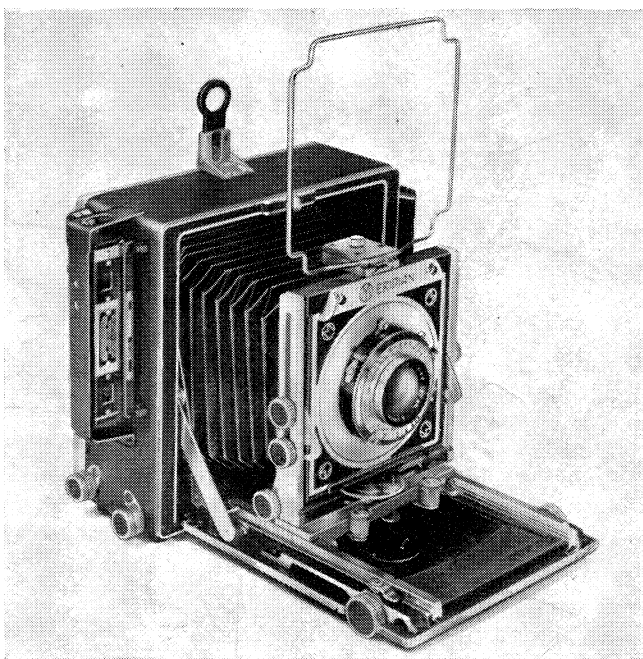


. . . MORE than a PRESS CAMERA

. . . MORE than a VIEW CAMERA



MERIDIAN 4x5

UNIVERSAL PRECISION

CAMERA

INSTRUCTION MANUAL

Copyright 1948
KLING PHOTO SUPPLY CORP.
505 Fifth Avenue, New York 17, N. Y.
Printed in U.S.A.

MERIDIAN 45B

UNIVERSAL PRECISION CAMERA

After many years of arduous planning, designing, model making and testing, the MERIDIAN emerges in its unparalleled precision and perfection.

The product of the combined efforts of practical photographers and experienced camera designers, it is intended to meet completely the needs of the truly discriminating and critical photographer.

The MERIDIAN is made in America by master craftsmen from the old world. It reflects decades of experience gathered in famous German camera factories like Zeiss and Siemens, and modern production "know how" gained during the war while making precision instruments for our armed forces.

The design and features of the MERIDIAN constitute an entirely new concept of a really *UNIVERSAL* camera. The MERIDIAN is a postwar camera as modern as tomorrow. It combines a maximum of flexibility and sturdiness with a minimum of bulk and weight, precision workmanship with quality materials, versatility with simplicity of operations, modern lines with functional beauty.

There is no other camera in the world which boasts *all* the features of the MERIDIAN. Built into the small, light weight, portable MERIDIAN are *all* the desirable characteristics of PRESS, VIEW, and PORTRAIT CAMERAS.

We, the manufacturers, believe that in the MERIDIAN you possess a camera of which you will be truly proud, one which will serve your requirements, no matter how technical, with unflinching precision and with utmost simplicity of operation.

INSTRUCTIONS FOR USE AND OPERATION OF MERIDIAN 45B CAMERA

Opening Camera

With the camera resting on the base and facing you, push up the conical button at the center of the top (4), releasing the bed and bringing it downward until the two hinged struts (19) snap into position, so that the bed is at right angles to the body.

Now grasp the two knurled grips (11) located at the base of the front standard, and press them together, at the same time pulling the front standard out of the housing. The front standard will automatically lock at the infinity point for the lens with which the camera is equipped. This is the basic, or neutral, position of the camera and you are now ready to get acquainted with all the exclusive details of the MERIDIAN which make it so superior to other cameras.

Infinity Stops

The infinity stop consists of a small notch on the "*Multi-Stop-Rail*" located along the outside side of the left track (10). The front standard will automatically be engaged by this notch when it is in the exact infinity position for its lens, by means of a spring actuated catch. To release standard again, push lever (12) downward.

The "Multi-Stop-Rail" is adjustable and easily detachable. This makes it simple to fit a number of lenses to the MERIDIAN. Should you decide to change your lenses at any time, you can obtain a new rail from the factory and have it notched for your new set. The rail can be notched for as many lenses as may be desired.

