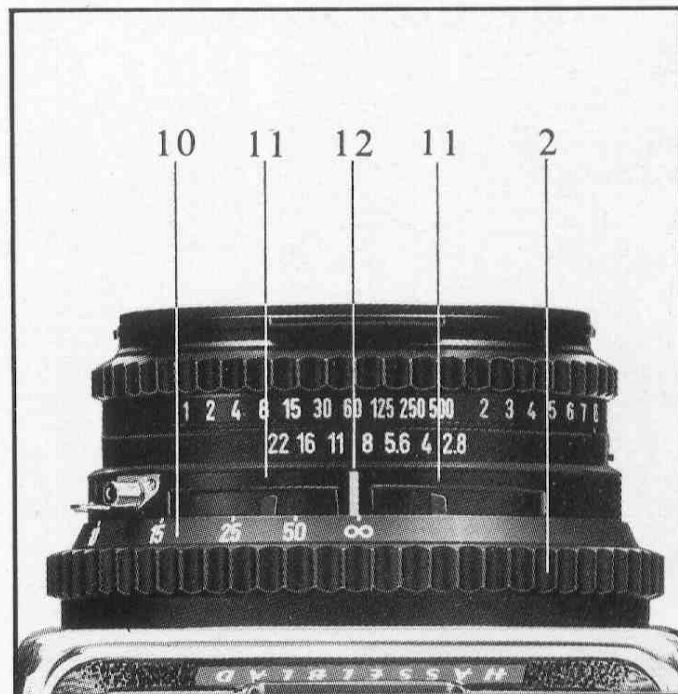
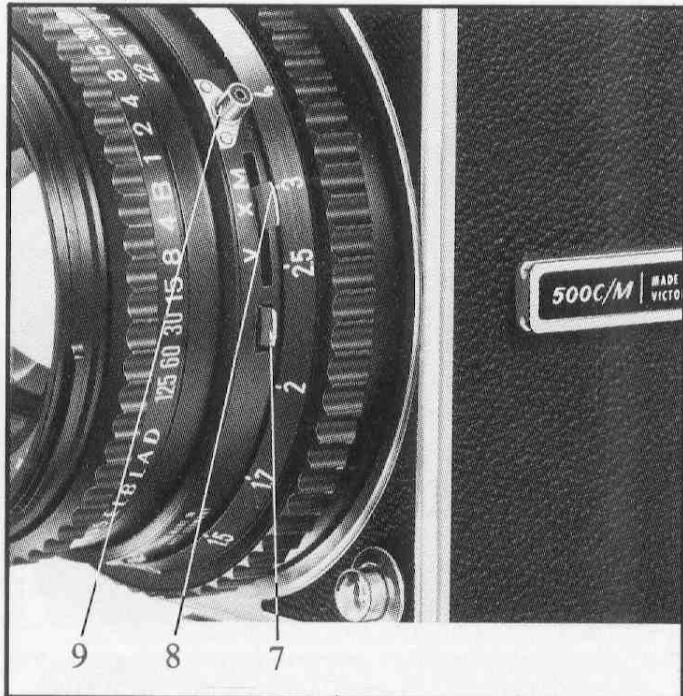


Fig 65

Fig 66



FLASH PHOTOGRAPHY (Fig. 66)

The 500C/M, 500EL/M, and SWC/M can be used with electronic or expendable flash at all shutter speeds, i.e. from 1 to 1/500 s. Flash synchronization is made via the leaf shutters PC flash terminal. The selector for V, X, and M has a detent to prevent inadvertent movement of the catch (7).

Flash synchronization

The leaf shutters have X and M synchronization. The catch (7) is pressed forward, thereby freeing the synchronization and self-timer selector for setting at X or M. The flash connecting cord is connected to the standard PC terminal (9) on the lens.

X synchronization

The X setting is for electronic flash at all shutter speeds and expendable flash at speeds of 1/30 s or longer. The shutter is triggered without delay because of the brief duration of electronic flash output.

M synchronization

The M setting is used for all M class flashbulbs/cubes at all shutter speeds. The shutter is delayed slightly since expendable flash takes time to build up to its maximum output.

Self-timer (V) (Figs. 66—67)

The self-timer operates at shutter speeds from 1 to 1/500 s. X synchronization is then automatic. Press catch (7) forward. Then cock the self-timer mechanism by moving the selector (8) to the V position. Set the time exposure lock (A) at T. The self-timer begins working as soon as the shutter release is pressed. The shutter then trips 8-10 s later. After the exposure, *return the time exposure lock to O* before the camera is recocked and the film is advanced.

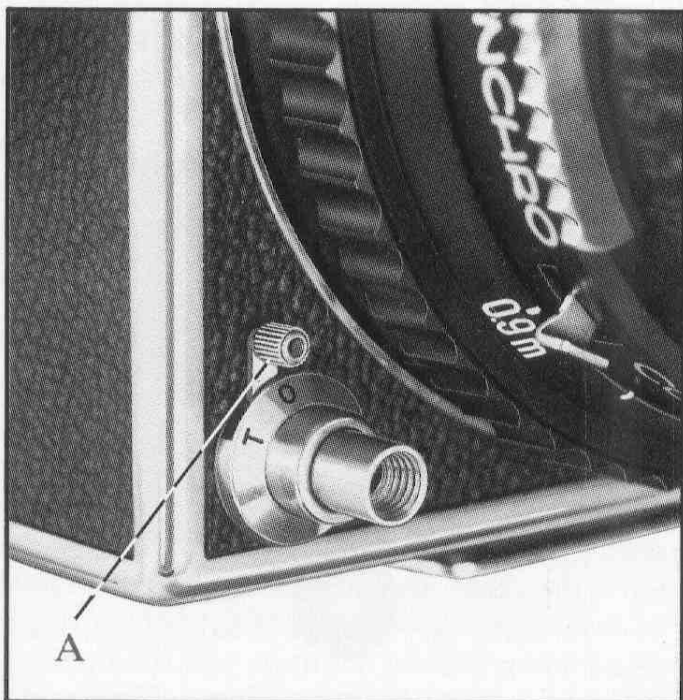


Fig 67

SERVICE AND MAINTENANCE

Cameras and lenses subjected to heavy-duty professional use should be serviced regularly at an authorized Hasselblad service center. We recommend regular checkups to ensure maximum operating reliability.

Lubricants can dry up in cameras put aside for any length of time, e.g. six months or more. The high-precision mechanism in a leaf shutter, for example, could then malfunction. So a stored camera should be taken out from time to time and operated at each shutter speed a few times.

It is especially important to "loosen up" the shutter before working with the camera for the first time after a long period of disuse. First operate the camera without a magazine attached. Look through the camera body and lens to ensure that all the shutter speeds are working.

WARRANTY

The Hasselblad cameras are made in Göteborg, Sweden. They are products of the highest quality and are therefore warranted against defects in workmanship and materials for a period of twelve months from the date of purchase.

Please fill in and mail the enclosed registration card as soon as you take delivery of your new camera. Please print clearly. The warranty certificate will be sent to you as soon as we receive your registration card. We will also put you on our mailing list and send you our printed matter as it is published.

Damage caused to the camera by improper use is not covered by the terms of the warranty. Shipping costs to and from the nearest Hasselblad authorized service center will be defrayed by the camera owner.

VICTOR HASSELBLAD AKTIEBOLAG

Box 220, S-401 23 Göteborg, Sweden

**Picture-making with the
No. 3 and No. 3A
Autographic Kodaks.**

Price Threepence.

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Trade Mark, 1888.

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**Kodak manufactures may be obtained from Photo-
graphic Dealers all over the United Kingdom, at the
prices given in the Kodak Price Lists.**

When Buying Film



When buying film for your Autographic Kodak see that you get Autographic Film—the only film with which you can make autographic records.

Before Taking a Picture

Read the following instructions carefully. Make yourself perfectly familiar with your Kodak, and especially with the working of the shutter. Work the shutter for both time and instantaneous exposures several times before inserting the film in the Kodak.

Bear in mind that the light which records the picture can spoil the sensitive film as quickly as it makes the picture. Throughout loading and unloading, be very careful to keep the paper wound tightly around the film to prevent light getting in.

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Loading.

AUTOGRAPHIC Film is sold in light-proof spools (Fig. 1), and all Kodaks can therefore be loaded in daylight. They should, however, be loaded in a subdued light, not in the glare of bright sunlight. It should also be borne in mind that after the seal round the spool is broken, care must be taken to keep the paper taut on the spool, otherwise it



Fig. 1.



Fig. 2.
Removing the back.

may slip and loosen sufficiently to admit light and spoil the film.

To load the Kodak, hold it in the left hand, and remove the back by pressing the clasps simultaneously with the thumb and second finger of the right hand, as shown in Fig. 2.

An empty reel will be seen at one end of the Kodak. This is the reel upon which the film is wound after each exposure. It should be at the end of the Kodak provided

with the winding key—shown in Fig. 6—but should it be



Fig. 3. Drawing out the spool pins

found in the other end it must be transferred to the winding end, according to the directions given on page 38.

The unexposed spool of film is to be placed in the empty recess at the other end of the Kodak. To do this draw out the spool pins (see Fig. 3) and drop the film spool into the recess, as shown in Fig. 4. An easy way is shown in Fig. 4a. After the spool pins have been pulled out (Fig. 3) wrap a slip of paper around the spool. You will then be able to

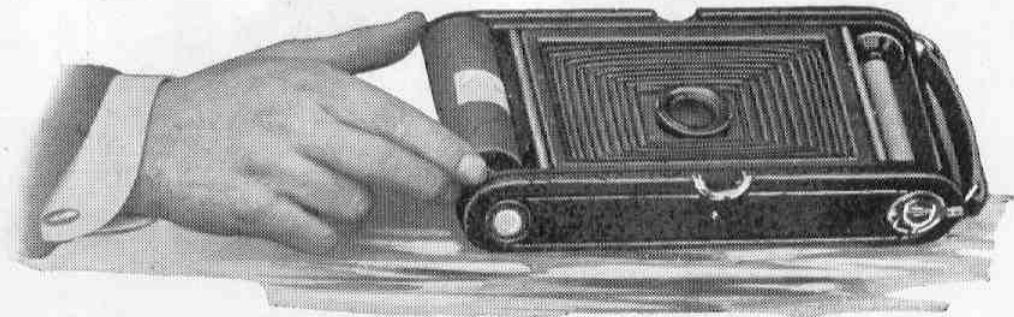


Fig. 4. Putting the spool into the Kodak.

raise or lower the spool slightly, so that the spool pins may be readily pressed into place.

On the red paper you will see the word TOP in black letters towards one end of the spool. Place the spool in the recess, so that this end is at the same side of the Kodak as the winding key.

NOTE—If the spool is inserted wrong end up, the paper instead of the film will be brought towards the lens, resulting, of course, in the loss of the pictures.



Fig. 4a. Pressing home the spool pins.

Press home the heads of the spool pins. This centres the pins in the spool so that it revolves upon them.

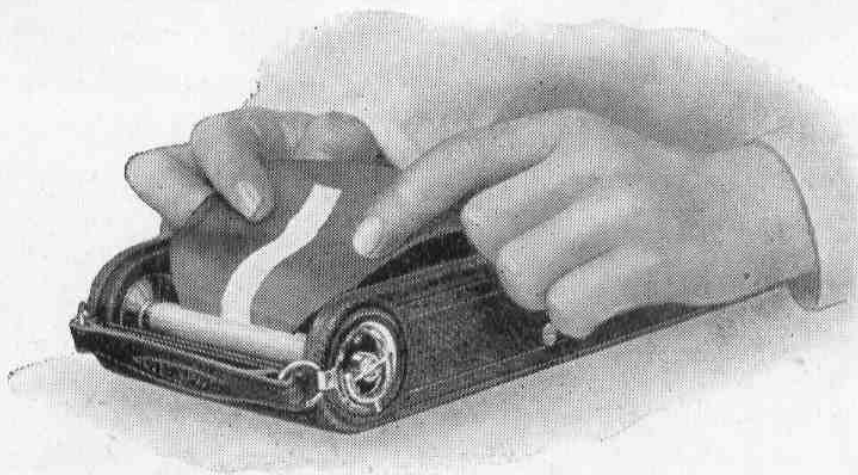


Fig. 5. Connecting the spool paper and the empty reel.

Break the gummed slip that holds the end of the paper at the point where the paper is turned under; unfold the end of the paper, and pass it over the two metal rollers, and into the slit in the empty reel, as shown in Fig. 5. The slit is longer on one side than on the other. Insert the end of the paper in the long slit. Take care that the paper draws straight and true.

Give the key one or two turns—just enough to bind the paper on the reel—and no more. See Fig. 6.



Fig. 6. A turn of the key binds the paper on the reel.

Replace the back of the Kodak, being careful to do so right side up (the wide spring at the same side as the winding key), and snap the clasps into place. Always handle the back of the Kodak carefully, especially when it is detached, as even a slight bend may make it fit badly, resulting, very probably, in a leakage of light and the spoiling of the film.

Throughout the foregoing operations, from the time the gummed slip on the fresh roll of film is broken until the back is once more in place, keep the paper wound

tightly on the spool. If it is allowed to loosen, light will be admitted and the film will be spoiled.

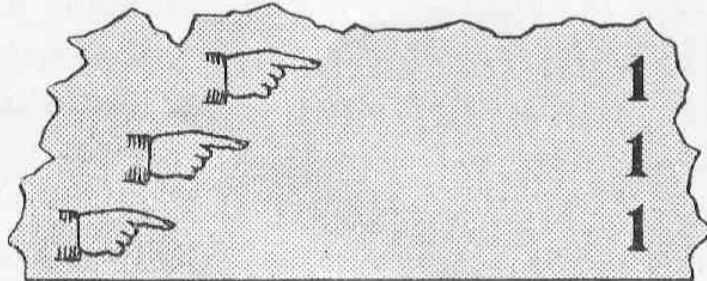


Fig. 7. You will see the hand and then number 1 in the red window.



Fig. 8.
Opening the front.

The film is covered with paper, and the excess of this, forming the safety cover of the film, must be wound off before a picture can be taken. Turn the key *slowly* and watch the little red celluloid window at the back of the Kodak. When about 15 turns have been given, first a hand and then number 1 (black on red) will be visible through the window, Fig. 7.

The film is now in position for taking the first picture.

To Open the Kodak.

Press the concealed button with the forefinger, as shown in Fig. 8. The hinged front of the Kodak will drop forward and should be pressed down until it locks.

Focussing.

Focussing is the operation of setting the lens at such a distance from the film that the subject will be sharply defined in the picture. The distance of the film from the lens will vary with the distance of the Kodak from the subject.

It is not necessary to estimate the distance of the subject with more than approximate accuracy. For instance, if the Kodak is set for 25 feet, the sharpest part of the picture will be the objects at that distance from the Kodak, but everything from 15 to 50 feet will be in good focus, and the Kodak may be set for 25 feet when photographing the majority of street scenes. Where the principal object is nearer or farther away than 25 feet, the Kodak should be set accordingly. Always endeavour to set the Kodak for the distance of the principal object. Everything beyond 100 feet is in the 100 feet focus.

NOTE.—The focussing scales give the distances in feet and metres and care should be taken not to confuse them.

No. 3 Autographic Kodak.

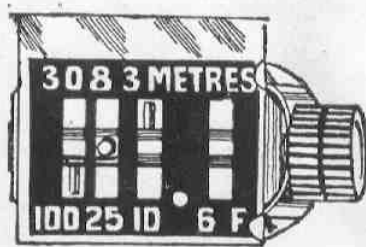


Fig. 9.

Focussing Scale
engraved against the slot.

Turn the milled head shown in Fig. 9 until the metal projection on the shaft comes through the slot marked for the distance desired—6, 10, 25, or 100 feet. Now grasp the springs at the base of the lens support (Fig 11) and draw it forward until it is stopped by the focussing catch, when the Kodak will be in focus for the distance en-

When not in use, the milled head should be turned so that none of the catches project.

No. 3A Autographic Kodak.

Press upon the milled lever of the focussing catch (Fig. 10), thus lifting the catch from the slots, and slide it backward or forward until the catch is over the slot corresponding with the distance of the principal object to be photographed. Release the lever and make sure that the catch engages with the slot. Now grasp the springs at the base of the lens support (Fig. 11) and draw it forward until it is stopped by the focussing catch, when the Kodak will be in focus for the distance engraved against the slot.

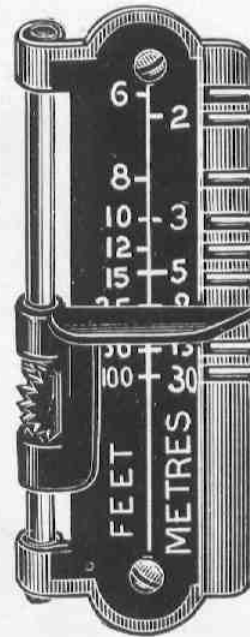


Fig. 10.
Focussing Scale.

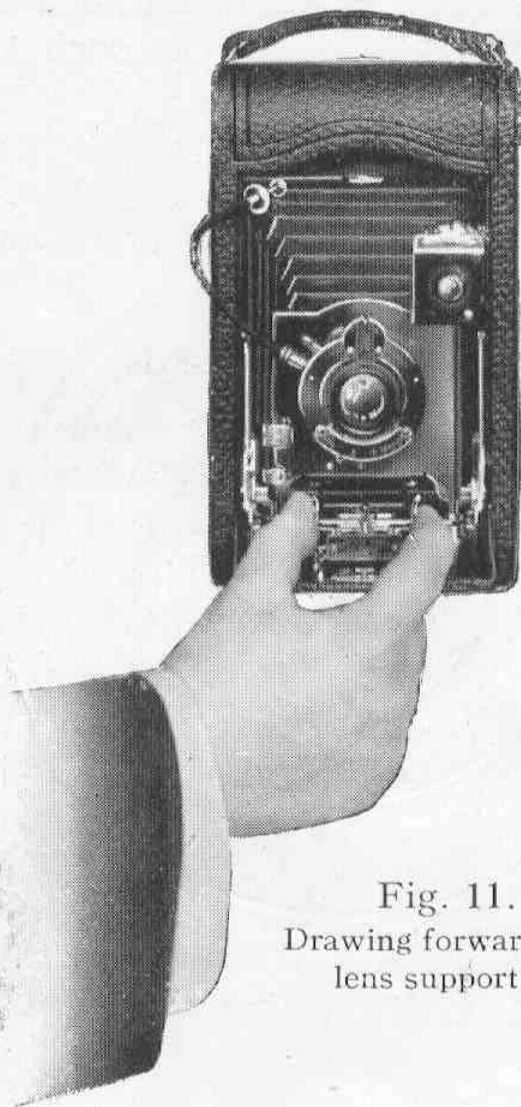


Fig. 11.
Drawing forward the
lens support.

The Shutter.

Perfect familiarity with the working of the shutter is essential to successful picture taking.

The No. 3 and No. 3A Autographic Kodaks are usually fitted with the Kodak Ball Bearing Shutter shown in Fig. 12. This gives instantaneous exposures of $\frac{1}{25}$, $\frac{1}{50}$ and $\frac{1}{100}$ of a second, as well as time exposures. (See also p. 14).

Do not oil any part of the shutter.

The Diaphragm or Stops.

The diaphragm, worked by lever B, Fig. 12, is placed between the back and front components of the lens, and controls the amount of light passing through the lens.

