Rolleicord

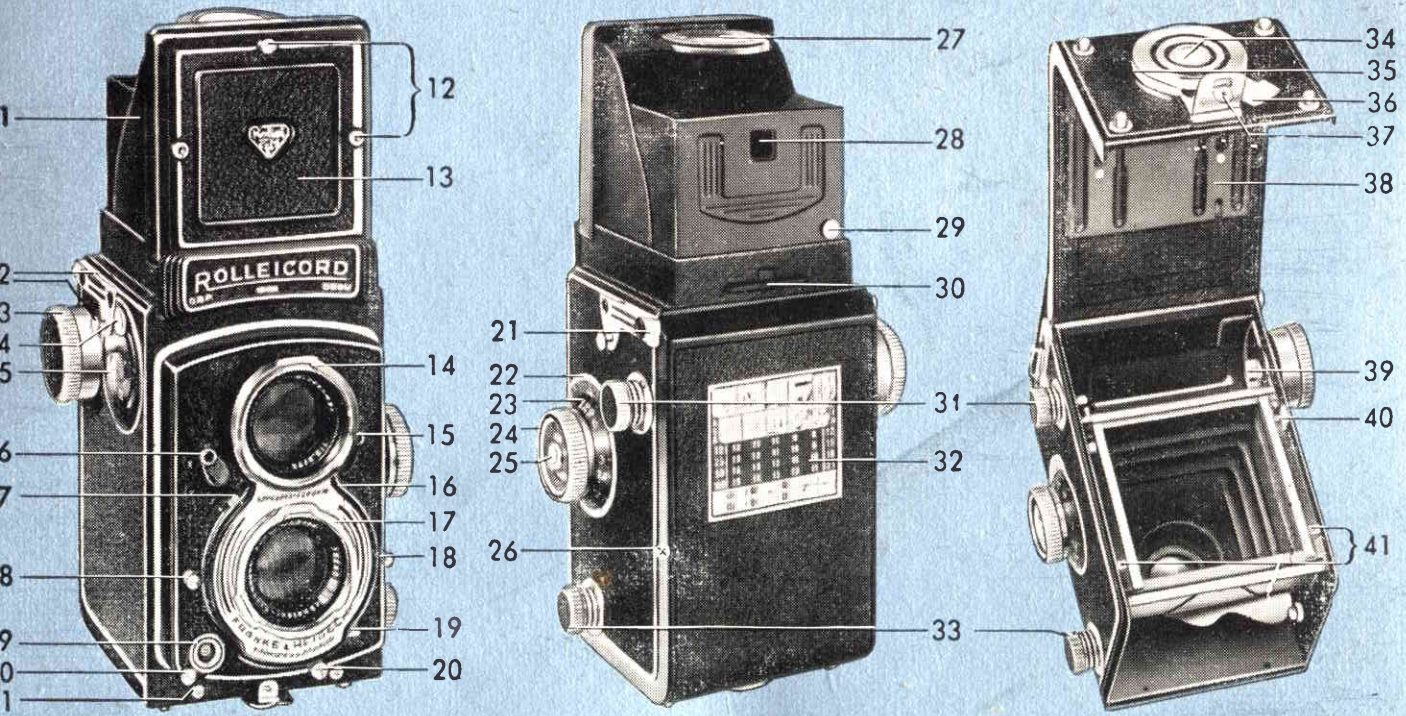
Va

IN PRACTICAL USE

The Rolleicord is really simple and quite easy to use, but you will find it well to read the instructions first. If you're in a hurry to get started, take a quick look at the illustrations on pages 9 through 15. You will then be familiar with the most important operational details. Later, at your leisure, you can read the instructions more carefully. You will find a selection of useful hints and charts covering many phases of photography-information that will be a real aid in achieving quick success and, for the future, form a useful complement to your Rolleicord camera.

FRANKE & HEIDECKE · BRAUNSCHWEIG

TO LOCATE IMPORTANT PARAGRAPHS QUICKLY:



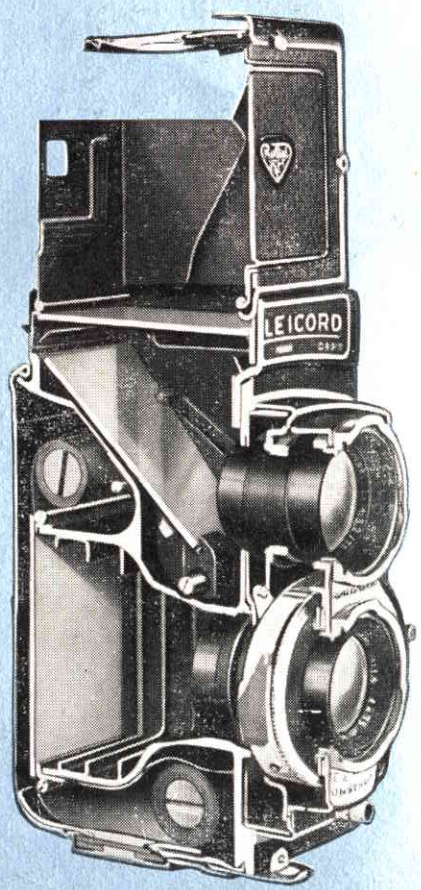
DESCRIPTION OF CAMERA (detailed explanation → page)

1 Focusing hood → 14
2 Hook for neck strap
3 Film winding knob → 11, 12
4 Interchangeable counter mechanism → 9, 11
5 Locking screw or thumb screw for counter mechanism
6 Synchro lever (tension lever for self-timer) → 15, 24
7 Peep window for light value → 12
8 Diaphragm control lever → 12
9 Flash cable socket → 15
10 Locking device for flash cord plug → 15
11 Tripod socket for holding Rolleifix or panorama head → 37

12 Pin-socket for direct view finder mask → 9
13 Direct view finder flap → 14
14 Double bayonet mount for Rolleiflash* or Rolleinar* → 37
15 Double exposure prevention and release lever → 15
16 Indicator window for shutter speed and diaphragm → 12
17 Double bayonet mount for optical accessories* and lens hood* → 37
18 Shutter speed control lever → 12
19 Socket for cable release or body release → 37
20 Shutter tensioning and release lever → 14
21 Back hinge with safety lock → 10
22 Depth of field scale → 20
23 Focusing scale → 20
24 Focusing knob
25 Film speed reminder dial → 11
26 Focal or film plane (focusing distances measured from this line)

* Bayonet size I

27 Focusing magnifier → 14
28 Rear sight for direct view finder → 14
29 Release button for direct view finder flap → 14
30 Retaining device for ground glass mask or Rolleigrid → 37
31 Take-up spool knob → 10
32 Light value exposure table → 18
33 Film spool knob (and Rolleikin rewind knob) → 10
34 Tripod socket → 36
35 Fastening groove for Rolleifix → 37
36 Locking lever for back lock clip → 10
37 Back lock clip → 10
38 Adjustable film pressure plate → 10
39 Winding key of take-up spool → 10
40 Locking levers counter gear for film → 7
41 Indicator marks for starting No 120 roll film → 11



A BRIEF ROLLEICORD-ANATOMY

In the Rolleicord two separate cameras are joined in a twin-camera with a common sturdy die-cast body: the bottom half is the

taking-camera, in which the film is exposed, and the upper half is the

viewing-camera, which is designed on the mirror-reflex principle. Its special task is to make the effects of focusing visible on the ground glass and to supply a control image essentially similar to that of the prospective picture.

The image forming rays are transmitted by the fully open viewing lens, projected on to the ground glass screen via the mirror and the result is a right-side-up ground glass image, in the full size of the original picture. This viewing image is visible at all times and every detail of composition and framing may be watched even during exposure. The ground glass screen is ruled vertically and horizontally across the center making it possible to detect errors such as lines which converge that should be parallel or a slanting horizon, in time to notice and correct them. It is easy to straighten or level the camera by means of the lines on the ground glass screen.

Above all, the ground glass screen provides the means for **focusing** the camera. This is accomplished by rotating the focusing knob. Both lenses, which are inflexibly coupled to each other by means of a sturdy common front plate, are thereby adjusted simultaneously: a sharp viewing image, therefore, guarantees an equally sharp picture. Focusing the front lens panel throughout the range from ∞ (Infinity) — 35½ inches (distances measured from the focal or film plane to the subject) is accomplished by one full turn of the focusing knob. The special design of the focusing mechanism (a double cam-drive based on the principle of Archimedes' spiral) insures uniform movement of the lens panel in both directions without play or backlash. Tied in with the movement of the lenses is a simple sliding mechanism, located beneath the ground glass, providing completely automatic **parallax compensation.** Consequently, the final picture is always framed exactly as originally viewed on the ground glass screen.

