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# VERASCOPE

" F 40 " 4306084

Lenses 1110404  
1110405 Benthier

Relief,

Colour,

Life...

Rob White  
Officers Quarters  
Occoquan, Va.



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TWO CAMERAS IN ONE

**Jules Richard**  
PARIS

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## FOREWORD

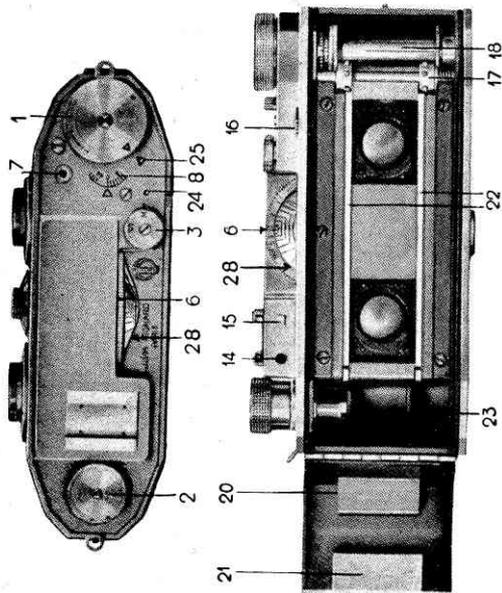
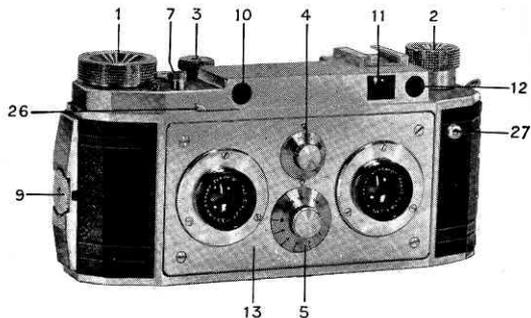
The Verascope F 40 is a high precision camera with which either stereoscopic or monocular photographs may be taken on 35 mm. perforated film supplied in standard type cassettes, and renders frames of 24×30 mm.

As a precision instrument, the Verascope F 40 needs careful manipulation and close attention to its operation in order to obtain the best results.

The user is therefore recommended to read thoroughly the instructions before attempting to operate the camera. It will be found advantageous to use a spare film before loading the camera with a new film with which to take the first actual exposures.

In the following instructions, the camera is to be regarded as being in the actual operating position for making an exposure.



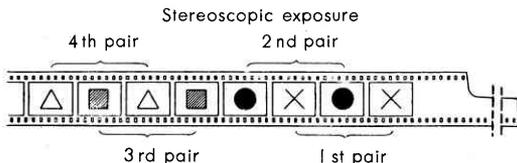


## LIST OF PARTS

1. Film winding and shutter setting knob.
2. Rewinding knob.
3. Control for single or stereo frames.
4. Lens diaphragm control.
5. Shutter speed control.
6. Focussing wheel.
7. Shutter release.
8. Exposure counter.
9. Opening catch.
10. Rangefinder window.
11. Viewfinder window.
12. Rangefinder window.
13. Front panel.
14. Rangefinder eyepiece.
15. Viewfinder eyepiece.
16. Rewinding clutch.
17. Film sprocket.
18. Take-up spool.
19. Shutter blind for monocular frames (see page 14).
20. Film pressure spring.
21. Film pressure plate.
22. Film transport guides.
23. Film cassette chamber.
24. Release index.
25. Loading index.
26. Shutter setting lever.
27. Flash plug contacts.
28. Focussing scale.

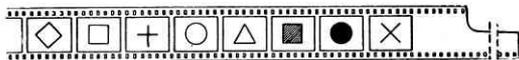
# STEREOSCOPIC OR MONOCULAR EXPOSURES

The Verascope F 40 allows either stereoscopic or single monocular photographs as desired. When used for stereoscopic pictures, the film is automatically transported so that alternate frames are exposed simultaneously as shown in the sketch below.



When in the monocular position, the film is transported in single frames so that each successive frame is exposed as shown in the diagram.

Succession of image in monocular operation



Only the lens on the left of the camera, when viewed from the back, is then employed. It is advantageous to use the complete film, either for only stereoscopic films or only for monocular

frames, otherwise the alternate exposures of the stereoscopic pairs would interfere with the single monocular frames and would cause trouble, especially when cutting colour films for viewing. If, however, it is necessary to take both stereo and monocular views on the same film, it is possible after allowing for the last number of the stereoscopic pair.