The "Multi-Stop-Rail" presents other advantages. It eliminates the old-fashioned infinity stop block (which attached on top of the track) and thus permits the lens standard to be moved over the full length of the track without having to

take it off entirely and then “jumping” the stops and reinserting the lens standard from the front. The MERIDIAN being designed for extreme versatility and to be used with special purpose lenses of different focal lengths, thus permits you to change from a “normal” lens to a wide angle lens or a telephoto lens, or to double extension (for close-up work) instantaneously and without trouble and effort. Once the lens front “snaps in at infinity,” it is automatically locked and cannot move one iota backward or forward on the track — no matter how much upward or downward the camera is tilted or how heavy the lens may be.

Distance Scales, Focusing

Provision is made for the insertion of *three or more separate focusing scales*, and the scale pointers for them. Two focusing scales may be installed along the left front track, and one along the right, thus making for uninterrupted effectiveness when it is necessary to change lenses. To make it simpler to use each scale pointer with its proper scale, they will be identified by means of the same color. In other words, when using a standard focal length lens, you will use the red pointer with the red scale because all MERIDIAN scales, from 127 mm. to 150 mm. have a red mark. Other focal lengths are recognized by their distinctive colors.

Track

Particular care has been given the design of the MERIDIAN track. Its members are spaced as far apart as possible to give the lens standard maximum width which in turn makes for camera rigidity. It is provided with helical gearing offering the greatest security and rigidity, especially desirable when using lenses of long focal length. The dual focusing knobs (15), are especially large to make for smooth, easy track movement. For additional security, a focusing lock lever (14) is supplied. This is found immediately above the right hand focusing knob.

Auxiliary Track for Wide Angle Work

When using a wide angle lens, it is usually necessary to drop the bed to prevent it from "cutting" into the picture. To drop the bed, slide lens standard back into body by pressing the two knobs (11) and depressing the lever (12) downward and pushing back. Then place thumbs on struts (19) and press downward until they snap into the wide angle position. This point cannot be accidentally exceeded because of the special construction of the struts. The lens standard now rides on an auxiliary track (20) which is actuated by a special rack and pinion focusing knob (21). Before closing camera, be sure to return the Wide Angle track to its original position.

Bellows

The MERIDIAN provides a 16" bellows extension (which equals a triple extension in relation to the standard lenses). This feature is extremely useful for close-up photography, copying, and also for portrait and landscape photography with long focal length lenses.

FRONT AND BACK MOVEMENTS

DEFINITIONS:

- Swing:* Any movement of the lens plane or film plane around the vertical axis.
- Tilt:* Any movement of the lens plane or film plane around the horizontal axis.

Front Movements of the Meridian Camera

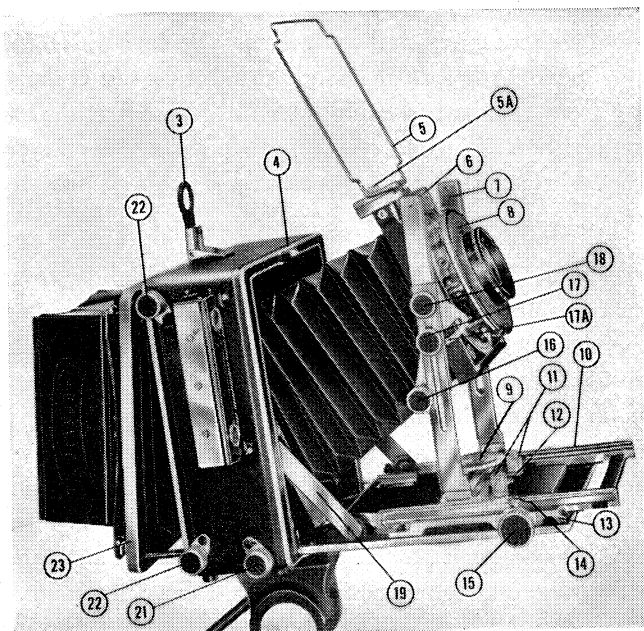
The *lens standard* of the MERIDIAN is precision machined and composed of several types of metal, especially selected for their particular functions. All geared parts are either steel or brass. Note that all controls are readily accessible and positive in their action, *the swing and tilt working on the horizontal and vertical optical axes of the lenses*. Compare it with the

front of other cameras and you will see why the MERIDIAN is so superior to their stamped sheet metal or die cast U shapes. The front standard is equipped with *gear operated rising front, friction tilting movement, friction sliding lateral movement, friction swinging movement.*