The focusing hood, which is designed for one-hand operation, is kept in both open and closed positions by spring tension. It is equipped with a magnifier offering approximately 2.5 times magnification for critical focusing. Since the Rolleicord is equipped

with a fast viewing lens and an optically prepared ground glass screen, the viewing image is extremely bright and clear and focusing can be done very critically.

After focusing the camera, the front flap of the focusing hood may be folded back: the focusing hood is thereby converted to an open frame type **view finder,** through which it is possible to view the subject in natural size and to follow action easily.

Since the two **lenses** are of identical focal length (f = 75 mm, picture angle [across diagonal], 56°) it follows that the images in both sections of the camera will always be critically focused on the same portion of the subject simultaneously. The Schneider Xenar f:3.5 taking lens, is a four glass construction with two cemented elements (modified Taylor-type) and features outstanding correction for black and white and color pictures, while the three-element viewing-lens f:3.2 meets with the special requirements for best ground glass focusing. Both lenses are treated with abrasion resistant coating. The bayonet receptacles circling the mounts are intended for attaching the lens hood and supplementary optical accessories, which in this way will be held in optically correct position and form a solid unit with the camera.

The **Synchro-Compur shutter** is a between-the-lens **shutter** with evenly spaced speed settings from 1/500 sec. to 1 sec. It has a single tensioning and release lever and is fully synchronized for electronic flash and flash bulbs to 1/500 sec. The Synchro-lever, which is also used for tensioning the self-timer mechanism, adjusts the shutter to either X or M synchronization.

The **light value scale** and **shutter speed-diaphragm coupling** simplify the pre-selection of shutter speed and diaphragm opening by permitting a quick change to the desired combination. Normally, the intercoupled speed and diaphragm settings are changed by moving only the speed lever. They can, however, be adjusted individually, if desired.

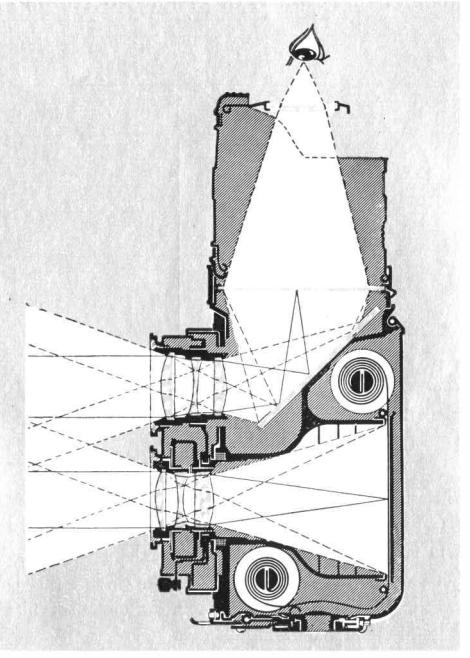
The removable **back** is attached to the camera by means of two hinges with locking device and at the bottom it contains the tripod socket and the safety back lock. The adjustable film pressure plate can be set for No. 120 (B II 8) film (with paper backing), or for 35 mm film (without paper backing) when used in conjunction with the Rolleikin 3.5 attachment. In both cases a film channel is created with a width that corresponds to the thickness of the film being used. Thus the film will be properly held in the focal plane and will slide through without undue friction when advanced.

The **film winding mechanism** (for roll film) is equipped with a **double exposure prevention device.** Turning the film winding knob until it stops (film lock) will

advance the film one full frame and at the same time cause the next number to appear in the exposure counter window. Now the shutter can be tensioned. After release, the operation of the inter-lock is reversed so that the shutter is locked until the film has been properly advanced to the next frame. In this way double exposures or blanks are neatly avoided.

In special cases – when using the Rolleikin 3.5 or Plate Back — the double exposure prevention lock must be released or else the shutter would be permanently locked. If engaged after the exposure, the lock will furthermore serve as an effective shutter release guard. Intentional double or multiple exposures (trick shots) on roll film are also possible through temporary release of the lock.

Proper starting of the film when loading the camera is easily accomplished. Immediately after inserting the film it is advanced as far as the double arrow or line mark on the paper backing. Closing the back at this point depresses the sliding lever and engages the film measuring mechanism. The knob can now be turned only the correct amount to the stop. The number in the film counter window will automatically advance from 0 to 1, when the film is ready for the first exposure.



Number and format of pictures according to your choice

Type of film	Accessory device	Number of exposures	Picture format
B II 8 — 120 roll film	—	12	$2^1/_4 \times 2^1/_4$" (6 x 6)
	16 exp. kit	16	$1^5/_8 \times 1^5/_8$" (4 x 4)
		16	$1^5/_8 \times 2^1/_8$" (4 x 5.5)
	24 exp. kit	24	1 x $1^1/_2$" (24 x 36 mm)
		24	$1^1/_8 \times 1^5/_8$" (28 x 40 mm)
35 mm film	Rolleikin 3.5	20, 36	1 x $1^1/_2$" (24 x 36 mm)
Plates and sheet film 6.5 x 9	Plate adapter	1	$2^1/_4 \times 2^1/_4$" (6 x 6)

When loading the camera, the **film speed reminder** is set according to the speed of the film being used (8 to 800 ASA and 10/10 to 30/10° DIN) thus always showing which type of film is in the camera. This is especially valuable when frequent changes of film material are made.

After the last exposure, the film counter mechanism disengages automatically and the winding knob turns freely, permitting the full winding up of the completely exposed film. The last sign visible in the exposure counter window is a center-dotted circle to indicate that all the film has been exposed. Opening the back will cause the counter dial to return to 0.

With the interchangeable counter mechanism, the Rolleicord V a offers a practical, logical and versatile solution to the choice of picture formats. Standard equipment is the 12-exposure counter mechanism for the usual 12 – 2¼ x 2¼" picture operation on B II 8 – 120 film. The change to a five format camera is accomplished by the accessory kits 16-exposure counter mechanism 4 x 4, 4 x 5.5 cm and 24-exposure counter mechanism 24 x 36, 28 x 40 mm. Each kit contains a counter dial, which converts the film-wind mechanism to 16 or 24 picture operation, together with the necessary masks for film plane, ground glass and direct view finder. Even when the camera is loaded, you can freely choose between the formats 4 x 4 and 4 x 5.5 cm as well as between 24 x 36 and 28 x 40 mm. For all who like versatility, or do not object to economy, the Rolleicord Va offers all the advantages inherent in the film-saving choice of formats.

Ever-Ready Case

To Open: lift the top by grasping the snap catch buttons at the rear and fold forward and down ①.

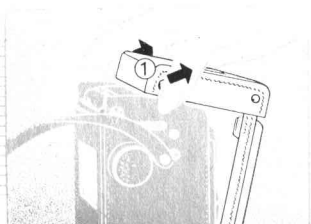
Removal of Camera from Case: pull up the clips on the side walls of the case ②, spread the case apart, lift the camera forward and out ③.

For Cameras with Rolleikin 3.5 Counter Knob: straighten out the five metal tabs, which hold the leather insert on the inside of the case, with a knife and then push out the now superfluous disc.

Lens Cap

To Remove Lens Cap: slide the locking knob in the middle of the cap upwards ④.

Attaching Lens Cap: slide locking knob upwards, place cap over the mounts, slide knob downwards.



The numbers refer to page 3, the encircled numbers to the illustrations at bottom.

Back

To Open: swing aside in direction of arrow the back locking lever 36 at the bottom of the camera ①, lift the clip 37 ②, open back, using the clip as a handle.

To Close: with the flat of the hand push the back closed, fold down the clip 37 and return locking lever 36 to full forward position.

To Detach (when exchanging for plate adapter back): open back wide and swing locking lever 21 on the left hand back hinge upwards ③. Remove back from hinge on this side ④.

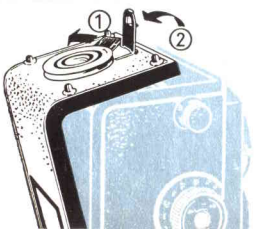
To Attach: fit back first to right hand hinge, then to left hand (slotted) hinge, and lock.

