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Rolleiflex 6003 Professional

User's Manual

Contents

IMPORTANT SAFETY INSTRUCTIONS

When using your photographic equipment, basic safety precautions should always be observed, including the folowing:

Read and understand all instructions before using.

Close supervision is necessary when any appliance is used by or near children. Do not leave appliance unattended while in use.

Care must be taken as burns can occur from touching hot parts.

Do not operate appliance with a damaged cord or if the appliance has been dropped or damaged – until it has been examined by a qualified serviceman.

Position the cord so that it will not be tripped over, be pulled, or contact hot surfaces.

If an extension cord is necessary, a cord with a current rating at least equal to that of the appliance should be used. Cords rated for less amperage than the appliance may overheat.

Always unplug appliance from electrical outlet before cleaning and servicing and when not in use. Never yank cord to pull plug from outlet. Grasp plug and pull to disconnect.

Let appliance cool completely before putting away. Loop cord loosely around appliance when storing.

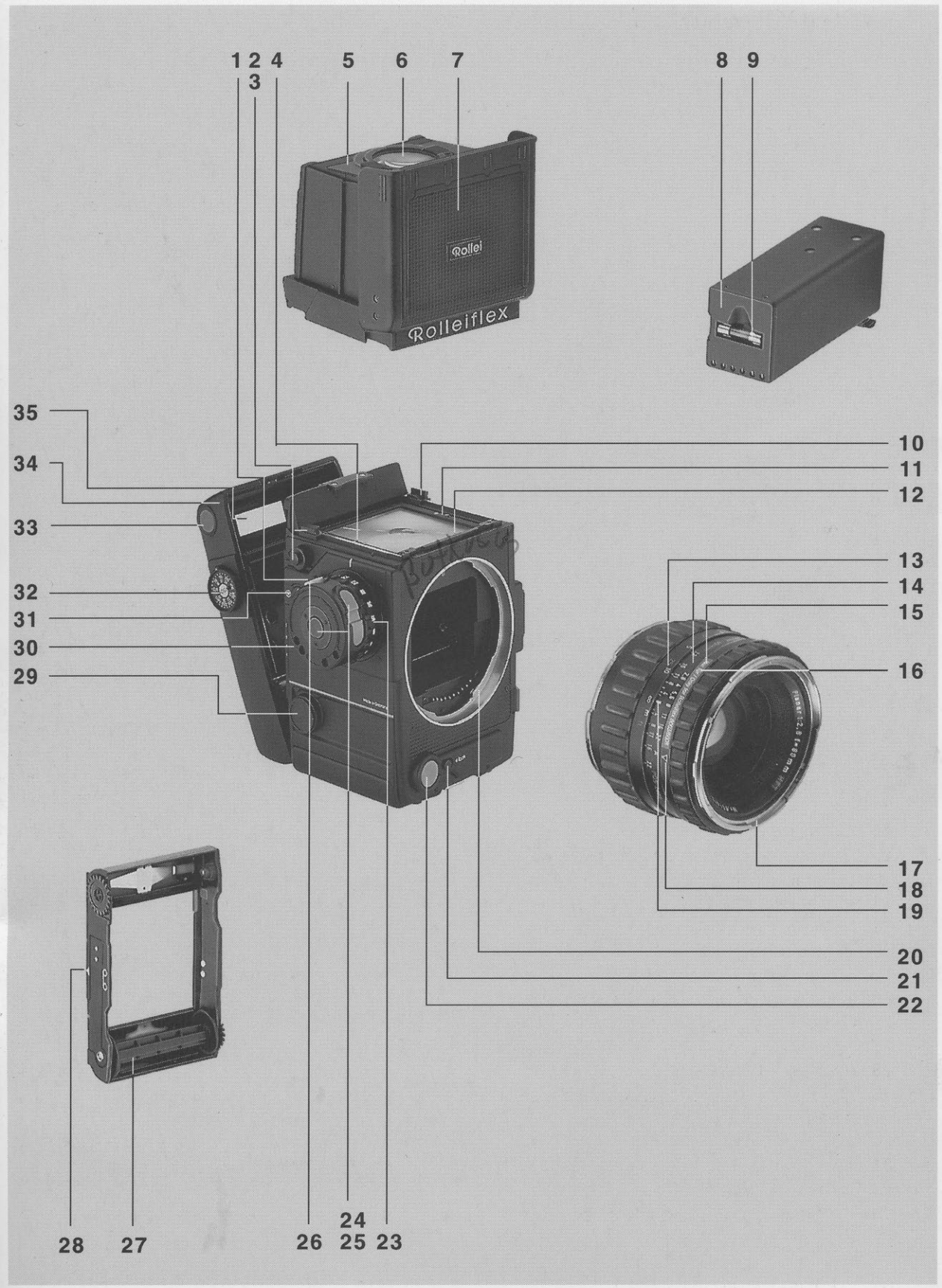
To protect against the risk of electric shock, do not immerse this appliance in water or other liquids.

To avoid the risk of electric shock, do not dissassemble this appliance, but take it to a qualified serviceman when some service or repair work is required. Incorrect reassembly can cause electric shock when the appliance is used subsequently.

The use of accessory attachments not recommended by the manufacturer may cause a risk of fire, electric shock or injury to persons.

Connect this appliance to a grounded outlet.

KEEP THESE INSTRUCTIONS SAFE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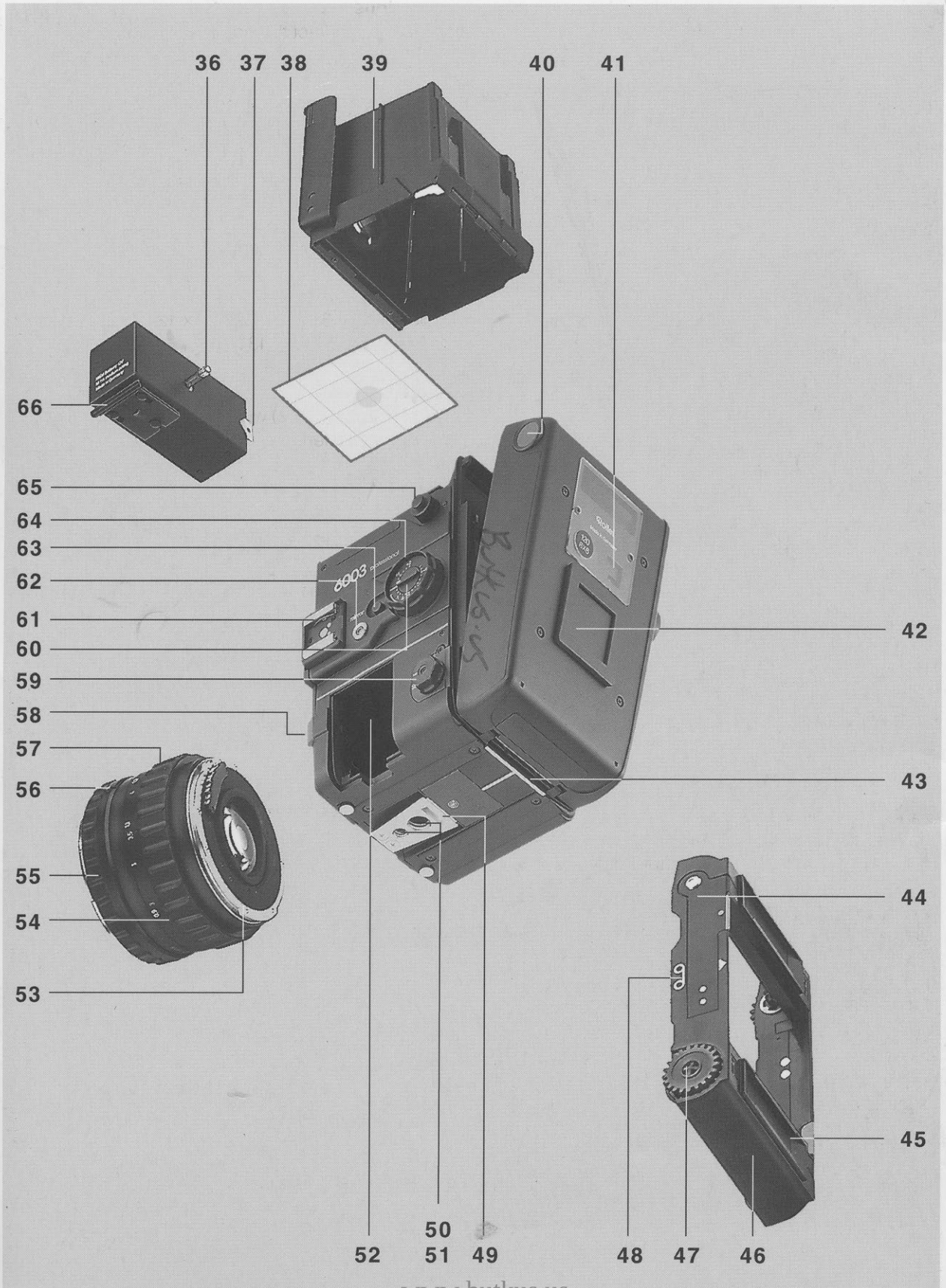

Rolleiflex 6003 Professional

About this Manual

This manual is intended to help you make the most of your Rolleiflex 6003 Professional, providing specific information on camera handling.