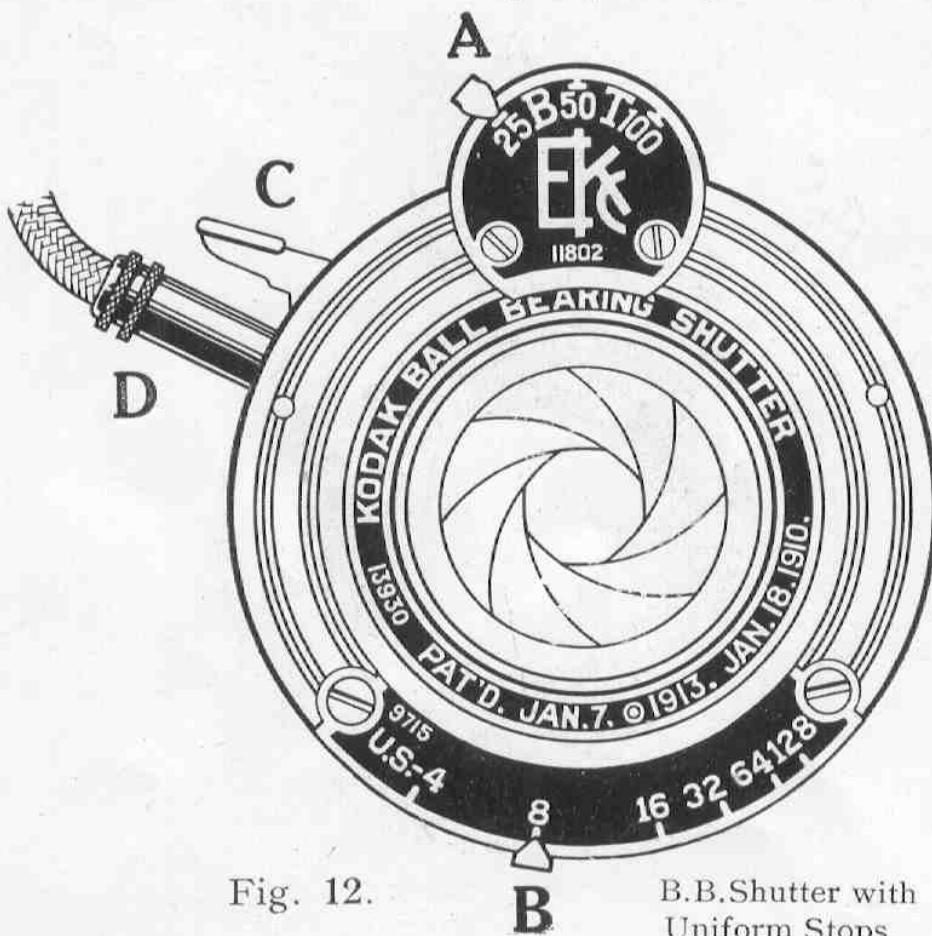


Fig. 12.

B.B. Shutter with
Uniform Stops

It is a device with a circular aperture which can be enlarged or reduced in diameter, the several openings being numbered 4, 8, 16, 32, 64, and 128. This System of marking the apertures is called the U.S. or Uniform System.

The largest stop is No. 4. This admits twice the light passed by No. 8, and will require only half the exposure required by stop No. 8, in a given light.

No. 8	admits twice as much light as	No. 16
„ 16	„ „ „ „	„ 32
„ 32	„ „ „ „	„ 64
„ 64	„ „ „ „	„ 128

Thus one second with stop No. 4 and two seconds with stop No. 8 will be equal in action although not in duration, but it should be noted that the smaller the stop the sharper the definition of the picture.

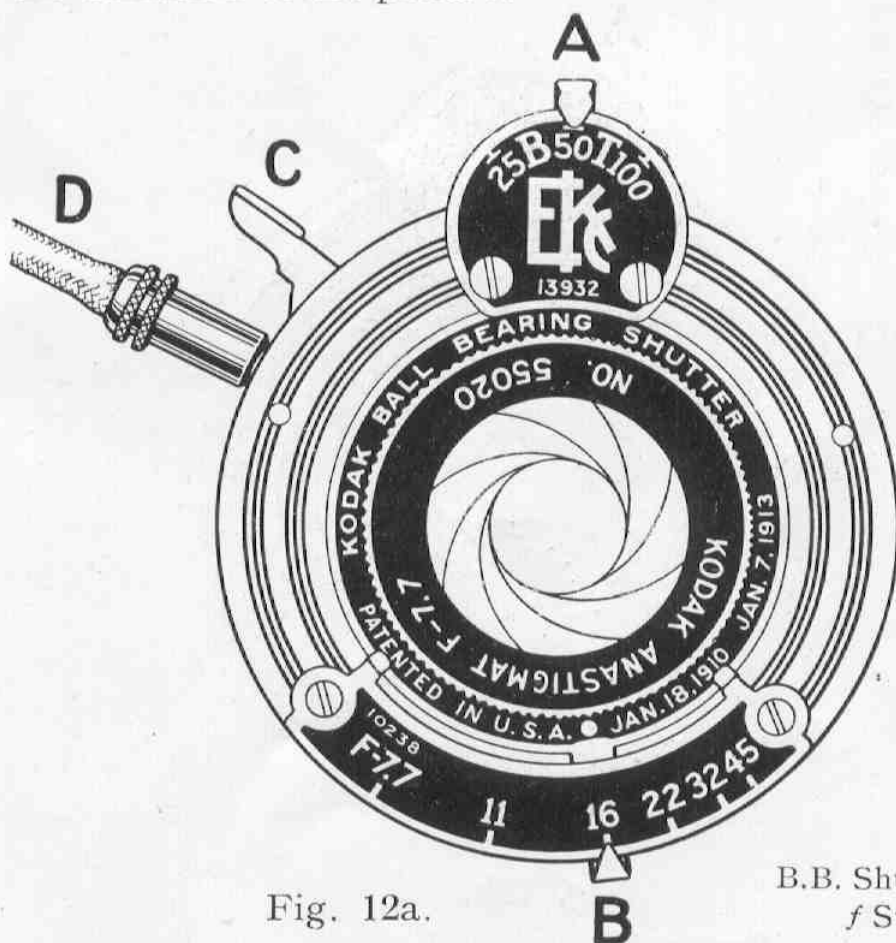


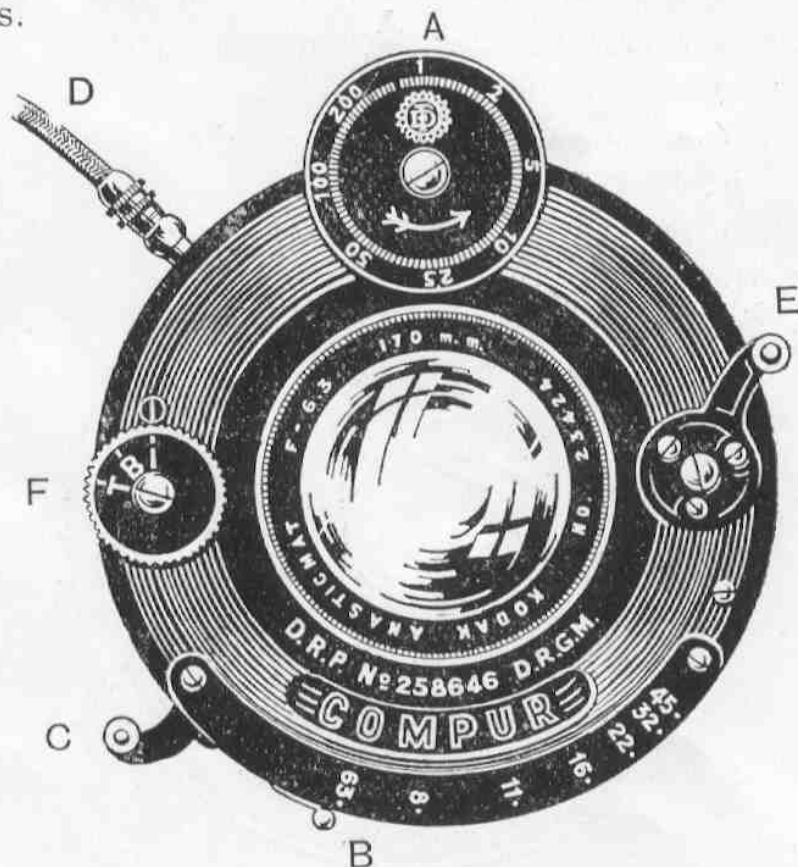
Fig. 12a.

B.B. Shutter with
f Stops

Anastigmats.

If your Kodak is fitted with an Anastigmat Lens the shutter will be marked according to the f system of stops illustrated in Figs. 12a. and 12b. The aperture $f.7.7$ admits slightly more light than the largest aperture U.S. 4 in the rectilinear lenses, but for all practical purposes in exposing the difference may be disregarded, as the latitude of Kodak Film covers it well. In the following pages the f markings 7.7, (and $f.8$) 11, 16, 22, 32 and 45 are treated as equivalent to U.S. 4, 8, 16, 32, 64 and 128 respectively.

The Compur Shutter (Fig. 12b) gives exposures of 1 second, and the following fractional parts of a second:— $\frac{1}{2}$, $\frac{1}{5}$, $\frac{1}{10}$, $\frac{1}{25}$, $\frac{1}{50}$, $\frac{1}{100}$ and $\frac{1}{200}$. The letters T. B. and I. stand for "Time," "Brief Time" and "Instantaneous" exposures.



B

Fig. 12b.

Compur Shutter with f . stops.

The T.T. & H.-Kodak Anastigmat $f6.8$ is a faster lens than the Kodak Anastigmat $f7.7$.

Now the larger the stop you use the more accurately you must focus. Therefore, when using the largest stop, $f6.8$, take care to estimate as exactly as possible the distance from the lens to the principal object in the picture; then be sure that the automatic focussing lock is set to the figure on the focussing scale most nearly corresponding to this distance.

As a rule the same stop should be employed and the same exposure be given if your Kodak is fitted with the $f6.8$ anastigmat as if it were fitted with the $f7.7$ anastigmat.

But, let us suppose that $\frac{1}{25}$ of a second at $f7.7$, when the subject is in rapid movement, gives a negative showing the movement, though otherwise correctly exposed. The same amount of light must pass the lens to impress the picture satisfactorily on the emulsion, but it must do so in less time to avoid showing the movement. You can accomplish this by giving $\frac{1}{100}$ second exposure at stop $f6.8$.

Again, when the light is so weak that $\frac{1}{25}$ second, the longest instantaneous exposure, at stop $f7.7$ would result in an under-exposed negative, you can open the diaphragm to its largest aperture, stop $f6.8$, and still obtain a satisfactory picture, since considerably more light can act on the emulsion in the same time with stop $f6.8$ than with stop $f7.7$.

Instantaneous Exposures (Ball Bearing Shutter).

First—Extend the front of the Kodak to the figure on the focussing scale, representing the distance of the principal object to be photographed. See page 10.

Second—See that an unexposed section of film is in position.

Third—Set the lever A (Figs. 12 and 12a) at 25.

Fourth—Set the lever B (Figs. 12 and 12a) to the diaphragm stop required.

U.S. 4 or $f7.7$.—On slightly cloudy days. With heavy clouds do not attempt instantaneous exposures.

U.S. 8 or $f11$.—When the sun shines.

U.S.—16 or $f16$.—When the sunlight is unusually strong and

there are no heavy shadows, such as in views on the sea-shore or on the water, or in tropical or semi-tropical climates.

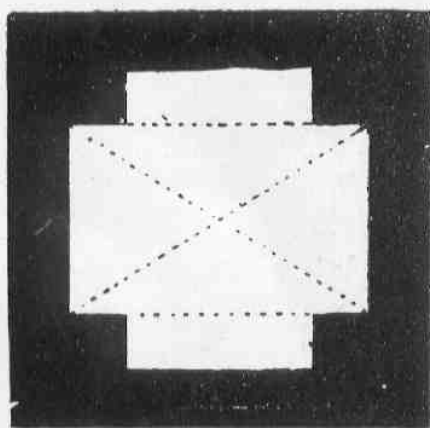
Do not use a stop smaller than No. 16 for instantaneous exposures as the light will be so much reduced that it will not sufficiently impress the image on the film.

Instantaneous Exposures (Compur Shutter).

1. Revolve the disc F. until the letter I. is at the top and directly under the indicator line just above the disc.
2. Revolve the disc at the top of the shutter until the line above the figure representing the exposure you desire to make is in the centre of the notch A.
3. Set the shutter by pushing down the lever E. as far as it will go.
4. Press the trigger C. or the release attached to D. This makes the exposure.

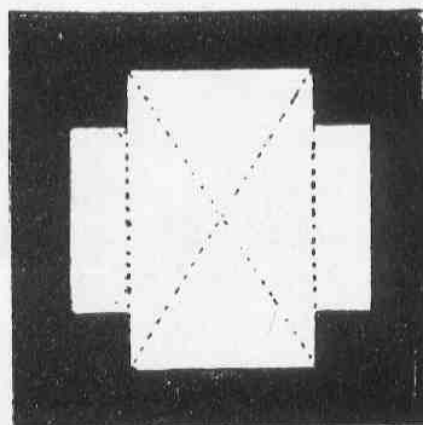
Arranging the Picture.

Point the Kodak at the object to be photographed, lifting the hood of the finder in the case of the No. 3 Autographic Kodak, and see that the image is in position in the finder. Always look into the finder from directly over it, not at an angle. The finder shows the scope of view and as nearly as possible a facsimile of the picture, but on a reduced scale.



View included when Kodak
is held in Horizontal position

A.



View included when Kodak
is held in Vertical position

B.

Fig. 13.

Any object that does not show in the finder will not show in the picture.

It will be noticed that the top of the finder is notched, as in Fig. 13. This enables the one finder to show the view included when the Kodak is held in either a horizontal or a vertical position. Remember that only the view indicated by the dotted lines in Fig. 13A will show in a horizontal picture, the dotted lines in Fig. 13B indicating the view in a vertical picture.

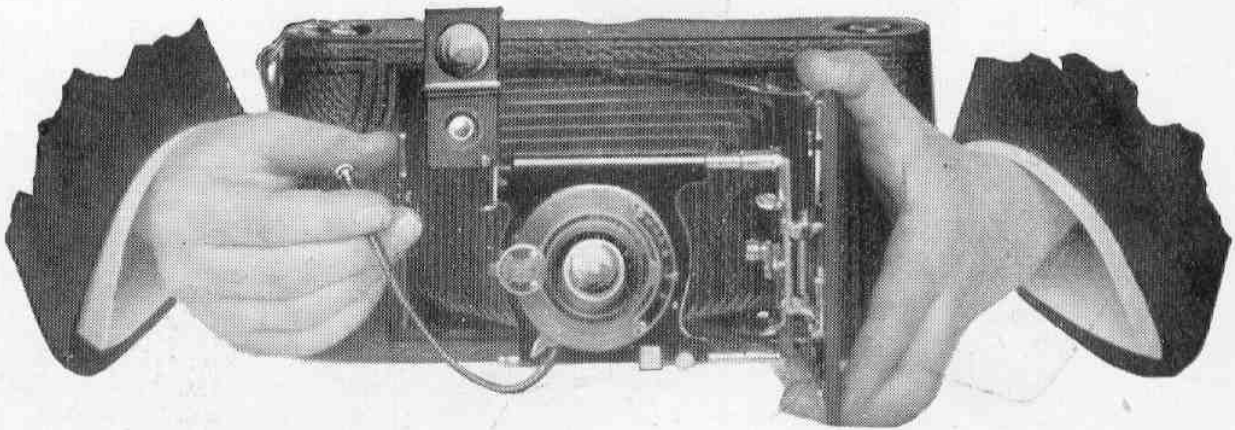


Fig. 14.

For a horizontal picture and an instantaneous exposure hold the Kodak as shown in Fig. 14, turning the finder as indicated.

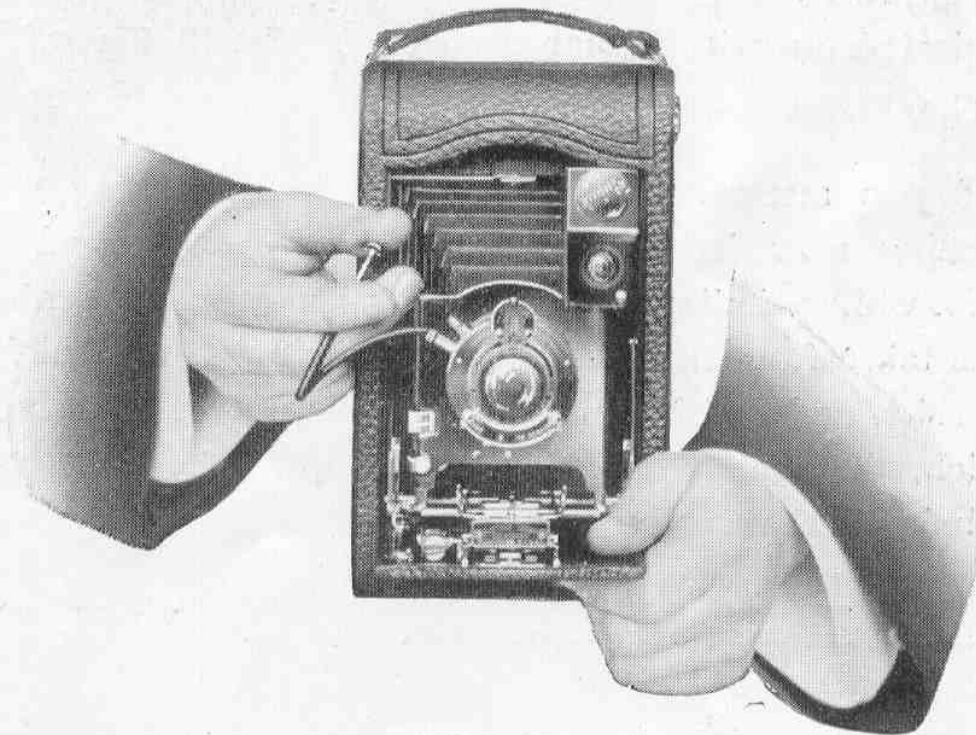


Fig. 15

For a vertical picture and an instantaneous exposure the Kodak must be held as in Fig. 15 with the finder as shown.

