

Instructions Manual for B8 Camera



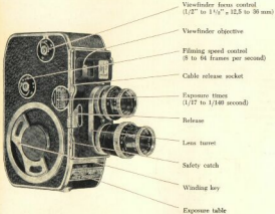
Foreword

You have just acquired a Paillard Bolex B8 cine camera. The name of Paillard Bolex is considered the world over as a hallmark of technical perfection and precision craftsmanship. Before leaving the factory, your camera was checked over and adjusted with meticulous thoroughness.

Like any other precision instrument, your camera should be treated with the utmost care. Always remember that any one of the countless Paillard Bolex authorized dealers the world over will be glad to advise you as to how to get the best out of your Bolex B8.

Every Paillard Bolex B8 motion picture camera carries a serial number engraved on its base, where the carrying-strap is fitted. This number should be quoted in all correspondence with your dealer. If your camera needs overhauling or repairs, these should only be done by a Paillard Bolex authorized agent, as the makers' guarantee is automatically forfeited if such work is carried out by other persons. In the event of your contemplating a trip abroad, it will be a wise move to ask your dealer for a list of accredited General Agents for Paillard products in all countries, since they alone are in a position to offer you faultless service.

Important: Should you subsequently acquire a supplementary lens or lenses, of no matter what make, do not omit to have them adjusted by a Paillard Bolex agent for use on your camera.



Viewfinder focus control
(1/2" to 1 1/8" = 12,5 to 30 mm)

Viewfinder objective

Filming speed control
(8 to 64 frames per second)

Cable release socket

Exposure times
(1/17 to 1/140 second)

Release

Lens turret

Safety catch

Winding key

Exposure table

Viewfinder eyepiece

Footage counter

Lid fastener

Interchangeable lenses

All 8 mm lenses with standard type mounts can be used on the Bolex B 8.

Thread: 15.8 mm. 5/8"

Lens seat to film plane distance $T = 12.29$ mm

Maximum length of threaded section $L = 4.3$ mm

The distance T corresponds to the distance between the film plane and the face of the turret on which the lens rests when screwed into position.



Important: To screw and unscrew the lens, hold it by ring B.



INSTRUCTIONS FOR USE OF PAILLARD BOLEX B8 CINE CAMERA

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EQUIPMENT

The standard equipment of the Bolex B8 camera comprises the following items:

- a) 1 lens at least
- b) 1 empty take-up spool
- c) 1 carrying strap
- d) 1 turret dust cap
- e) 1 short cable release
- f) 1 instruction manual
- g) 1 depth of field chart per focusing mount lens supplied with the camera



Before using your camera, we strongly recommend that you read through this manual very carefully from cover to cover

A thorough prior acquaintance with the purpose and use of the various controls will save the beginner many false starts and will help him to get good results right from the outset.

8 mm FILM



Capacity. The Bolex B8 camera is designed to take -double-run- 8 mm film on 25-ft. spools.

Leader. In reality, unexposed 25-ft. spools of double-8 mm film contain somewhat over 33 ft. of film, due to the fact that a length of leader about 4 ft. long is allowed for at each end, so that the camera can be loaded and unloaded without fogging the film. The leaders are removed after development, the double-8 mm film is bisected down the middle, and the film is finally returned as a single strip of ordinary 8 mm film, 50 feet (i.e. 2 x 25 ft.) in length.

Choice of film. There are several different types of double-run 8 mm black-and-white or color film available on the market. Each category is determined by the sensitivity of the emulsion to light, and the figures in which this sensitivity is expressed are used as a reference when consulting exposure tables or meters.

Black-and-white film. Depending on the lighting conditions, the movie-maker has, generally speaking, a choice between either:
a film of medium sensitivity (22 degrees Scheiner, or 10 ASA), for outdoor shots in daylight, or
a more sensitive film (28 degrees Scheiner, or 40 ASA), for outdoor shots in poor light and more especially, for indoor shots.

Color film. Double-run 8 mm color film is manufactured in two types:

- a) for use in daylight,
- b) for use in artificial light with flood-type lighting.

LOADING

Winding

Lift up the hinged winding key and wind up the motor fully by turning the key in a clockwise direction. The camera can also be wound by turning the key back and forth. Do not attempt to wind further after the check.