After a presentation of components and controls, a brief summary of the main handling points is added for the hurried reader. This is followed by a detailed description, with suitable illustrations, of the main camera features and a step-by-step explanation of relevant operations, from assembling the camera modules right up to removing the exposed film.

Next in line are a number of practical hints and background information as well as notes on the main accessories.

A table summarizes the main data of the interchangeable lenses.

A trouble-shooting guide helps to trace possible problems and handling errors – to which even the seasoned pro is not immune in the excitement of the action – and indicates remedies.

The numbering of the controls and components is consistent throughout the text and illustrations. It is based on the two fold-out picture plates at the front and back. Keep them folded out for easy reference while reading this manual.

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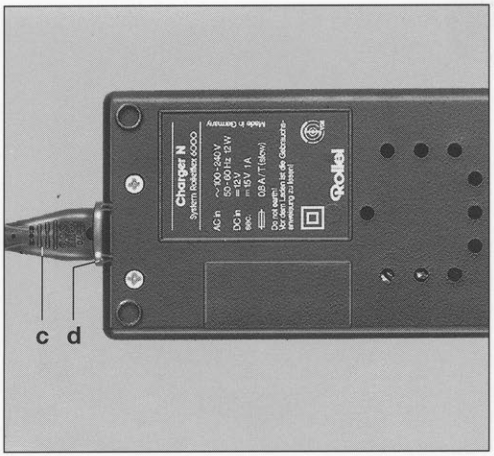
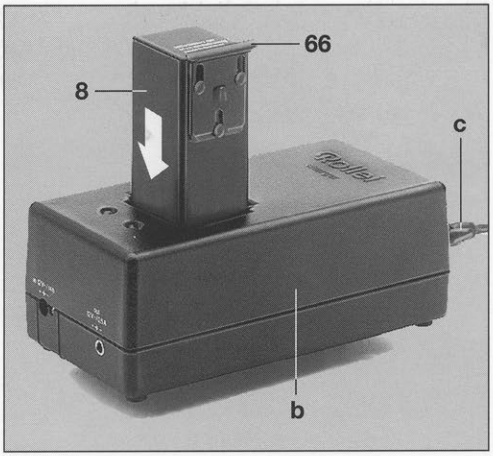




In a nutshell

Read this telegraphic summary for a quick grasp of the major camera controls and operations. To get to know the camera in depth, go to page 10 and read on from there.

Owners of a Rolleiflex 6002/SLX: Do not try to use the camera backs of the Rolleiflex 6003 Professional on a Rolleiflex 6002 or SLX! Conversely, do not use 6002/SLX backs on your Rolleiflex 6003. Leaving this warning unheeded may result in damage to your camera.

Owners of a Rolleiflex 6008: All interchangeable modules of your camera are compatible with the Rolleiflex 6003 Professional.

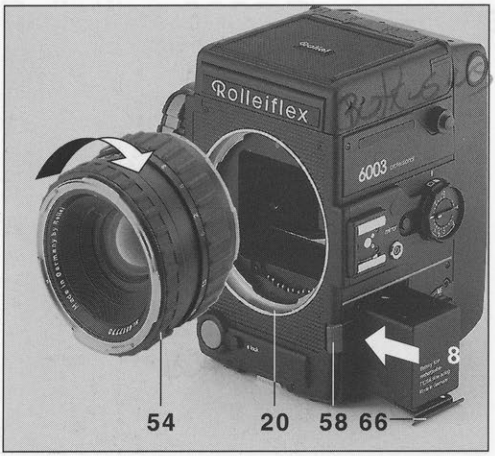
The accessories FM1, ME1 and SRC/MRC 120 are not compatible with the Rolleiflex 6003 Professional.

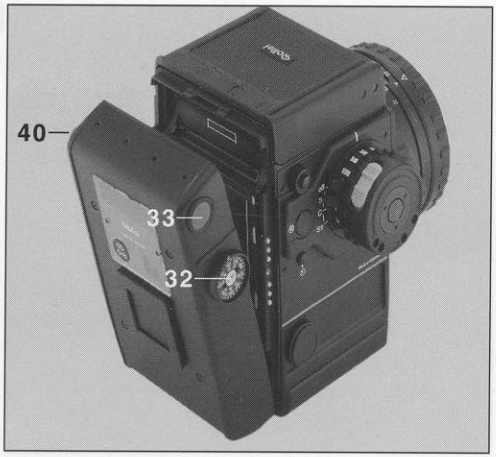
Charge nicad battery

Connect power cable "c" to power socket "d" of charger and to AC outlet. The green LED indicates readiness.

All common AC voltages from 100 to 240 V may be used. Push up battery grip 66, remove battery 8 from camera and insert it in charger in position shown. Charging time: min. 10 minutes, normally 1 hour.

All rechargeable nicad batteries are subject to gradual discharge even without use. To keep the camera always ready for action, be sure to recharge the battery at intervals of about 2 - 3 months even if it is not used.





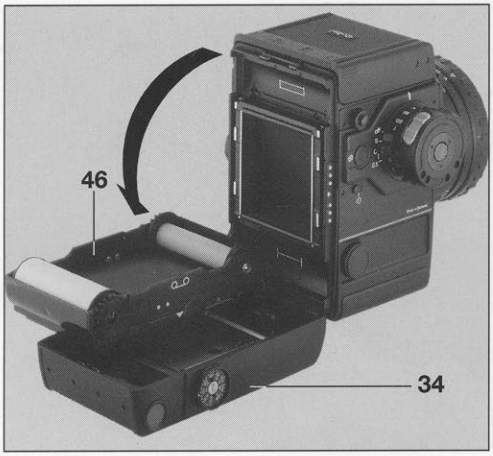
Mount lens
Press red lens release 58 and remove body cap. Align red mark on lens 54 with red dot on bayonet lens mount 20, insert it all the way and turn it fully clockwise.

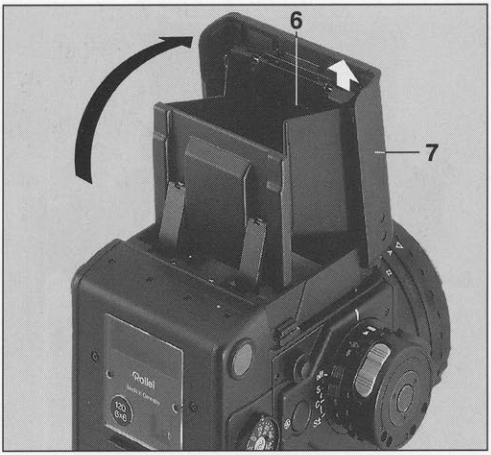
Insert nicad battery
Hold charged battery 8 with grip 66 facing down and insert it fully into camera to engage grip.