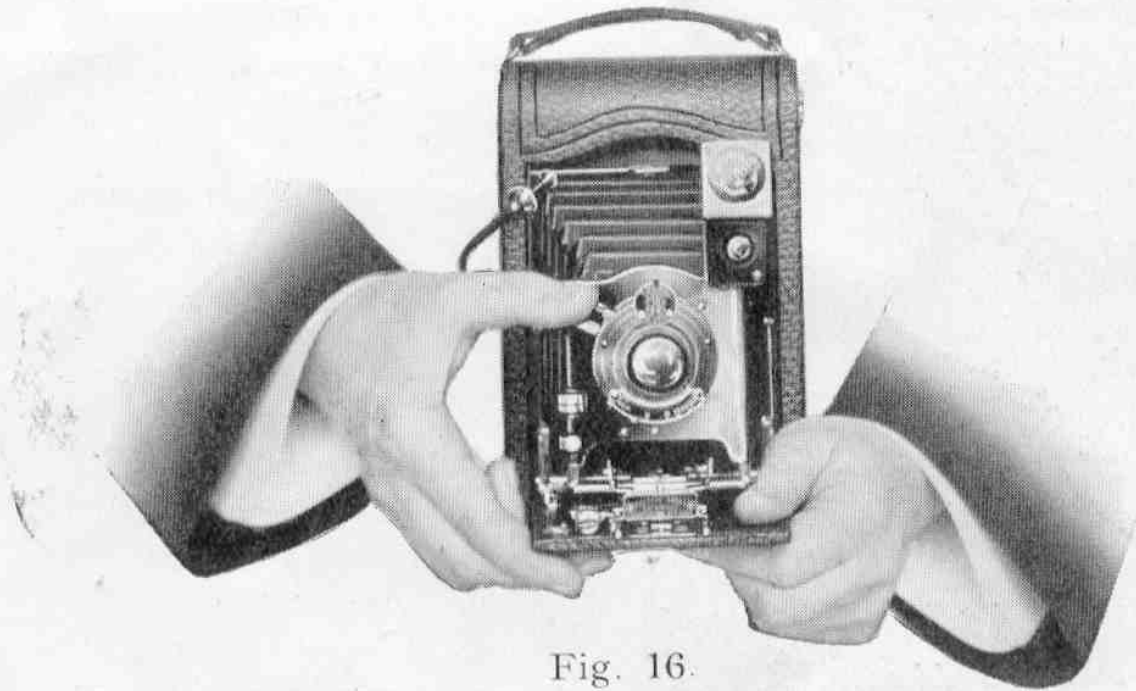


Fig. 16.

Fig. 16 shows^s how to hold the Kodak when making a vertical picture with the finger release C. (Fig. 12, 12a or 12b).

The Kodak must be held level.

If you attempt to photograph a high building while standing near it, by pointing the Kodak upward the result will be similar to Fig. 17. This building should have been taken from the middle storey window of the building opposite, or by withdrawing, if possible, to the distance, at which, the Kodak being level, the top of the building is included in the finder.

NOTE.—The rising front described on page 28 may be used to include high objects in the picture.

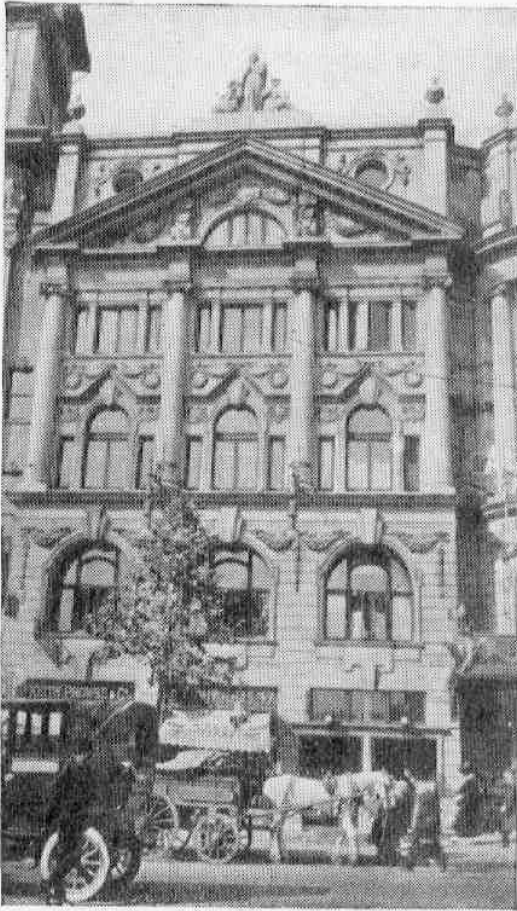


Fig. 17.

The effect of tilting the Kodak upward.

exposure is determined by the position of the lever A (Figs. 12, 12a and 12b), not by the length of time the cable is compressed or the finger release pressed down. It must not be supposed that a "time" exposure can be given by maintaining the pressure on the cable or finger release unless the lever A is at B (Figs. 12 and 12a) or letter T on disc F (Fig. 12b) is directly under the indicator line.

The Autographic Feature.

Autographic Kodaks* have a spring door on the back,

* You can buy Autographic Backs for Nos. 3 and 3A Folding Pocket Kodaks and so convert them into Autographic Kodaks.

If the object is at a low level, like a small child or a dog, the Kodak should be held down level with the centre of the object.

Fifth.—Hold the Kodak level and steady, and press the cable release, on tube D, (Fig. 12, 12a or 12b) with a firm movement, or press down the release C with the thumb, as shown in Fig. 16. This makes the picture.

The pressure on the cable release or finger release may be relaxed immediately the shutter is heard to operate. The length of an instantaneous

covering a narrow slot through which the writing is done upon the red paper. An automatic safety spring border acts when the door is open and presses the red paper and the black tissue under it into contact with the back of the film; this makes the writing sharp and prevents the light from spreading. The slot is in such a position that normally the writing comes between the exposures.



Fig. 18.

Opening the Autographic Door.

After the picture is taken, push back the sliding lock with the thumb (Fig. 18), in the direction indicated by the arrow. Open the door. Use the stylus, or a smooth pointed pencil (which must not be of the "indelible" or copying kind), held in as upright a position as is convenient, and write on

Important.—When you have used the last exposure on your spool of film and have written the autographic record, turn the winding key until the letter "A" appears in the centre of the little red window. Raise the spring-door and write your name on the red paper, then expose it to the sky in the same way as you exposed the titles of your pictures. Close the spring-door and finish winding film and red paper for removal from the Kodak. Your film is now ready for development, and if you give it to anyone else to develop it will be recognised after development by the autographic copy of your name which you wrote on the red paper.

Lock the spring door before winding a new film into place.



Winding the next film into place.

Fig. 20.

the strip of red paper any title you wish the picture to have and the date or details of the exposure, light, stop, etc. (Fig. 19).

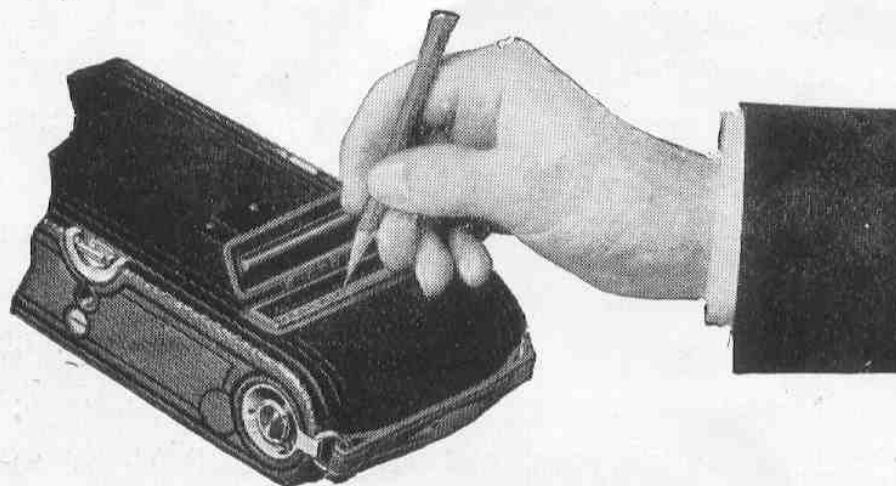


Fig. 19. Writing the date and the name of the picture.

To get a clear impression, press as heavily as the paper will stand without tearing, on both up and down strokes. *While writing or afterwards the sun should not be allowed to shine upon the paper.* The pressure of the pencil or stylus so acts upon the tissue as to let the light record the writing upon the film. After finishing the writing, the door should be left open for printing, in accordance with the following table.

(Expose to the sky but not to the sun).

	Out of doors	Indoors close to window
Brilliant light	2 to 5 seconds	5 to 7 seconds
Dull light	5 to 10 seconds	10 to 15 seconds
Electric light, distance 2 inches, 30 to 60 seconds		
Incandescent gas, distance 6 inches, 30 to 60 seconds.		

They also carry two struts—a hinged spring strut on the outer side of the folding base for vertical pictures, and a slightly different strut on the inner side near the focussing scale for horizontal pictures—enabling the Kodak to stand on a table or other firm and level support if a tripod is not available.

Exposures longer than $\frac{1}{25}$ second cannot safely be made with the Kodak in the hands.

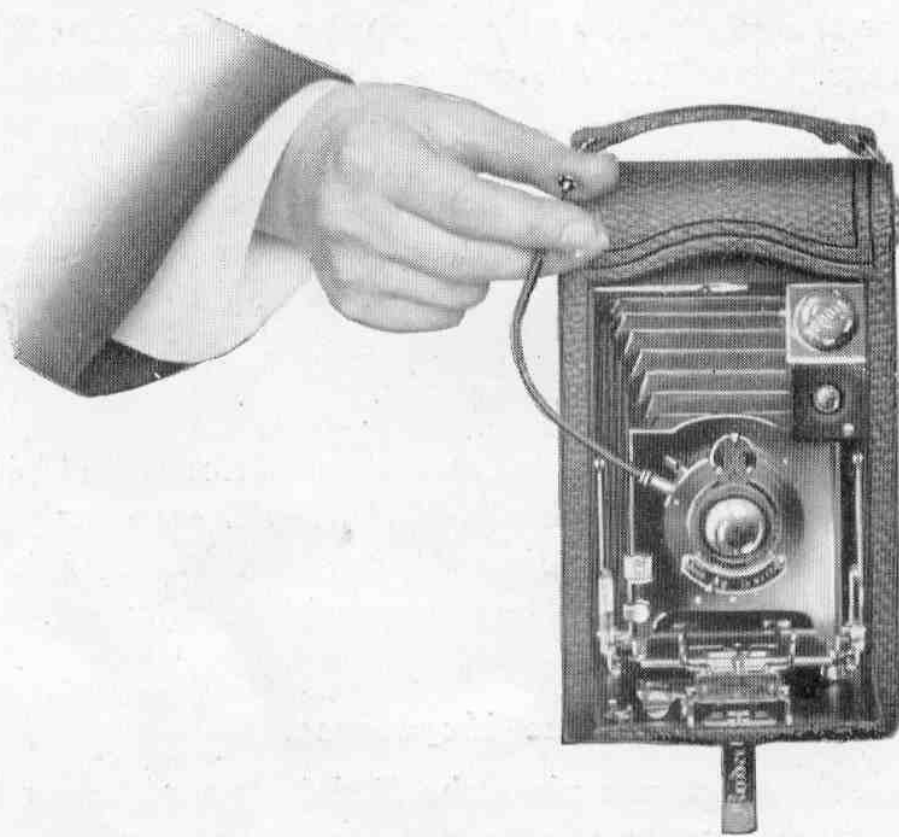


Fig. 21.

Fig. 21 shows the Kodak in position for a vertical picture, with the hinged strut pulled down to support the front.

Turn the winding key slowly to the left, until the next number appears before the red window (Fig. 20). Three or four turns will be enough. The warning hand appears before No. 1, and dots appear before the other numbers. You must be careful to get the number exactly in the centre of the red window in order that the writing may come in the proper place between the negatives.

Moving Objects.

When it is desired to photograph moving objects the shutter should be set at 50 or 100 by means of the lever A (see Figs. 12 and 12a) according to the amount of movement shown by the object.

To compensate for the shorter duration of exposure, the diaphragm stop should be set at U.S. 4 or f 7.7, when the subject is in sunlight, and at U.S. 16 or f 16 only if it is in unusually strong light, by the sea, on the water, or in tropical or semi-tropical countries.

For all ordinary exposures with the Kodak held in the hand $\frac{1}{25}$ of a second will be fast enough. It is only when moving objects are near the Kodak and the light is very good that the more rapid exposures will be required. (See pages 13, 14 and 15.)

Time Exposures.

For a time exposure place the Kodak on a tripod or some other firm support and focus as described on page 10.

The No. 3 and No. 3A Autographic Kodaks are provided with tripod sockets for both vertical and horizontal pictures.

The tripod socket for vertical pictures will be found on the outer side of the hinged front or folding base. The tripod socket for horizontal pictures is on one of the sides of the camera.

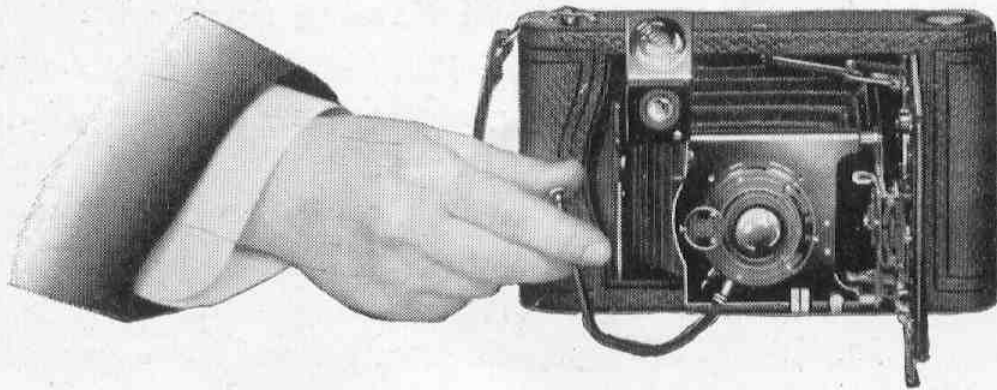


Fig. 22

Fig. 22 shows the Kodak in position for a horizontal picture, with the front supported by the strut provided for this position.

Interiors

Set the Kodak in such a position that the finder will embrace the view desired.

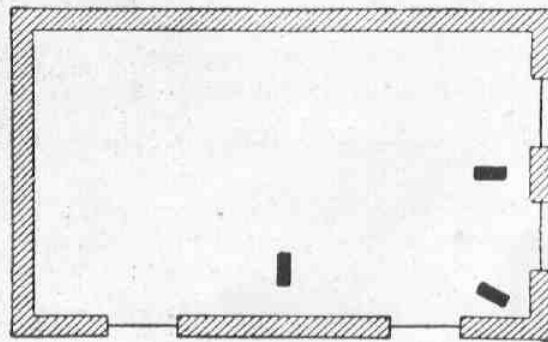


Fig. 23.

Fig. 23 shows three positions, each chosen so that the Kodak will not be pointed directly at a window, for the reason that the glare of light would blur the picture. If all the windows cannot be avoided, pull down the blinds or shades of those which come within the range of the Kodak.

Time Exposures (Ball Bearing Shutter).

Set the lever A (Figs. 12 and 12a) at the point T. This adjusts the shutter for time exposures, *i.e.*, one second and upwards.

Set the lever B. (Figs. 12 and 12a) at No. 16, 32, 64 or 128 (or *f* 16, 22, 32 or 45).

The smaller the stop the sharper the picture.

Stop No. 16 in ordinary circumstances is the best for interiors. The following table gives the approximate exposure required under varying conditions of light, with the stop No. 16 in use, for rooms whose windows get the direct light from the sky, and for times of day between three hours after sunrise and three hours before sunset.

If earlier or later, the time required will be longer.

White walls and more than one window:

Bright sun outside, 4 seconds;
hazy sun, 10 seconds;
cloudy bright, 20 seconds;
cloudy dull, 40 seconds.

White walls and one window:

Bright sun outside, 6 seconds;
hazy sun, 15 seconds;
cloudy bright, 30 seconds;
cloudy dull, 60 seconds.

Medium coloured walls and hangings, and more than one window:

Bright sun outside, 8 seconds;
hazy sun, 20 seconds;
cloudy bright, 40 seconds;
cloudy dull, 80 seconds.

Medium coloured walls and hangings, and one window:

Bright sun outside, 12 seconds;
hazy sun, 30 seconds;
cloudy bright, 60 seconds;
cloudy dull, 120 seconds.

Dark coloured walls and hangings, and more than one window:

Bright sun outside, 20 seconds;
hazy sun 40 seconds;
cloudy bright, 80 seconds;
cloudy dull, 2 minutes 40 seconds.

Dark coloured walls and hangings, and one window:

Bright sun outside, 40 seconds;
hazy sun, 80 seconds;
cloudy bright, 2 minutes 40 seconds;
cloudy dull, 5 minutes 20 seconds.

If the stop U.S. No. 8 (or $f11$) be used, give half the above times. If stop 32 (or $f22$) be used, double the time in the table. If stop 64 (or $f32$), multiply by 4. If stop 128 (or $f45$), multiply by 8.

When all is in readiness press the cable release. *This opens the shutter.* Time the exposure by a watch. Again press the release. *This closes the shutter.* Then write the Autographic record as already described.

The shutter may be opened by pressing the lever C, and closed by a second pressure if desired, but this course is liable to jar the Kodak and to spoil the definition of the picture.

Time Exposures (Compur Shutter).

1. Revolve the disc F. (Fig. 12b) until the letter T. is at the top and directly under the indicator line just above the disc.

2. Press the trigger C. or the release attached to D. This opens the shutter. Time the exposure by a watch and press the trigger or release again to close the shutter.

NOTE. The shutter does not require setting for "Time" exposures, and it is immaterial what the speed dial indicates. The setting of the disc F to T throws the "instantaneous" movement out of action.

Brief Time Exposures (Ball Bearing Shutter).

A very brief time exposure—anything up to one second—is best given in the following way:—

First—Set the lever A (Figs. 12 and 12a) at the point B (brief).

Second—Set the lever B (Figs. 12 and 12a) at U.S. Nos. 16, 32, 64, or 128 (or $f16$, 22, 32 or 45).

Third—Press the release to open the shutter and remove the pressure to close the shutter.

The exposure may be made by means of the lever C if desired, but in this event care must be taken not to jar the Kodak.

The shutter will remain open as long as the release or lever is under pressure, but the method is not recommended for a long "time" exposure.

Use the time exposure movement (lever A at T) for exposures of more than one second.

Brief Time Exposures (Compur Shutter).

1. Revolve the disc F. (Fig. 12b) until the letter B. is at the top and directly under the indicator line just above the disc.
2. Press the trigger C. or the release attached to D. The shutter will remain open as long as the trigger or release is under pressure.

NOTE. The shutter does not require setting for "Brief Time" exposures and it is immaterial what the speed dial indicates. The setting of the disc F to B throws the "instantaneous" movement out of action.

Write the Autographic record and turn a new section of film into position.

The Rising and Falling Front.



Fig. 24a.
Rising Front not used.



Fig. 24b.
Rising Front used.

The Kodaks described in this manual are provided with rising and falling fronts, the object of which will be seen on reference to the foregoing illustrations. Fig. 24a shows a picture of a high building taken from so near a point of view that the top of the building is cut out. By raising the lens of the Kodak (do not tilt the Kodak—see page 19), the picture is made to include the top of the building as in Fig. 24b, the undesirable excess of foreground being cut out.

The amount of foreground may be increased by reversing this operation. *i.e.*, by lowering the lens from its ordinary central position.

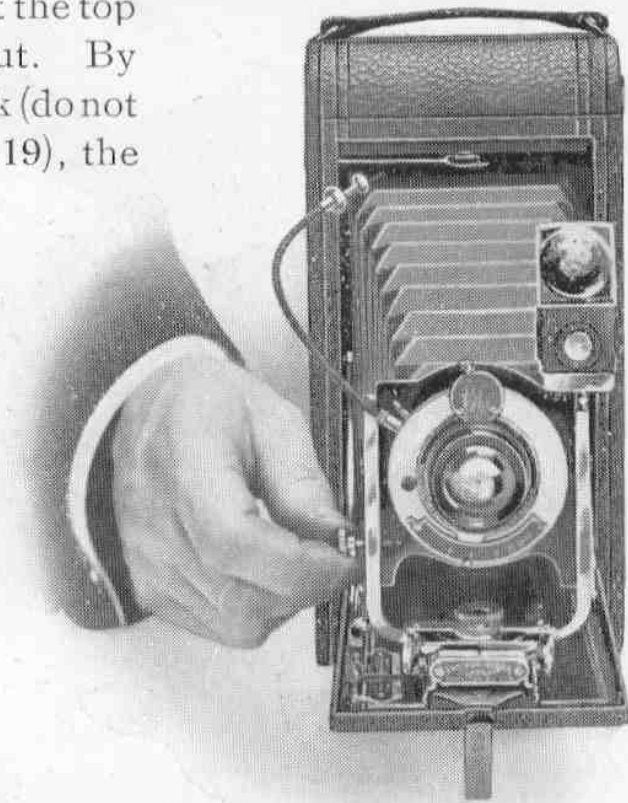


Fig. 25.