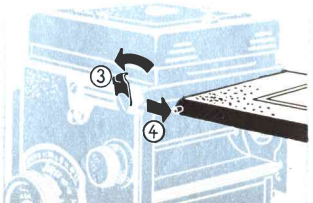
Loading of camera

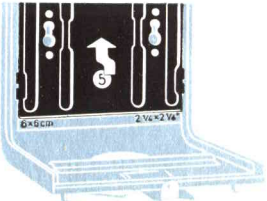
To adjust film pressure plate (using the 120 [B II 8]-film the inscription $2^1/_4 \times 2^1/_4$" must be visible): press the plate 38 against the back and push it up until it stops. When released, it must spring forward completely into the normal plane ⑤.

To insert film spools ⑥: fit spools on right side (winding knob side) first and pull out holding knobs 31 and 33. Push spool down on the left so that knob may snap back into place f u l l y. The slotted end of the empty spool is inserted on the right side to engage the winding knob 39.

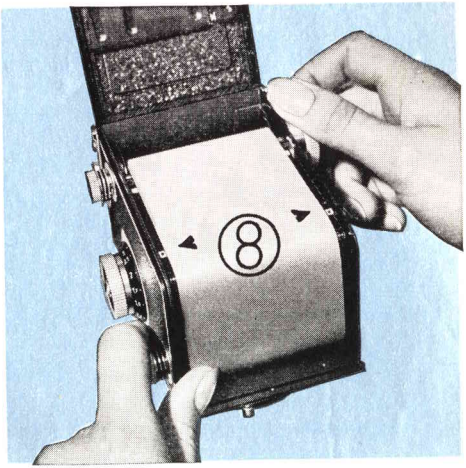
Break and remove seal of full roll of film, pull up backing paper to the take-up spool, colored side







outwards, and insert the tapered end into the long slot of the take-up spool ⑦. Wind film tightly, using lefthand thumb as a brake, until the **triangular marks** (or double arrows) on backing paper are in line with the **red indicator dots** 41 on either side of the film aperture. ⑧ — Stop! Close the back. Engage double exposure prevention lock.



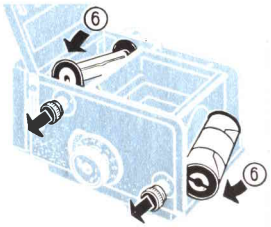
Turn winding knob 3 until it stops ⑨: Film counter 4 advances to No. 1, the shutter can be tensioned.

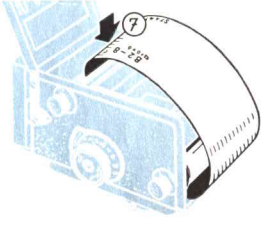
Setting the Film Reminder: Press knob 25 in center of disc and turn to desired value. The dots between the figures correspond to intermediate film speeds.

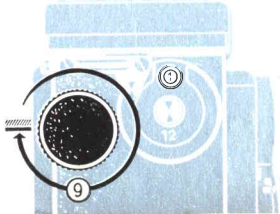
Attention:

When using the plate adapter: remove empty spool, but keep it for use with the next roll of film.

Exchanging the counter mechanism (page 9):
open camera back before attempting to remove and install counter mechanism!







Advancing Film

Turn winding knob 3 until it stops. The shutter tensioning and release lever 20 thereby remains in "rest" position.

Removal of the Film

After the last exposure: wind up the film completely. Open back in shady spot, pull out take-up spool knob 31 and lift film out from left side ①. Fold under a good portion of the backing paper ② (for easy opening when developing) and seal with tape ③. Put the exposed film back into the light-proof protective cover of the original package!

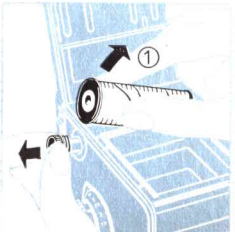
Light Value – Shutter Speed – Diaphragm Setting

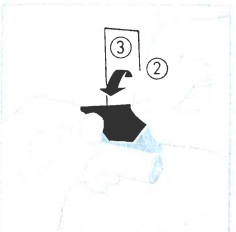
Setting Light Value: Release diaphragm lever 8, by pressing it in direction of the lens centre, and move up or down ④, until the red dot indicates desired light value. (If the light value is still not reached: re-engage diaphragm lever and move back a short distance; repeat original procedure.)

Speed-diaphragm-selection: Adjust shutter speed lever 18 ⑤, until the desired speed-stop combination appears in the indicator window 16. (Choosing speed and diaphragm: → pages 19 and 20.)

Special Case: Selecting speed and diaphragm separately: release diaphragm lever, adjust speed lever **first** ⑤ **and then** diaphragm lever ④.

Never change film in direct sunlight! Utilize, at least, the shadow of your own body. Protect open camera against dust and dirt and clean from time to time with a soft camel's hair brush.





Light Value Scale

This is the long indicator window 7 with the red figures. The red dot beside the diaphragm lever is set to desired light value. Midpoint light values can be used. Each lower light value indicates double the exposure.

Shutter Speed Scale

This is the upper indicator window 16. Consider the figures as fractions of seconds (for example 30 = 1/30 sec.). Shutter speeds have click stops, intermediate settings between engraved values are not possible: Whatever the speed-diaphragm combination, the speed value must always appear in the center of the peep window 7.

1/60th sec. is the most commonly used hand-held speed, minimizing camera movement.

To prevent unsharpness due to movement: → Table page 19.

The letter "B" permits time exposures of any duration (→ page 16).

Diaphragm Scale

This is the lower indicator window 16. Settings of full as well as intermediate stop values are possible (click stops between the figures). The dot to one side of f : 3.5 indicates f:4. Intermediate values on the diaphragm scale are obtained when working with intermediate light value settings.

Both the speed and diaphragm scales are evenly spaced to produce equivalent steps in exposure time. As can be noticed from the intercoupled speed-diaphragm combinations, closing to each succeeding smaller stop requires double the exposure of the preceding one.

Time Exposure	Tripod Pictures: Slow Speeds					Hand-Held Pictures: Fast Speeds				
B	1	1/2	1/4	1/8	1/15	1/30	1/60	1/125	1/250	1/500 sec.

Focusing Hood

To Open: lift the rear edge of the focusing hood; cover-spring tension keeps it open ①.

To Close: fold down focusing hood ②.

Focusing Magnifier

To Raise: push the direct view finder flap 13 inwards ③ — the magnifier 27 springs into position.

To Close: push magnifier down ④.

Use of Magnifier: use magnifier as close to the eye as possible.

Direct View Finder

To Open: push the direct view finder flap 13 inwards until it locks into place ③.

To Close: release the flap by means of the button 29 on the back of the focusing hood ⑤ — it will spring back into place.

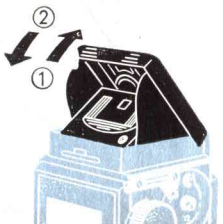
Tensioning and Releasing

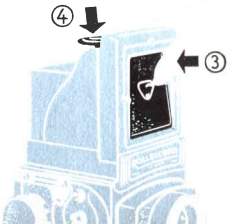
Tensioning: move lever 20 to the right as far as it will go and then back to original position ⑥.

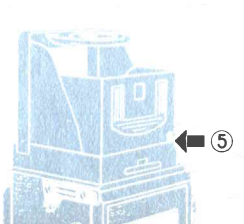
Releasing: gently move lever to left until shutter click is heard ⑦. The shutter automatically opens for the desired time.

Time exposure "B": Move shutter lever to left, holding there for required time ⑦. Releasing the lever closes the shutter.

The shutter and self-timer may be left cocked even when the camera is laid away for short periods of time without weakening the power of the springs.







Self-timer

Cock shutter ⑥ — set Synchro lever 6 to "V" ⑧ — release ⑦. Shutter opening is delayed by approximately 10 sec. All speeds from 1/500 to 1 sec. may be used.

Double Exposure Prevention Lock

To Engage Lock: set lever 15 to upper position ⑩. For use with roll film only.

To Disengage Lock: move lever downwards. Watch red mark as a warning signal: "Beware of unwanted double exposure!" ⑪. For use with Rolleikin 3.5, plate adapter or for intentional double exposures.

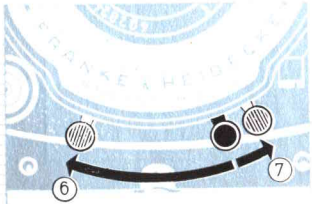
Re-engage the Lock after completing double or multiple exposure, **before** re-tensioning shutter.