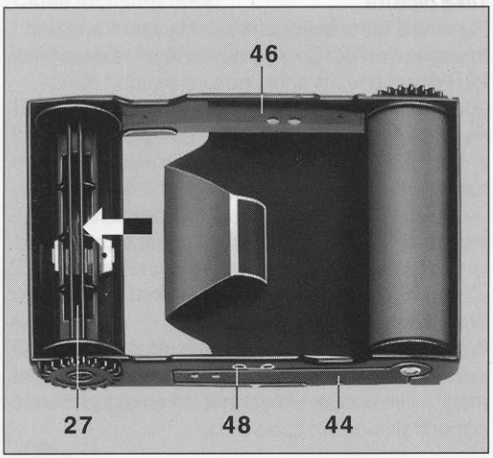
Important note:
The Rolleiflex 6003 Professional will automatically detect and display faulty shutter operation. This includes shutter tripping without a lens or back on the camera. In this case, the shutter release will remain locked for the duration of error display.
See also page 21.

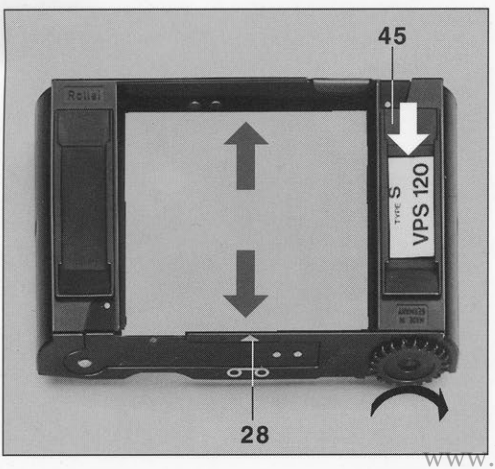
Load film
Press release buttons 33 and 40, open back 34 and remove film insert 46 → page 7, top left. Pull red tab of spring 44 outwards to insert film spool, oriented as marked by symbol 48. Run paper leader straight to empty spool 27, attach and wind up till arrow heads (!) line up with white index 28 → page 7, center and bottom. Insert film-box tab in memo slit 45 (behind full spool) or memo holder 42. Drop film insert into back. Full spool must face ⊨, empty spool ⊢ symbol.

Set ISO film speed on back dial 32. Turn master switch 1 to "S" and press shutter release: Film is now advanced to first frame, and frame counter 41 reads "1". If this fails to appear, press release once more.









Focus
Open finder hood 7, swing up magnifier panel 5 with magnifier 6 and focus by turning focusing ring 57.

Select exposure mode
Aperture-priority AE – Set shutter-speed dial 23 to "A", press lock button 56 on aperture ring 55 and set desired aperture.

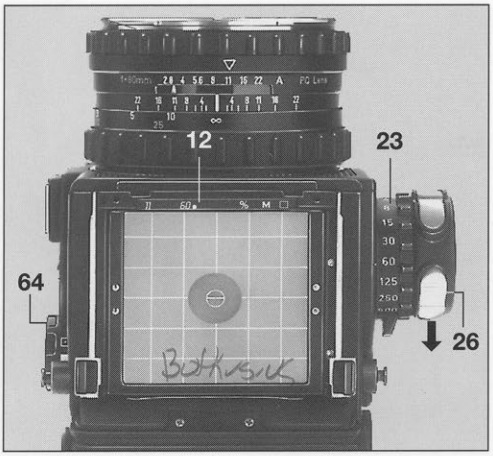
Shutter-speed priority – Turn aperture ring 55 to "A" and select desired shutter speed on dial 23.

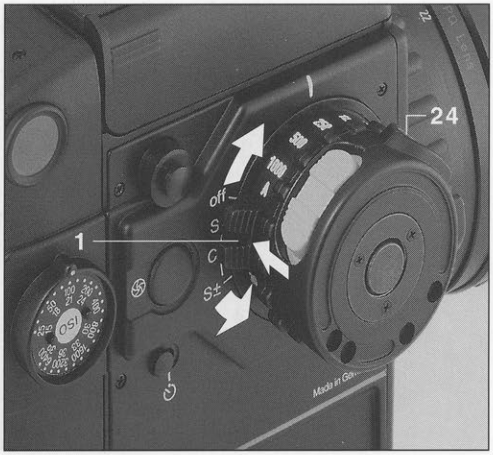
Manual mode – Adjust aperture and/or speed until only green LED stays lit.

Programmed AE – Turn aperture ring 55 and shutter-speed dial 23 to "A". Program works with $^{1}/_{125}$s shutter-speed priority.

Select metering mode
Choose metering pattern by turning selector 64 to one of the following positions:

- ■ Center-weighted multi-zone metering for normal subjects.
- ⊡ Spot metering for difficult lighting conditions.





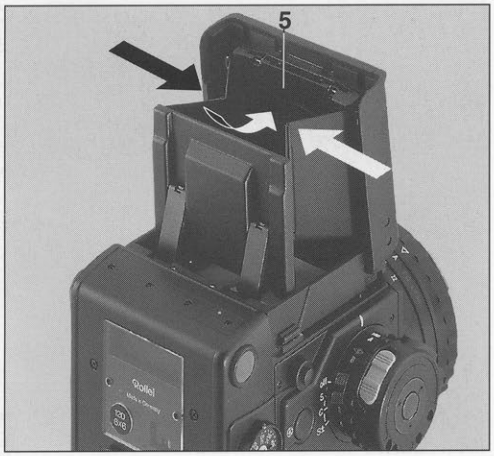
Read exposure
After selecting exposure and metering modes, push meter switch 26 forward. Finder display lights up for about 40 s. Reactivate metering system as often as needed. To store reading, hold button 26 depressed or engage by pulling backwards.

Note finder display
All essential camera functions are displayed in the viewfinder 12: Aperture and shutter speed plus intermediate 1/3 steps up or down; balance signals (manual mode) with green correct-exposure LED. At right-hand end of display, ⚡ stands for flash readiness with dedicated flash units, +/- for exposure compensation, M for memory lock and ⊡ for spot metering.

Take picture
For single frames, press master switch 1 and turn to engage at "S". Briefly press shutter release 24 or 22. For continuous shooting turn switch 1 to "C" and keep shutter release depressed for desired number of frames. Switch 1 at "off" locks the two shutter buttons. Release 22 has an additional mechanical lock.

Alternatively, a cable release may be screwed into an optional electric remote release connected to socket 29.

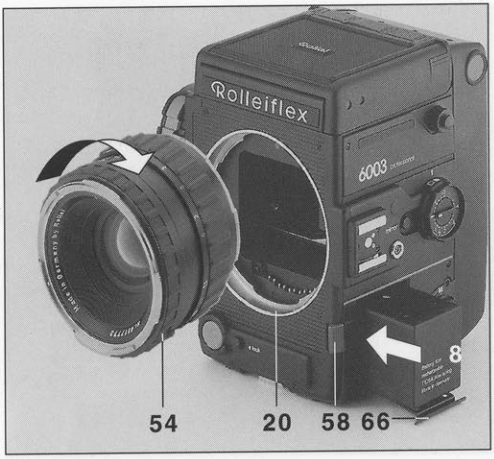
Watch frame counter
Window 41 shows number of exposures made. "0" indicates no film loaded or film not threaded; white mark = film not advanced to first frame, red mark = paper trailer or film spooled up.

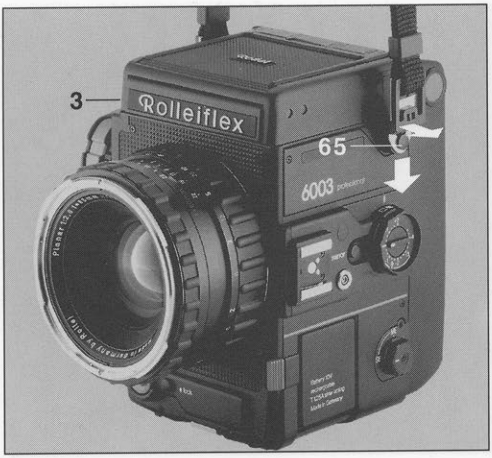


Close focusing hood
Fold down magnifier panel 5. Push in both side panels and let go; hood closes on its own.

Unload film
Film end winds up automatically after last exposure. Then open camera back and lift out film insert. Remove and seal full film spool. Replace film insert and close camara back.

The following pages describe the different camera functions and operating steps in full detail.
For useful hints see page 29 et seq.
In case of handling errors, check the trouble-shooting tables on pages 44 – 49.