Adjusting the Rising Front.

Fig. 25 shows how to raise or lower the lens when making vertical pictures with the No. 3 and No. 3A Autographic Kodaks. Pull out the milled head at the left of the camera front and turn until the lens is in the desired position; then press in the milled head; this secures the front.

If your Kodak is fitted with the rising front shown in Fig. 26, the front may be raised or lowered by pressing on the eccentric catch just below the milled screw, and at the same time turning the screw to right or left.

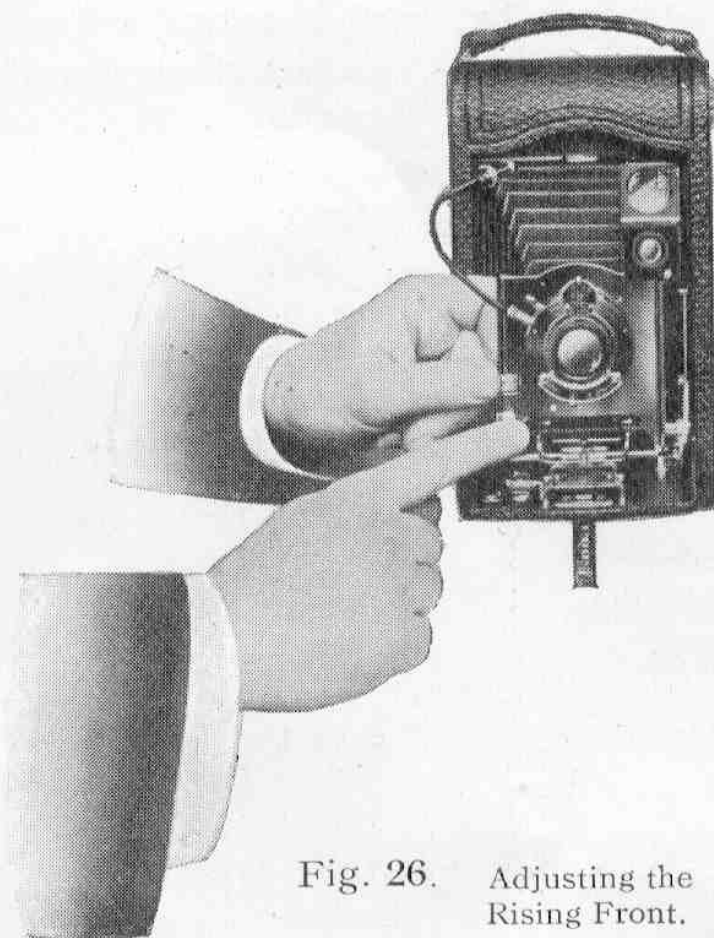


Fig. 26. Adjusting the Rising Front.

The front can also be moved to the right or left (up or down when the Kodak is placed on its side for horizontal pictures) in the No. 3 Autographic Kodaks by pushing to the right the locking lever directly under the shutter, and sliding the front in either direction to the desired position.

NOTE: In some Kodaks a milled screw nut takes the place of the lever. Lock in position by pushing the lever to the left as far as it will go or by means of the screw nut.

In order to make a sharp picture when using the rising front, it will be better to use a small stop (U.S. No. 32 or 64, or f 22 or 32), and, as this in turn may necessitate a time exposure, a tripod or other firm support must be provided.

NOTE.—Do not fail to centre and lock the lens front before closing the Kodak, otherwise the bellows will not fold properly.

To centre the lens after using the rising front, with the model shown in Fig. 25, see that the indented line immediately under the locking screw nut or lever coincides with a similar mark on the moving lens support.

To centre the lens after using model shown in Fig. 26, move up or down until the catch fastens in the notch in the standard.

To centre the lens after using the sliding front, see that the indented line on the upright lens support coincides with the slot immediately above the milled head.

Portraits.

Place the sitter in a chair partly facing the light, and turn the face slightly towards the Kodak, which should be at the height of an ordinary table. The proper distance from the Kodak to the subject can be ascertained by looking at the image in the finder.

For a bust picture or a three-quarter figure the Kodak should be 6 to 8 feet from the figure, and for a full figure, 8 to 10 feet.

Kodak Portrait Attachment.

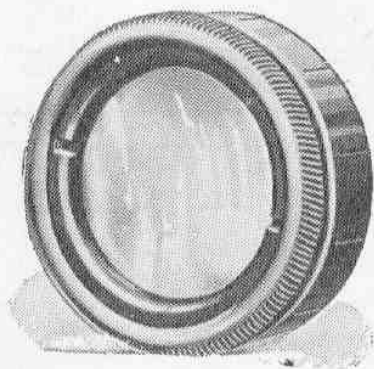


Fig. 27.

By the use of a Kodak Portrait Attachment, Fig. 27, large head and shoulder pictures of various sizes may be made. This Attachment is so valuable on many occasions that every Kodak user, when he knows what it will do, will add one to his outfit.

The attachment is an extra lens which slips over the Kodak lens, and enables the user to approach closer to the subject, and thus get a larger image, without spoiling the definition.

The Kodak Portrait Attachment does not interfere in the slightest degree with the ordinary use of the Kodak, as the Attachment can be removed, when not required, as quickly as it can be affixed.

The distance at which the Kodak is to be used, and therefore the size of the picture, depends upon the distance for which the Kodak is focussed. Full directions are supplied with the attachment.

The Kodak Portrait Attachment is useful also in photographing flowers and other small objects on an enlarged scale.

See price list, and special pamphlet post free on application.

Be sure to specify the name, lens and shutter of your Kodak when ordering the attachment.

Groups.

Arrange the chairs in the form of an arc, facing the Kodak, so that each chair will be about the same distance from the Kodak. Half of those composing the group should be seated, and the rest should stand behind the chairs. If the group be large, any number of chairs may be used, but none of the subjects should be seated on the floor with limbs extended towards the Kodak.

Backgrounds.

In making single portraits or groups care should be taken to have a suitable background against which the figures will show in contrast or relief; a light background is better than a dark one, and often a single figure or two will show up

well against a curtain. For larger groups, a medium light wall will be suitable.

Flashlight Pictures.

The Kodak Amateur Flashlight Outfit has wonderfully simplified picture-taking at night, and enables anyone to obtain souvenirs of evening parties, groups around the dinner or card table, and single portraits which, but for the flashlight would be beyond the range of the camera.

This Flashlight Outfit makes it possible also to photograph interiors which cannot be taken by daylight, by reason of a lack of illumination or for some other cause.

The Kodak Amateur Flashlight Outfit *gives a minimum of smoke.*

The Kodak should be prepared for "time" exposures, as directed on page 23 of this Manual, *except that stop U.S.4 or f7.7 should be used*, and placed on a tripod, or some firm level support, where it will take in the view desired.

To prepare the powder for use

Empty the contents of *both* portions of the glass tube on to a sheet of smooth paper (such as writing paper) and *mix well* with the aid of any bone or wooden implement, for example a bone paper knife. When mixed return all the powder to the large section of the tube.

To use the Lamp

Place the requisite amount of flashpowder in the tray at the opposite end to the *as yet unlighted* taper (or match). When ready, the taper (or match) is lighted, the shutter of

the camera opened and the lamp tipped steadily forward. The powder slips down the tray and is ignited instantaneously. Care should be exercised not to jerk the lamp forward but to tip it over boldly and steadily. After the flash, blow out the taper or match. Then press the release to close the shutter, make the Autographic record and turn a fresh section of film into place with the key, ready for another picture.

Quantity of powder to use

For portraits or average interiors, use as much powder as can be heaped on to a threepenny piece or as much as easily covers a sixpence without piling up. Small groups or larger interiors need rather more powder—say as much as can be heaped on to a sixpence, but not more.

Where to hold the Flashlamp

The lamp should be held just behind the camera either to the left or right, and well above the lens. Provided that the shutter is only opened just before exposure and no lights are included in the picture, it is not necessary to extinguish the lights in the room.

Full instructions are supplied with the Outfit.

The finder on the Kodak will aid you in arranging the subject for the best effect. In order to make the image visible in the finder, the room will have to be well lighted with its ordinary illuminant, which need not be extinguished while the picture is being made, provided none of the lights is placed so that it shows in the finder.

In the case of a portrait the flash should be on the side of the Kodak away from the face, that is, the subject should not face it, and the flash should not be higher than the head of the subject.

For the arrangement of a group or a single figure, and the choice of a background, see page 32.

Closing the Kodak.

Fig. 28.

After using the Kodak, see that the finder is in the upright position and the hood down, push back the lens support reversing the operation shown in Fig. 11, and press down the slotted struts at each side of the Kodak as shown in Fig. 28. The hinged front will now close quite readily.

Removing the Film.

The operation of removing the exposed spool and inserting a new one in the Autographic Kodak should be performed in a subdued light, but a dark room is not required.

When the last section of the film has been exposed, and you have written your name, turn the key about five half turns

Have a new spool of film ready.

Under-Exposure

To take an example, a negative is under-exposed when, after correct development, the parts that were well lighted show a fair amount of detail, but the parts that were in the shade lack detail. To avoid this, always calculate your exposure for the dark portions of your picture.

In an extreme case the negative does not show detail in either the worse lighted or the better lighted parts of the picture. This means you should have given at least three times as much exposure.

An under-exposure can be made worse by incorrect development. The Kodak Film Tank will ensure correct development.

The only remedy for a badly under-exposed photograph is take the picture over again. Always give sufficient exposure. (See pages 15, 16 and 23 to 28).

Over-Exposure.

This, if not extreme, is a good fault. With correct development there is a lack of contrast between the well-lighted parts of the picture and the shady parts, and in addition, the negative may take a long time to print. This can be corrected a reducer.

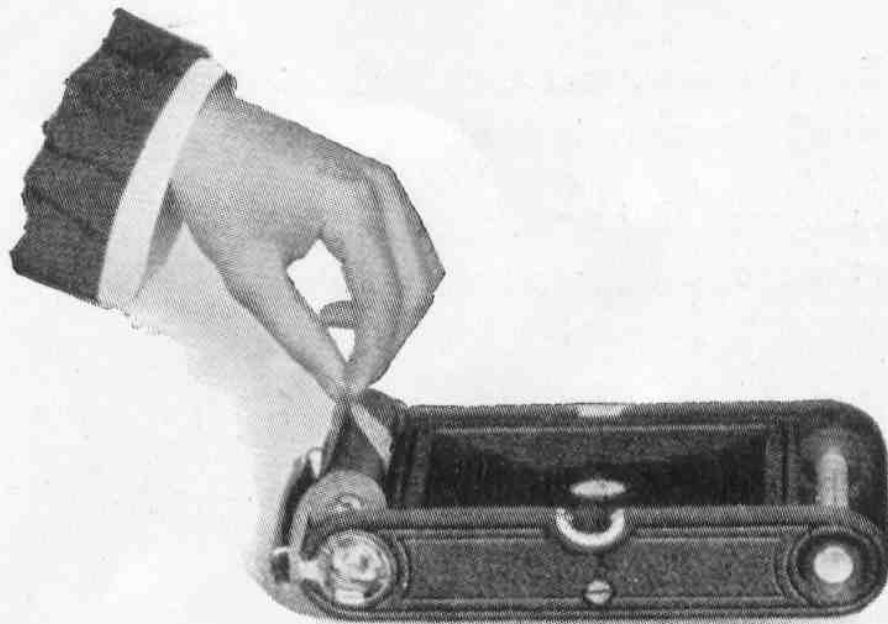


Fig. 30. Removing the exposed roll of film from the Kodak

Wrap up the spool of exposed film to prevent possible injury by exposure to strong light.

Now take out the empty reel, first withdrawing the spool pins as before described. (See Fig. 3, page 6).

Drop this reel (which will serve as the receiving reel for the next film) into the empty recess at the end of the Kodak carrying the winding key, taking care that the slotted end is towards the winding key. Pull out the key in so doing, as shown in Fig. 31, and fit the web of the winding key into the slot in the end of the reel. Now insert the pin in the opposite end of the reel by pressing home the pin head.

Load as described on page 5.

Remove the back from the Kodak as described on page 5.

Holding the paper taut, so that it winds tightly, turn the key until all the paper is wound upon the reel (See Fig. 29).

Hold the ends of the red paper and gummed slip together to keep the red paper taut on the reel.

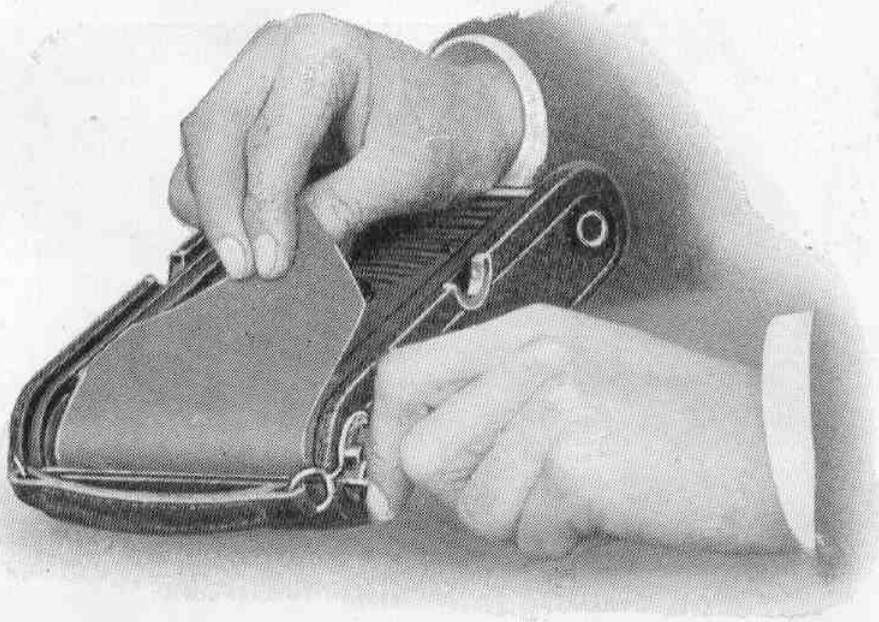


Fig. 29. Winding up the spool paper.

Pull out the spool pin at the end of the recess which contains the exposed spool, as described on page 6.

Pull out the winding key, and lift out the roll of film by the end of the red paper and the gummed slip (Fig. 30).

Fold over half an inch at the end of the red paper and seal with the gummed slip. Thus it will be easy to break the seal when required.

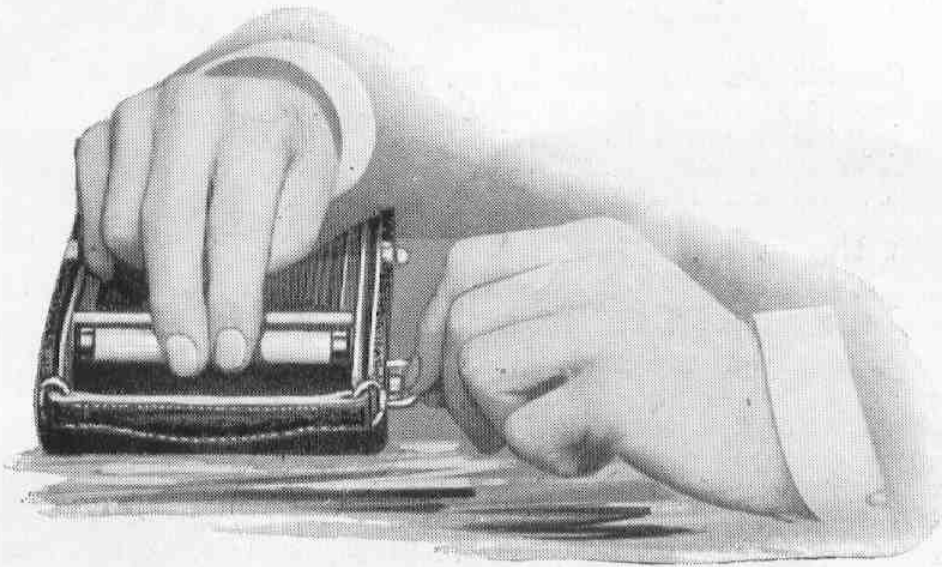


Fig. 31. Placing the empty reel in the Kodak.

"Cinch Marks."

If the film and paper loosen up a trifle when taken from the camera, do not take the spool in the hand and wind it as closely as possible, cinching it lightly with a winding motion. There is nothing more likely to injure the negative than this tight drawing of the film since it abrades the surface, making fine scratches running lengthwise of the film, which in some cases, will ruin the negative. *Do not "cinch" the spool.* The paper merely needs to be wound tightly enough to keep inside the flanges.

The exposed spool is now ready for development. (See page 42).

When Cut Films are used.

When you are using cut films a dark room will be required.

By a dark room is meant one that is wholly dark—not a ray of light in it. Such a room can easily be secured at night almost anywhere. The reason a dark room is required is that the emulsion is extremely sensitive to white light, either daylight or artificial light, and would be spoiled if exposed to it even for a fraction of a second.

Provide also

Combination Back for Cut or Roll Films
Double Cut Film Holders with Sheaths.
1 dozen Kodak Cut Films.
A Wratten Junior Safelight Lamp.
A Shelf or Table on which to work.

Light the lamp.

Open the box of Cut Films by running a thin knife blade around the edge underneath.

The sheaths are held in position in the holder by springs worked by the metal catches at the top of the holder. To load the holder withdraw the draw-out slides and turn the catches so as to release them from the screw heads which hold them down. Free the sheaths by rapping the top of the holder on your open hand or on the table.

Take out one of the films from the packet. A small V shaped notch will be seen on one edge. When the film is so placed that this notch is on the upper edge and at the right hand corner, the film is lying face up. Place it in the sheath face outward, and replace the sheath in the holder first inserting the top end and then the lower end, which drops into a groove at the bottom of the holder. Push the catch down and give it a turn to engage it in the screw head, thus firmly securing the film and sheath in the holder.

Replace the draw-out slide in the holder and fill the other side in the same way.

Repeat the operation until all the holders have been filled, then close up the remaining films in the box, wrap up securely and put them away in a dark drawer.

After taking the pictures withdraw the draw-out slide, release the button, turn the holder upside down and allow the sheath to fall into the hand.

Take the film from the sheath and place it in a light-tight box, for example, an old Kodak Cut Film box, so that it will be safe while you are getting ready to develop it.

Instructions for Using the Combination Back.

Remove the Autographic Back from the Kodak (see page 5) and substitute the Combination Back, taking care that the springs at each side engage with the catches and that the back is right side up, the wide spring at the same side as the winding key.