To open the camera

Lift up the hinged semicircular ring on the camera lid and turn it to the left (towards 'O').

To open the pressure-pad

Lay the open camera down with the lid towards you, and open the pressure-pad by moving the lever, as shown in the sketch.

Then remove the take-up spool from the camera.

Unwinding the film

Place the full spool in the palm of the right hand, holding it in such a manner as to prevent the film from coming loose and unwinding.

Slip the end of the film into one of the slits in the core of the empty spool, which should be held in the left hand, with the side marked 'T' uppermost. Then wind 2 or 3 turns of film onto the take-up spool, holding the two spools close together while this is being done.

Now move the full spool away from the take-up spool until a length of about 6 ins. of film has been unwound.

Insert the index finger of the left and right hand behind the film, as shown in the sketch.

To insert the film in the camera

Slip the full spool onto its spindle and insert the film into the gate, guiding it with the left index finger.

The brilliant side (acetate) should show to the pressure-pad.

Slip the take-up spool onto its spindle regardless of the position of the notches.

Final check-up

When the spools and film are in place, turn the take-up spool by hand in order to **tighten up the film.**

Close the pressure-pad by pushing the lever back into position. Then start the motor running for a fraction of a second in order to check that the film is drawn correctly through the camera.

Lastly, close the lid of the camera again and fasten it by turning the catch toward 'F'.

The camera should be loaded in the shade, to avoid any risk of fogging the edges of the film

OPERATION



Intermittent running
How to hold the camera

1st position

The film passes in front of the lens and registers the picture as long as the finger is kept pressed on the release button. The motor stops as soon as this pressure ceases.



2nd position

Push the release button downwards with the left index finger.



Continuous running

Lengthy shots
Self filming

Push the release button downwards and turn the milled wheel slightly in an upwardly direction.

OPERATION



Use of cable release
Intermittent running

For perfectly stable shots
and for self-filming

Set the sliding mask opposite the lower marking (this position is determined by a stop). Screw the cable release into the socket thus uncovered.



Use of cable release
Single exposures

For trick effects, cartoon films and so on

Set the mask opposite the upper marking, and screw in the cable release.



Safety catch

Makes it impossible to start the motor when the camera is not in use

Turn the milled wheel in an upwardly direction.

MAIN PARTS

Footage counter

The footage counter automatically indicates the amount of film that has been exposed. The part of the scale between 'F' and 'O' corresponds to the length of the loader. Therefore, start filming only when the figure 'O' appears under the colored dot.

Note: The counter automatically returns to the starting point when the pressure-pad lever is operated in the course of loading or unloading the camera.

Audible end-of-film signal

An audible warning signal is heard when the counter registers 35 ft (7.5 m).

Speed control

The speed control enables the filming speed to be varied between 8 and 64 frames per second, even while shooting is in progress. The normal filming speed of 16 frames per second corresponds to the projection speed for silent films. Films shot at a slower speed (8 frames per second) produce an illusion of accelerated motion on the screen, while films shot at higher speeds (say 64 frames per second, for instance) produce a slow-motion effect.

Exposure time and filming speed

Continuous running: The exposure times corresponding to filming rates between 8 and 64 frames per second are shown on the table on the side of the camera.

Frame-by-frame shots

The exposure time is approximately:

- 1/17th second at a rate of 8 frames per second
- 1/25th second at all other speeds.

Viewfinder

The built-in viewfinder is used for framing the scene to be shot. The focal length corresponding to the field to which the viewfinder is set is indicated by the number of the scale which appears opposite the fixed marker line.

The viewfinder is continuously adjustable to match the field covered by lenses of focal length 1/2", 1" and 1 1/4" (12.5, 25 and 36 mm). A field corresponding to that of a 1/4" (6.5 mm) or 1/3" (5.5 mm) can be obtained by slipping an additional lens over the aperture.

In order to adapt the viewfinder to suit the eyesight of movie-makers who have to wear glasses, the eyepiece of the B&S viewfinder can be replaced by a special eyepiece comprising a lens of the appropriate power. Inquiries about fitting such an eyepiece should be made to the Bolex general agent through the usual dealer, at the same time specifying the strength required in diopters.