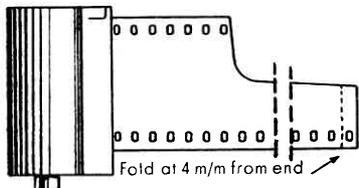
## DOUBLE EXPOSURE PREVENTION DEVICE

By coupling the shutter to the film transport, the shutter cannot be released until a new length of film has been drawn into position and similarly, the film cannot be drawn on until the shutter has been released.

It is however necessary to ensure that the film has been fully wound, and this can be determined by checking that the red triangle on Winding Knob 1, or alternatively the red dot, are immediately opposite the red triangle 25 on top of the camera. This remark applies only to winding for stereo pairs, as for monocular operation, there are two positions in between the red dot and the red triangle, to which the winding knob I may be set.

## LOADING

To open the camera, turn knob 9, anticlockwise and open the back panel. To close the camera, press the back panel when the spring catch will become automatically engaged. All 35 mm. Standard type cassettes can be used in the Verascope F 40.

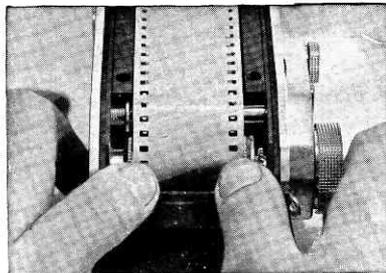


Cut off the end of the film (unless already so prepared) according to above sketch. Fold the end of the film as shown by the dotted line with the sensitive emulsion inside.

Be careful not to split the film.

Now operate as follows :

- a) Place rewind clutch 16 in position in which red signal is visible in the aperture 24 above.
- b) Revolve the film winder and shutter setting knob 1 until the red triangle is



Thumb position on milled knobs of re-winding reel facing the red triangle 25 on the top of the camera. Exposure counter 8 will now show N° 40. If not, completely wind and release the shutter to unlock the mechanism.

- c) Open the camera.
- d) Pull up rewind knob 2.
- e) Insert the end of the film into the slot in the take-up spool 18 and by means of the milled edges of the take-up spool, give the film one or two turns to ensure that it is firmly engaged in the take-up spool.
- f) Insert the new film into chamber 23, unwinding only the required length of film and then push in re-winding knob 2.
- g) Engage the film transport mechanism by moving re-winding clutch 16 so that the red signal disappears from the

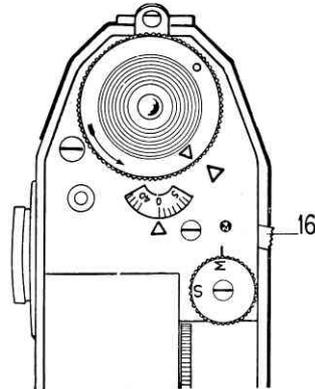
aperture 24 in the top of the camera and observe that the film sprocket wheel begins to revolve when winding knob 1 is slightly revolved.

- h) Ensure that the perforations of the film are engaged on the sprockets.
- i) Close the camera.
- j) Revolve winding knob 1 until exposure counter 8 shows O, releasing the shutter as frequently as may be necessary when it becomes set with a final release. The beginning of the film which was fogged when loading will thus be transported on to the take-up spool. **The camera is now ready for operation.** The exposure counter is at O and the shutter is not set.

## CHECKING DURING OPERATION

To check the correct winding of the film observe rewind knob 2. This must revolve each time that the winding knob 1 is revolved to transport the film.

## UNLOADING



When the full length of the film has been exposed :

- a) Place hoods on the lenses, or cover them to prevent light reaching the film in case the shutter has been left open inadvertently.
- b) Disengage rewinding clutch 16 so that the red signal appears in the aperture 24 on the top of the camera.
- c) Wind the film back into the cassette by revolving rewind knob 2 in the direction of the arrow until no resistance is felt.
- d) Open the camera and take out the cassette. It is advisable to do this in subdued light (e. g. shadow) and away from rain or dust.

## MAKING AN EXPOSURE

The sequence is as follows:

Determine the exposure time,

Set the diaphragm to the F value required,

Focus through the rangefinder,

Wind on the film and thus set the shutter, Press the shutter release firmly but evenly, or use a cable release in the shutter socket release.