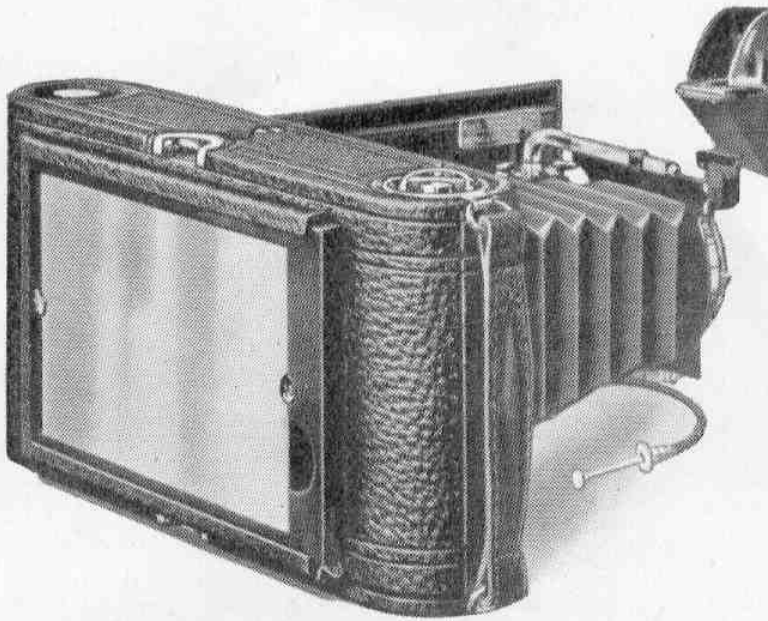


Fig. 32. The Combination Back with focussing screen for Cut Film.

TO USE THE COMBINATION BACK AS A CUT FILM ADAPTER. Before fitting the Combination Back, release the sliding panel by pressing down the metal spring on the inside. In the back for the No. 3A Kodak this spring is near the red window, but in the back for the No. 3 Kodak it is at the other end. This enables you to slip out the panel, leaving an aperture in which you fit the ground glass focussing screen. Replace the Combination Back on the Kodak, open the

shutter, focus the picture on the screen (by pulling out the front) with the diaphragm stop at its largest aperture, and then substitute the Cut Film holder for the focussing screen. Adjust the stops when necessary (see pages 13 and 26). Close the shutter, withdraw the slide and expose as for roll film, immediately reinserting the slide.

As Cut Films do not lie in the same plane as the roll film it is necessary when using them to focus on the ground glass, and not to use the focussing scale.

Developing.

If you post your Roll or Cut Films to your photographic dealer or to Kodak Limited for developing, please enclose your name and address in the packet, and send separately a letter of advice with a remittance to avoid delay.

If you wish to develop your spools yourself you will prefer the modern method of developing in Daylight with the Kodak Film Tank to the old-fashioned dark-room method. Printed instructions for either method will be sent post free on request. It takes many years' experience to enable even an expert to get results in the dark room equal to those which the beginner obtains by the more convenient daylight method.

Similarly the most convenient method of developing Cut Film is in the Kodak Developing Box No. 1.

Printing.

For printing, if the negatives are lacking in contrast, Vigorous Velox will be the most suitable paper; if the

negatives themselves are contrasty, Soft or Special Velox will be preferable.

Enlarging.

Any negative that gives a good contact print will give a good enlargement on either Kodak Bromide or Soft Velox Paper by means of daylight.

From No. 3 Kodak negatives enlargements $8\frac{1}{2} \times 6\frac{1}{2}$ in. can be made with the No. 3 Brownie Enlarging Camera.

From No. 3A Kodak negatives enlargements 11×7 in. can be made with the No. 3A Brownie Enlarging Camera.

With the Kodak Auto-Focus Enlarger you can make pictures in the dark-room up to 21×14 inches from No. 3 and No. 3A Autographic Kodak negatives, and you can do this from the whole negative or from any part you choose.

Mounting.

Mounting with paste is the method known to everyone. Kodak Mounting Paste is specially manufactured so that it will have no deleterious effect on the emulsion of any print or enlargement mounted with it.

Eastman Double Coated Mounting Tape will be found even more convenient. This is an exceedingly thin paper coated on both sides with a specially prepared adhesive. One side is moistened and attached to the print; then the other side is moistened in its turn, and the print fixed in position on the mount or in the album.

When large numbers of photographs are to be mounted, the use of Ademco Dry Mounting Tissue and a Dry Mounting Press can be recommended.

Amateurs will usually find the following alternative method with a flat iron equally convenient. The iron should be just the right heat for ironing starched linen; the tissue

is laid over the back of the print and touched with a corner of the iron to attach it to the print. Print and tissue are then trimmed to the required size and placed in position on the mount; a sheet of clean paper is placed on top and the whole surface is pressed (not ironed) with the hot flat iron.

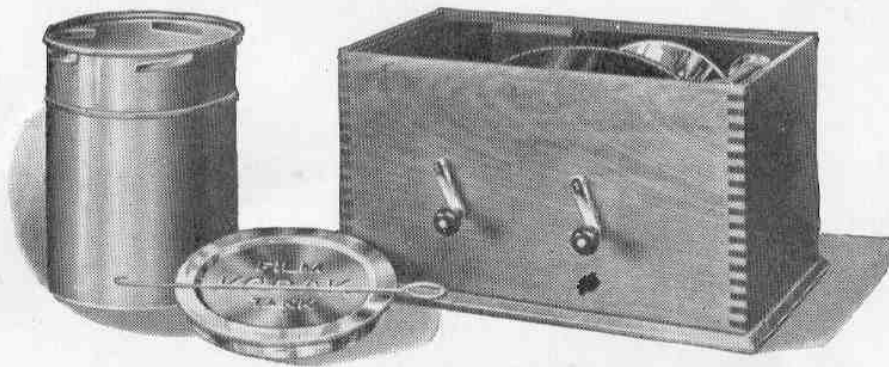
The most convenient way of heating the iron is to stand it in a pan of boiling water, which must be kept on the boil. On removal from the water the iron will dry in a few seconds. The iron will soon cool and it must be put back frequently into the boiling water. If the tissue does not stick to the mount, it means either that the iron has not absorbed sufficient heat, or that longer pressure is required.

Kodak Service.

If you have any trouble in getting perfect results with your Kodak, please ask for a free demonstration some morning at any Kodak branch; if that is not convenient, write about your difficulty to Kodak Limited, Kingsway, London, W.C.2.

Kodak Limited employs a staff of demonstrators and experts to see that all photographic problems are explained which Kodak owners find difficulty in solving for themselves.

Kodak Film Tank



When you have unloaded your Kodak you have a spool of exposed film to develop. The next step is to do this in daylight by means of the Kodak Film Tank. In this way the sensitive Film remains in the dark, but you keep in daylight.

Owing to the use of a weak developer, combined with scientific development for a fixed time at a given temperature, each picture, whatever its exposure may have been, is given the best possible treatment.

From all Kodak Dealers

KODAK Ltd., Kingsway, London, W.C.2

Velox

The original Gaslight Paper

Velox prints can be developed in any ordinary artificial light, so that it is an ideal paper for use indoors.

Velox is made in two grades:—

Vigorous for negatives lacking in contrast.

Soft for all other negatives.

Each grade of Velox is made in several surfaces, so that a surface suitable for every class of picture is available:—

Art : a semi-mat surface, recommended for the majority of negatives.

Carbon : a dead mat surface, suitable for all pictures where sharp detail is not desired.

Glossy : a brilliant surface, giving delicate pictures from delicate negatives.

Portrait : a nearly mat surface, especially suitable for portraits, as its name implies.

From all Kodak Dealers

KODAK Ltd., Kingsway, London, W.C.2

Kodak Developing Box No. 1 for Cut Film.
 Wratten Junior Safelight Lamp.
 Film Storage Album for 100 negatives.

When you are Printing :—

Maskit Printing Frame.
 Solio Paper and Post Cards.
 Kodak Neutral Gold Toning and Fixing Salts.
 Velox Paper and Post Cards.
 Velox Developing Powders.
 Kodak Acid Fixing Salt.
 Eastman Print Paddle.
 Kodak Amateur Printer.

When you want "Something Different :—

Kodak Auto-Focus Enlarger.
 Bromide Paper.
 Kodak Special Developer.
 Kodak Chromium Intensifier.
 Kodak Sepia Toner.
 Eastman Double Coated Mounting Tape.
 Kodak Print Roller.
 Kodak Trimming Board.
 Mounts.
 Albums.
 " The Fundamentals of Photography."
 " How to Make Good Pictures."

From all Kodak Dealers.

KODAK Ltd., Kingsway, London, W.C.2

Useful Helps

When you are Taking Pictures :—

Leather Carrying Case with Shoulder Strap.

Kodak Autographic Film—

A118 to make 12 or 6 pictures with No. 3 Autographic Kodak.

A122 to make 10 or 6 pictures with No. 3A Autographic Kodak.

Kodak Portrait Attachment, Sky Filter and Colour Filter—

No. 3 for No. 3 Autographic Kodak R.R. or $f7.7$ lens.

No. 6 for No. 3 Autographic Kodak T.T.H—Kodak lens.

No. 5 for No. 3A Autographic Kodak.

Kodak Self Timer.

Kodak Amateur Flashlight Outfit.

Kodak Amateur Flashlight Outfit Refills.

Optipod.

Kodapod.

Kodak Metal Tripod and carrying case.

Combination Back for Kodak Cut Film or Roll Film, with Focussing Screen.

Double Cut Film holders and sheaths.

Kodak Cut Films.

When you are developing :—

3½ inch Kodak Daylight Developing Tank for roll film.

Kodak Tank Developer Powders for 3½ inch Tank.

Kodak Acid Fixing Salt.

Eastman Thermometer.

Kodak Flexible Rubber Tray.

Kodak Metal Film Clips.

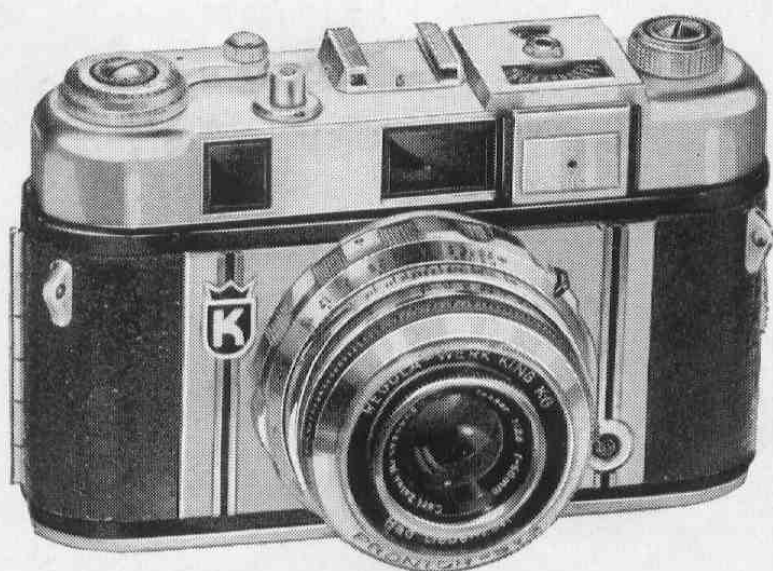
Kodak Push Pins.

**The Kodak Catalogue
gives particulars of many
useful accessories,
mounts, albums, and
supplies, all of which
can be obtained through
your photographic dealer.
A copy will be sent post
free on application to**

KODAK Ltd., Kingsway, London, W.C.2

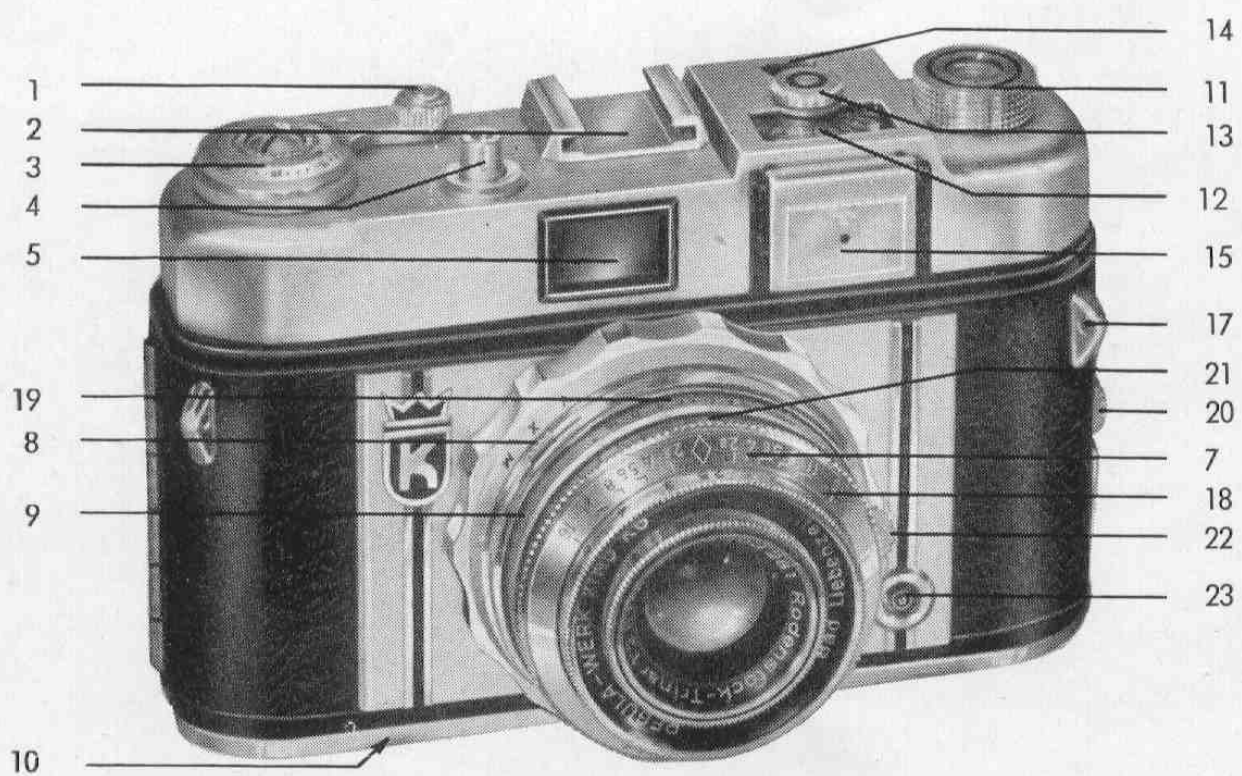


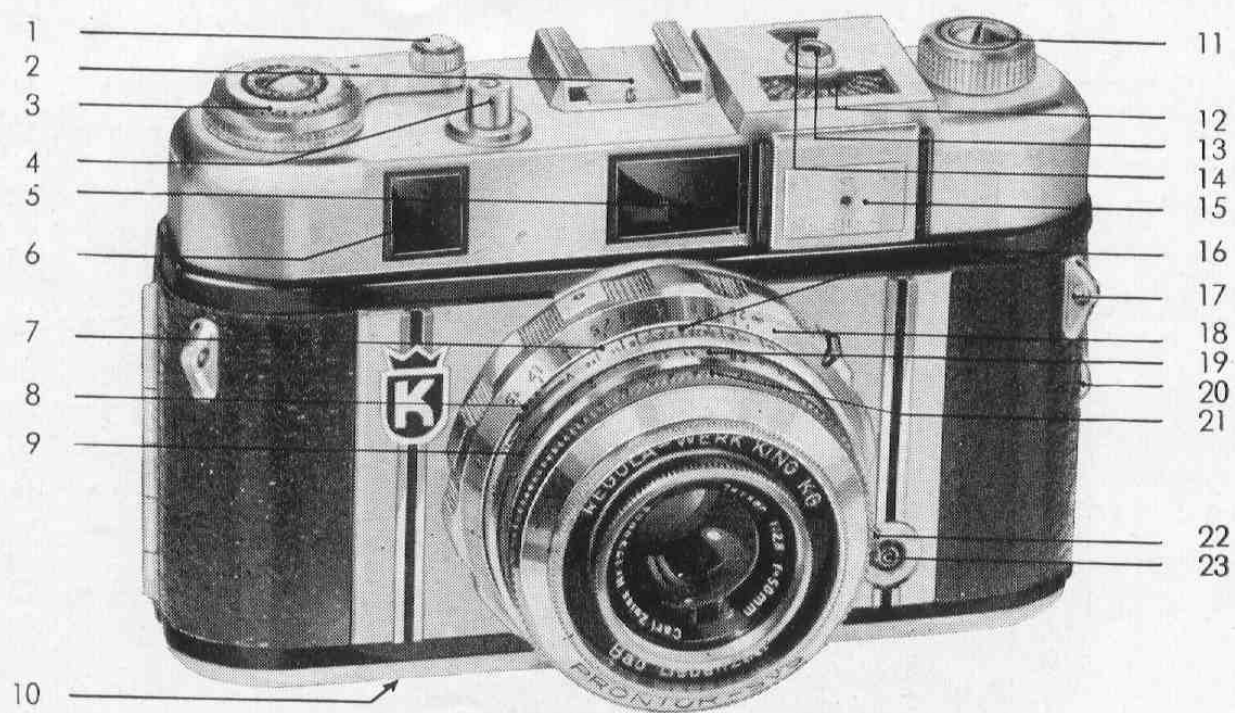
REGULA-WERK KING KG. BAD LIEBENZELL



**REGULA III-b and
REGULA-CITA III**

24 x 36 mm





- | | |
|-----------------------------|--|
| 1 Rapid Transport Lever | 13 Knob for Setting the Film Speeds |
| 2 Accessory Shoe | 14 Film Speed Scale |
| 3 Film Counter | 15 Exposure Meter Cover |
| 4 Release Button | 16 Mark for Distance,
Diaphragm and Speed |
| 5 Viewfinder | 17 Lugs for Neck Strap |
| 6 Rangefinder | 18 Distance Scale |
| 7 Depth of Focus Scale | 19 Diaphragm Scale |
| 8 MXV-Synchronisation Lever | 20 Body Lock |
| 9 Light-Value-Scale | 21 Shutter Speeds |
| 10 Rewind Lock Button | 22 Clutch lever |
| 11 Rewind Knob | 23 Synchronisation Contact |
| 12 Exposure Meter | |

Dear Regula-friend!

You are now the proud owner of a REGULA camera, and your photo dealer and the manufacturer wish you every success. The camera has been designed and built to the highest precision standards, and this means complete reliability.

The following instructions are designed to help you avoid making errors. Please read them. It's far better to be safe than sorry.

With the camera in front of you, read these instructions carefully. Use the illustration to locate the various parts of the camera, and where possible handle the parts mentioned. The good worker always familiarises himself with his tools.