Parallax correction

No parallax correction is needed at distances between 5 ft. and infinity. To obtain accurate framing at closer distances, one of the sets of corrector prisms (supplied separately as accessories) should be used (see p. 29).

The prism mount is held fast in the front grooves of the viewfinder by a catch, which must be lowered in order to remove the prism.

Lens turret

The lens turret allows the operator to switch over quickly from a given lens to one of a different focal length (say from a distant view to a near view or close-up) by merely rotating the turret through half a turn.

The turret should be rotated in a clockwise direction to bring the lens whose focal length corresponds to that selected on the viewfinder scale to the top, i. e. opposite the aperture. The lens turret can be locked in position with the special turret clamp screw BX-1485, supplied on request.

INVERTING THE SPOOL



Avoid opening the camera in too strong a light, as otherwise there is a risk that the film may be partly fogged.

When the double-8 mm film has passed through the camera once, the spool must be turned over, allowing the other half of the film to be exposed. As soon as the footage counter reaches the 25 ft. (7.5 m) mark, the motor should be allowed to run until 10 'clicks' of the audible warning signal have been counted, so as to make sure that the trailer is fully wound onto the take-up spool.

The camera may then be opened, the 2 spools taken out and inverted, and the camera reloaded, the full spool being placed on the upper (film feed) spindle, with the side marked 'II' uppermost.

When the film has been fully exposed, the original Paillard Bolex spool supplied with the camera, now on the upper spindle, will be empty again.

UNLOADING

At the end of a spool

As soon as the film, trailer included, has run through for the second time, the camera should be opened and the exposed spool should be stored away again in its box, which should be closed with adhesive tape to prevent any risk of accidental exposure.

When spool is only partly exposed

If it is wished to remove a partly exposed spool from the camera, say for the purpose of shooting a sequence with a film of different sensitivity or with color film, the following procedure should be adopted:

- Check the reading on the footage counter, and subtract it from 25 ft. (7.5 m) in order to obtain the amount of film still unexposed.
- Open the camera in a darkroom.
- Open the pressure pad by means of the lever, and withdraw the two spools together, taking care not to scratch the film.
- Place the spools one on top of another and put them in a light- and airtight box.

It is a good idea to put a marker on the film (such as a paper clip or a thin strip of adhesive tape), as this will help one to locate the last frame occupied. To facilitate reloading, this marker should be slipped on the film near the rubber guide.

Note: Since the leader has already been wound onto the spool, shooting can begin again as soon as the film is back in the camera, irrespective of whether the letter F (or M) appears on the counter instead of O. To allow for this, however, 4 ft (1.25 m) should be subtracted from the amount of unexposed film ascertained as explained in paragraph a) above. Shooting must therefore be stopped when the figure thus obtained appears under the colored dot on the footage counter.





$f = 8.5 \text{ mm}$



$f = 12.5 \text{ mm}$



$f = 25 \text{ mm}$



$f = 30 \text{ mm}$

LENSES

Standard lenses

(focal length $\frac{1}{2}$ " = 12.5 or 13 mm)

These lenses belong to the most current category, and are suitable for use in the majority of circumstances.

Wide-angle lenses

(focal length $\frac{1}{4}$ " to $\frac{1}{4}$ " = 5.5 to 6.5 mm)

These lenses are used in cases when the movie-maker wishes to shoot a wide general view of the scene in which the action is taking place, or when obstacles in the way prevent him from moving back far enough to obtain a good view of a given subject (such as a monument or other building, or an indoor scene).

It is also possible to turn a standard $\frac{1}{2}$ " lens into a wide-angle lens by adding a **Hyper-Cine wide-angle attachment** (your usual dealer will be pleased to advise you in this connection).

This attachment halves the focal length of the lens, and doubles its field of view, turning it into a $\frac{1}{4}$ " lens.

Telephoto lenses

(focal length 1" or $1\frac{1}{2}$ " = 25 or 30 mm)

These lenses are used to obtain near or close-up views of subjects of all kinds, such as sporting events, wild life scenes, architectural details and so on, which have to be shot from some distance away.

