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I N S T R U C T I O N S
F O R T H E U S E O F T H E
A G F A P B 2 0

VIKING CAMERA

W I T H F 7.7 L E N S

Bulkes U.S.

JH156



TAKES PICTURES THIS
SIZE $2\frac{1}{4} \times 3\frac{1}{4}$ INCHES



USE AGFA PB20 FILM

INSTRUCTIONS FOR THE USE OF THE

VIKING CAMERA

The Agfa Viking Camera has been skillfully designed to enable you to secure excellent results without possessing special photographic knowledge. However, for best results, you must follow a few, simple instructions. Clear, sharp pictures are the results of having carefully made a few, easily memorized adjustments before each exposure. These instructions explain each operation of the camera, and you will be repaid with better pictures if you read the following pages carefully before making any exposures.

If you desire additional information on camera operation and picture-making, read "Better Photography Made Easy," a particularly helpful, 60-page booklet published by Agfa Ansco and sold by most photographic dealers at \$.25 per copy. Agfa Ansco also maintains a special department to answer your inquiries and help you in your photographic problems.

The PB20 Viking takes 8 pictures $2\frac{1}{4} \times 3\frac{1}{4}$ inches on PB20 roll film. For best results, use one of the several types of Agfa film available in this size, every film guaranteed—"Pictures that Satisfy or a New Roll Free."

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Explanation of numbers on opposite page

Check Over the Camera with Figure 1 Before You

1. Opening release button. Press in to open camera.
2. Platform. Pull down after releasing catch (1) until side-arm braces (3) lock.
3. Side-arm braces. See that braces lock and hold platform rigid.
4. Closing release button. Similar button is on opposite side of camera. With the camera held between the thumb and middle finger of the left hand, press the release buttons on both sides simultaneously. With the right hand, move platform upward until securely closed as indicated by clicking of latch.
5. Vertical footrest.
6. Focusing scale for various distances.
7. Diaphragm adjustment lever for controlling amount of light entering lens.
8. Shutter speed setting ring.
9. Red shutter release button.
10. Socket for addition of cable release for operating shutter. Not visible in picture, but is located on underside of shutter casing.
11. Optical eye-level view finder.
12. Brilliant waist-level finder. Turn for horizontal pictures. Return to vertical position before closing camera.
13. Bellows.
14. Winding knob for advancing film.
15. Release catch for opening back.

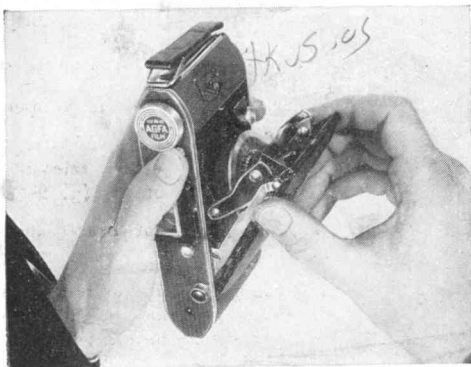


FIGURE 2

TO OPEN THE CAMERA

Hold the camera in the palm of the left hand (Fig. 2) and press the opening release button (1, Fig. 1) with the left thumb. With the right hand, pull down the platform until the side-arm braces are locked firmly in place.

TO CLOSE THE CAMERA

Before attempting to close the camera, first make certain that the waist-level view-finder (12, Fig. 1) is in vertical position and that you have disconnected the cable release if you have been using one.

To close the camera, grasp it in the palm of the left hand and simultaneously press the two closing release buttons (Fig. 3) with the thumb and middle finger. With the right hand then move the platform upward until it is securely closed as indicated by a clicking of the latch.

Repeat the operation of opening and closing the camera until you can do it easily and deftly. Never force the camera at any point. If any obstruction is encountered, stop at once and determine what is in the way.