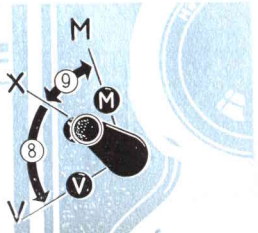
Flashlight Pictures

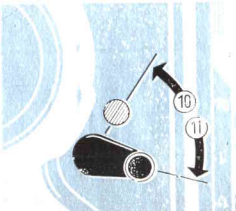
To Connect Cord: plug into flash contact socket 9, plug locks by itself.
Choice of Contact: According to flash-source (→ page 24) set Synchro lever 6 to X or M (X contact can also be used with the self-timer) ⑨.
To Release the Flash Cord Plug: unlock by swinging locking lever 10 and pull cord out.

Changing Magnifier (if eye-sight requires)

For critical focusing without glasses, interchangeable magnifiers within the range from +3 to —3 diopters are obtainable (get doctor's prescription).
To Remove: take hold of magnifier by both surfaces, push it against the retaining spring (in direction of the hinge of the magnifier holder) and then lift it up and out.
To Insert: as above, reversing procedure.







Exposure and Light Value

Exposure is adjusted in accord with the existing lighting conditions (more exactly: in accord with the amount of light reflected by the subject). The light value serves as the measurement for correct exposure. It is ascertained from the exposure table or from an exposure meter, taking into account the sensitivity of the film being used. It is then set on the light value scale of the camera. In this way both speeds and diaphragm openings are adjusted in relation to each other to provide correct exposure. Since the scales are coupled, it is possible to select either a desired speed or diaphragm opening without further need to compensate for exposure.

Light value	Diaphragm					
	22	16	11	8	5.6	4
8	2	1	1/2	1/4	1/8	1/15
7	4	2	1	1/2	1/4	1/8
6	8	4	2	1	1/2	1/4
5	15	8	4	2	1	1/2
4	30	15	8	4	2	1
	sec.					

Special Case: Time Exposure. The light value is generally used only with the automatically timed shutter speeds 1/500 to 1 sec. Light values 8—4 permit the adjustment of the shutter speeds within a very limited range only, making it necessary to take time exposures of 2 and more seconds at "B" setting (→ table at right).

In practical use, these time exposures can easily be calculated by doubling the exposure time for each smaller diaphragm opening. After reading "B", the light value indication will change when stopping down further, but is no longer used in this range.

Film Sensitivity
Subject brightness
→ **Light Value** → **Shutter Speed** ← Sharpness of Moving Objects (→ page 19)
Diaphragm ← Depth of Field (→ page 20)

The **exposure table** with its light values has been designed for use with most often met with lighting conditions and serves to prevent serious errors. In difficult cases or for greatest accuracy, it is advisable to make use of a photo-electric exposure meter. If the meter is not calibrated for light values, shutter speed and diaphragm scales are set separately. Thus the correct light value will be indirectly ascertained and changes to other combinations may be easily and quickly made in the previously described manner.

General Exposure Rule: It is not always possible to pair a sufficiently fast shutter speed (to minimize effect of subject motion) with a small diaphragm opening (for greater depth of field). Obviously a compromise is required and it would be well to remember that under-exposure results in hopelessly lost shadow detail, whereas over-exposure may be compensated for to a great extent by proper processing. Therefore: a good general rule for exposure:

> Always expose for the **shadows**, rather a bit **more** than too little!

Speed of Photographic Emulsions

(Comparison values approximated)

ASA (BS)	DIN	Weston	General-Electric	Scheiner (Europe)
8	10/10	6	9	21
10	11/10	8	12	22
12	12/10	10	15	23
16	13/10	12	18	24
20	14/10	16	24	25
25	15/10	20	30	26
32	16/10	24	36	27
40	17/10	32	48	28
50	18/10	40	60	29
64	19/10	50	75	30
80	20/10	64	100	31
100	21/10	80	120	32
125	22/10	100	150	—
160	23/10	125	200	—
200	24/10	160	250	—
250	25/10	200	300	—
320	26/10	250	400	—
400	27/10	320	500	—
500	28/10	400	600	—
650	29/10	500	800	—
800	30/10	650	900	—
1000	31/10	800	1200	—

Explanations of the Picture Examples:
A: High mountains (snow) without foreground. Open beach. – B: Sport scenes. Bright streets and squares, open landscapes. – C: Landscapes with foreground. Groups in open air. – D: Groups in shade. Street scenes with shade. – E: Groups under trees, lightly shaded. Groups in glassroofed halls.

The Exposure Table

Subject brightness is easily judged and classified by means of the five standard lighting conditions represented by two illustrations each at the top of the table.

Film speed is indicated at the left by ASA figures and at the right by 1/10° DIN values.

Light value is found where brightness and film speed columns cross.

Light value adjustment, due to overcast sky or when sun is lower in the sky, is made by use of lower scale. Upper scale: full sunshine — lower scale: overcast sky. The length and intensity of your own body's shadow will give some idea of light conditions. The ability to estimate and choose the correct light values for various lighting conditions and time of day will soon come when you begin working on sunny and cloudy days.

Example: Color film 25 ASA (15/10° DIN), landscape with foreground, sunny, noontime (shadows short, no light value adjustment): light value 11. Available speed-diaphragm combinations: 1/125—f:4, 1/60—f:5.6, etc. Same subject in the afternoon, longer shadows, would require adjusted value, perhaps 11—1 = 10.

Speed of Moving Subjects and Shutter Speeds

	Miles per hour approximately																		
	3 mph			6 mph			12 mph			30 mph			60 mph			120 mph			
Example:	Pedestrians			Runners Moving air			Bicycles Windy			Light Athletics Stormy Surf			Automobiles Railway Trains Racing			Motor Racing			
40		1/30	1/60	1/30	1/60	1/125	1/60	1/125	1/250	1/125	1/250	1/500	1/250	1/500		1/500			50
15	1/30	1/60	1/125	1/60	1/125	1/250	1/125	1/250	1/500	1/250	1/500		1/500						25
8	1/60	1/125	1/250	1/125	1/250	1/500	1/250	1/500		1/500									12
4	1/125	1/250	1/500	1/250	1/500		1/500												6

Distance (yards) — Distance (yards)

Moving Objects require short shutter speeds in order to be reproduced sharply. For this purpose the table contains computed minimum values, depending on the factors: speed, distance and direction.

Taking distance: the yard column on the left stands for sufficient sharpness (f/1400), the yard column on the right for increased sharpness (f/2000). In spite of these normally correct figures, it is often possible in actual photography to use longer shutter speeds. This is because the eye interprets slight unsharpness as giving an added impression of speed.

Long arrow = direction of movement.

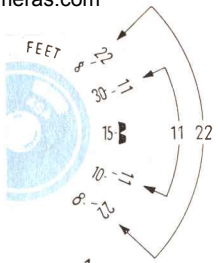
A short arrow = taking direction (→ up to 10°, ↗ up to 30° and ↑ up to 90° to the direction of movement).

Depth of Field Indicator

Both before and behind the plane of sharp focus there is always a relatively sharp zone. The width or depth of this zone can be artfully increased. It increases in depth when either closing down the lens or moving back from the object on which you have focused. Therefore it is evident that if the subject requires an extended depth of field, it is necessary to change the shutter speed-diaphragm combination to one with a smaller stop or to move back with the camera.

The Depth of Field Indicator consists of the special diaphragm scale located next to the distance scale and the distance scale itself. Two stroke marks outline the zone covered by each diaphragm opening. The marks are located on either side of the distance indicator ▼, showing "before" and "behind" focus. Stop f:3.5 is represented by the white center area and f:5.6 by dots.

To Use: To find the limits of the depth of field, both before and behind the principal plane of focus, after focusing and after choosing the diaphragm opening. The beginning and end of the depth of field is read off on the distance scale. The sharp area lies between the distances bracketed by the marks extending from the diaphragm opening figure.



1. Example: focusing to 15 ft with diaphragm opening 11 gives a depth of field from 10 ft to 30 ft approx., focusing to 15 ft with diaphragm opening f : 22 gives on the other hand a depth of field from 8 ft to ∞ approx. (Stopping down improves the depth of field.) Considerable stopping down necessitates greatly increased exposure time. To obtain depth of field with the largest possible diaphragm opening, a different method of focusing must be employed:

2. Example: the subject requires sharpness from 7 ft to 10 ft. (Other distances, if unknown, can be read directly off the scale after focusing separately to the limits required). Procedure: the focusing knob is turned until both footage values are located opposite identical diaphragm openings, and in this way the most favourable diaphragm opening is obtained, in this case f:8.