**Note:** It will be observed that the red triangle and the red dot on the top of knob 1, face the red triangle 25 alternately when set for stereo frames.

## EXPOSURE DURATION

The time of the exposure may be set from 1 sec. to 1/250th. sec. by revolving the shutter control 5 so that the desired speed is opposite the red triangle. The figures indicate fractions of a second and it is possible to work in between,

i. e., between 1/25th. and 1/50th., the exposure would be approximately 1/37th.

In position "B" (Brief) the shutter remains open a long as the pressure is maintained on the release, whilst in position "T" (Time) the shutter will be opened by the first pressure and closed by the second pressure. No intermediate position can be used between 1 sec. and between B & T.

## USING FLASH EQUIPMENT

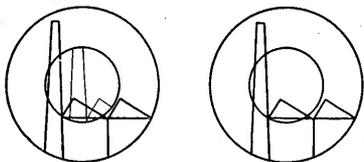
The shutter of the Verascope F 40 is fully Flash-Synchronised. i. e., for all shutter speeds when using Electronic flash, or 1/25th., or 1/50th. using flash bulbs. The flex supplied with the camera has a plug fitting at one end to engage in the corresponding socket (F for Flashbulbs, E for Electronic).

## DIAPHRAGM

The Verascope F 40 has lenses with a maximum aperture of F/3.5 and smaller apertures to F/16. are controlled by knob 4.

## FOCUSSING

This is accomplished by means of the rangefinder which is coupled to the forward and backward movement of the lens panel. The milled wheel 6 controls the movement. To obtain the correct focus place the camera so that the eye is next to the rangefinder eyepiece 14.



Double image      Focussing is correct when  
the images are coincident

It will then be observed that a small circular transparent image is visible in the centre of the tinted image.

In the inner circle, a double image is shown and which moves horizontally when the milled wheel 6 is turned. The camera is correctly focussed on a given object when both of the separate images are brought into coincidence: in other words, to form one complete image.

As the movement of the centre image is horizontal, it is easier to measure vertical lines, but if these are absent in the view, the camera can be held upright to measure horizontal lines.

## SHUTTER SETTING

By revolving winding knob 1, the shutter becomes automatically set. The knob should be wound as far as possible in the direction of the arrow and it will then remain locked as long as the shutter is not released. Remember the two positions for the fully wound shutter, explained on page 5.

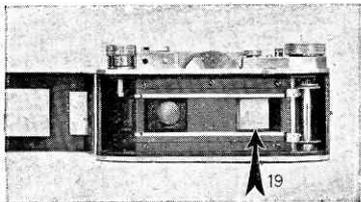
For Stereo sequence there are only two positions which are correct, viz., when either the red dot or the red triangle on winding knob 1 are immediately opposite the red Triangle 25 on the camera top.

To avoid any mechanical stress, set the shutter and wind the film only just before making the exposure.

## RELEASING

- a) Push down fully shutter release 7 or
- b) Employ a cable release which can be screwed into the centre of release 7.

## CHANGING FROM STEREO TO SINGLE EXPOSURES



This picture shows the blind 19 in position when taking monocular photographs

To change from one serie to another, revolve the control 3 which will automatically set the camera to the desired position. M for monocular exposures and S for stereoscopic. The blind 19 will be in position at M, or not visible for position S.

## VERY IMPORTANT

It is very important to note that the change from one serie to another can only be made when the red triangle of the winding knob 1 is directly opposite the red triangle on the top of the camera.

If in any other position, a partial superimposing of frames may result.

See page 9 for the position in which the setting knob should be with the red triangle coinciding.

## POSITION OF WINDING KNOB

If winding knob 1 is not in the correct position when it is desired to change the series it is possible to bring it into the correct position, by making the necessary revolutions and releasing the shutter. This will obviously result in a wastage of film, but avoids risk of one image being exposed on another.

## EXPOSURE COUNTER

As the Verascope F 40 may be used for both stereo pairs, or monocular frames, the exposure counter has been calibrated for single frames. Hence the reading is to be taken:

1. for monocular operation, the exposure counter shows the correct number exposed.
2. For stereo operating, divide the number recorded by two, but take the next higher even number when an uneven number is reached.