FIGURE 3

FOCUSING

The focusing scale will be found on the top outer edge of the lens barrel, and will be identified by the series of figures running from 5 to Infinity. See illustration of lens mounting, Fig. 4. If the object to be photographed is 10 feet away, revolve the lens barrel until the figure 10 is opposite the indicating arrow between the words "Agfa" and "Ansco" on the circular plate above. Distances from the lens to all objects from 5 to 50 feet should be estimated as accurately as possible and set on the barrel. For subjects at a distance of over 50 feet, the barrel should be set at INF, or Infinity.

To use as a fixed focus camera, set the lens barrel at 15 feet and the diaphragm at 16. Thus everything from 7 feet to infinity will be in focus. The operation of the diaphragm is explained under the heading "Diaphragm".

THE SHUTTER

The shutter is the mechanism which actually makes the exposure when taking a picture. Simply expressed, it does nothing more than uncover the lens for a very short period

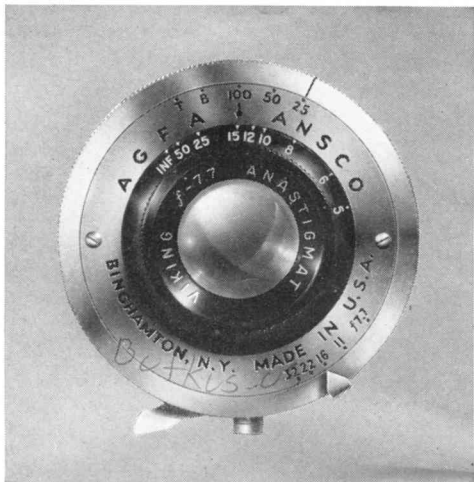


FIGURE 4

of time so that light from the object photographed may pass through the lens and project an image upon the film. However, it does this uncovering job with a very high degree of accuracy and with a suitable range in speed. Thus the portion of light admitted through the lens may be a very small one, such as that when the shutter is operated at one hundredth of a second, or a larger portion such as that when the shutter is operated at a twenty-fifth of a second.

TO REGULATE THE SHUTTER SPEED

Along the top of the lens mounting (Fig. 4) is a row of letters and figures—T, B, 100, 50 and 25. T means time, B means Bulb, and 100, 50 and 25 indicate 1/100, 1/50 and 1/25 seconds respectively.

To set the shutter for any of these speeds, turn the ring (8, Fig. 1) until the black line is directly over the desired figure. In the

shutter illustration, Fig. 4, the shutter is set for 1/25 second.

The shutter is operated, or "tripped," by pressing in on the red shutter release button (9, Fig. 1) or by a cable release if such has been added. When the shutter is set for 1/25, 1/50 or 1/100 second, a single pressure on the release button trips the shutter, opening and closing it.

When making an exposure hold the camera steady and do not jar the camera when pressing in the shutter release button. Practice holding the camera in the various taking positions and operating the shutter until you are certain exposures can be made without moving the camera.

BULB AND TIME EXPOSURES

When the shutter is set for B or Bulb (a term surviving from the days when the shutter was operated by a rubber bulb) it stays open as long as the button remains depressed, and closes as soon as the pressure is released allowing the button to return. Bulb is used for comparatively short time exposures, as for example when light conditions do not permit instantaneous exposures. Since it is impossible to hold the camera perfectly still in the hands for any length of time, the camera must be used on a tripod or some other firm support when Bulb exposures are made.

When the shutter is set for T or Time, one inward press on the release opens the shutter, following which a second press is required to close it. In other words, the lens remains open the complete time, however long, between the two operations of the shutter release. Time is used for interior work or under any conditions for which very long exposures are necessary. Bulb and Time exposures should not be made of moving objects. Neither should the release button be jerked when the shutter is opened, for any motion of the camera will cause an unsharp image.

When using a cable release, pull out the vertical footrest (5, Fig. 1) and insert the release through the hole underneath the footrest.

THE DIAPHRAGM

The diaphragm is an adjustable circular opening between the components of the lens, which controls the amount of light passing through the lens. When the diaphragm is adjusted so that full aperture of the lens is utilized, it is said to be "wide open." The F7.7 Viking is "wide open" when set at F7.7. When the diaphragm is adjusted to a smaller opening, it is said to be "stopped down."