1" or $1\frac{1}{2}$ " telephoto lenses are in most general use for 8 mm movie work. However, long-focus lenses designed for use on 16 mm motion picture cameras can also be used by adding a 'BACOM' adapter ring. In using a telephoto lens, care should be taken to ensure that the camera is kept perfectly steady, preferably by setting it up on a tripod.

Owing to the additional brightness generally prevailing in distant views the diaphragm should be stopped down one half or one stop lower than the setting one would use on a normal-focus lens. The following filters will be found useful as a means of reducing the effect of atmospheric haze:

Wratten 1A	for Kodachrome	Orange	for black-and-white film.
Anso UV-16	for Ansacolor		
Agfa UV-K 29 C	for Agfacolor		



SHOOTING

The various operations entailed in shooting a film should be carried out in the following order:

1. Wind up the motor.
2. Select an appropriate shooting angle, and adjust the field of the viewfinder according to the amount of subject-matter which is to be included in the scene.
3. Set the lens with a focal length corresponding to that indicated by the viewfinder control in the topmost position, i. e. opposite the taking aperture.
4. Set the diaphragm and focusing controls on the lens.
5. Adjust the filming speed as required.
6. Make sure that the camera is being held quite steady then start shooting, by pressing on the operating control.
7. Keep a check on the length of the 'take'.

Winding

One complete winding of the motor is sufficient for about 7 feet of film. However it is advisable to wind up the motor after every take, no matter how short. The operator will thus avoid the disagreeable surprise of finding that the motor has stopped in the middle of a take, or that pressure on the starting button produces no response. It often occurs that movie-makers miss the chance of a good shot by neglecting this simple precaution.

SHOOTING

Selecting the shooting angle and lens to be used

Frame the scene by looking through the eyepiece at back of camera. The viewfinder is used firstly as a means of selecting the most effective shooting angle (horizontal, upwards or downwards), and secondly in order to determine which lens is best suited, as regards the field of view provided, to the particular scene to be shot.

The direction in which the subject will move should also be taken into account in choosing the shooting angle. Avoid shots in which the subject moves directly across the field of view.

Exposure table

Correct exposure of the film has a determining influence on picture quality. As a guide for the novice, the exposure table under the lens turret indicates the diaphragm stops which should be used under the lighting conditions most usually met with, assuming that the film is being shot at a rate of 16 frames per second. The position of the subject and the sensitivity of the film are also taken into account.

Example: For outdoor shots on a sunny day, with a black-and-white or color film of sensitivity: 21-23 Schreiner, 10-12 ASA.

Nearby subject	in the shade	use diaphragm stop 4
	lit from the side	use diaphragm stop 5/8
	lit from in front	use diaphragm stop 8
Distast subject	lit from in front	use diaphragm stop 11



Exposure meters

Photoelectric exposure meters help the movie-maker to determine the diaphragm stop which should be used under various lighting conditions. They are suitable for both black-and-white and color films. Depending on the model, they measure either incident or reflected light. Exposure meters, which are highly delicate instruments, are usually carried as a separate unit for utmost convenience in use.

Setting the diaphragm

The amount of light which, after passing through the lens, reaches the film, is limited by the aperture of the diaphragm. The smallest number on the scale corresponds to the widest setting of the diaphragm.

The graduations on the diaphragm scale are known as 'stops'. When the diaphragm is closed by one stop (e. g. by altering the setting from f:5.6 to f:8), the amount of light reaching the film is halved. Conversely, opening the diaphragm by one stop (e. g. from f:8 to f:5.6) doubles the amount of light admitted. Opening the diaphragm by two stops quadruples it, and so on.

In determining the correct stop to use, three main factors must be taken into account:

- the intensity of the lighting
- the sensitivity of the film
- the filming speed.

Distance focusing

Particular care must be taken in focusing when this distance is small, or when a scene is being shot with the lens diaphragm wide open, as in such cases the depth of field available is very small.

First determine the distance to the nearest and farthest points between which the action of the scene is likely to take place.

Then set the focusing scale to an intermediate value which falls well within the 'zone of sharp focus' as indicated by the automatic depth-of-field scale on the lens, so that the anticipated action takes place within this zone.