Camera operation

We will now look at the operating sequence from assembling[1]) the camera to unloading the exposed film. This applies to the basic camera outfit and to single exposures with AE control. Where necessary, more detailed explanations follow the description of the handling steps.

Rolleiflex 6006 owners please note: Bellows attachment, extension tubes, teleconverter, reversing adapter and magnifying hood can be used with the Rolleiflex 6003 after suitable modification at the factory. This also applies to the same Rolleiflex 6002 and SLX accessories. Rolleiflex 6002 and SLX owners please note: Do not try to use Rolleiflex 6003 backs on a Rolleiflex 6002 or SLX, nor those of a Rolleiflex 6002/SLX on a Rolleiflex 6003. Leaving this warning unheeded may result in damage to your camera.

The accessories FM1, ME1 and SRC/MRC 120 are not compatible with the Rolleiflex 6003 Professional.

Preparing the camera for use

To mount the lens, remove front and rear caps. Press release 58 and remove the body cap, turning it counterclockwise. Align the red index on lens 54 with the red dot inside the camera, insert the lens all the way into the bayonet mount 20 and turn clockwise to engage.

Inserting the battery

Push the nicad battery 8, with its grip 66 facing down, all the way into the battery compartment and push home the grip. See note on page 6!

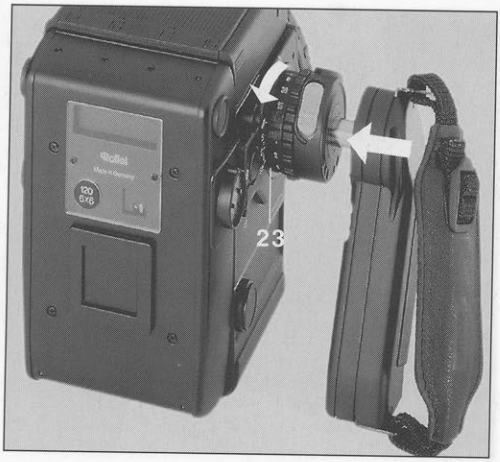
Fitting the neckstrap

Push the self-latching strap eyelets onto the lugs 3 and 65 and let them engage.

To release the strap, lift the latching bar and unhook the eyelets.

The strap can rotate freely around the lugs, making it easy to carry the camera in any position.

[1]) The basic camera outfit is supplied in special packing that securely holds all components. It is advisable to keep this packing in case you wish to ship the outfit again. Also note the serial numbers of the camera body and lenses. These will help you trace it and prove your ownership, should you ever lose any of these items.



Fitting the action grip*

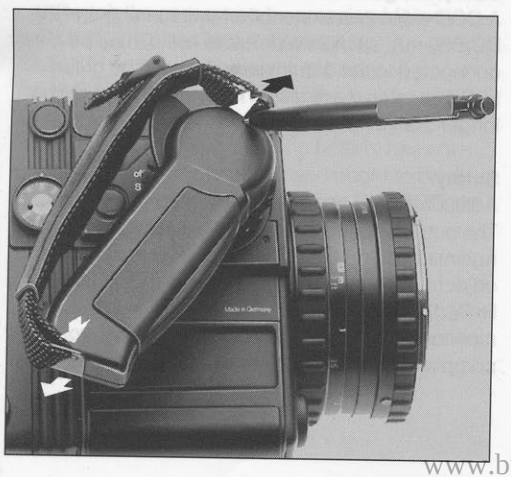
To avoid accidental shutter tripping while fitting the grip, turn the master switch to "off". Turn the shutter-speed dial 23 to <> and hold it there. Push grip with its pivot fully into the hole in dial and let go of the dial so that it returns from the <> position.

The grip is now firmly attached to the camera. To remove it, proceed in the reverse order.

Adjusting the grip position

The grip engages in four positions and thus allows easy holding with the hood (waist-level shooting) and the 45° prism finder or 90° eye-level finder.

To adjust the grip, press the inside release "b" till you can move the grip. Let go of the button and swing the grip forward or back until the locking pin engages.

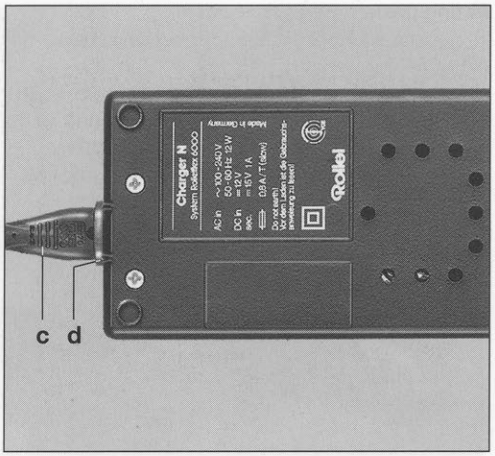


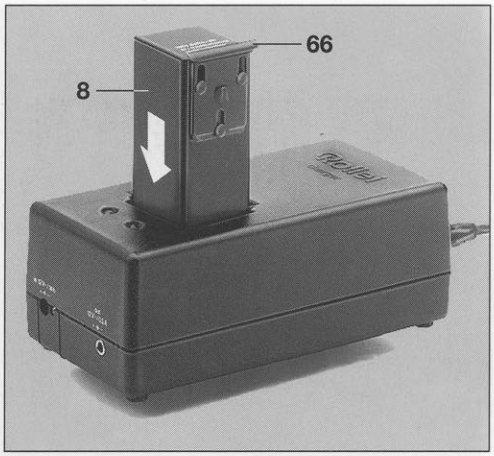
Adjusting the wrist strap

Open the clip on the strap and adjust the latter so that it comfortably supports the camera on your right hand.

To remove the strap, use a ballpoint pen or similar pointed object to depress the small locking pins at each end of the grip while pulling the small strap brackets out of their slots. To fit the strap, proceed in the reverse order.

* The action grip is available as an optional accessory.





Charging the nicad battery
Plug the power cable "c" into the receptacle "d" of the charger "b" and connect it to a wall outlet. The green LED confirms readiness. All common AC voltages and frequencies can be used:
100 V – 240 V DC, 50 Hz – 60 Hz.

Insert the battery into the charger so that its terminals are in contact with the charger pins. Rapid charging starts after approx. 2 seconds with 500 mA, and the red LED lights up. The red LED goes out when charging is completed.

The charging voltage and the battery temperature are monitored during charging. When the cut-off voltage has been reached, the unit switches to float charging. Once the battery temperature exceeds +45°C, the red LED goes out, and rapid charging stops until the temperature is once more in the admissible range. Rapid charging is terminated after a maximum of one hour. Float charging consists of 0.1-second pulses of 500 mA injected every 16 seconds, with the green LED flashing in addition to the red LED. Since the float charge only compensates for the self-discharge of the battery, the latter may remain in the charger for prolonged periods.

Ambient temperature range: approx. 5°C to 35°C. The total charging time depends on the charge condition of the battery. After normal discharge, about one hour or less is sufficient.

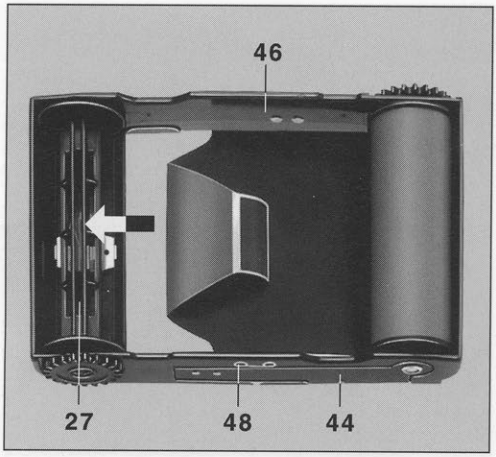
Hint 1: If rapid charging is to start again (!) after changeover to float charging, briefly lift the battery off the contact pins and replace it. –> The one-hour timer starts, and rapid charging begins.