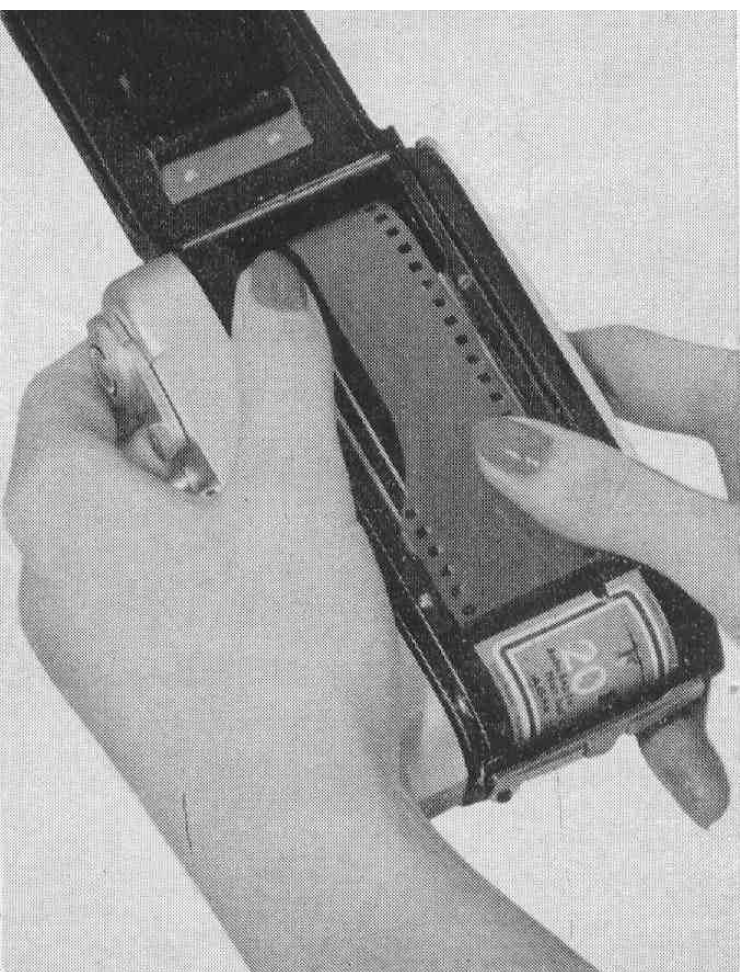
end of the film. Insert this end into the slot of the take-up spool. Turn the take-up spool, so that the film is tightened and ensure that the transport wheel engages firmly in one of the perforations. This is very important, for if the film is not attached firmly to the take-up spool, no photographs will be taken!

(d) Close the lid firmly. It will "click" into place.

(e) Now that film is loaded into the camera, two blank exposures must be made before the film is in the correct position for "shooting". To do this, the following steps must be taken:

Turn the transport lever (1) forward with a steady movement of your Right Thumb until it stops. At the same time ascertain that the rewind knob is turning against the arrow. This ensures that the film is being transported correctly. Allow the transport lever to glide to its normal position (If the transport lever is blocked in any way, press the release button).

Now press the release button (4) and repeat the same operation once again. At the third movement of the transport lever, the film will be in the correct position for your first exposure. Turn the film counter (3) to 20 or 36 according to the length of film. The counter will then automatically show the remaining number of exposures.



LOADING THE FILM

Only use films of good name — here, your photo dealer will help. The camera is designed to accept standard 35 mm film cassettes (24 x 36 mm) 20 or 36 exposures — Black and White or Colour. Choose a shady spot — not bright sunlight. (a) To insert the film, first press down the body lock (20), open the camera back and press or pull the rewind knob (11) up, as far as it will go. This enables you to insert the film cassette, into the empty space that remains.

(b) Push the rewind knob down, to its original position. At times, it may have to be turned slightly.

(c) Fold inwards, about $\frac{1}{4}$ inch of the

(f) Your REGULA camera has a double exposure prevention device, and therefore it is impossible to make the error of photographing two different subjects on the same negative. Also it incorporates a double transport prevention device — this means that you cannot transport the film without releasing the shutter. If you cannot release the shutter you have to transport the film. Not only that — if you have not turned the transport lever enough, it must be turned once again — But you do not lose any film!

(g) The next 3 steps are easy — Set the distance (18). — Set the diaphragm (19) and the exposure time (21). But let's explain the new light value — Prontor-SVS-Shutter.

SHUTTER

1. Gives you a range of speeds from 1 to $\frac{1}{300}$ seconds. These speeds can be set before or after the film transport has been turned. It is not possible to use "in between" speed settings. N. B. speed setting 30 = $\frac{1}{30}$ second. When using "B" (Bulb) the shutter will remain open as long as the release button is pressed down. For speed settings longer than $\frac{1}{30}$ second, we recommend that you use a reliable tripod, and also a cable release, which screws into the thread of the body release button. Incidentally, the shutter is cocked automatically when the film is transported.

2. The M-X lever (8) normally stays on X. To use the "M" setting, refer to the exposure tables listed on the carton containing your flash bulbs.

For delayed action the lever is set to "V" — and this is only possible **after** the shutter is cocked. After the shutter is released you have 6-8 seconds available before the photograph is taken. The lever will then automatically return to "X".

3. DIAPHRAGM & EXPOSURE SETTINGS

The REGULA camera has the advantage that the diaphragm and shutter mechanisms are coupled by the light value system. Here are some hints about this new system. You probably know that you will always get an evenly exposed negative by closing the diaphragm $\frac{1}{2}$ stop, providing of course that you lengthen the shutter speed to the same extent.

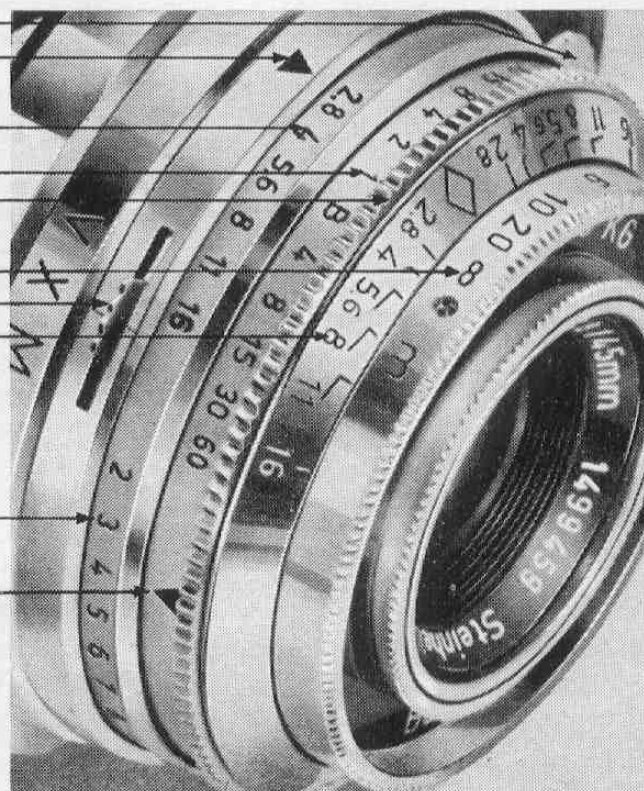
A setting of $\frac{1}{125}$ sec. at f 2.8 would correspond to $\frac{1}{60}$ sec. at f 4 or $\frac{1}{30}$ sec. at f 5.6, or $\frac{1}{15}$ sec. at f 8 or $\frac{1}{8}$ sec. at f 11 or $\frac{1}{4}$ sec. at f 16. These figures illustrate that this relation of diaphragm to shutter speed gives exactly the same exposure. This relationship is known as "light value" and in the example shown "light value 10".

4. With the REGULA camera, this has been simplified for you, by providing a light value scale (LVS) exposure meter, built by the world's most famous and largest manufacturers of exposure meters — Gossen. This meter provides a LV reading at which the shutter must be set. Hence at LV "10" you would be in a position to choose any combination of shutter speed and diaphragm, as illustrated above in para. 3. To do this, the following action is taken:

Press in the clutch lever (22) and set the red LV number to the red arrow by moving the ring to the left or right. For very high LV readings, it will be necessary to move the knurled shutter speed ring (21) — this is only possible by pressing in the clutch lever. Having set the LV reading, it is only necessary to decide on the best combination of shutter speed and diaphragm which will suit your subject and produce the most suitable depth of field.

5. With the REGULA camera, it is also possible to set the diaphragm and shutter independently of the LV setting. This is, once again done, by pressing in the clutch lever and turning the approximate rings to their correct setting. Make sure that these rings click into position. So, should you want to alter the shutter speed the diaphragm will change automatically in the correct ratio.

Clutch Lever
 Indicator Arrow
 for Diaphragm and Speeds
 Diaphragm
 Shutter Speeds
 Shutter Speed Ring
 Distance Scale
 MXV Lever
 Depth of focus scale
 Light Value scale
 Indicator Arrow for
 light values

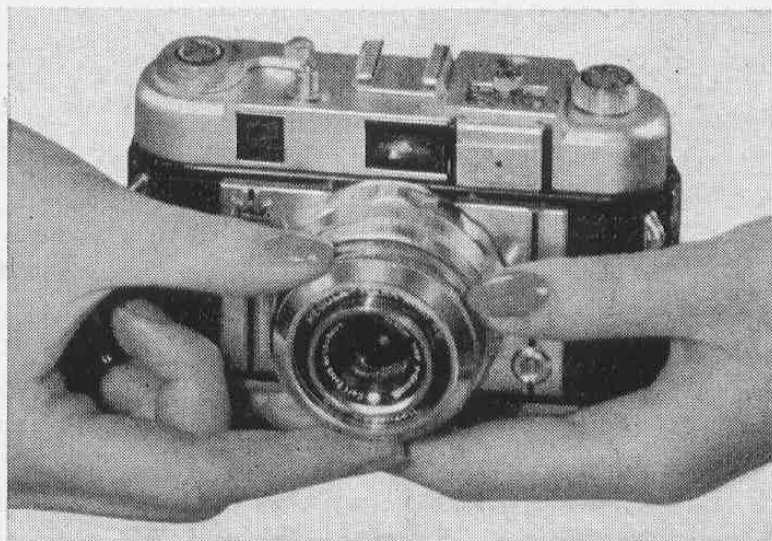


6. The green numbers cannot be set — they only indicate exposure in full seconds at a certain diaphragm setting. e. g. 4 seconds at F/8 — such an exposure can only be obtained at "B" setting, and holding the release down for 4 seconds.

DEPTH OF FIELD

This is purely dependent on the diaphragm setting. The more you close your diaphragm (the higher the number), the greater the depth of field. It also becomes greater, as the distance from the subject increases.

To make it simple for you, a depth of field scale (7) is provided above the di-



stance ring (18). This shows, on either side of the centre mark the figures F 2. 8 to F 16. Now follow these two examples:

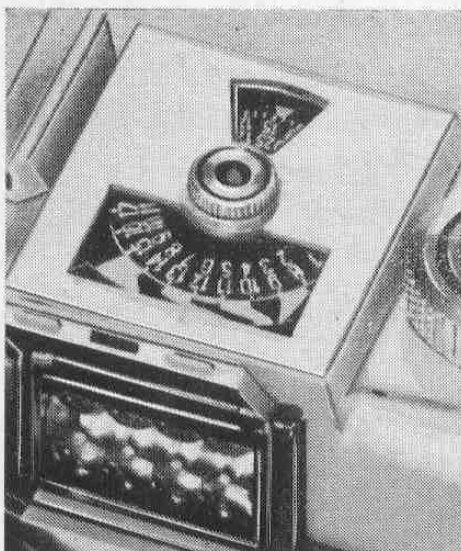
1. Set the diaphragm ring to 8 and the distance ring to 20. On the depth of field scale (left) at F. 8 the distance ring reads "Infinity" and on the scale (right) the distance shown is approximately "10 feet". This means, that at F8 focussed on "20 feet" the photograph will produce good focus between "10 feet" and "Infinity".

2. Set the distance ring to 8, leaving the diaphragm ring at 8. At F 8, you will see that the focus range lies between "12 feet" and "6 feet".

In these two examples, you will see the importance of depth of field. Now, it is simple to decide on any depth of field at any distance or any diaphragm setting.

7. THE LIGHT VALUE EXPOSURE METER

Gossen — designers of the Sixon Tri-Six and Sixtomat x 3 Exposure Meters, have designed this meter with special care, and if used correctly your REGULA camera will produce first class results.



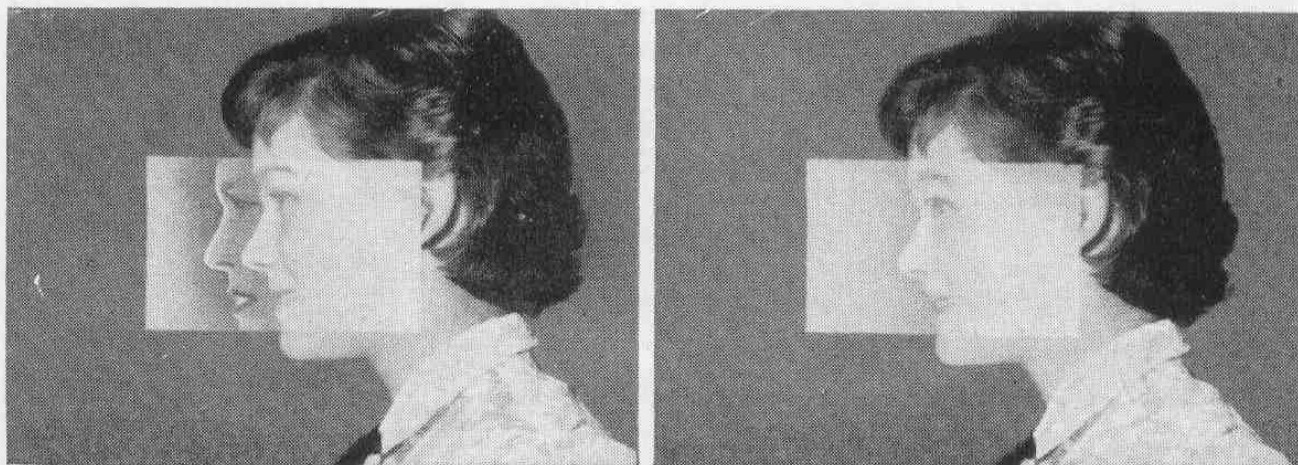
When loading the camera with Film, set the film speed by turning the knob on the rear window of the LV Meter. As your subject is viewed, point the LV Meter towards it. Out-doors it is advisable to tilt the meter downwards slightly to avoid too much sky light from entering the very sensitive photo-electric cell. Where possible, the subject should be approached closely and the LV Meter pointed at the main area to be photographed. Care should be taken to avoid casting a shadow of the LV Meter into the area being measured.

On subjects that have wide ranges of brightness, it is better to measure the brightest and the darkest areas, and take an average reading.

For Incident Light Measurement slide the diffusing disk over the front of the honeycomb lens and point the meter from the subject to the position from which you will take the picture.

Axiom — With Black and White Film, "Expose for the shadows and the highlights look after themselves". With Colour Film, "Expose for the highlights and the shadows look after themselves".

The Gossen LV Meter has two ranges of light sensitivity. Normally the Front Cover is closed — and the position of the needle noted viz by the white numbers corresponding with the white or black channels. Under poor lighting conditions, the



needle will not move — so, press the top edge of the front cover. The LV Reading is then read from the yellow numbers. To remind you, the rear side of the front cover when you open is marked in yellow.

8. THE COUPLED RANGEFINDER

This is fitted to the **REGULA CITA III** (REGULA-RM), and is very simple to use. In the middle of the viewfinder field you will see a light coloured rectangle and in this you will notice that your subject has two images. If the set ring (18) is turned with your fingers, one image will move. Turn the ring until both images are exactly superimposed — at this point you are in accurate focus.

With moving objects viz motor racing and sports etc., it is only necessary to pre-determine the distance at which you want to work. Set that distance on the distance scale and view your subject through the rangefinder. When the images coincide — press the body release.

9. GENERAL HINTS

1. Always hold the camera steady and level.
2. Put your eye as close to the viewfinder as possible and frame your subject accurately.

3. When taking the "shot" — don't jerk the body release — an easy steady pressure is ideal. Hold your breath as the release is pressed.

10. FLASH "SHOTS"

When purchasing a flash gun, ask your dealer for his advice. It will be fitted into the accessory shoe (2) of the camera, or with certain types on to a bracket or arm. The contact of the synchronization cord will then be slipped on the synchronization contact of the camera (23).

For exposure of $\frac{1}{30}$ second and longer, the shutter synchro lever (8) is to be set at "X", or if you want to be in the picture yourself set it to "V". For exposures $\frac{1}{30}$ second to $\frac{1}{300}$ second the "M" setting is required — in this position delayed action shots are impossible. Every carton of flashbulbs is supplied with full information on shutter setting, guide numbers and the "flash to subject" distance.

11. ELECTRONIC FLASH

Accurate synchronization at the "X" setting is possible at all speeds. A normal setting of $\frac{1}{60}$ second is very useful for average subjects.



12. REWINDING THE FILM

When the film counter (3) reaches "0" the film is fully exposed, and it is now necessary to rewind the film back into the cassette.

With your left thumb, press the lock button (10) on the bottom of the camera, and keep it pressed during the rewinding operation. With the right hand turn the rewind knob (11) in the direction of the arrow, until the film is rewound into the cassette. When the film is almost completely rewound, a slight resistance will be felt. It is overcome easily and smoothly, by an extra revolution of the rewind knob — and at this stage the end of the film has left take-up spool.

Open the back of the camera, pull out the rewind knob and remove the film cassette.

13. REGULA ACCESSORIES

A full range of accessories is available for your REGULA camera:

1. A beautiful Leather Ever Ready Case which will always protect your camera.
2. A variety of Filters for use with Black and White or Colour Film. Conversion Filters for using Daylight Colour Film in artificial light and vice versa.
3. Close-up Attachments for flowers, insects, copying etc.
4. Sunshade — a very essential accessory.
5. Tripods.

For full details contact your photo dealer or write to the Distributors. They are at your service at all times.

14. CARE

Treat the camera carefully. Do not touch the Lens, with your fingers. If this happens, it must be cleaned at once with a piece of clean, oftenwashed linen, lens cleaning tissue or a high quality chamois.

Printed in Germany

An air blower or camel hair brush will also remove dust from the lens or the inside of the camera. If the camera is not to be used for some time — release the shutter.

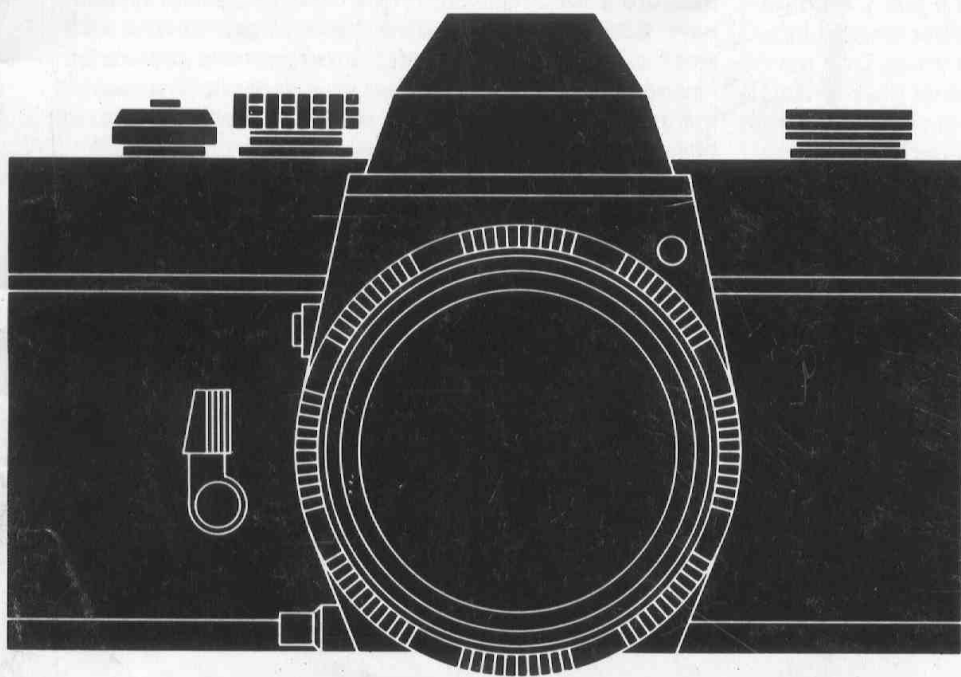
LAST BUT NOT LEAST

Read these instructions once more. Photography is lots of fun — Experience makes perfect. Your REGULA camera will always be reliable.