The diaphragm on the camera is operated by means of a lever (7, Fig. 1) which is connected with the iris leaves between the lens components. When the lever is moved in one direction, the leaves open; in the other direction, the leaves close. Consequently, it is very easy to set the diaphragm for any lens opening.

In order to view the operation of this diaphragm, set the shutter speed on Time and press down once on the shutter release. Then, with the shutter open, move the diaphragm lever back and forth slowly, and you will be able to observe the change in the size of the opening as the lever moves.

You will notice that as the numbers increase from 7.7 to 32 the opening gets smaller, thereby allowing less light to reach the film.

The stops or settings indicated along the bottom of the shutter face plate are standard openings in the Focal or "f System," and are of known exposure value regardless of the size or make of camera. They are referred to as f:7.7, f:11, f:16, f:22 and f:32.

DEPTH OF FIELD

Depth of field (often referred to as depth of focus) is the subject range over which your

picture is in focus. For example when your Viking camera is set at F16 and focused at 12 feet everything from 6½ feet to infinity will be in focus. When you increase the diaphragm stop or "open up" the lens you decrease the depth of field. For example with the camera focused at 12 feet and the lens set at F7.7 the depth of field is now only from 8½ to 21 feet.

From the Depth of Field Table you will notice that the depth of field not only decreases with the larger lens stops but also decreases when you are focusing on near objects. Therefore be very careful to focus as accurately as possible when taking pictures at distances under ten feet.

DEPTH OF FIELD TABLE
FOR PB20 VIKING CAMERA WITH F7.7 LENS

Distance in Feet	f:7.7	f:11	f:16	f:22	f:32
5	4¼-6	4-6¾	3¾-8	3¼-10	3-17½
6	5-7½	4½-8½	4¼-11	3¾-25	3¼-42
8	6¼-11	5¾-13½	5-19½	4½-40	3¾-Inf.
10	7½-15½	6¾-20	5¾-39	5-Inf.	4-Inf.
12	8½-21	7½-31	6½-Inf.	5½-Inf.	4½-Inf.
15	9¾-32	8½-60	7-Inf.	6-Inf.	4¾-Inf.
25	13½-Inf.	11-Inf.	8¾-Inf.	7-Inf.	5½-Inf.
50	18-Inf.	14½-Inf.	10½-Inf.	8¼-Inf.	6¼-Inf.
Inf.	28½-Inf.	20-Inf.	13½-Inf.	10-Inf.	7-Inf.

PROPER EXPOSURE

The proper exposure to be given for best results varies considerably according to the conditions of exposure and the speed of the film. Light conditions vary with the seasons, time of day and even geographic conditions. However, the camera has sufficient adjustments on it to allow pictures to be made under

almost any type of condition, especially since there is a wide assortment of Agfa films available in the PB20 size.

For proper exposure you must regulate the shutter speed and diaphragm "stop" ("f" number) to meet the light condition and subject matter.

When photographing moving objects use the fastest shutter speed on the camera which is 1/100th of a second. For still objects where you want sharp focus throughout "stop down" the diaphragm and use a slower shutter speed if necessary.

In general, close-ups require a greater exposure than landscapes; winter conditions necessitate longer exposures than bright summer days. Pictures taken with extremely intense light such as sunlit beaches and brilliant snow scenes will require less exposure than normal.

The following table will serve as a general guide for the proper setting of your shutter and diaphragm when using Agfa Plenachrome film. When using Superpan Supreme give half the exposure indicated by either increasing the shutter speed, (for example 1/25 to 1/50) or by reducing the diaphragm one stop (for example from F11 to F16).

EXPOSURE TABLE

STOP	f:7.7	f:11	f:16	f:22	f:32
Dull, cloudy	1/50	1/25	*	*	*
Cloudy bright	1/100	1/50	1/25	*	*
Bright sunshine	—	1/100	1/50	1/25	*
Intense sunshine	—	—	1/100	1/50	1/25

* Under these light conditions it is recommended that short Bulb exposures be made.