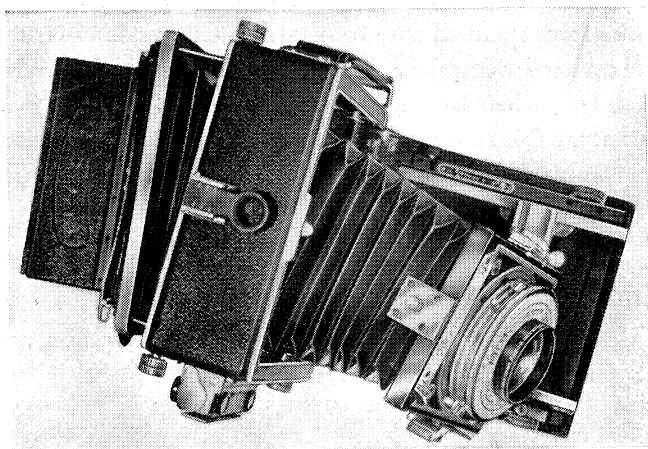
To raise the lens, first turn knobs (18) very slightly toward rear of camera. This will unlock rising front. Now rotate gearshaft knobs (16) until the lens has reached the desired position. Then secure this position by relocking knobs (18). To tilt the lens board, loosen the two tilt-lock-knobs (17) slightly and apply light pressure against lens board. It will then move backwards or forwards on its horizontal axis. The tilt itself is controlled within the limits of the twin segments (17a) which permit positive locking of the lens at any angle. To return lens to normal position, reverse above procedure. A click is heard when lens snaps back into normal position.

Immediately below the front board proper is a large knurled knob (9) which controls both the sliding and swinging movements of the front. With a slight loosening of this knob the entire front standard may be moved to either side of center, and relocked when the desired position is reached. The same knob (9), when loosened approximately one full turn, will permit the front standard to be swung to any desired position. Tightening of the knob will lock it in place.

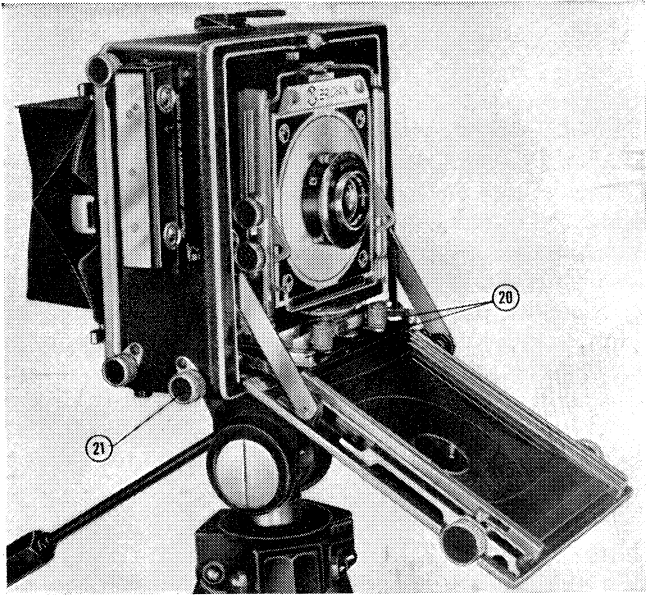
Before closing camera, be sure to reset the front standard to its original position before moving it back into the housing. The red lines on the base and sliding stage of the front are the guide to the exact center.



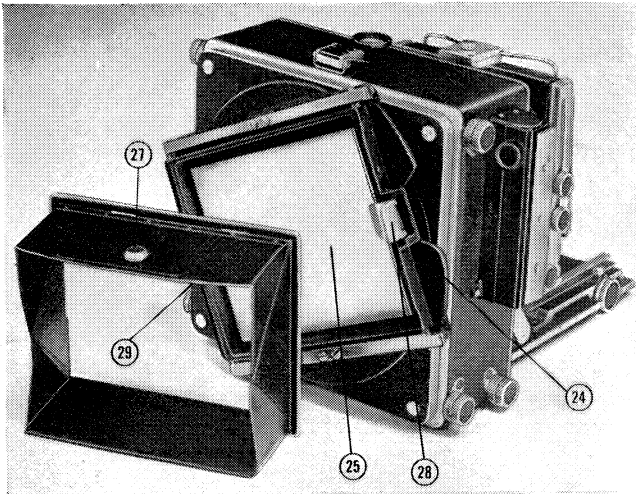
SIDE VIEW: Lens raised and tilted.
Camera-back tilted.