Good luck!

REGULA-WERK KING KG. BAD LIEBENZELL SCHWARZWALD

MINOLTA SR-T 101



OWNER'S MANUAL

E

Since the inception of through-the-lens exposure measuring for single-lens-reflex cameras, several systems have been developed. Some "spot" read only a very small part of the total area. Other systems provide an "average" reading composed of independent measurements taken by two cells which is not accurate in high-contrast situations.

Only the Minolta SR-T 101 has an exclusive new type of circuit (CLC) to provide optimum reading of the entire picture area regardless of degree of contrast.

In addition to its more accurate exposure meter system, your Minolta SR-T 101 is designed to handle more easily, with greater speed, than other "through-the-lens metering" cameras.

The ability to compose, focus, set exposure and shutter speed without looking away from the finder makes the Minolta SR-T 101 particularly suitable for professional photography, when operating speed is often of vital importance. (All illustrations used in this booklet are with the F1.4 lens. There is, however, no fundamental difference in usage between the F1.4 and the F1.2 or F1.7 lens.)

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----------------------	--

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UNLOADING EXPOSED FILM

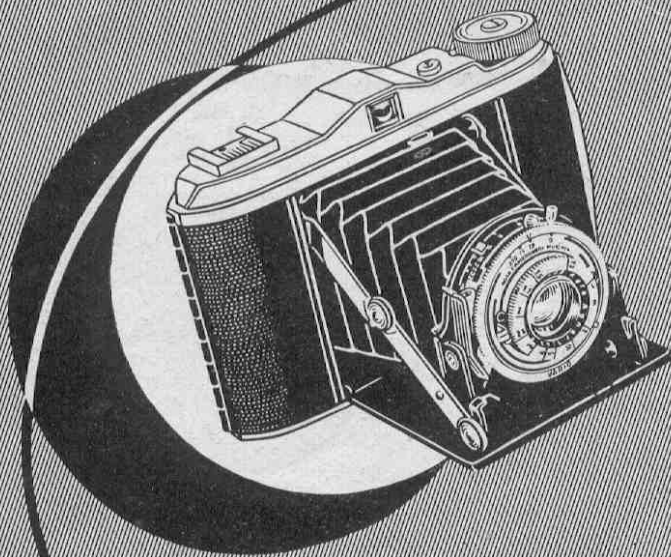
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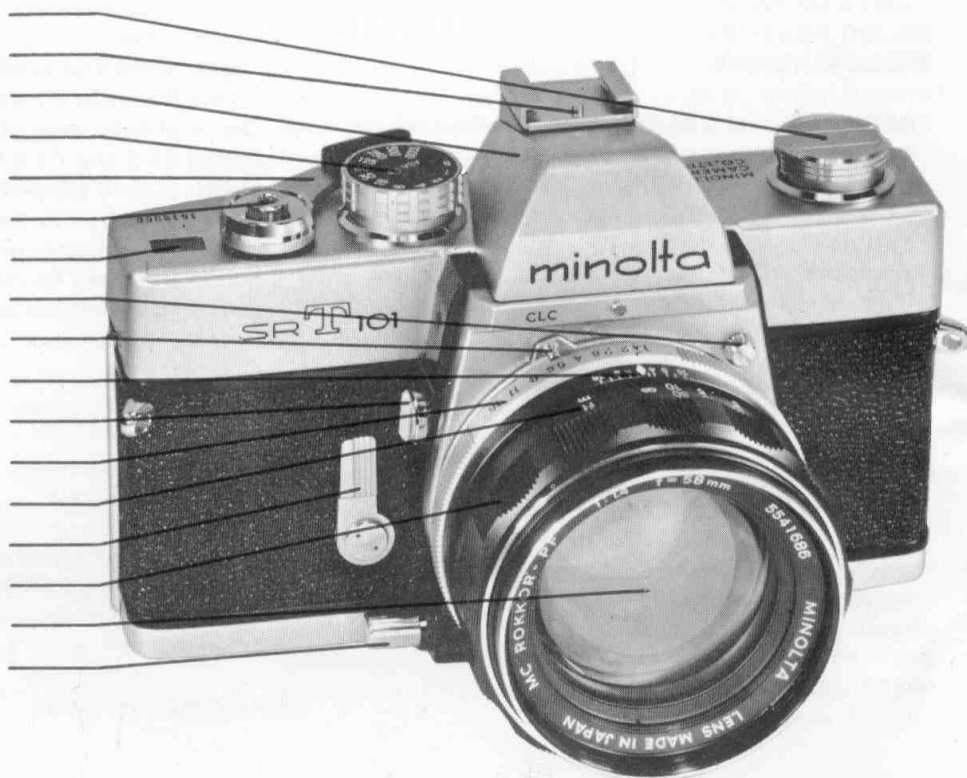


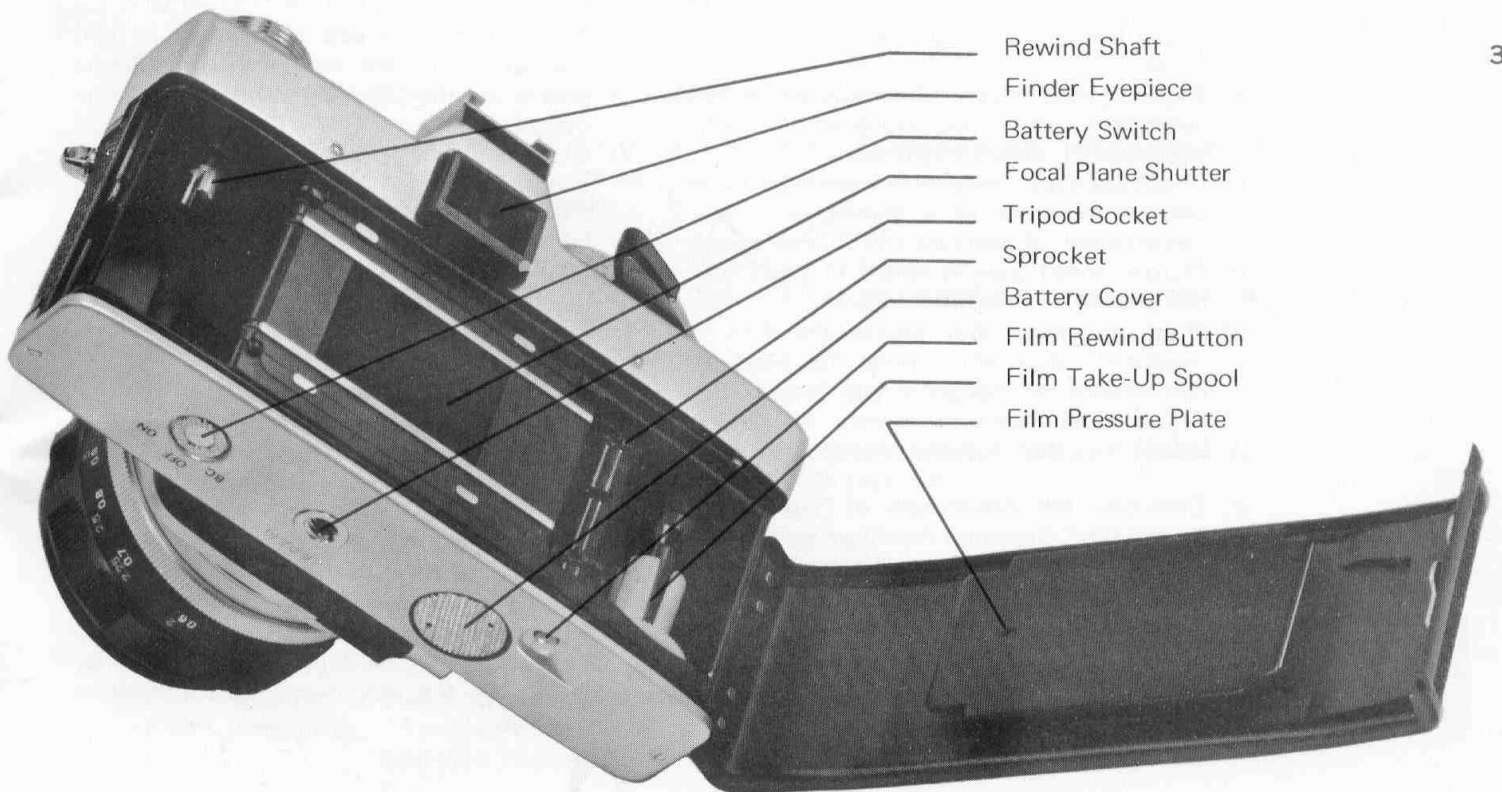
MADE IN
GERMANY

ISOLETTE V.

NAMES OF PARTS

- Film Rewind Crank and
Back Cover Release Knob
- Accessory Shoe
- Pentaprism
- Shutter and ASA Speed Dial
- Film Advance Lever
- Shutter Release Button
- Frame Counter
- Lens Release Button
- Meter Coupler
- Depth-of-Field Scale
- Mirror Lock-Up Button
- Diaphragm Ring
- Distance Scale
- Self-Timer Lever
- Focusing Ring
- Rokkor Lens
- Diaphragm Stop-Down Button





MAJOR FEATURES OF THE MINOLTA SR-T 101

1. Rapid-Reading Through-the-Lens Exposure System

- a) Exposure readings are taken with lens at full aperture for rapid composing and focusing regardless of subject brightness.
- b) "Follower-type" needles in viewfinder show correct exposure at a glance, with any combination of aperture and shutter speed.
- c) Shutter speed scale is visible in viewfinder but outside of "live" picture area.
- d) Only the light that strikes the film is measured, thus eliminating the need to compensate for changes in lens focal length or compute exposure factors for filters, bellows or other lens attachments.

2. Combines the Advantages of "Spot" and "Averaging" Exposure Reading Systems

- a) Exclusive "CLC" Metering System (Contrast Light Compensator) maintains extreme accuracy regardless of lighting situation, even with high-contrast subjects.

- b) Automatically corrects for changes in light intensity from one section of the picture area to another, thus providing an optimum overall reading.

- c) Oversize, instant return mirror prevents image cutoff and incorrect exposure readings no matter how long the focal length of lens.

- d) Unique positioning of CdS cells prevents incorrect readings due to light entering viewfinder.

3. World-Renowned Rokkor Lenses

Superior resolving power resulting from the combination of rare earths, patented Achromatic coating and computer design.

4. Complete System of Lenses and Accessories for Maximum Versatility

Almost all Rokkor lenses designed for use with the Minolta SR-1, SR-3 and SR-7 can be used with the Minolta SR-T 101 by means of the stop-down light measuring method.

SPECIFICATIONS OF THE MINOLTA SR-T 101

—35mm single-lens-reflex camera with through-the-lens exposure meter—

Standard lens MC Rokkor 58mm F/1.4 (F1.2 or 55mm F/1.7) equipped with meter coupler

Composition: 6 elements in 5 groups

Coating: Achromatic coating

Angle of view: 41° with 58mm lens (43° with 55mm lens)

Diaphragm: Fully automatic

Diaphragm scale: (1.2), 1.4, (1.7), 2, 2.8, 4, 5.6, 8, 11, 16 with equal-space and intermediate click F-stops

Filter mount: ϕ 55mm (ϕ 52mm), screw-in

Shade mount: ϕ 55mm (ϕ 52mm), screw-in

Lens mount: SR bayonet mount

Shutter Focal plane type

Speeds: B, 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, and 1/1000 sec.

Selector dial: Single, non-spinning, equal-space, click stop dial

Sync. contact: FP (all speeds) and X (up to 1/60 sec.)

Self-timer: Time adjustable, 10 sec. maximum delay

Film advance Lever type, quick advance winding with shutter locking and double exposure prevention

Winding method: Single- or multiple-stroke, with 20° free clearance

Winding angle: 150°

Frame counter: Automatic resetting counter showing number of exposed frames

Film rewinding: Rapid rewinding with crank

Frame size: 36 x 24mm

Film: Standard 35mm film, 12, 20, or 36 exposures

Viewfinder Real-image type through fixed, eye-level pentaprism; exposure control needles (follower system), battery check mark, and shutter speed scale visible in finder

Focusing screen: Central micropism with fine ground glass collar and field lens

Image magnification: Life-size image viewing with 58mm lens at infinity

Exposure meter Through-the-lens metering system

Exposure meter: Contrast light compensator (CLC) with CdS meter, two cells on the pentaprism

Measurement: Measuring at full aperture coupled to shutter speed, aperture, and film speed setting

Control: Follower-needle system viewed in the finder

Working range: EV 3 to EV 17 with ASA 100 film

Diaphragm button: Depth-of-field preview button for MC Rokkor lenses; measuring (stop-down) button for other than MC Rokkor lenses

Film speed range: ASA 6 – 6400, DIN 9 – 39

ASA setting: On shutter speed dial; built-in ASA/DIN conversion scale on camera back

Battery: 1.35v mercury battery, Mallory PX-625 or equivalent

Switch: ON, OFF, and battery check switch on base of camera

Focusing Bright-screen with micropism and fine ground glass

Focusing distance: 60cm (2 ft.) to infinity

Focusing method: Direct helicoid focusing with infrared index

Mirror Oversize quick-return mirror with lock-up device

Others Built-in accessory shoe

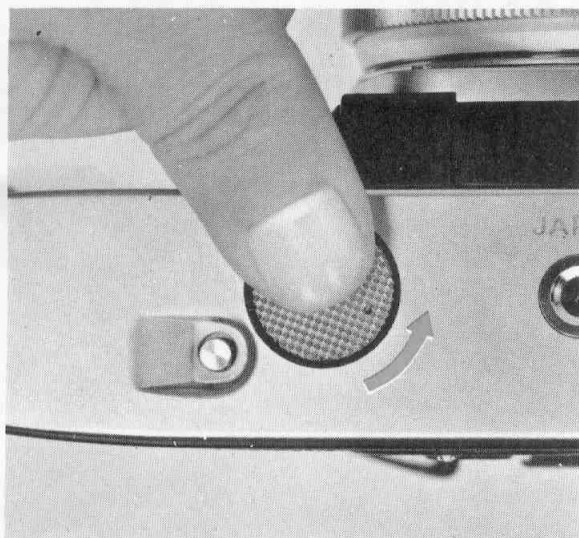
Size and weight With F1.4 lens

Width 145mm (5¾"); Depth 89mm (3½"); Height 95mm (3¾"); 990g (35 oz)

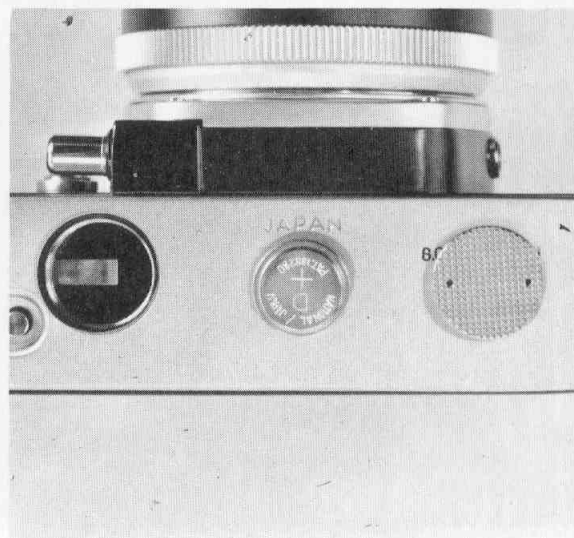
PREPARATIONS BEFORE TAKING PICTURES

Inserting the mercury battery

1. The Minolta SR-T 101 uses a 1.35v, button-shape mercury battery for photographic applications (Mallory PX-625, PX-13, Eveready EXP-625, EPX-13 or equivalent).



2. To install, remove the battery chamber cover with your thumb by turning it counterclockwise. Place the battery in the chamber with its plus side out and replace the cover.

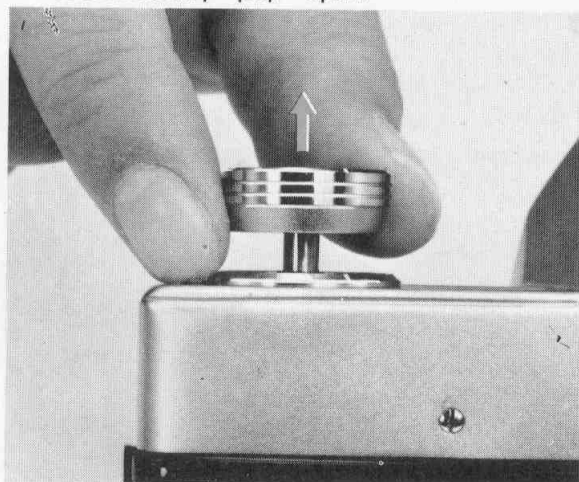


**CAUTION:**

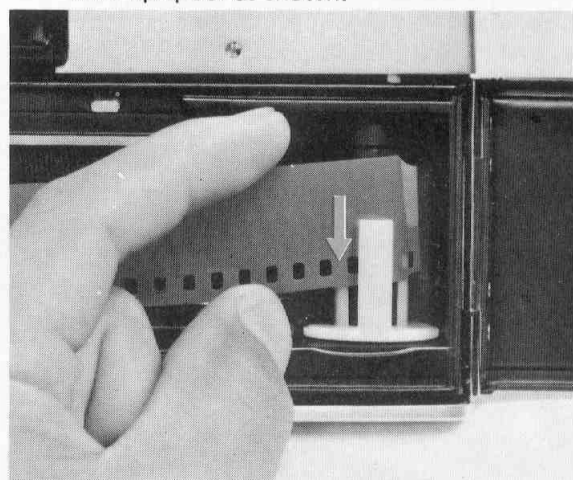
- Do not touch the battery terminals with moist or dirty hands, as this can cause them to deteriorate and make the battery inoperative.
- Do not discard a mercury battery in a fire or break it up.
- When the camera is not being used, it is advisable to turn the battery switch on the base of the camera to the "OFF" position.
- If the camera is not to be used for over two weeks, remove the battery and store it in a dry, cool place.
- Before putting the battery back in the camera, clean both sides of the battery and the contact lead of the battery chamber with dry cloth.

Loading film

1. Raise the back cover open release knob (which also incorporates the film rewind knob) until some resistance is felt. With a slight additional pull, the back cover will automatically "pop" open.



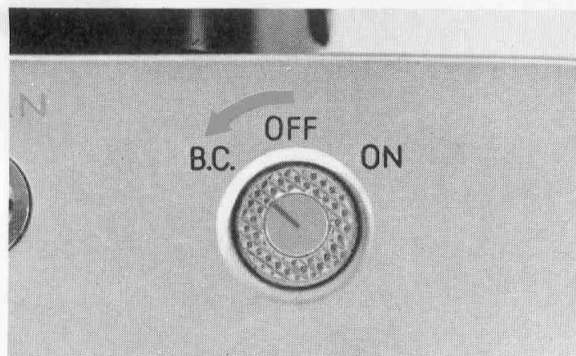
2. Insert the film leader into a slot in the film take-up spool as shown.



Checking the battery power

The battery checker is designed to check the output of the mercury battery. By taking a few seconds to check battery output before starting each new roll of film, and particularly when using the camera after it has been stored for an extended period of time or a new battery has been inserted, you can avoid poor exposure due to insufficient electric power.