THE FINDERS

Your Viking camera is equipped with both the brilliant waist-level finder for locating the subject with the camera held at waist level, and the optical eye-level view finder for holding the camera directly to the eye.

When using the brilliant waist-level finder in the vertical position, read the finder as shown in Fig. 5, and when taking pictures in the horizontal position, swing the finder 90 degrees to the left and read it as shown in Fig. 6, disregarding the portions indicated in the cuts by white space.

The optical eye-level view finder (11, Fig. 1), located on the side of the camera is especially useful for spotting the subject quickly. To open this finder simply lift up on the back edge and it will snap into position. By holding the camera to the eye as shown in Figure 7, the area included in the picture is easily determined.

For horizontal pictures, the camera is held normally as shown in the illustration above mentioned, but should vertical pictures be desired, the camera has only to be held in a vertical position; that is, 90 degrees from the position shown.

FIGURE 5



FIGURE 6





FIGURE 7

THE FOOTREST AND TRIPOD SOCKETS

The vertical footrest (5, Fig. 1) is for taking Time or Bulb exposures when a tripod is not available. The footrest is easily extended by pulling it out at right angles to the platform, after which the camera may be set upon a table, ledge, or railing for support.

There are two tripod sockets on the camera. The vertical socket is located on the camera platform; the horizontal socket is on the opposite side of the camera from the optical eye-level view finder.

In order to use the tripod sockets it is necessary to first remove the plugscrews. This may be done with a small coin, after which the tripod is screwed securely into place. The screws should be replaced after removal of

the tripod in order to protect the interior of the camera against dust or other foreign matter which might prove injurious to the shutter mechanism.

The vertical footrest or a tripod should always be used for exposures longer than $1/25$ second rather than attempting to hold the camera in the hands.

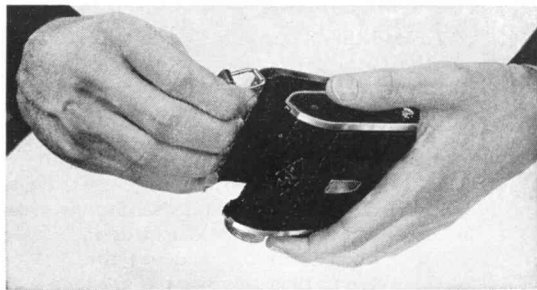
LOADING THE CAMERA

Your Viking Camera may be loaded or unloaded in daylight. However, these operations should be done in a subdued light; never in direct sunlight.

To load the camera, it is first necessary to open the back which is held by a catch (15, Fig. 1) at the top under the handle.

In order to release this catch, hold the camera in the left hand, platform side in and handle to the top. Then lay the fingers of the right hand across the camera handle and exert an upward pressure upon the under front edge of the long metal catch (Fig. 8). When this catch has been released, continue with a backward pressure to swing the hinged camera-back downward.

FIGURE 8



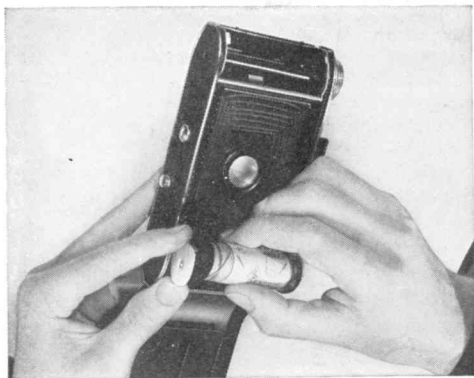


FIGURE 9

INSERTING THE FILM

With the back open you are now ready to load the camera with film. Note that the fresh roll goes into the lower chamber at the opposite end of the camera from the winding knob. In the chamber at the knob end, you will find an empty metal spool. It is onto this spool that the film is wound as used, so that when all exposures are taken it is this top spool which is removed from the camera for finishing.