Depth of Field Table (Distances in Feet). Use top of column diaphragm openings when enlarging from full format size (permissible disc of confusion 1/1400 of focal length), bottom of column diaphragm openings for pictures taken on reduced size negatives (permissible disc of confusion f/2000).

Diaphr.		4	5.6	8	11	16	22
Taking distance (in feet)	∞	141′—∞	86′—∞	61′—∞	43′—∞	31′4″—∞	21′6″—∞	15′7″—∞
	60′	42′—105′	35′—198′	30′3″—∞	25′—∞	20′7″—∞	15′10″—∞	12′4″—∞
	30′	24′9″—38′	22′3″—46′	20′2″—59′	17′8″—99′	15′4″—∞	12′6″—∞	10′3″—∞
	20′	17′6″—23′4″	16′3″—26′	15′1″—29′8″	13′8″—37′	12′2″—55′	10′4″—290′	8′9″—∞
	15′	13′7″—16′10″	12′9″—18′2″	12′1″—19′10″	11′2″—23′	10′—29′8″	8′10″—50′	7′8″—350′
	12′	11′1″—13′2″	10′6″—13′11″	10′—14′8″	9′5″—16′8″	8′8″—19′6″	7′8″—27′1″	6′10″—52′
	10′	9′4″—10′10″	9′—11′5″	8′7″—12′1″	8′2″—13′2″	7′7″—14′10″	6′10″—19′	6′1″—27′5″
	8′	7′7″—8′6″	7′5″—8′10″	7′2″—9′2″	6′10″—9′9″	6′6″—10′7″	6′—12′5″	5′5″—15′8″
	7′	6′8″—7′4″	6′6″—7′7″	6′5″—7′10″	6′1″—8′3″	5′9″—8′10″	5′5″—10′1″	4′12″—12′1″
	6′	5′9″—6′3″	5′8″—6′5″	5′6″—6′7″	5′4″—6′11″	5′2″—7′4″	4′9½″—8′1″	4′5½″—9′4″
	5′	4′10⅛″—5′2″	4′9″—5′3″	4′7⅛″—5′5″	4′6⅜″—5′7″	4′4½″—5′10″	4′1⅝″—6′4″	3′10¾″—7′1″
	4′	3′10¾″—4′1¼″	3′10⅛″—4′2″	3′9⅜″—4′2⅞″	3′8⅜″—4′4¼″	3′7¼″—4′6″	3′5⅜″—4′9⅜″	3′3⅜″—5′2″
	3.5′	3′5⅛″—3′6⅞″	3′4⅝″—3′7½″	3′4″—3′8⅛″	3′3¼″—3′9⅛″	3′2⅜″—3′10½″	3′1″—4′⅞″	2′11⅜″—4′4⅛″
	3′	2′11⅜″—3′⅝″	2′11″—3′1″	2′10½″—3′1½″	2′10″—3′2¼″	2′9⅜″—3′3⅛″	2′8¼″—3′4¾″	2′7⅛″—3′6⅞″
Diaphr.		3.5	5.6	8	11	16	22	

Rolleinars 1

Depth of field, Reproduction Size, Field covered

Scale of focus in feet	Depth of field (in inches) behind / in front of the object with diaphragm					Reproduction Size approx.	Field covered (sq. in.):
	5,6	**8**	**11**	**16**	**22**		
∞	3 15/16″ / 2 3/4″	4 23/32″ / 3 3/4″	6 11/16″ / 5 1/8″	10 5/8″ / 6 29/32″	16 1/8″ / 8 21/32″	1 : 13.5	29 1/2″ x 29 1/2″
30'	2 11/16″ / 2 9/32″	3 3/4″ / 3 1/8″	5 11/32″ / 4 1/16″	8 1/16″ / 5 27/32″	12 5/8″ / 7 17/32″	1 : 12	26 3/8″ x 26 3/8″
12'	1 27/32″ / 1 23/32″	2 23/32″ / 2 15/32″	3 15/16″ / 3 7/32″	6 7/32″ / 4 13/32″	9 1/16″ / 5 29/32″	1 : 10.5	23 1/4″ x 23 1/4″
8'	1 1/2″ / 1 3/8″	2 5/32″ / 1 15/16″	3 1/8″ / 2 9/16″	4 7/8″ / 3 17/32″	7 5/32″ / 4 11/16″	1 : 9	20 1/8″ x 20 1/8″
6'	1 3/16″ / 1 3/32″	1 27/32″ / 1 21/32″	2 9/16″ / 2 1/8″	3 15/16″ / 2 7/8″	5 29/32″ / 3 15/16″	1 : 8	17 3/8″ x 17 3/8″
4'	29/32″ / 25/32″	1 5/16″ / 1 3/16″	1 25/32″ / 1 1/2″	2 3/8″ / 2 3/16″	3 5/8″ / 2 3/4″	1 : 7	13″ x 13″
3.5'	25/32″ / 21/32″	1 3/16″ / 1 3/32″	1 9/16″ / 1 5/16″	2 5/32″ / 1 15/16″	3 7/32″ / 2 15/32″	1 : 6	15 3/8″ x 15 3/8″

Depth of field, Reproduction Size, Field covered

Scale of focus in feet	Depth of field (in inches) behind / in front of the object with [diaphragm				Reproduction Size approx.	Field covered (sq. in.):
	8	**11**	**16**	**22**		
∞	1 3/32″ / 1 1/32″	1 9/16″ / 1 11/32″	2 3/8″ / 1 7/8″	3 3/8″ / 2 17/32″	1 : 6.5	14 5/8″ x 14 5/8″
30'	31/32″ / 29/32″	1 3/8″ / 1 1/4″	2 3/32″ / 1 11/16″	3″ / 2 9/32″	1 : 6.3	13 3/4″ x 13 3/4″
12'	27/32″ / 3/4″	1 3/16″ / 1 3/32″	1 13/16″ / 1 15/32″	2 9/16″ / 2″	1 : 5.8	12 5/8″ x 12 5/8″
8'	3/4″ / 21/32″	1 1/32″ / 31/32″	1 9/16″ / 1 5/16″	2 7/32″ / 1 25/32″	1 : 5.4	11 3/4″ x 11 3/4″
6'	21/32″ / 19/32″	29/32″ / 27/32″	1 3/8″ / 1 5/32″	1 15/16″ / 1 9/16″	1 : 4.9	10 5/8″ x 10 5/8″
4'	17/32″ / 1/2″	23/32″ / 11/16″	1 3/32″ / 15/16″	1 9/16″ / 1 1/4″	1 : 4.5	9 7/8″ x 9 7/8″
3.5'	1/2″ / 7/16″	11/16″ / 5/8″	31/32″ / 29/32″	1 7/16″ / 1 5/32″	1 : 4	8 5/8″ x 8 5/8″

Circle of confusion = 1/100 of the focal length f = 75 mm

Example: If the focusing mark, after focusing, is at 12″ then one obtains at diaphragm 22 a depth of field of 2 9/16″ behind and 2″ in front of the sharply focused object and the total zone of sharpness extends 4 9/16″. With this setting field covered is 12 5/8″ x 12 5/8″. The scale of reproduction is 1:5.8 of the actual size.

Flashlight Technique

In modern flashlight technique the camera shutter takes over the task of firing the bulb electrically at the right moment. In this way instantaneous flash exposures are possible with a hand-held camera.

The Synchro-Compur shutter in the Rolleicord is, for this purpose, equipped with electrical contact. The contact may be adjusted to the required delay of the flash lamps by means of the Synchro-lever:

When Synchro Lever is set	**M**	**X**
Proper contact * is	M-Contact	X-Contact
Source of flash	**Flash bulbs** and electric firing flash powder (capsule flash)	**Electronic flash** and some flash guns with short duration of flash
* Time of contact is	16.5 thousandths of a sec. before shutter is half opened	Immediately before full shutter opening

The M contact stands for **full synchronization** for flash bulbs with a firing delay of 16.5 thousandths of a sec. The fastest shutter speeds up to 1/500 sec. can be used. Because of the delayed contact, the shutter always opens to catch the greatest volume of the light.