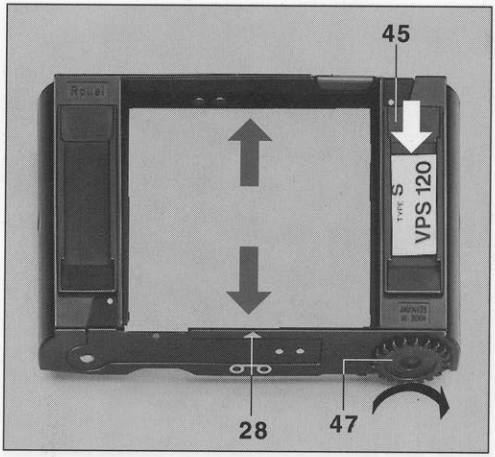
Hint 2: If the battery is overheated, the red LED will not light up when the battery is in the charger. Rapid charging will start only after the battery has cooled down to below 45°C.

Charging from a car battery
Use an optional accessory cable to connect the low-voltage socket of the charger to the lighter socket of the car. Normal charging from a 12V car battery takes around 14 hours. In this case, the red/green LEDs will not light up.

Connecting a video camera
A CCD video camera or other unit running on 12V DC/500 mA, such as a portable radio, may be connected to the 3.5mm jack socket. The green LED indicates readiness. The cable should not be longer than 2 m.

Safety
A T800mA fuse is permanently fitted to the charger. The outputs (battery pins, sockets) are protected against shorting by faulty batteries or metallic objects. The battery temperature is monitored and limited. The duration of rapid charging is likewise monitored and limited to one hour. The control unit complies with the pertinent safety regulations.





The unit is double-insulated.
Do not ground it nor insert any bare metallic objects into the battery compartment. Use the charger only in a dry environment.

To avoid excessive drain on the battery, always switch the camera off after use. Turn master switch 1 to "off" and disengage the AE lock button 26.

All rechargeable nicad batteries are subject to gradual discharge even without use. To keep the camera always ready for action, be sure to recharge the battery at intervals of about 2 – 3 months even if it is not used.

Checking the battery

Whenever the camera is switched on, it automatically checks the condition of the battery.

Switch the camera on by pressing Memo switch 26. Displays and their meaning:

bc FULL	Sufficient capacity
bc=6,5,4,3,2,1	Low capacity
CHARGE	Insufficient capacity

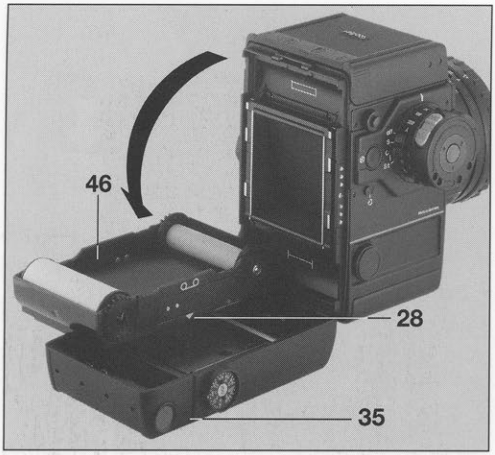
When bc=6-1 appears, the battery has only enough power for a few films and ought to be recharged. When the display reads CHARGE, the camera cuts off altogether.

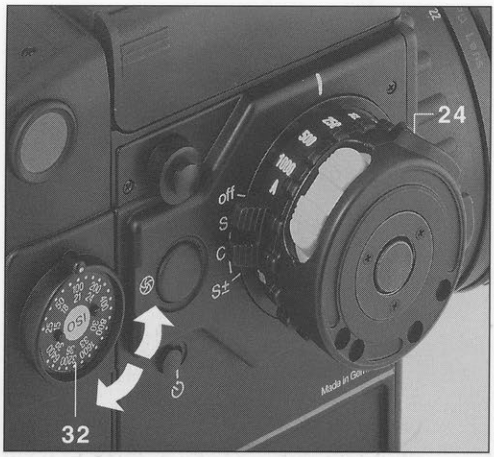
Loading the film insert

Press the magazine-back releases 33 and 40, open the back and remove the film insert 46.

Pull outwards the red lock spring 44, insert the film spool as shown by the film-path marking 48 (black side of backing paper facing inwards) and let the spring engage the spool. Thread the backing paper straight into take-up spool 27 and wind up a turn or two, keeping it taut, with the advance gear 47, until the arrow on the backing paper lines up exactly with index 28. Insert the identifying tab from the film box into slit 45 (behind the full film spool) or into memo holder 42 as a film-type reminder.

The camera comes complete with one film insert. For efficient operation during extended shooting sessions it makes sense to carry several film inserts, unless the even more practical interchangeable magazines are used. You can carry the inserts preloaded for quick film changing. The same film insert (but not the same back!) serves for both size 120 and 220 roll film.





At freezing temperatures (below 0°C) it is better not to preload film inserts; rather load the film directly into the camera and advance to frame No. 1. The adhesive tape holding the film on the backing paper may become brittle in the cold and then cause film-advance problems.

Positioning the film insert

Open the back as described before and drop in the loaded film insert so that the full film spool faces the symbol ⊨ and the empty spool the symbol ⊢.

Close the back until it snaps into place. Turn master switch 1 to "S" and briefly depress shutter release 22 or 24: The film is automatically advanced to the first frame, and "1" appears in the frame counter 41. If "1" fails to appear (which may occasionally happen with some film brands), simply press the shutter release a second time.

Setting the film speed

Turn dial 32 to the ISO speed of the film in the camera. The dial clicks at each setting; do not try to set intermediate values.

Film speeds from ISO 25 to 6400 can be set. This wide range covers virtually all films available worldwide. With switch 60 you can correct the normal exposure from –4 ²/₃ to +2 EV in ¹/₃ increments.

If the film speed is varied with the camera switched on (!), the corresponding ISO value will be displayed for about one second instead of the shutter speed, for example
25 – 32 – 40 – 50 ... 3200 – 4000 – 5100 – 6400.

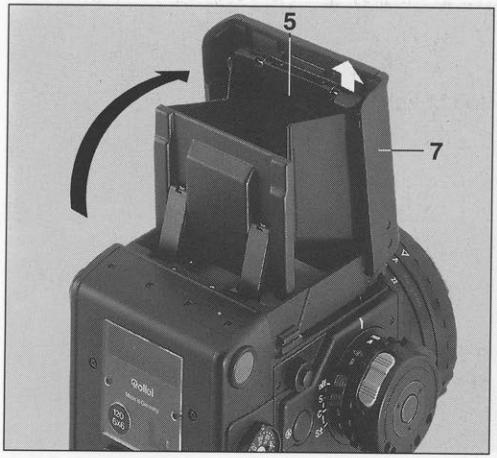
Setting an exposure compensation

If the exposure compensation is set or varied with the camera switched on, it will be displayed for about one second instead of the aperture, for example

Setting	0	+¹/₃	+²/₃	+1	+1¹/₃	+1²/₃	+2
Display	0	0▪	1▪	1	1▪	2▪	2
Setting	0	–¹/₃	–²/₃	–1	–1¹/₃	–1²/₃	–2
Display	0	–0▪	–1▪	–1	–1▪	–2▪	–2

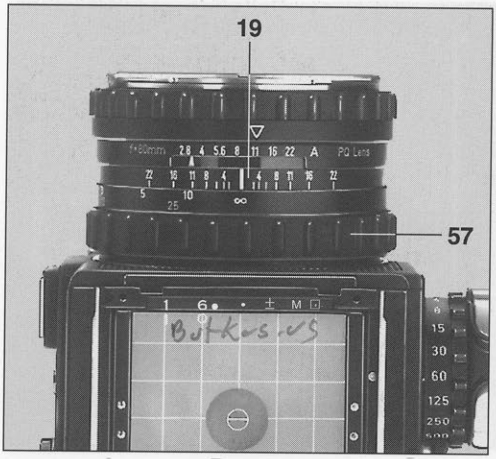
etc. up to – 4²/₃.

In addition, the symbol +/– will light up in the viewfinder display 12 if an exposure compensation is set.