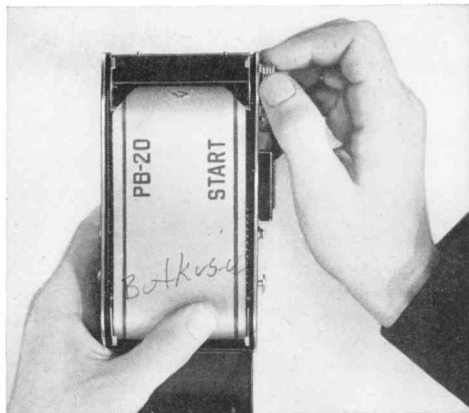
To load the film into the camera, first swing up the spool carrier for the lower or empty chamber until it is at right angles to the camera. Holding the two ends of this carrier slightly apart (being careful not to bend them permanently out of position), drop the fresh spool into place (Fig. 9), taking care that it is inserted right end around. In other words, be certain that the pointed end of the paper will come from the top and not the bottom of the roll, and that only the red or green side

of the paper will show, the black side being toward the lens.

After being certain that the two pins set in the carrier ends are engaged in the spool end-holes, swing the carrier and film down into place in the chamber. Break the sticker which seals the roll, remove the Agfa Film guarantee slip, and carry the end of the paper across the back of the camera. Permit the paper to pass over the two metal rollers (never attempt to thread the film under these rollers) and thread the pointed end into the slot in the empty spool as shown in Fig. 10.

Be very certain that the paper is centered on the upper spool in order that it will wind evenly. Now give the winding knob a few turns, sufficient to bind the paper and assure its firm grasp by the upper spool. Close the back of the camera by swinging it upward into place until a click indicates that it is

FIGURE 10



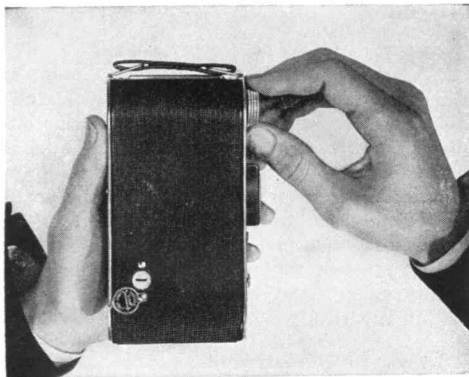


FIGURE 11

locked securely. Never open the back of the camera from this point until the roll has been completely exposed and wound off onto the take-up spool.

Swing open the metal cover for the red window on the back of the camera (Fig. 11), and continue turning the winding knob slowly until the figure 1 appears in the window. An indicating hand and row of dots will be seen shortly before this first figure appears in place. The camera is now ready for the first picture.

When using panchromatic film, which is sensitive to red light, be sure to keep the red window covered at all times except when winding the film.

Immediately after taking the first picture, wind again until figure 2 appears in the window, and so on until the roll has been completely exposed, after which continue to turn the knob until the red or green paper is completely wound off onto the spool at the knob end of the camera.

UNLOADING

When the film has been completely wound onto the take-up spool, open and swing down the back of the camera. Pull out the winding knob until the upper spool carrier is free to be moved upward from the chamber.

Fold under the pointed end of the red or green paper, and seal the spool with the sticker which will be found at the loose end. This is to prevent unrolling and fogging of the film after it has been removed from the spool carrier.

With the fingers, separate the ends of the spool carrier slightly and remove the exposed roll from the camera. It is now ready to be developed and printed. Transfer the empty spool to the upper chamber, remembering to push the winding knob back into place. The camera is now ready for the insertion of a fresh roll of film in the manner already described.

CAUTIONS

Before loading the camera, make certain that the shutter is closed.

In starting the red or green paper at the time of loading a fresh roll, always see that it is even, fitting the spool neatly. Otherwise, it is likely to climb up one end of the spool, causing the protective paper to tear and possibly fogging the film.