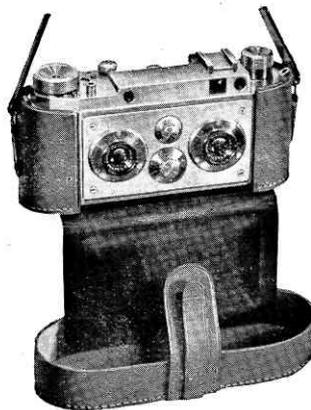
Example: Counter shows 17 : 9 pairs of stereo frames have been exposed.

Actually the counter shows the amount of film which has been wound on, expressed in single  $24 \times 30$  frames of which 40 are obtainable on a standard length of 35 mm. film.

The exposure counter returns to zero when unloading the film (see page 9).

## TO FIX THE CAMERA ON A TRIPOD

The Verascope F 40 is provided with a bush of  $3/8''$  dia. (adapters for  $1/4''$  can be supplied) and to which a tripod may be fitted.



The bush also serves to hold the camera securely in its Ever-ready case, and the tripod fitted underneath the case.

## ACCESSORIES : 1) Case

The design of the case allows the camera to be used without withdrawing it from the case.

## 2) Lens Hoods

The use of lens hoods is strongly recommended as they serve to render a clearer image, and are essential when working against the light.

## 3) Filters

In a selection of densities for various purposes.

## 4) Supplementary Close-up Lenses And Stereoscopic Bench

The Verascope F 40 can be provided with close up lenses for photographing subjects at short range, five types of lenses being available :

Allowing photographing at 10, 20, 30, 40 or 50 cm.

When using these lenses the focus of the camera must be set at infinity.

The lenses are mounted in slip-on rings like the lens hood and the filters.

The distance from the subjects to the camera must be measured very accurately. The origin of these distances should be measured from the front panel of the Verascope.

To obtain the correct results from a pair of stereoscopic photographs at near distances, it is necessary to take separate pictures as rendered by the right and left hand lenses and not simultaneously because the camera has to be placed in two different positions for close-up work. Accordingly it is necessary to reset the shutter without winding on the film between the first and second exposures. To reset the shutter in this case, the lever 26. has to be moved the full distance of its travel, that is, from right to left when viewing the camera from the back.

The Stereoscopic Bench is a special metal jig which holds the camera and is provided with adjustable Setting cams for the correct positions of the camera displacement at the various distances required by the 10, 20, 30, 40, and 50 cm. lenses (See special leaflet).

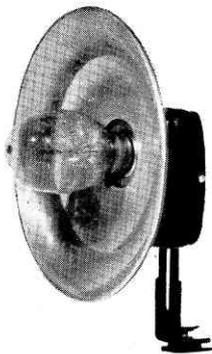
## 5) Front Panel Parallax Corrector

This accessory is mounted on the camera shoe. It allows one to see the parallax error for close ups and to correct them exactly by moving either the camera or the subject (see special leaflet.)

## 6) Polarizing Screen

This is also mounted on the "shoe" of the camera and allows one by looking through the viewfinder, to determine the position needed for the polarising filters mounted on the lenses to extinguish or decrease troublesome reflections in the scene being photographed (Ask for special leaflet).

## 7) Verascope Flash Gun



The Verascope F 40 has contacts synchronised with the shutter, allowing automatic operation of commercial flash-bulbs for speeds of 1/25 sec. and under.

A flash-gun of very small size is made for mounting

directly on the " shoe " of the camera.

This flash is made in two types.

1. Type with batteries 3 volts " Gilet ".
2. Type with batteries 22 1/2 volts and condenser.

## 8) Illuminated Hand Stereoscope

This viewer is a moulded case self-illuminated by a pair of torch batteries, and is provided with focussing and interocular movements to the pair of achromatic lenses.

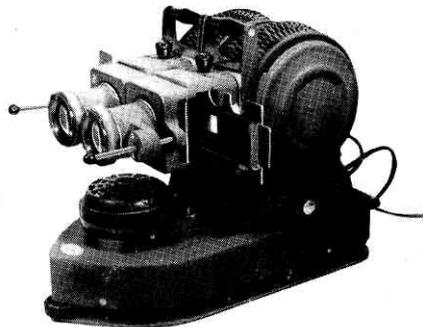
It accepts transposed transparencies in moulded slide holders.



## 9) Verascope 3 D Projector

This instrument can be used for projecting both single transparencies and paired stereoscopic frames.

It has 2-400 watt lamps and a blower and includes filters for polarised light to render three dimensional images on the screen.