If the lens is not provided with an automatic depth-of-field scale, the required data for focusing can be obtained by consulting a depth-of-field table corresponding to the lens characteristics.

To alter the filming speed

Adjust the speed control according to the effect which it is desired to obtain. The normal filming rate is 16 frames per second. This corresponds to the rate at which silent projectors are normally run.

Note: Do not forget that altering the filming speed also alters the rate of exposure of the film. Thus this rate, which amounts to 1/35th second at 16 frames per second, will be doubled at 8 frames per second, whereas at 32 frames per second it will be reduced to a quarter of its normal value, i. e. to 1/140th second. In such cases the diaphragm setting should be readjusted to compensate for this variation.

- E. g.: filming rate 16 frames per second, set diaphragm to 5.6
- filming rate 8 frames per second, set diaphragm to 8
- filming rate 32 frames per second, set diaphragm to 4



Stability of camera

The camera should always be held absolutely steady while shooting is in progress.

The slightest jolting of the camera will be amplified many times over when the film is projected, making the subject appear to dance about on the screen. Hold the camera pressed fast against the cheek or forehead, if possible leaning the elbows at the same time against some stable object (such as a wall or tree-trunk). Aim the camera slowly and smoothly, without jerking and without rocking the body.

Length of scenes

The length of a take depends on the amount of action involved in the scene, and must be determined by the movie-maker. An average take usually covers about 16" of film at 18 frames per second, which corresponds to a duration of some 5 to 8 seconds.

Although the length of a take can be prolonged somewhat if the action demands this, sequences of exaggerated length tend to detract from the interest of the scene.

It is always possible to shoot lengthy action scenes while remaining within reasonable limits. This can be done very easily by merely altering the shooting angle and/or distance for each take.

HINTS ON FILMING TECHNIQUE



Black-and-white films

Black-and-white film has the advantage of remaining comparatively unaffected by fairly wide variations in exposure. Thus on each image the details of the darker and lighter parts of the subject are rendered equally well.

The movie-maker enjoys unhampered freedom as regards filming technique, and all kinds of lighting effects: contrasts between light and shade, shots against the light and nocturnal scenes, are within his grasp. Furthermore, emulsions of various degrees of sensitivity are available, which is not the case with color film.

The appropriate diaphragm stop is determined by measuring either the **incident light** — in which case the exposure meter only gives a single reading (**mean value**) — or the **reflected light**, which latter is usually measured by taking two readings, one for the dark parts and one for the light parts of the scene. In this case, the diaphragm usually is set to an **intermediate stop**, the value of which depends on the kind of effect the movie-maker is seeking.

Color films

The following 8 mm color films are available:

Kodachrome type Daylight	Sensitivity: 10 ASA or 12° Scheiner
Kodachrome type A, for artificial light	Sensitivity: 16 ASA or 24° Scheiner
Anscocolor for daylight	Sensitivity: 10 ASA or 12° Scheiner
Anscocolor for artificial light	Sensitivity: 12 ASA or 23° Scheiner
Agfacolor for daylight	Sensitivity: 20 ASA or 25° Scheiner
Agfacolor for artificial light	Sensitivity: 8 ASA or 21° Scheiner

Color films are just as easy to shoot as black-and-white ones. However, since color film is more sensitive to small variations in exposure, the diaphragm stop should be determined by using a photo-electric exposure meter.

In composing the scene, the movie-maker should avoid deep shadows; **the colors themselves already lend contrast to the scene.**

Experience shows that to obtain images in natural colors, the diaphragm stops corresponding to the highest and lowest reading obtained for the subject, or for the prevailing lighting conditions (depending on whether the exposure meter used measures reflected or incident light) should not differ by more than 1 1/3 stops from the mean aperture selected for shooting.

If this requirement cannot be met, the movie-maker should try out a different shooting angle, or should move closer to his subject so as to avoid too great differences in lighting intensity occurring in the same scene. Another method consists in the use of reflecting screens to lighten the shady parts.

To counteract the prevailing blue tone produced by shadows, particularly in far-off scenes shot under a cloudy sky, use the: Wratten 1 A filter for type Daylight Kodachrome film, or the Anso UV-16 filter for type daylight Anscocolor film, or the Agfa UV-K 29-C filter for type daylight Agfacolor film.