TOP VIEW: Lens standard shifted to right, swung and tilted backward.
Back swung.



THREE-QUARTER SIDE VIEW: Bed dropped for wide angle work. Lens standard rides on auxiliary track which is focused by turning knob 21.



REAR VIEW: Focusing hood detached. Revolving back partly turned.

Camera Back

You were undoubtedly impressed by the many movements of the MERIDIAN'S front standard. Yet, except for the rising and sliding features, they would be useless gadgets if the back of the camera would not have corresponding movements. You cannot obtain distortion or perspective correction by manipulating the position of the lens or the lens plane alone. Only tilting or swinging of the *film plane* enables you to accomplish this. In combination with the swinging and tilting back, a lens standard with such movements presents many advantages. It alone makes it possible to obtain sharp focus all over a tilted film plane. You will read more about this elsewhere. *Let it be said here that the MERIDIAN is the only Hand or Press Camera which offers you this most important feature.*

The back of the MERIDIAN is built into a panel (23) which normally rests flush against the main housing of the camera. When you loosen the four knobs (22) at the corners of the camera, the back can be pulled away from the housing to the extent of 1½ inches. The back is held in place by means of four posts which in turn slide through friction spring balls imbedded in the camera housing. A slight turn on each knob and the back is positively locked. Any variety of back tilts and swings can be obtained by pulling out the posts on the top or sides or bottom to varying degrees.

The MERIDIAN features a groundglass pressure-type back and accommodates standard 4x5 double press holders and film pack adapters.

In order to facilitate the insertion of holders into back, the spring pressure frame (24) has functional "lips" which bend away from the back.

To be versatile, a camera must take horizontally or vertically composed pictures with equal ease.

The *Revolving Back* (25), an important feature of the MERIDIAN permits rotating of the groundglass from horizontal into vertical position, without having to turn the whole camera. The back rotates around the full circle so that holders can be inserted from either side, top or bottom. It also locks automatically in horizontal and vertical position.

Self-Erecting Focus Hood

To open focusing hood, depress button (27). The focusing hood surrounds the groundglass on all four sides and will shade it sufficiently to make the groundglass image easily visible even in bright light.

Removable Hood

When it is desirable to use a magnifying glass on the groundglass or a ruler for scaling a picture, the focusing hood would normally prevent this. Therefore, provision has been made to snap it off in a jiffy by simply pulling the open hood away from the back. It can just as easily be attached again by slipping its frame first under catch (29) and then under spring lock (28).

The groundglass beneath the hood shows you a full 4x5 image without cut off corners, thus allowing you to compose your picture over the complete film area.

Carrying Strap

On the left hand side of the body casing proper is located the sturdy leather carrying handle, which is adjustable by means of a special key lock plate at the base of the camera. This permits the user to select a fit which suits his own hand best. It will also be advantageous in wintertime when a gloved hand has to fit through the strap. This novel key lock plate is positive and does away with the rather insecure snap fastener lockings normally supplied for adjustable carrying straps.

Tripod Socket

You will find the tripod socket, reinforced by a special base plate, in the conventional position, on the bottom of the housing. Through this plate and into the body of the housing, a standard tripod thread is drilled. The metal plate protects the covered camera bottom from getting scuffed and gives better and stronger adhesion to the tripod screw. Since the MERIDIAN has a revolving back, this one position is all you ever need. (However, you should also know that there are two more tripod sockets built into the side walls of the MERIDIAN, beneath the fabric covering).

Viewfinder

On top of the MERIDIAN body is located the eye piece (3) which is equipped with parallax correction. You will see three white lines on its back. When the uppermost line is opposite the index mark, the finder is adjusted for 25 feet to infinity. The middle line is for subject distances of 15 to 25 feet, and the lower line must be aligned with the index mark for closer distances.

The rear sight serves only to properly center the eye in relation to the front wire frame (5). Best results are obtained by bringing the eye as close as possible to it and by sighting through it and around it at the same time.

Since the field of view, as seen through any viewfinder, is a subjective matter, depending a great deal upon the photographer's eyes and sighting habits, only the groundglass will tell you exactly the amount of subject matter that will be included in the picture. A worthwhile experiment is to put the camera on a tripod or firm support and study the picture image in the groundglass. Then switch your eye to the viewfinder and move it about until you see the same subject matter. After some practice, you will automatically always use this same eye and finder position.