Selection of M-X lever position, applicable speed range and exposures can be learned from the instructions of the different flash light products. For the best known makes the table on page 26 contains the necessary information and the permissible shutter speeds.

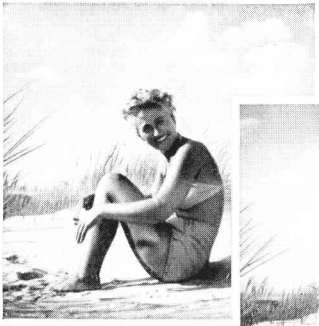
All commercially available flash guns and electronic flash units may be used. Current-carrying capacity of the contact when several flash lamps are connected simultaneously: 10 ampères at 24 volts for a period up to a maximum of 1/15th sec. For safety reasons one pole of the contact is grounded to the camera body (isolation-test: 700 volts).

The selection of flash lamp-type depends on the light output required by the subject. Many makes are available in three groups (normal, medium and high light output). The selection is dependent on the taking conditions, especially as to whether a room of shallow or great depth is to be illuminated.

The power of flash illumination decreases according to the square of the distance: i. e., an object six feet away receives only one-fourth the light as an object at three feet. Distance from flash to subject must therefore be carefully considered in selecting diaphragm opening. Lamp manufacturers supply easy to use guide numbers which are divided by the distance in feet to obtain the required diaphragm opening.

When using the built-in self-timer, only X-contact is employed. It is best to use 1/30 sec. with this contact setting for most lamps.

Flash as fill-in light: useful in brightening shadows whether due to insufficient illumination or to the



Sun

Sun + flash

fact that the picture is being taken "against-the-light", in full sunlight. The fill-in light must be kept at a lower intensity level than the main source of illumination, otherwise the strong flash will give an unnatural effect, not at all like daylight. Too strong a flash might even cause an apparent underexposure of the sky or the area not reached by the light. Electronic flash units are particularly well suited for use as fill-in lights when shooting color sports pictures. Use smaller lamps or keep them at greater distance.

Flash Contact and Permissible Shutter Speeds

FLASH LIGHT SOURCE		Contact	Shutter Speed: Fastest — Slowest **Recommended**
Make	Type		
I. Electronic Flash	Without Relay (1/2[illegible])	**X**	1/500 **1/250** 1
II. Flash Lamps			
General Electric Westinghouse	SM	**X**	
Sylvania	SF (1/200)		1/60 **1/60** 1
West, Japan	SM, SF, SS		
General Electric	M 2	**X**	1/30 **1/30** 1
West, Japan	2 M, 12 (100)		
Osram	XM 1, XM 5	**M**	
Philips (Mazda)	PF 1, PF 5		
General Electric Westinghouse	5, 8, 11, 22		1/500 **1/60** 1
West, Japan	0, 3, 5, 11, 22		
Sylvania	Press 25, 40, 0, Bantam 8		
	2	**M**	1/125 **1/60** 1
Philips (Mazda)	PF 60, PF 100	**M**	
General Electric Westinghouse	50		[illegible] **1/30** 1
Sylvania	3		
General Electric Westinghouse West, Japan	6, 31	**M**	1/250 **1/30** 1
III. Capsule Flash	Average	**M**	1/125 **1/30** 1

Explanation of the Table

The "Contact" column indicates the correct setting of the M-X lever for each lamp type.

The "Shutter Speed" column shows the permissible speed range:

Center: the recommended shutter speed includes practically the entire light output of the flash lamp. This assures the maximum illumination as well as the **smallest** diaphragm (for greater depth of field). The following applies as a general rule:

> Use the standard recommended speed together with the correct setting of the M-X lever for the lamp in use.

Left: the fastest speed indicates the limit to which the shutter may be set. For lively action or sports subjects, the faster speeds are employed.

Right: the exposure time may be increased to the slowest speed (1 second or even time exposures), if, in addition to the flash, it is desired to make use of existing light. In such cases the total amount of light from all sources must be considered in choosing the diaphragm opening.

The Effective Exposure Time (as indicated in the table by means of colored ink) is not in each case identical to the shutter speed, but depends on the portion of the flash lamp light output utilized:

1. With X-Contact the duration of the flash itself is actually shorter than any of the permissible shutter speeds. Therefore, the light duration of the flash (specified in parenthesis after the make) will be the actual, constant exposure time so that the selected diaphragm opening must be maintained even when using slower shutter speeds.

2. With M-Contact the shutter speeds, from "fastest" to "recommended" fall within the duration of the flash: they therefore represent the actual exposure time and if the shutter speed is increased, the diaphragm must be opened accordingly. Only when slower shutter speeds are employed is the fully utilized light output equal to the actual exposure time, and this is the same as the recommended speed.

The illustration should make the utilization of the available flash light still more obvious: the white symbols represent the flash, and their size, the utilized light at the shutter speed employed.

TIPS ON PICTURE-TAKING

Portraits

Large heads: do not work closer than 40 inches to avoid possible perspective distortion. Use smaller picture taking format or enlarge from a smaller section. Focus on the eyes. Use quiet, neutral colored backgrounds and do not stop down too much (f: 5.6) so as to keep backgrounds from intruding. If possible, move subject away from background. Out of doors, try using sky as only background. For portraits with panchromatic film in the open air, choose a soft lighting, preferably in the morning or late afternoon. Favor soft light, avoid deep shadows. If necessary, light up the shadows with an aluminium foil — covered cardboard used as a reflector, or with flash. You can sometimes make effective use of light walls, clothing and snow as reflectors. Simple, proven artificial light procedure: lamp No. 1 next to camera somewhat above head level, lamp No. 2 on the side to lighten shadows. For special effects, lamp No. 3 as overhead or back-light. Important: use lens hood. Moisten lips (highlights!). To reduce sharpness and add "glamor": Rolleisoft (soft diffusion disc) 0 or 1 (stronger) over lens. Use larger diaphragm openings and backlight for sunny effects.

Children

Never use force, watch for interesting effects and expressions carefully. A clever assistant to divert children's attention from camera is often a valuable aid. Try close-up shots of children's expressions as they listen to favorite or exciting stories. Laughter, astonishment, pity and even an occasional yawn provide wonderful material for good shots or picture series. For close-up shots use same technique as for portraits. For children in motion, use snapshot technique outdoors and flash indoors. Low viewpoints and close-up effects are best.

Animals

Patience, quietness and familiarity with the animal and its peculiarities are great assets. Close-up pictures are most rewarding; use portrait technique. Make use of natural light effects such as backlighting. Action pictures: use snapshot or sport technique (with flash, if needed). Rolleinars are often helpful with small animals. Zoo: animal portraits — avoid bars or netting. Hint: netting often becomes invisible when lens nearly touches wire. — Fish in aquarium: use side and overhead lighting in otherwise darkened room. A good trick is to limit movement of fish within sharp zone by means of vertical glass plate in tank.

Landscapes

Focusing for distant views with foreground may be accomplished simply without using ground glass except for viewing: set infinity mark (∞) opposite diaphragm opening used — second corresponding diaphragm mark will indicate nearest point in focus. Example: ∞ at f : 11 — sharp area ∞ to 17 ft (5 meters).

Use of Filters is important in black and white shots to separate and emphasize the tones of the dominant colors, such as those of the blue sky, green foliage and yellow grain fields. Specific changes in the atmospheric mood of the picture can also be effected.

1. Blue Sky with Clouds: yellow filters darken blue skies and thus improve the reproduction of clouds. The deeper the color of the filter, the stronger and more dramatic the effect. Blue snow shadows are also rendered truer to tone. The green filter tones down the sky, brightens foliage and darkens the occasionally too lightly rendered reds (with pan film) such as sun-tanned flesh and red tile roofs. For filtering the sky but not the landscape: the Rolleipol filter darkens the blue sky only by eliminating the polarized light.

2. Haze and Mist: the blue filter, useful for pictorial effects, increases hazy effect. The orange or red cut through and improve the clarity of distant views. The blue filter reduces contrast, the red or orange increase brilliance. Maximum penetration of light haze is obtained with infra-red film and infra-red filter (700 mμ). Barely visible mountain chains are reproduced clearly. An odd effect with this combination is that green leaves are rendered almost white. Using filters for better cloud rendition is of no use in really bad weather when there is a good deal of moisture in the air.