Indoor shots

To shoot indoor scenes in daylight, use a fast lens (i. e. one with a wide aperture) and a supersensitive film. Choose your setting so as to make the best possible use of what light there is.

Only flood-type reflectors are suitable for shooting indoor films, in black-and-white or in colors, by artificial light.

The amount of exposure required by the subject varies considerably according to the way the reflectors are laid out (i. e. according to whether the subject is lit up from in front, from the side or from behind). The lighting arrangements should be modified to suit the character of the scene to be shot. To determine the correct diaphragm stop to use, consult an exposure table for artificial light, or rely on a good-quality exposure meter.



«Pan» shots

When panoramic views (such as broad landscapes, mountain chains, or architectural views) are being shot, the camera should be moved **slowly and smoothly**, care being taken to hold it absolutely steady, so as to avoid any impression of jerkiness on the screen. As an example, a sweep which involves an alteration of 90° (i.e. a quarter-turn) in the shooting angle should take about 20 seconds.

Introduce the sweep with a steady shot, and finish it off with another steady shot at the end.

It is best to set the camera up on a tripod, as this makes for smoother 'pans' and steadier pictures. Any tendency towards jerky movements can also be diminished by shooting at a higher filming speed than usual, say 24 or even 52 frames per second instead of 16 (needless to say, however, this method should only be applied to motionless subjects, such as landscapes).

«Pan» shots should only be used sparingly, as they are tiring on the eyes.



Single frame exposure

Single frame shots are used mainly for making animated cartoons. This technique, however, can be applied both to still and to moving subjects.



Moving subjects

Set the camera up on a tripod and, using a cable release, take a series of single frames at a regular and fairly rapid rate (say about 2 or 3 frames per second). On projecting, the subject will appear to move at a much accelerated rate. Some highly comic effects can be obtained in this way.

Subjects whose movements are too slow to be perceived by the naked eye

Extremely slow motion (such as the growth of a plant) can also be registered in this way.

The camera must be fixed on an absolutely rigid support. The shutter should be operated at regular intervals, using a cable release. The frequency with which shots are taken will depend on the type of subject involved and the effect required. The lighting should remain constant for each shot. It follows from this that the use of flood-type lighting will be found well-nigh indispensable.

Still subjects

In order to make pictures in which still subjects appears to be in motion, it is sufficient to move the latter about or to alter their shape or position from one shot to the next. This should be done in such a way that the resulting apparent motion follows a definite, easily-grasped pattern, and does not give rise to a disjointed or incoherent effect on the screen. The camera should preferably be set up on a tripod or other steady mount. The cable release should be used and succeeding shots should be made under identical lighting conditions.

This technique can be used for imparting motion to dummies, puppets and so on. The same procedure can also be used for animating drawings, designs, graphs, movie titles and so on. Care should always be taken in such cases to distribute each movement of the object concerned over a sufficient number of frames, to ensure a smooth transition.



Fades

These are made by causing the subject to appear or to disappear progressively. In a 'fade-in', starting from a completely black background, the picture appears gradually brighter and brighter until it reaches its normal value, while inversely, in a 'fade-out', the picture gradually gets darker and darker until a point of complete black-out is reached. These effects, which are much more pleasing to the eye than a sudden change of scene, are obtained by progressively increasing or reducing the amount of light admitted to the film.

Use of the lens diaphragm

If the scene is being shot at an aperture greater than f/5.6, a 'fade-out' can be produced very simply by merely closing the diaphragm at a steady rate while shooting is in progress (to produce a 'fade-in', start with the diaphragm stopped fully down).

If lighting conditions do not permit of this, place a neutral density filter over the lens and open the diaphragm sufficiently to compensate for the light absorbed by this filter.

The diaphragm cannot be closed entirely. Therefore cover the lens with the hand before starting a 'fade-in', or at the end of a 'fade-out'. A fade usually lasts about 3 seconds.

Totally-closing iris diaphragm

This is an attachment which, when mounted in front of the lens, acts as a mask with a round opening, the size of which can be altered at will. The extent to which the iris is opened or closed governs the amount of the subject that can be seen. The diaphragm can be closed gradually, at will until it is completely shut.