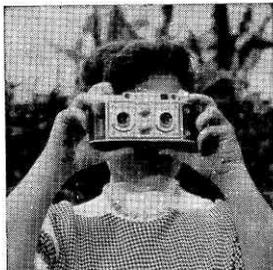


## HOW TO HOLD THE VERASCOPE

When about to make the exposure, hold the camera in the position shown in the upper illustration.

The left hand supports the left side of the camera by placing the fingers on the top and side and the thumb underneath.

The right hand, palm against the back of the camera, is so placed that in addition to supporting the camera, the thumb being underneath, the forefinger



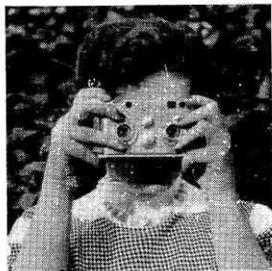
### Correct position

The fingers do not interfere with the focusing movement.



### Wrong position

The fingers are on the lens panel



is free to revolve the focussing wheel, and the second finger to press the shutter release.

It is important to prevent any impediment to the free movement of the front panel, so avoid placing the fingers on it as shown in the lower illustration.

## REMEMBER

I—That when not in use, the film should not be wound on, so that the shutter is not set.

II—That it is possible to change from stereo to monocular series, and vice versa, only when both red triangles of winding knob and camera top-plate are opposite each other (see page 15).

III—That the film counter shows:

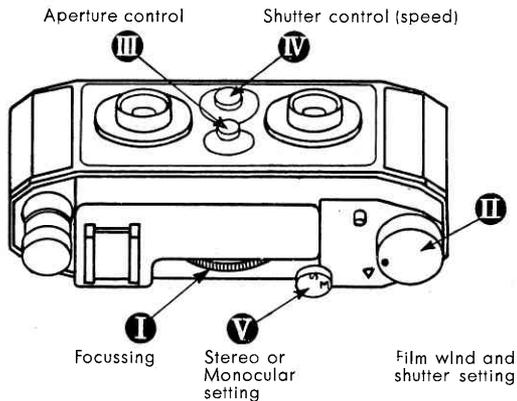
- a) in monoocular series, the actual number of exposures made
- b) in stereo series twice the number (take the next highest and divide by two)
- c) the length of film already used.

IV—That it is necessary to wind as far as possible, i. e. until winding knob 1 will not revolve further.

V—That all dust must be excluded from the camera.

VI—That this instruction book should be well read.

## BEFORE EXPOSING CHECK THE SEQUENCE



1. Focussing
2. Film winding and shutter setting to limit of travel of knob I
3. Set diaphragm aperture control
4. Set shutter speed
5. Set control for M (monocular) or S (stereo).

It is recommended to follow the procedure in this sequence so that all the necessary settings are placed at the right position.

### DEPTH OF FIELD CHART

calculated in meters for an exposure of 1/50 sec.

D	Opening										
	F : 3.5	F : 4.5	F : 5.6	F : 8.	F : 11.	F : 16.					
0.50	0.49	0.52	0.48	0.47	0.54	0.45					5.0
0.60	0.58	0.62	0.57	0.56	0.64	0.53					7.3
0.70	0.68	0.73	0.67	0.65	0.76	0.64					10.0
0.80	0.77	0.83	0.76	0.74	0.87	0.72					14.3
1.00	0.95	1.05	0.93	0.91	1.11	0.88					23.
1.30	1.23	1.40	1.08	1.06	1.49	1.10					
2.00	1.84	2.25	1.75	1.73	2.50	1.57					
3.00	2.65	3.62	2.48	2.31	4.29	2.12					
5.00	4.10	6.41	3.70	3.33	10.00	6.10					
8.00	5.90	12.35	5.13	4.45	18.20	15.90					
H	23.		14.3		10.0		7.3		5.0		

D = Focussing distance

In the column corresponding to each aperture, the minimum distance is given on the left, and the maximum on the right.

H = Hyperfocal distance.

## MAINTENANCE

Keep the Verascope F 40 thoroughly clean. Prevent any dust from remaining inside the camera. Clean it with a soft brush and wipe the lens surfaces very lightly with a chamois leather, also the rangefinder and viewfinder glasses. Keep the camera in its case, without the film wound on or the shutter set.

---

**VERASCOPE F 40**

**PRECISION INSTRUMENTS**

ÉTABLISSEMENTS

# Jules Richard

Société Anonyme au Capital de 31.500.000 Francs

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