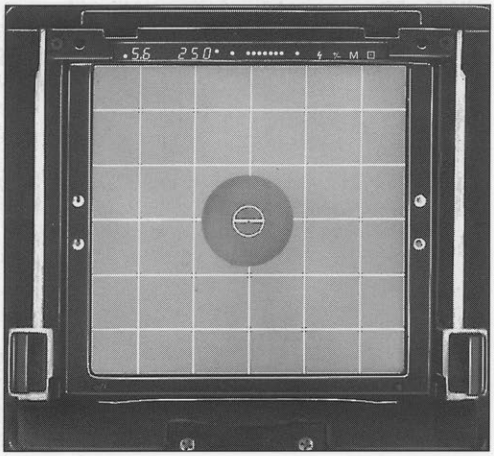
Opening the hood
Raise the folding hood cover 7 at the rear and swing up. To swing up the spring-loaded magnifier panel 5, push up its tab towards the edge of the cover.

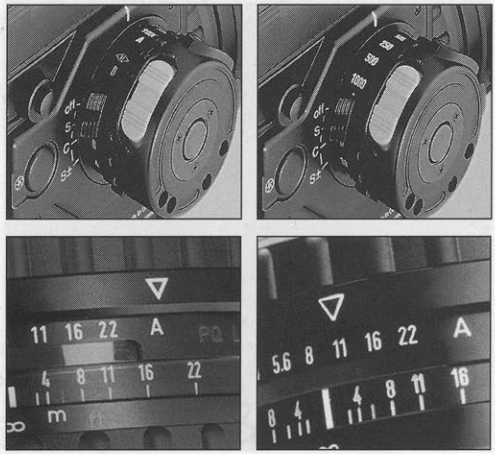
Closing the hood
Fold down magnifier panel 5. Push in both side panels and let go; the hood closes on its own.



Focusing
Turn ring 57 to focus the image on the screen. The focusing distance can be read off in m or ft against the index 19. Depth of field can be checked against the aperture scales to each side of the distance index 19. For infrared photography read off the focused distance and set it against the red index on the depth-of-field scale. All lenses focus at full aperture.

The standard finder screen incorporates three focusing aids: a central split-image rangefinder, a microprism collar and the Fresnel ground glass proper. The standard screen is ideal for many subjects. Five alternative screens are available as optional accessories for special applications.





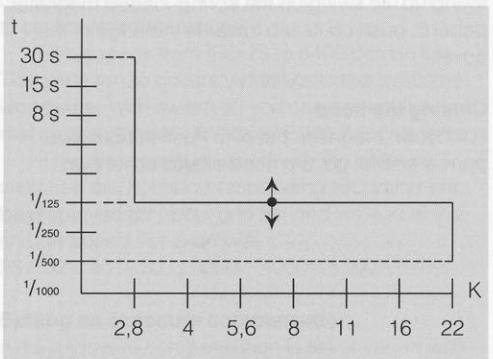
Viewing

The square grid of the standard screen aids in vertical and horizontal alignment of the camera. The lines are spaced 10 mm apart, which helps to mark smaller finder fields for 4.5x6cm (1¾ x 2¼ in.) upright or horizontal formats or even 4x4cm. Special screens with 4.5x6cm frame markings (horizontal and vertical) are available as optional accessories.

Interchangeable lenses widen or narrow the field of view (from a given viewpoint) and are available in focal lengths from 30 to 1000 mm.

The line of accesories includes various interchangeable viewfinders as alternatives to the standard folding hood.

Program chart
(for 80mm f/2.8 lens)



Selecting the exposure mode

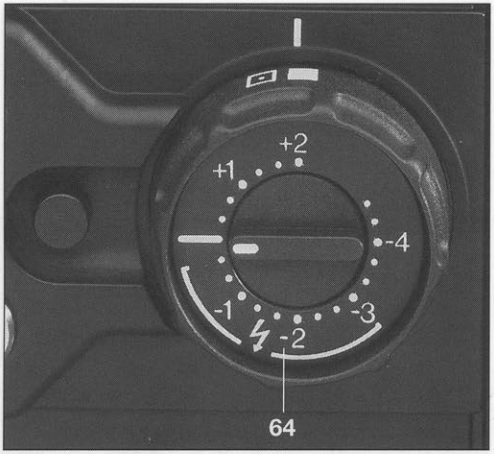
Selecting the exposure mode is straightforward and logical:

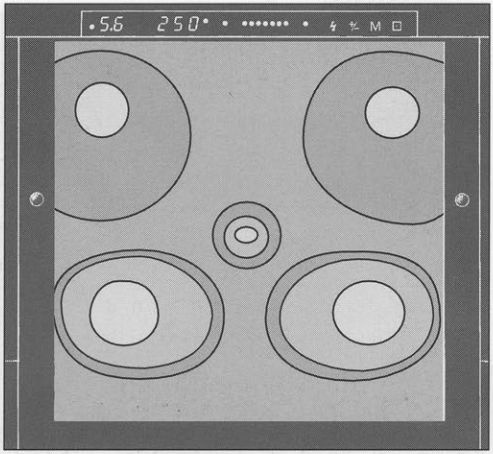
Aperture-priority AE – Turn shutter-speed dial 23 to "A"; press lock button 56 and turn aperture ring 55 to the desired f-stop; there are click stops at ⅓ intervals.

Shutter-speed priority AE – Engage aperture ring 55 at "A" and select the desired speed on dial 23; this also has click stops at ⅓ intervals.

Programmed AE – Set both the aperture ring and speed dial to "A". The camera then selects a suitable combination of shutter speed and aperture. To minimize the risk of camera shake, the program covers the range from 30 s to 1/125 s with full-aperture priority.

Manual mode – Select any combination of aperture and speed. Use either of the two to set correct exposure by the row of LED dots in the display. Exposure is correct if only the green LED stays lit.





B/T mode – With the speed dial 23 set to "B", -b- appears in the display for the bulb mode. *Always* set the aperture *manually* in this mode. The shutter opens as you press the shutter release and closes only when you remove your finger from the release. If in addition the Memo switch 26 is engaged, the display will read "Ł" for T mode. In this case, the shutter stays open after depression of the shutter release and closes only when the release is pressed a second time.

Selecting the metering mode

Center-weighted multi-zone metering

Seven silicon photodiodes mounted behind the partially transmitting instant-return mirror meter the light entering through the lens. Arranged in five groups, they give center-weighted multi-spot readings suitable for most subjects. The cell layout also weights the foreground (lower part of the subject) against sky areas at the top. To activate this mode, turn selector 64 to ■.

Spot metering

The central spot-reading cell covers less than 1% of the field and thus permits precise readings of small parts of high-contrast or back-lit subjects. As such parts rarely appear in the exact center of the field, you can lock in the spot reading and then recompose the picture. On the standard screen, the spot metering area is equivalent to the split-image circle. For spot readings, switch to ⊡. The mode is also displayed in the viewfinder.

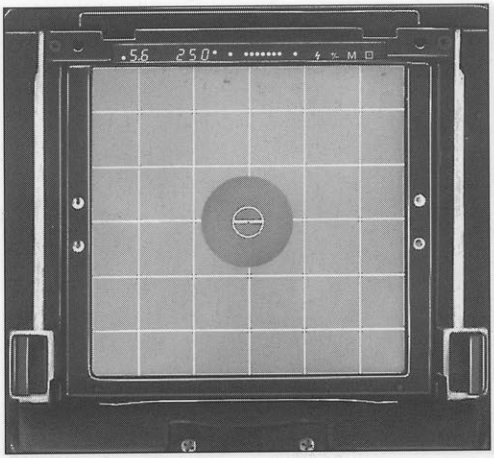
Taking exposure readings

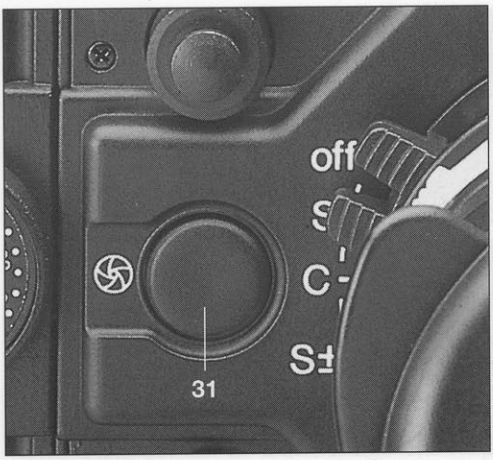
After selecting the exposure and metering modes, switch on the meter by pushing the meter switch 26 forward. The LEDs in the finder light up for about 40 s (about 4 min. in the multi-spot mode). The meter can be activated repeatedly as often as desired and will stay on for that period after exposures or manual adjustment of aperture or shutter speed. All essential camera functions are displayed in the finder: Aperture and shutter speed with trend indicator in 1/3 increments.