ACCESSORIES

Color filters for black-and-white films

In real life, colors often provide much of the contrast in a given scene. By inserting filters in front of the lens, it is possible to alter the relative values of the colors (which, in the picture, are translated into various shades of grey) at will, according to the effect one wishes to produce. A color filter only admits light rays of a color similar to its own, and absorbs all other colors to a greater or lesser extent. The diaphragm setting should be altered by an amount depending on the filter in use.

Filters

Yellow

Orange

Red

Green

Effects

Shades of blue are rendered in deeper tones of grey.

Use: Used for accentuating cloudscapes, or for views of misty plains, of snowscapes, or of buildings.

Blues appear much darkened. Picks out yellows and reds, making them appear lighter.

Use: Penetrates distant haze and lends contrast to views shot with the telephoto lens. Very suitable for seascapes.

Provides still greater contrast between blue/green shades, which appear very dark, and yellow/red shades, which are rendered as tones of light grey.

Use: Penetrates atmospheric haze, suitable for snowscapes in overcast weather and for mountain-top scenery. Produces a nocturnal effect if underexposed.

Makes greens appear lighter than blues and reds. Tones are 'softened' and rendered true to life.

Use: Suitable for landscapes and woodland scenes.

Paillard Bolex color filters, which are provided with a screw-on or a clamp-on mount, are suitable for use with all types of Kern-Paillard lenses. See the special list of Paillard Bolex filters and mounts, and the instruction chart (yellow card).

Special filters

Neutral density
filter (grey)

Cuts down the amount of light entering the lens, without affecting the way colors are rendered. The diaphragm must be opened by an amount depending on the strength of the filter.

Used in cases when it is desired to film at a wider aperture than would be normally required.

Pola-screen
(not supplied by
Paillard)

Transmits polarized light in all shades of color. Absorbs ultraviolet light. Makes the sky appear darker, without affecting objects in the foreground. Cuts down reflections from water, glass surfaces and so on.

Filters for color films

Correcting filters. These filters are used with color films in order to reduce the influence of certain dominant tones:

Films

Kodachrome
Anscocolor
Agfacolor

Filters

Wratten LA
Ansco UV-16
UV-K 29 C

Effects

Subdues excess of blue and improves color rendition (filming in the shadow or in hazy weather — distant views snow-capped and in high altitudes).

Conversion filters

These filters are useful for changing the color quality of the exposing light in order to secure proper colour balance.

With their aid, it is possible to use daylight film for shots in artificial light, and vice versa.

Films

Kodachrome type Daylight

Kodachrome type A
(for artificial light)

Anscoolor
(for daylight)

Anscoolor
(for artificial light)

Agfacolor
(for daylight)

Agfacolor
(for artificial light)

Conversion filters

Wratten No 50
filter for artificial light

Wratten No 85
filter for daylight

Filter No 10
for artificial light

Filter No 11
for daylight

Filter K 49
for artificial light

Filter K 19
for daylight

Filters should always be kept quite clean, absolutely free from dust or fingerprints.



Sunshades

These attachments serve to protect the lens from side reflections. They should always be used when shooting against-the-light scenes.

See the special list of Paillard Bolex filters and attachments.

BAGOM adapter ring

This ring makes it possible to use Kern-Paillard lenses intended for the Bolex H 16 on the B 8. When used for shooting 8 mm films, such lenses produce the same effect as 8 mm lenses of the same focal length. The viewfinder shows the fields corresponding to the lenses of focal lengths 12.5 mm to 36 mm ($1/2''$ to $1\frac{1}{2}''$).

Turret clamp screw

The screw BX-1495 allows to lock the lens turret in position. This precaution should be taken when using tele-lenses of comparatively high weight. The turret clamp screw is supplied apart. It is included in the Pan Cinor Sam Berthiot 8 mm lens equipment.