Also, always make it a practice to wind to the next number immediately after taking a picture. In this way, when you start to use it, the camera is always ready for the next picture with no possibility that another exposure will be made on top of one already taken, thus spoiling both exposures.

In making exposures, always hold the camera level. Otherwise, your finished prints will show an undesirable slanting of the subject and background. Hold the camera perfectly still when making the exposure.

Keep the lens of your Viking Camera clean. A dirty lens or rain or mist on the front lens will cause fogged or cloudy pictures. To clean the lens, use a soft linen or cotton cloth. With the bellows closed, back opened, and the camera unloaded, it is also well to occasionally clean the rear element of the lens.

Do not let the sun shine directly on the lens when taking a picture. This produces a "Flare" of light on the film which shows in the finished picture. If photographing towards the source of light, hold your hand or hat above the lens as a shade, but sufficiently high to prevent its being included in the picture.

Select your background carefully. A good subject can be spoiled by such backgrounds as telephone poles, clapboard houses, etc. Keep your backgrounds simple. A background of foliage is usually unobtrusive and pleasing.

* * *

The foregoing instructions explain the mechanical operation of your Viking Camera. These should be thoroughly understood before attempting to take pictures.

Do not be content, however, with the mastery of these simple details. Photography offers marvelous possibilities to the camera user who really attempts to obtain the maximum results possible with his equipment. Your Viking Camera is a fine instrument. Learn to use it most effectively.

ACCESSORIES

The following Agfa accessories will increase the versatility of your Viking Camera and add to your picture-taking enjoyment.

PORTRAIT ATTACHMENT—Auxiliary lens which slips over the lens, enabling you to work closer to the subject. Especially useful for portraits, table-top photography, etc.

Size 25\$.95

LIGHT-YELLOW FILTER—A natural glass, yellow filter which gives better color rendering of cloud pictures, landscapes, flower photographs and similar subjects.

Size 25\$1.85

CABLE RELEASE—Helps to eliminate camera jar when making exposures, especially useful for Time and Bulb exposures.

Code W\$.37

CARRYING CASE—Protects your camera and makes it easier to carry.

Eveready Type\$3.45

TRIPODS — Four-section, telescoping, metal type. Light in weight but extremely rigid. Equipped with rubber tips.

No. 1, with stationary head\$4.20

No. 2, with ball and socket, swivel head 5.20

No. 3, with ball and socket, swivel head 7.00

AGFA DARKROOM OUTFITS—Each outfit contains all necessary equipment and material to develop and print your own pictures.

No. 1A Outfit\$2.60

No. 2A Outfit 5.20

No. 3 Deluxe Outfit10.30

Prices subject to change without notice.

SIX AGFA FILMS TO CHOOSE FROM

There is an Agfa roll film to meet every requirement of the most exacting amateur photographer. The following films are all available in the PB20 size, the size which fits your PB20 Viking Camera, and remember, every roll of Agfa film is guaranteed — "Pictures that Satisfy or a New Roll Free."

STANDARD — Orthochromatic, moderate speed, for outdoor picture-taking under favorable conditions.

PLENACHROME — Orthochromatic, average speed, full anti-halo protection, wide latitude. This is the ideal film for every-day outdoor use.

FINOPAN — Fine-grain, panchromatic, full anti-halo protection with ample speed and latitude for a wide range of picture-taking. The film to use when big enlargements are desired.

SUPERPAN SUPREME — Fast, fine-grain, panchromatic, wide latitude, full anti-halo protection, with an emulsion carefully balanced to give excellent results under both daylight and artificial light. The ideal "pan" film for all-around use.

SUPERPAN PRESS — Extremely fast, panchromatic, full anti-halo protection. The phenomenal speed of this film has been obtained without loss of fineness of grain, brilliance or balanced, panchromatic color sensitivity. The logical answer when high film speed is needed.

INFRA-RED — Especially valuable for pictorial work where unusual and striking effects are desired. Renders blue skies dark and sunlit foliage in light-gray tones, thus giving a moonlight effect.