Because of the fact that sighting habits vary among individuals, an additional movement has been added to the wire frame finder which permits changing the distance between its front and rear members and, therefore, the field of view. By loosening the small knurled knob (5a), the wire frame carriage can be moved forward or backward and relocked in the desired position.

The wire frame finder is preferred by many photographers for all-around use. One of its advantages is that it automatically shows the field of any lens. Another advantage is the entire elimination of lateral parallax, since the finder is in the exact vertical center of the camera.

The wire frame can easily be detached by pushing its base down against the spring and pulling it out from its jaw.

Optical Viewfinder

A superior optical viewfinder which will match the MERIDIAN in features, quality and workmanship will be announced during early 1948.

Lenses

The MERIDIAN was designed to be used for a wide variety of standard and special purpose lenses.

Its metal *lensboard* is the standard 4x4 inches in size, and is interchangeable with lensboards of other manufacture. While a metal board is preferable on account of its non-warping quality, a wooden board can be used. This is sometimes desirable in order to provide insulation for certain shutters with built-in synchronization.

The MERIDIAN accommodates lenses from 2½" to 4" focal length (wide angle lenses) on its auxiliary track and from 5" to 15" focal length on its regular track. The wide spacing of the tracks provides maximum clearance so that the camera may be closed even when large shutters and lenses are mounted. This is further helped by the deep "cup" in the camera bed.

The following focal length lenses are suggested for these most popular photographic fields:

For Press Photography, especially with Flash.....	5 to 5½"
For all-round photography	6 to 6½"
For Portraiture	7½ to 9½"
For Wide Angle work	3½ to 4½"
For Telephoto work	9½ to 15"

It is a well-known fact that the focal length of a lens should be at least as long as the diagonal of the negative which it is to cover. For a 4x5 negative, that would be 6½". However, it is frequently desirable, especially in Press Photography, to "get more into the picture," than the field of view of such a lens would provide. Therefore, a 5" or 5½" lens is now often used and is also considered standard for a 4x5 camera. Such a lens is quite acceptable, especially when somewhat stopped down, as is practically always the case when used with flash.

When the tilts and swings of the MERIDIAN are to be utilized, it is necessary to use lenses the focal length of which are longer than normal in order to get sufficient coverage at any degree of adjustment.

The MERIDIAN is available, factory-equipped, with the latest Kodak, Wollensak and Ilex lens and shutter combinations. All optics are coated and most shutters feature built-in synchronization.

A separate Lens and Shutter instruction sheet will be found in this booklet, if the camera was purchased factory-equipped with lens. Be sure to read it carefully before you attempt "playing" with it.

Rangefinders

The camera is pre-drilled to accept Kalart and Hugo Meyer Rangefinders. Both types are available with special MERIDIAN arms and fittings, at standard prices. Instructions for their installation, use and care are supplied with each instrument.

Flashguns

All standard flashguns can be used with and attached to the MERIDIAN camera. Some flash synchronized shutters (like the Ilex Acme Synchro) necessitate insulation of the battery case, to prevent a short circuit which might cause the flash-bulb to explode when inserted into the battery case. There are several ways to insulate the battery case. The simplest way is to mount such a shutter on a wooden or plastic lens-board which can be obtained from us or your dealer.

Closing Camera

Before closing camera, be sure that all adjustments are in normal position and the lens standard has been returned into the housing. Then, while holding the camera firmly in both hands, press downward on the two struts (19) with your thumbs and push bed upwards until it clicks back under knob (4).

Conclusion

Your MERIDIAN has been manufactured with the greatest of care and of the best materials. No effort or expense has been spared to make it a quality product. It is able to stand a lot of use and even a certain amount of abuse and still will give you years of service. But careful treatment of your camera, lens and rangefinder will pay you many dividends in trouble-free performance and long life.



Guarantee

We want you to know that we are interested in your getting the superior results of which your MERIDIAN is capable, and the service and satisfaction to which you are entitled.

The MERIDIAN is fully guaranteed against defective materials or workmanship for a period of one year. Be sure to read the guarantee card attached to each camera and mail registration card to us promptly in order to make the guarantee valid. This card carries the serial number of your camera which you will also find on the name plate between the tracks. If by any chance your camera came without this card, be sure to write us for one.

Your comments and suggestions regarding the MERIDIAN are always welcome.

KLING PHOTO SUPPLY CORP.

505 Fifth Avenue

New York 17, N. Y.