Parallax corrector prisms

When slipped in the grooves in front of the viewfinder, these corrector prisms permit perfect framing of extreme close-ups. They are available in sets of two:

PRISM for distances of 10" and 20" (25 and 50 cm)

PRIFT for distances of 1 and 2 ft. (30 and 60 cm)

Supplementary lenses for viewfinder

When slipped onto the front of the viewfinder (which must be set to 12.5) the supplementary lenses adapt the field of the viewfinder to correspond with that of a $1/8''$ (3.5 mm) or $1/4''$ (6.5 mm) lens, according to the model:

Supplementary $1/8''$ (3.5 mm) viewfinder lens Code : VELBE

Supplementary $1/4''$ (6.5 mm) viewfinder lens Code : VEBEL

The additional lens or prism is maintained in position by a catch, which must be pushed down in order to remove the attachment.

Cable releases

Apart from the 8" cable release supplied with the camera, two longer cable releases are available separately as accessories:

Length 18" (45 cm) Code : DECAB

Length 40" (100 cm) Code : DECBE





Lenses

All the outer surfaces of the lenses should be kept absolutely clean. To clean them, use the special soft tissue-paper sold in photo stores. The lenses should not be constantly rubbed, as this might damage the anti-reflex coating.

Put the dust-caps on the lenses between scenes, and when the camera is no longer needed, stow them away from damp in their Faillard Bolex cases. Especial care should be taken to avoid dust or fingerprints getting onto the glass surfaces (perspiration is harmful to glass).

Camera

The interior of the camera, in which the entire film transport mechanism is housed, must be kept absolutely clean.

A certain amount of gelatine and dust is generally left in the gate and on the pressure-pad after some length of film has been run through.

Such deposits should be removed, as follows:

- Open the pressure-pad.
- Withdraw the pressure-pad by pulling it towards you.
- Using a clean cloth twisted around the end of a small wooden stick, clean the pad and gate gently, particularly around the taking aperture. If the gelatine deposit is 'tacky' and hard to remove, moisten the cloth slightly wiping off the place carefully afterwards to ensure that it is dry.
- Put the pressure-pad back in place by pushing it well home.
- Close the pressure-pad by pushing the lever back into position.

Lubrication

Like a high-quality watch, the Bolex B8 camera rarely needs to be lubricated. When new, it contains a reserve of grease and oil sufficient to last for 2 or 3 years. When this length of time has elapsed, it is advisable to turn the camera in for fresh lubrication to the nearest Faillard Bolex agent.

Under no circumstances should any attempt be made to dismantle the camera mechanism, as the maker's guarantee is automatically forfeited if this is done.





Use and care of camera in tropical climates

Certain precautions must be taken to protect both camera and film against heat and damp when living or travelling in tropical regions.

Airtight boxes (tropical pack) for storing film spools are available on the market. The film should only be left in the camera proper for the amount of time required to expose it.

The camera and all its accessories should be cleaned thoroughly and frequently. The leather lining and carrying cases should be treated with a special protective chemical (such as Septatan, Tymol and so on).

To prevent hot, moist air from condensing and giving rise to bacterial growths in or on the equipment, the latter should not be stowed away in its various cases between takes, but should be freely exposed to the air.

On the other hand, when the equipment is to be left unused for some time, particularly during the monsoon season, it should be protected by putting it away in airtight tins, into which a suitable desiccating agent (such as silica gel, calcium chloride, Soda beads and so on) has been placed. These chemicals should not be used too liberally, however, in order to avoid excessive drying, which might damage the leather or the film. A relative humidity of 35 to 40% is quite acceptable. Care should be taken to avoid dropping any of the chemical onto the equipment.

PAILLARD-BOLEX M8R MOTION PICTURE PROJECTOR

For 8 mm film. Equipped with a high-quality lens, available in focal lengths of 20 mm, 25 mm and 35 mm.

Supplied in two versions:

Model M8 for A.C. or D.C. power supplies, 110-125 volts; Model M8R for A.C. or D.C. power supplies, 110-250 volts (with built-in resistance and voltage selector).

Silent running.

Precision-built, handsomely-styled and simple to use, the Bolex M8 projector operates with un-failing efficiency under all conditions, and shows 8 mm black-and-white or color films to best advantage. Its high performance and numerous exclusive features will satisfy the most exacting movie-maker, and make it an ideal companion-piece for the Bolex B8 camera.

Weight with carrying case: 19 lbs.