In manual mode, a row of LED dots in the center of the display serve to balance exposure. Correct exposure has been set when only the green, central LED stays lit. Three red LEDs immediately to the left of the green dot signal progressive overexposure in 1/3 EV increments up to 1 EV; a fourth red LED marks overexposure by 2 EV and more. LEDs to the right of the green dot indicate corresponding underexposure levels.

The following additional displays appear at the right:

- ϟ Flash ready
- +/- Exposure correction
- M Memory activated
- ⊡ Spot reading.





Viewfinder warnings
The largest or smallest aperture blinks in shutter-priority AE when the range of available apertures is exceeded. The red LED dots, moreover, indicate in 1/3 increments (up to 1 EV) by how much the range is exceeded. Correct by setting a slower or faster shutter speed. Similarly, the fastest or slowest shutter speed will blink in aperture priority as the range is exceeded. In this case, select a larger or smaller aperture.

A blinking shutter speed in programmed AE indicates either that the subject needs a speed faster than 1/1000 s or – at the other extreme – slower than 30 s.

The trend indicators (dots) next to the aperture and speed values stand for intermediate values that are not displayed digitally. A dot at the bottom of a speed or aperture indicates a value 1/3 lower, one at the top 1/3 higher. A row of *88 8888* appearing on auto instead of the aperture and shutter speed indicates that light conditions are beyond the camera's metering range. On manual, the speed and aperture will in this case remain legible, and the entire row of LED dots lights up.

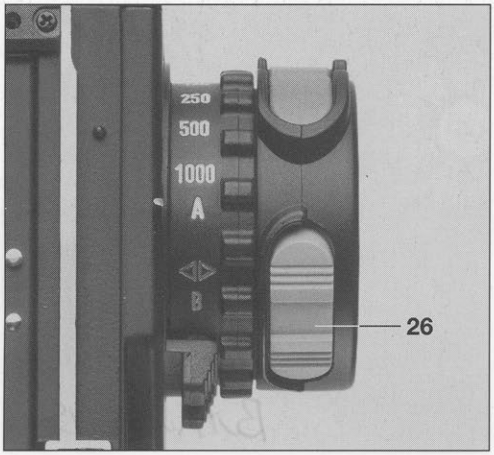
A green ⚡ symbol signals readiness of dedicated flash units.

Setting errors
A series of dashes (– – – –) appearing instead of aperture or shutter speed indicate that an operating mode has been chosen which cannot be executed. With PQ lenses, this will be the case if one of the following modes has been set:
- B and shutter-speed priority AE
- Spot metering and fill flash.

Depth-of-field preview
To check depth of field, press stop-down button 31 and view the screen through magnifier 6.

AE lock
In difficult lighting conditions, with backlit or very contrasty subjects, for example, take a spot reading of a significant image detail and put it in memory by engaging memo switch 26. Then recompose the picture and expose.

The reading remains in memory until you disengage the switch. The symbol M. lights up in the display 12 when the AE lock is engaged.
Note: The finder display remains on as long as the meter switch is pressed or engaged.



Stray-light compensation
The metering system allows for stray light coming through the open finder hood and compensates for stray-light intensities of up to about 16 times the measured light intensity. The correction is effective all the time – when viewing through one of the prism finders, the magnifying hood or the folding hood with the magnifier swung up.

When metering with the camera held at waist level, i.e. without the magnifier, do not let direct light fall on the screen (sunlight, lamps, especially fluorescent tubes).

Always keep the hood closed for time exposures.

Note: Stray light through the open hood often exceeds the compensation limits when taking meter readings with older type lenses. In that case keep the magnifier swung up during readings.

Releasing the shutter for exposure
On the camera: Press either shutter release 22 or 24.

With optional remote release "a" (RC 120): Remove cap and connect release to socket 29. Press Start button.

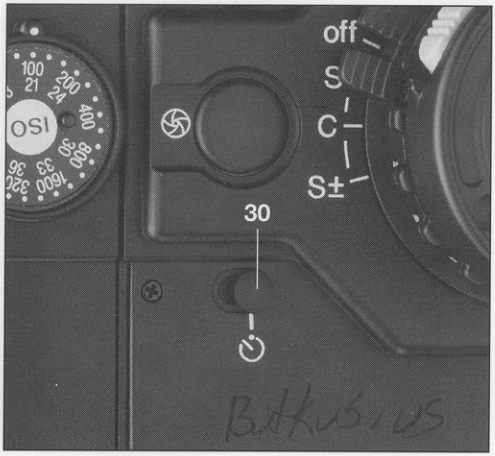
Upon depression of the release, the camera exposes the film and advances it to the next frame.

Automatic shutter monitoring
If the camera is operative but detects a shutter defect, – ERROR 1 – will appear in the display. At the same time, the shutter remains locked.

ERROR Shutter does not close and/or stray light strikes film.

Mirror lockup
To suppress every vestige of camera vibration – especially with long telephotos or in close-up photography – take an exposure reading, then briefly depress "mirror" button 63; the mirror flips up. Then press the shutter release for exposure. In the mirror-lockup mode, the meter reading remains in memory for about four minutes. The shutter speed, exposure correction and ISO speed may still be varied with the mirror locked up. The LED dots in the finder will always give a correct exposure reading. Do not, however, vary the aperture setting, since the diaphragm has already closed to its working aperture.

Be sure to press the shutter release before the four minutes are up, or all exposure data will be lost. When the camera set to auto is again switched



on, the display -no Auto- will appear, and in the manual mode the LED dots are off. In this case – or if you don't want to make an exposure with the mirror locked up after all – turn the multi-exposure knob 59 to "ME", thus disengaging film advance. Cap the lens and release the shutter. The mirror returns to viewing position, and no frame is lost. Finally, return multi-exposure knob 59 to "SE".

Note: Before locking up the mirror, make sure the battery has a sufficient charge level, for the camera draws current while the mirror is up.

Selftimer shots

Activate selftimer with switch 30 and start countdown by pressing the shutter release. The 10-second countdown is indicated in the display and can be aborted by keeping the shutter release depressed for at least one second. To minimize camera shake, the mirror flips up two seconds before the exposure; this also serves to signal imminent exposure.

Multiple exposures

Turn multi-exposure knob 59 to "ME" (multiple exposures). This disengages the film advance so that several exposures can now be superimposed on one frame. A red rim below knob 46 also indicates that the film advance has been disengaged.

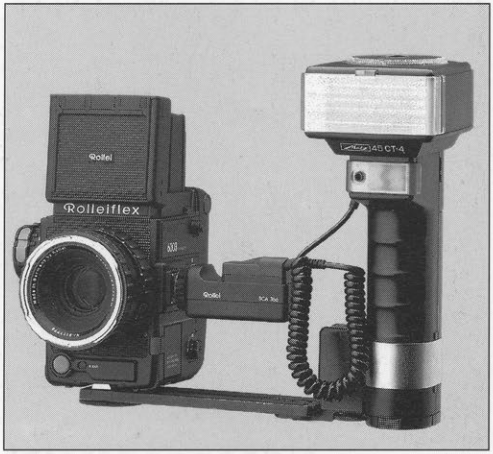
Before the last exposure of a multi-exposure sequence turn the knob back to "SE" (single exposure) and push it against the camera body to reengage the film advance for normal operation after the end of the sequence.

Automatic bracketing

Exposure bracketing is possible both in automatic and manual mode. The camera automatically takes a correctly exposed shot plus two shots over and underexposed by $^{2}/_{3}$ EV, respectively.

To activate the bracketing function, turn the master switch to S±. Then keep the shutter release depressed until the camera has made three exposures. The starting point of a bracketing sequence can be shifted with the exposure-compensation switch 60.

Note: Before starting the bracketing series, make sure that the shutter-speed or aperture range will accommodate the programmed over/underexposure.