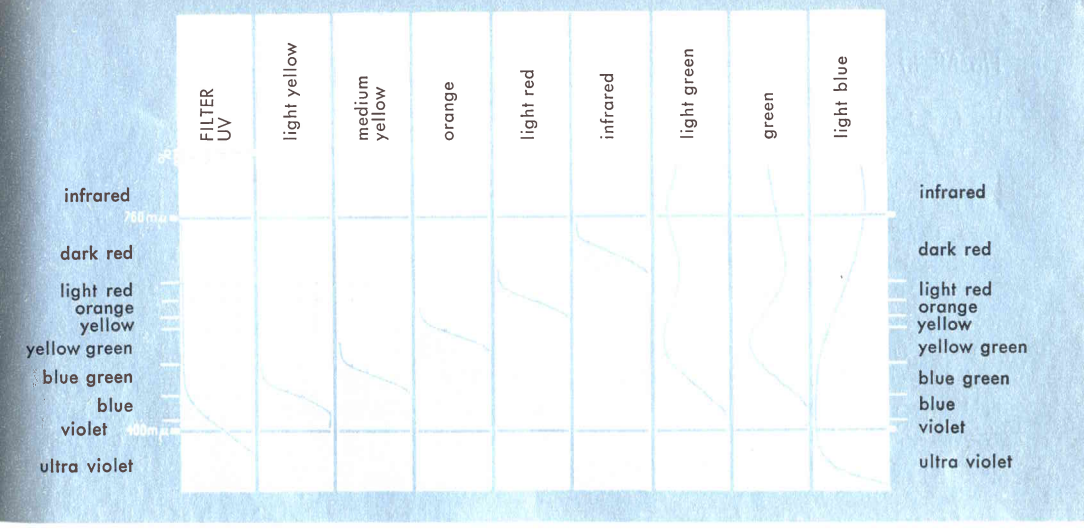
3. Sea, Beach, Mountains: strong ultra-violet rays must be absorbed through use of UV filter. Results will otherwise be dull. The H 1 filter serves the same purpose for daylight-color film. Reduction of the bluish cast is quite marked. When color temperatures drop (cloudless blue sky, with sun to the side and also in the shade): use color conversion filters of R group (→ page 33). When in doubt, use the weaker filters.

Picture Composition Rules: distant views are generally better if foreground contains (for added depth impression) trees, people, animals, etc. Foliage is often used as a frame for the distant view. Focus should be sufficiently sharp in the foreground. Strong effects are created when deep shadows in the foreground are set against the lighter distance. Side lighting or even back lighting give the most impressive pictures.

Rollei filters for black and white shots

Special compensation factors for light values are given when using filters, and these may be varied to suit type of film and lighting conditions.

Rollei Filter	Light value compensation		Application and effect
	Pan	Ortho	
Light yellow	—1	—1.5	Landscapes, snow, clouds. Renders yellow and green lighter, blue darker.
Medium yellow	—1.5	—2	
Light green	—1	—1.5	Landscapes, snow, clouds. Renders green lighter, red (complexion) and blue darker. For pan emulsions.
Green	—1.5	—2	
Orange	—1.5 to —3		Hazy distant views. Renders yellow-red lighter, blue darker, distant objects clearer.
Light red	—2 to —3.5		Hazy distant views. Gives stronger effects than orange filter.
Light blue	—0.5	—0.5	Artificial light. Renders red darker. For ultra-pan emulsions.
UV	—0.5	—0.5	High altitudes above 6000 feet. Seascapes. Eliminates ultraviolet rays which reduce contrast.
Infra-red	Exposure depends on the type of emulsion		Special filter for infra-red emulsions. Transmits dark red above 700 mμ and infra-red.
H 1	—		UV-Filter, especially designed for long distance color photography. Absorbs ultra-violet rays, subdues predominance of blue and cuts aerial haze in distance shots.



The filter curves
show the absorption of the various Rollei filters in the spectral ranges ultra-violet, visible spectrum blue to red (appr. 400—760 mμ), and infrared. This means: darker portion of the spectrogram = absorbed light; lighter portion = useful light. The light-transmission of the filter from the lowest point to the peak point of the curve thus increases from 0 to 100 %. While the UV filter cuts out the short wave ultra-violet portion of the spectrum, the green filter absorbs a substantial portion of the long wave red and infrared range.

Flashlight

Use fresh batteries. Condenser or capacitor flashguns are more consistent since lamp ignition is somewhat less dependent on battery power (Rolleiflash). Be sure that the contacts of the battery and lamp sockets are clean. Handle flash cable with care, avoid kinking, otherwise there will be danger of short-circuit and premature flash ignition. — Note: the contact must n o t be connected to house current! Blue flash lamps, like electronic flash, simulate daylight and are intended for use with daylight color film. Flash as main light source: do not take weak room illumination into account, expose strictly according to flash output. To light up long rooms or to achieve special illumination effects, one or two Rolleiflash comb. extension units may be connected to the Rolleiflash. Connecting cords adding up to a total length of 33 feet (66 feet with fresh battery) may be used. After attaching the cable: Put flash bulbs in Rolleiflash f i r s t and t h e n in Rolleiflash comb. In order to conserve the battery: Insert the flash bulbs a short time before shooting. Detach the cable to Rolleiflash when not using.

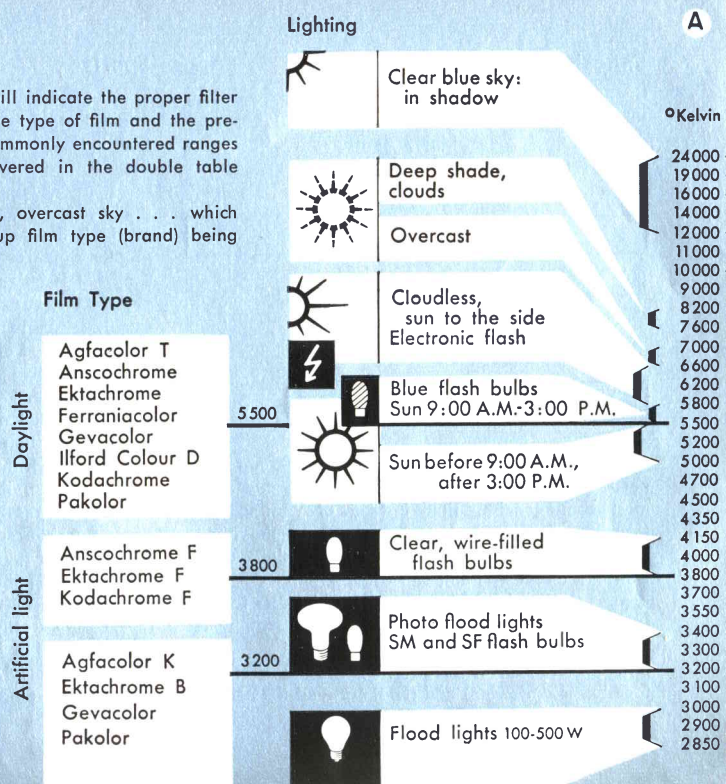
Color Shots

Use extreme care in exposure when strong light contrasts prevail. In case of doubt take three shots, using the same shutter speed but varying the diaphragm a half-stop on each side of the estimated exposure. Make a note of the exposure data for future aid when facing similar conditions. The slightly longer exposure will result in lighter, more transparent colors in the slides, while the shorter exposure will result in deep color effects. You may of course set the meter for a lower film sensitivity when a longer exposure is desired and for a higher DIN/ASA rating when the opposite would be better. Critical workers will carry out such a test before going on vacation and then use a batch of film with the same emulsion number. Color films should be developed as soon as possible since storing exposed films adversely affects the colors. Color conversion filters can be used to correct for the deviations that occur in daylight or studio illumination. The Rolleipol filter is used to diminish reflections and to control the tone of the blue sky (page 29). Subjects with large plane areas are generally most pleasing; close-ups are most rewarding. Do not choose subjects displaying a conglomeration of harsh colors.

Color Conversion Filters

Modern color temperature meters will indicate the proper filter to use, taking into consideration the type of film and the prevailing light conditions. The most commonly encountered ranges of color temperature are also covered in the double table A + B, pages 33 and 35.

Example: Ektachrome daylight film, overcast sky . . . which filter? Solution: 1. **Film** — Look up film type (brand) being used. (Ektachrome—daylight = upper part of page), follow the appropriate guide line to edge of page (5500° Kelvin), slide page 33 to the left until guide line A (5500° K) and B (page 35) meet. Hold pages in this position! 2. **Lighting** — Observe the type of lighting and its color temperature range (overcast = 6600—7000°). 3. **Filter** — Select the filter indicated opposite the correct temperature range (in this case, R 2). Note that table B gives correction for light value (— 0.5) and the increase in required exposure (1.5 times). The guide lines hereunder listed require sliding page 33 somewhat further to the left.