1. Turn the battery switch on the base of the camera to the "B.C." position.

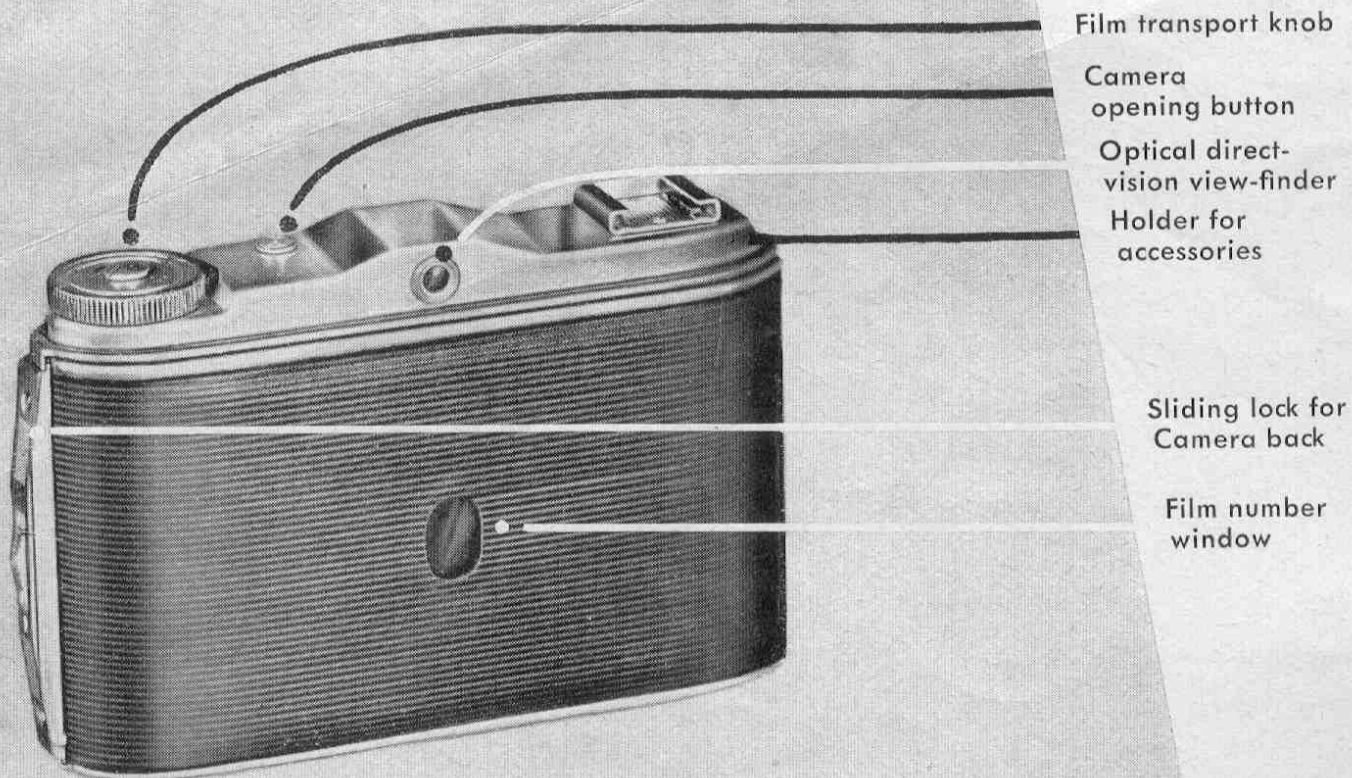


2. If the indicator needle points to the battery check mark as shown in the picture, the battery can be regarded as functioning properly.

CAUTION:

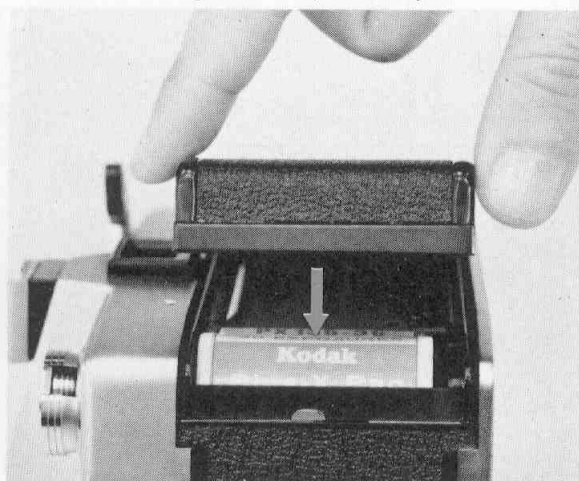
- Do not leave switch setting at battery check position as the continuous high battery drain will cause the battery to go "dead" in a few hours.



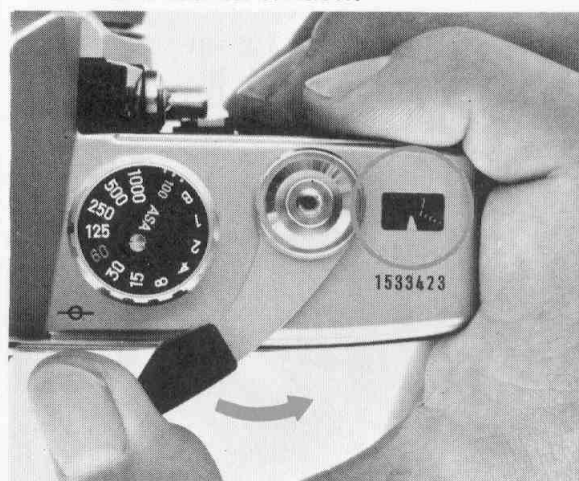


5. Close the camera back once you are certain that the film is winding securely on the take-up spool and engaged with on both sprockets.

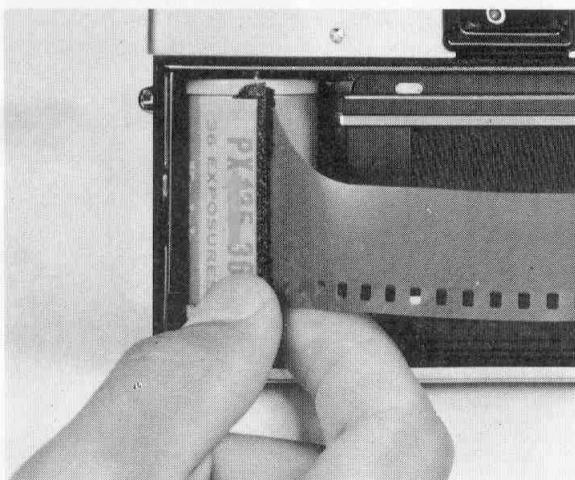
Rotate the film rewind crank gently in the direction of the arrow to make sure that the film is flat against the pressure plate.



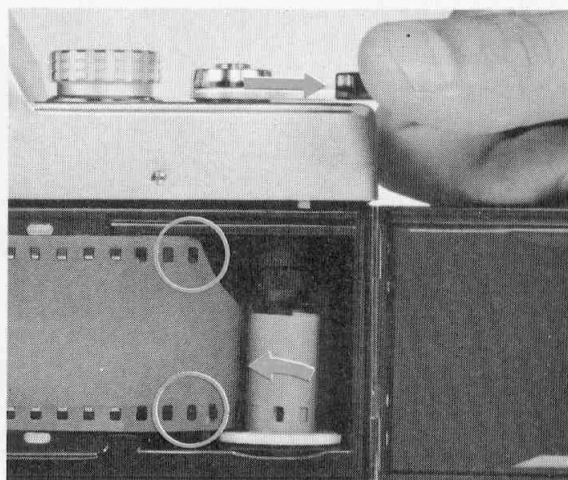
6. Advance the film and press the shutter release button. Repeat this action until the number "1" appears at the arrow mark in the frame counter window.



3. Place the film magazine into the film chamber and push the back cover release knob all the way down. (When inserting the film magazine, its projecting center drum must be placed in a downward position.)

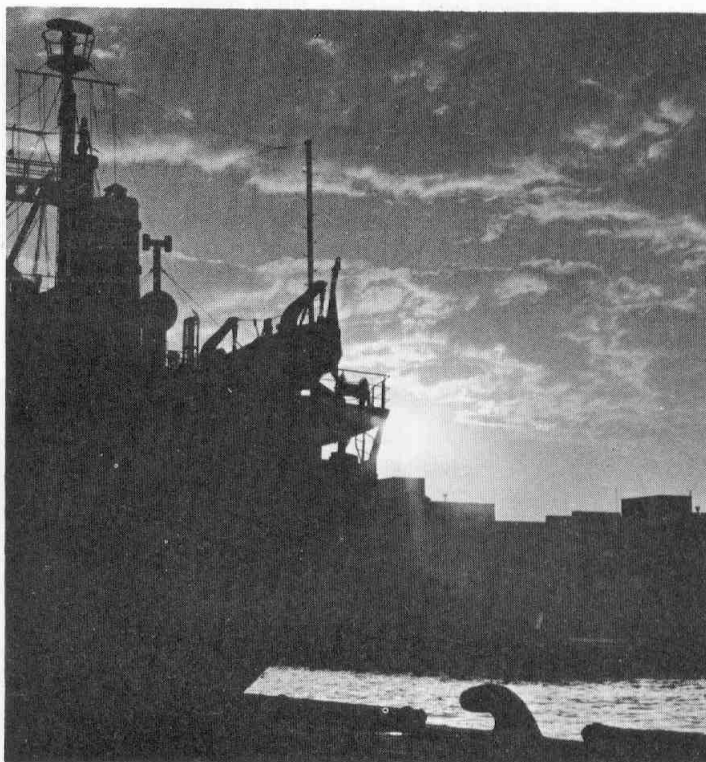


4. Operate the film advance lever in several "short" strokes until the film has begun to wind firmly around the take-up drum and both sides of the film perforations are securely engaged with the teeth of the sprocket gear. If the film advance lever locks during this procedure, press the shutter release button and then continue.



NOTE:

- The frame counter indicates the number of pictures taken from 1 to 36.
- The film advance lever has a total "throw" of 170° ; of this distance, the first 20° have no effect on the film but are intended to provide a "free play" range through which the lever may be "offset" from the body for rapid shooting.
- When the camera back is opened, the counter automatically resets itself to the start. (S) position.

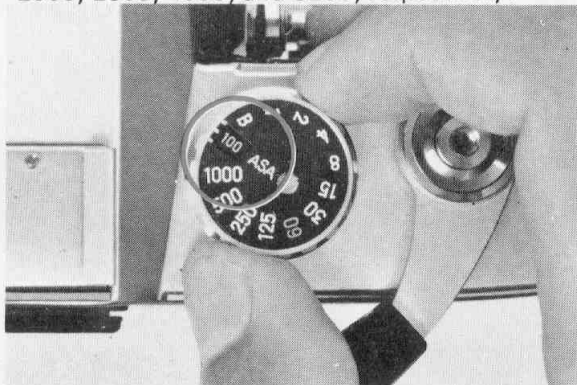


Setting ASA number (film speed)

Lift and rotate the shutter speed dial until the figure (6 to 6400) which corresponds with the ASA rating of your film is visible in the ASA window.

On the ASA dial the following figures are printed: 6 • 10 • 16 • 25 • 50 • 100 • 200 • 400 • 800 • 1600 • 3200 • 6400.

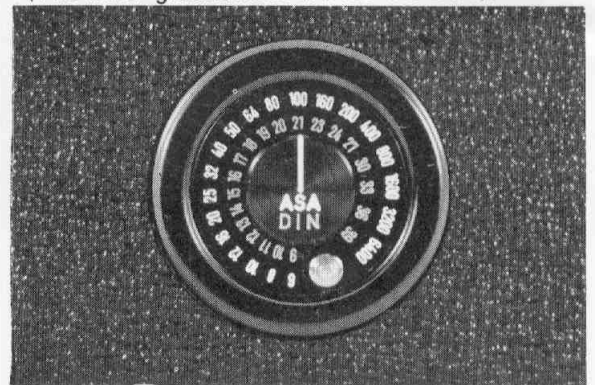
The dots (•) denote ASA 8, 12, 20, 32, 40, 64, 80, 125, 160, 250, 320, 500, 640, 1000, 1300, 2000, 2600, 4000, and 5200, respectively.



ASA/DIN conversion scale

When converting a DIN speed to the corresponding ASA speed or to remember a film speed, use this conversion scale. Turn the knob of the dial and set the film speed to the white pointer marked with ASA. In the case of ASA 100 film, for example, set the film speed as shown in the picture.

(The inner graduations are for the DIN).



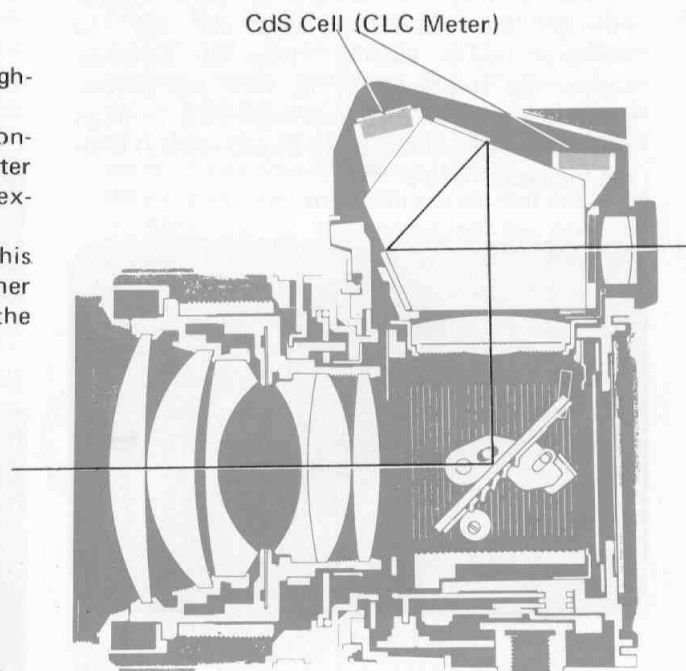
TAKING PICTURES

TTL with CLC: A new exposure measuring system

The Minolta SR-T 101 camera has a through-the-lens measuring system with CLC meter.

Minolta's exclusive, revolutionary CLC (Contrast Light Compensator) promises better photographic results with multiple split exposure measuring system.

Under normal photo-taking conditons this new system gives excellent results; under other conditions, such as in high-contrast scenes, the CLC feature prevents possible photo failures.

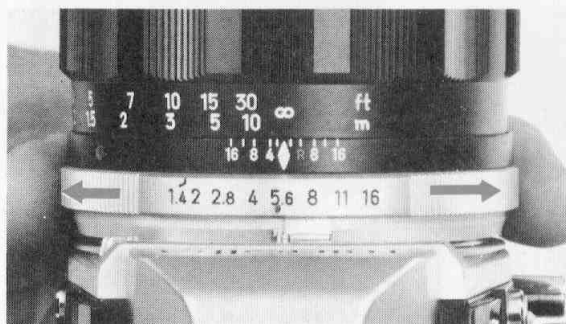
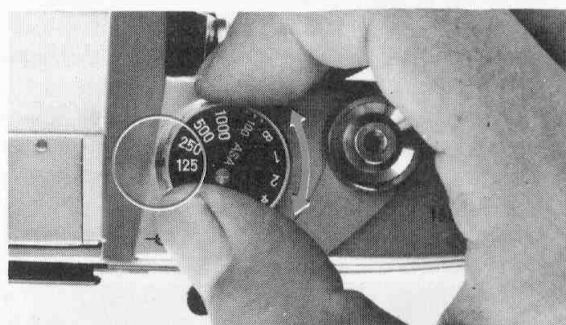


Setting the correct exposure

When aiming the camera at your subject through the viewfinder, you will see the indicator needle moving. Once the indicator needle has stopped moving, turn the shutter speed dial and/or the diaphragm ring to align the follow-up needle (circle-tipped needle) with the indicator needle.



The shutter speed is indicated in the viewfinder, when you set it on the shutter speed dial.



When the proper combination of aperture and shutter speed setting is made for correct exposure, the follow-up needle (which is coupled to the aperture, shutter speed and ASA speed settings) will align with the indicator needle over a range of EV 3 through EV 17 at ASA 100. The EV range will vary with film speed.

It is a recommended procedure to set the shutter speed first (depending on the motion or lack of motion of your subject or the overall lighting) and to then adjust the aperture.

If the needle fails to move when the diaphragm ring is rotated, this signals a need to adjust your shutter speed setting.

A shutter speed scale is visible in the viewfinder which permits you to make all exposure adjustments without removing the camera from your eye.

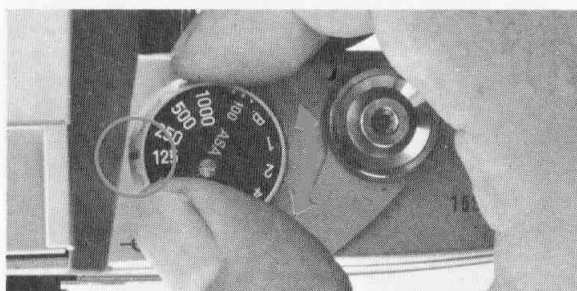
CAUTION:

- When setting the aperture first, be sure not to set the shutter speed between click stops.
- When the shutter speed is set slower than 1/30th sec., be extremely careful of camera motion while releasing the shutter. It is recommended that a tripod be used at speeds of 1/30th sec. or slower. For "Bulb" setting, a cable release should also be used.
- When using high-speed film, a shutter speed of 1/250th sec. is recommended for outdoor photography, and 1/30th sec. for indoor use.
- When photographing a group of people or a building requiring great depth of field, close down the diaphragm as much as possible. See the "depth of field" on page 25 for details.
- All metering should be done in horizontal position.

Shutter speed and aperture settings

The shutter speed (actually the period of time during which the shutter remains open) works in conjunction with the lens opening (aperture) to determine the amount of light striking the film. The higher the shutter speed, the more effectively it will momentarily "stop" the action of your subject.

To set shutter speed, simply rotate the shutter speed dial until the desired speed is aligned with the indicator on the camera body, or until it is centered between indicators on the shutter speed scale in the viewfinder.



The figures of B and 1 through 1000 on the shutter speed dial indicate bulb action and shutter speeds from 1 to 1/1000th second. (At "B" the shutter will remain open indefinitely until pressure is removed from the release button.)

The aperture setting controls the light volume reaching the film in terms of area. In addition it determines the "depth of field." (See page 25.)



The index for the aperture setting is the diamond (◆) symbol in front of the diaphragm ring. The ring is engraved with figures from 1.4 through 16 for the MC Rokkor 58mm F1.4 standard lens.

When the shutter speed remains constant, the light passing through the lens decreases 50% for every increase in the aperture F-number. (Example: When the diaphragm ring is turned from 2.8 to 4 the light volume decreases 50%.)



As the aperture figure decreases, the light passing through the lens increases. The relation between aperture (F-number) and light volume is shown in the diagram.

NOTE:

- "Click" stops are provided for intermediate aperture settings between any two full F-stops. Intermediate shutter speeds cannot be set.
- The figure "B" on the shutter speed dial is used when an exposure duration of over 1 second is required. The shutter will remain open while the shutter release is depressed.
- The red figure of "60" on the shutter speed dial is to be used in conjunction with an electronic flash unit.
- The shutter speed at which the camera is set is shown on the shutter speed scale visible in the viewfinder.
- Since light striking the film is affected by a combination of aperture and shutter speed, exposure can be adjusted by changing either or both of these settings.