Snapshots

Unexpected picture opportunities or rapidly changing subject distance make a simplified technique, based on depth of field zones, highly desirable. The following three settings have been found very effective:

1/125 sec.	Diaphragm opening f:8	
Short distances approx. 9 to 18 ft	Medium distances approx. 13 to 33 ft	Long distances approx. 18 to 100 ft
12 ft	20 ft	30 ft

Shutter speeds and diaphragm openings do not often need changing in sunlight. Those suggested cover most contingencies. Thus instead of wasting time focusing when in a hurry, use one of the above settings. This snapshot technique is especially useful with the direct viewfinder. Further closing down increases depth of field (→ page 21). Chief uses for this technique: groups in motion, street scenes, playing children, reportage, sports. For unobserved snapshots: turn camera 90 degrees (using ground glass for focusing and viewing) and shoot "around the corner".

Sports

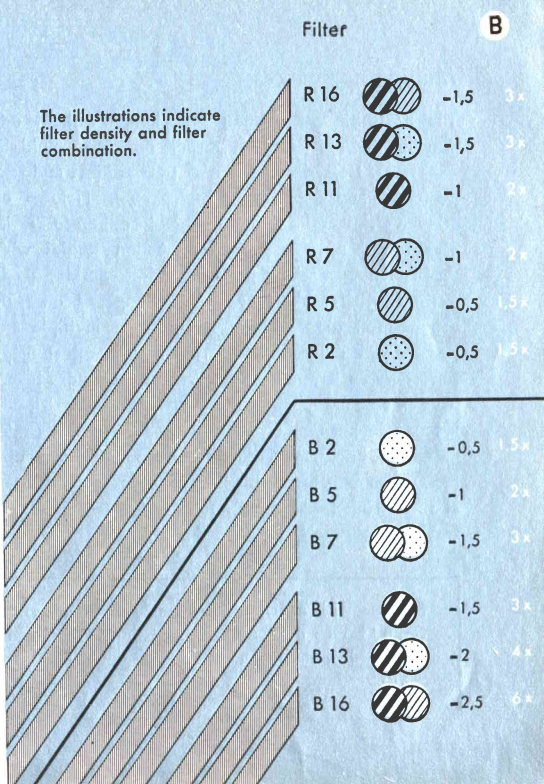
Sports pictures are generally most effective when the original rapid motion has been sufficiently "arrested" and the subject remains well defined. The fastest shutter speeds are essential, together with careful focusing. Sometimes pre-focusing on the spot where the action is to take place is possible. Do not overlook the possibilities of training sessions, since greater cooperation can often be had at such times. Snapshot technique is valuable for turf and ice shots and for any case when it would be difficult to guess exactly where to focus. Shots of distant sport scenes: take advantage of telephoto effect when working with smaller negative sizes. Watch your shutter speeds and viewing angle. Shooting at right angle to the direction of the action requires a much faster speed than when the action is going in other directions (see table page 19). If the action is very fast or takes close to the camera, it is best to pan or follow with the camera. This results in a sharply rendered main object against a blurred background, thus increasing the impression of speed. There is often a fine moment for shooting when the action reaches a peak and stops momentarily, such as when a pole-vaulter "hits the top" before starting to come down again. With insufficient light or indoors use synchro-flash and 1/500th sec. The extremely short duration of electronic flash is highly desirable in some instances.

Care of the Rolleicord

A precision camera demands care in handling. Protect it against moisture, dust, sand, strong sunshine, hard blows or falls. First safeguard: the ever ready case. Proper camera protection is especially important on expeditions, in the tropics and for water sports. Use the metal ever ready case which is air-tight when closed and capable of floating. It provides sure protection against dust, humidity, splashes, windblown sand and blizzards. Carry camera around neck to minimize transportation shocks. Keep all parts clear and clean lenses with a soft camel's hair brush or doeskin. Although the mechanism is not unduly sensitive to cold, some condensation may form on the lenses when the camera is brought into a warm room from outside in cold weather. Do not wipe off — let moisture evaporate.

In Case of Damage to the Rolleicord

The task of repairing major or minor damage is the special province of the expertly trained mechanic. Franke & Heidecke maintain their own special workshop in which all repairs are done with precision at nominal prices. Abroad, apply to photo dealers and factory representatives for full information.



Multiple Exposures

The possibility of cocking the shutter without advancing the film (→ p. 15) permits double or multiple exposures. Here are a few trick possibilities: multiple portrait images of the same person. Pictures of "doubles". Penetrations: technical apparatuses in closed and open presentation. Action studies with flash: moving machine parts in various working positions. Publicity: photographs super-imposed on text, combination photos. Tone separations: multiple exposures with different filters. Time and growth studies: phototropism, crystallisation. When pictures are taken from the same position: completely steady tripod, immovable position of camera. Cable release! Dark, unlighted background simplifies photographing objects which are placed side by side (reduces the danger of interfering background). To facilitate composition, fashion paper masks for ground glass.

Panorama Pictures

As special landscape photos: distant views covering a wide stretch of the horizon are easily possible with the panorama head. Any number of shots, from two to a complete circle (360°) ten may be taken to form a partial or complete panoramic view. Use a sturdy tripod and carefully level the camera by means of the spirit level provided in the panorama head. You may easily include yourself in one of the pictures by means of the self-timer, thus adding interest in the form of a figure when none other is available. Changes in lighting must be considered in making the separate exposures. Fast moving clouds require that the succeeding pictures be made quickly in order to get easily matched joints. There is ample overlapping between each picture to make accurate cutting and joining easy. Of course, the prints should be well matched in tone and contrast as well.

For Use with a Tripod: the camera may be attached by means of the threaded socket on the bottom. C a u t i o n : the length of the tripod screw must not exceed $^3/_{16}$". If longer, employ a washer or spacer to avoid damage to camera. For cameras with continental tripod sockets a reducing bushing is available.

Code:		Code:	
COXEN	Rolleicord V a/Xenar 3.5	ETCOM	Leather Case containing: 1 Lens Hood, 2 Sets of Rolleinar Lenses and your choice of 5 Filters
BEORD	Ever Ready Case		
BEMET	Metal Ever Ready Case		
FODRY	Desiccant Cartridge	ETLEE	Leather Case only
BAOBE	Lens Hood	ETSET	Leather Case containing: 1 Lens Hood and your choise of 2 Filters
	Rollei Filters:		
BAIHE	Light yellow		
BAIMI	Medium yellow	ETSOF	Leather Case only
BALIN	Light green	ETSIX	Leather Case with 6 Color Conversion Filters
BAEEN	Green		
BAORA	Orange	ETVER	Leather Case only
BAUBI	Light red	BLIKA	Flash Connecting Cord 32 in.
BABLA	Light blue	COSUP	16 Exposure Kit 4 x 4; 4 x 5,5 cm.
BAFIR	Infrared		
BASKY	Ultra violet filter	COBAN	24 Exposure Kit 24 x 36; 28 x 40 mm.
BAHAZ	H 1 Filter (UV Filter for Daylight Color Photography)	ROLKI	Rolleikin 3.5
		FOSET	Plate adapter outfit (1 adapter back, 3 slides, 3 cut-film sheaths)
	Rollei Color Conversion Filters:		
BARWO	R 2		
BARFU	R 5		
BAREL	R 11	FOAPT	Adapter Back
BAWOB	B 2	FOSLI	Slide
BAFUB	B 5	FOPLA	Cut-film Sheath
BAELB	B 11	FOCAS	Leather Case for 2 Slides
BATAR	Rolleipol		
BAUNE	Rolleinar Lenses, set 1 (40-18 in.)	FOFOC	Focusing Screen Slide
BADOS	Rolleinar Lenses, set 2 (20-12 in.)	FOFIX	Rolleifix Tripod Head
		FOEAD	Panorama Head
BATNU	Rolleisoft 0	FOGRI	Rolleigrid Lens
BATON	Rolleisoft 1	COREL	Body Release

* to fit Xenar 3.5 bayonet size I.

To avoid errors when ordering accessories please specify camera-number. Full information on the use of Rollei accessories in the booklet "The Practical Accessories".