Frame counter

The frame counter window 41 shows the number of the next frame to be exposed. It resets to "S" (start) when the back is opened.

Other frame counter readings: "0" = no film loaded or film not threaded; white mark = film not advanced to first frame; red mark = paper trailer or film spooled up.

Unloading the film

After the last exposure, wait for the camera to wind up the end of the backing paper. The end of the process is indicated by -END- in the display. Then open the back and remove the film from the insert. Replace the film insert - reloaded, if required - and close the magazine back.

Flash photography

The Rolleiflex 6003 Professional is X-synchronized for flash at all shutter speeds up to $^1/_{500}$ s (up to $^1/_{1000}$ s with PQS lenses).

Flash units can be attached to the hot shoe 61 or connected to the standard (parallel-connected) PC socket 62. The camera offers the following flash modes:

1 Manual flash (with the aperture set as a function of subject distance).
2 Dedicated autoflash (TTL flash metering and control) with an SCA-356 Rollei flash adapter and a dedicated flash unit, for instance from Metz.

1 Manual flash mode

Connect the flash unit to the hot shoe or PC socket. Manually set the aperture on the lens to suit the flash unit used:

Sensor flashes control the light output for an aperture preset on the flash and the camera by external metering. If a simpler flash unit is used, the aperture to be set on the camera will have to be determined as a function of subject distance, usually with the aid of scales on the flash. For details, see the operating instructions of your flash unit.

Another way of finding the taking aperture is to use a flash meter in the manual flash mode.

Manual fill flash: Since your Rolleiflex 6003 Professional is fully synchronized at all shutter speeds, manual fill flash is easily possible. Just select a suitable shutter speed.

Example: A portrait at a distance of three meters. Your flash calls for f/5.6. An ambient-light reading with the camera gives a shutter speed of $^1/_{125}$ s for this aperture. If you set a speed of $^1/_{250}$ s instead, the effect of the daylight will be reduced by one f-stop.

It is thus possible to vary the ratio of daylight to flash light in the manual mode as well.

2 Flash photography with Rollei SCA-356 dedicated flash adapter

With dedicated flash units linked through a Rollei SCA-356 adapter, the camera switches to TTL flash control. In this case, a sensor inside the camera meters the light reflected off the film during exposure and controls flash duration as a function of film speed. This guarantees optimum flash exposure over a range of ISO 25/15° to 400/27°.
Proper ISO setting on the back and the selection of a suitable aperture are prerequisites for correct flash exposure. (Any aperture within the range of the dedicated flash unit may be used.) In conjunction with a 6003 Professional, the SCA adapter should always be set to ISO 100/21°.

Proper flash exposure and flash readiness are indicated by the green flash-ready symbol in the finder display.

If the ⚡ LED stays lit after the exposure, the latter was correct, and the flash is instantly ready to fire again.

If the green ⚡ LED blinks after exposure, the flash exposure was correct. The flash is ready to fire again when the ⚡ LED stops blinking and stays on. If a lot of energy was required for the shot, the ⚡ LED may go out between the blinking and steady phases. The ⚡ LED will disappear for a few seconds if the flash output was insufficient for the aperture selected. In this case, set a larger aperture on the lens and repeat the shot.

If the upper film-speed limit for TTL flash metering (ISO 400/27°) is exceeded, the ISO value set will blink as a warning.

Dedicated fill flash

OTF flash metering allows creative fill flash to be used in any auto mode with multi-zone metering. The fill flash is activated automatically if the desired output level is set between -1/3 EV and -3 EV at switch 60.

Example: A setting of -1 EV is chosen for a backlit subject. The underexposure will render the background naturally, with the flash making up for the light lacking in the foreground.

Make sure that the subject is within flash range. It may be advisable to switch to shutter-speed priority AE.

Note: As long as the flash is charging or turned off, the fill-flash setting with switch 60 will have the effect of an exposure compensation. Be sure to watch the finder display where "±" will appear as a warning. If necessary, return the exposure-compensation switch to the desired setting.

Interchangeable modules

The lens, viewfinder, battery action grip, film magazine* and film insert are easily detachable from the camera body. While the battery will be changed for recharging and the film insert for reloading, the additional modules offer valuable alternatives for viewing, controlling and recording the image.

Changing the film insert

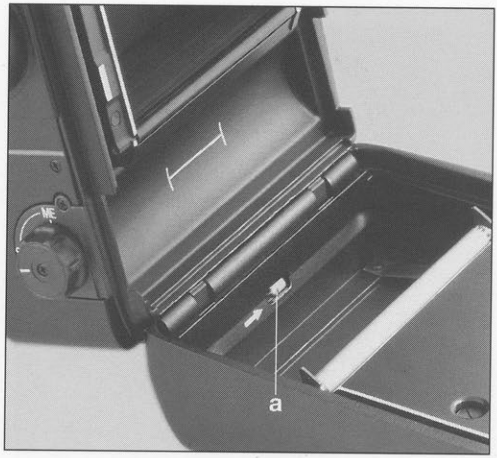
Open the back, take out the insert with the exposed and spooled-up film and remove the latter for processing. Drop in a loaded film insert, close the magazine back and press the shutter release to advance the film to the first frame.

If you have only one film insert, reload this with a new film. Note that there is no need to switch spools: The insert is symmetrical and engages the transport gear either way round.

If the new film differs in speed or type, also change the film-box tab in the memo holder and reset the film speed on dial 32.

The accessories of the Rolleiflex 6006/6008 can, of course, be used with the Rolleiflex 6003 Professional.

* Available as an optional accessory.



Using interchangeable film magazines
To use an interchangeable film magazine, exchange the standard film stage 67 for a special version that is available as an optional accessory (Cat. No.13493).

Changing the film stage
Grasp the film stage at the top and withdraw it from the camera body (see illustration above). Insert the registration pins of the special film stage into the corresponding holes and press the stage firmly down around the pins. The stage will snap into place with a click.

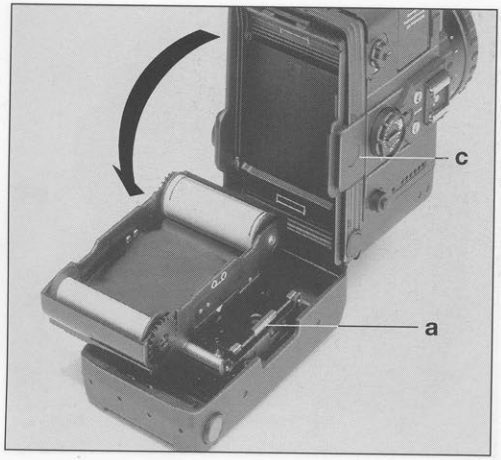
Changing the camera back for a 6008 interchangeable magazine
Press down on the release buttons 30 and 40, open camera back 34 and remove film insert. Push release "a" in the direction of the arrow and hold it while swinging away the camera back and lift it out of its hinge. First hook in the interchangeable magazine at the hinge, then swing it up and press it down until it snaps into place. Fully push down the drawslide bar of the magazine. This opens the laminar drawslide and secures the magazine on the camera. It also unlocks the metering and exposure functions.

Loading the film insert
Push the magazine drawslide bar all the way to "magazine change/remove insert" (arrows). Depress the release buttons, swing open the magazine back and remove the film insert. For easier removal grip the insert through the cutouts in the sides of the back section. If necessary, briefly press down on the empty spool with one finger to free the insert.

Load the insert as described on page 13.

Replacing the film insert
Open the magazine back as described before and drop in the film insert so that the full film spool faces the ⊨ symbol and the empty spool the ⊢ symbol. Do not try to guide the film edges underneath the springs "a", but let them lie on top. The loading system ensures correct film location and threads the film automatically underneath the springs.

Fully close the magazine until it snaps into place. Push the drawslide bar all the way down to disengage the shutter lock. Turn the master switch to "S". Briefly depress shutter release 22 or 24: The film automatically advances to frame 1, and "1" appears in the frame counter. Should "1" fail to appear (which may occasionally happen with some film brands), simply press the shutter release a second time.



There are six different interchangeable magazines for the following film types and picture formats:
6x6/120 magazine for size 120 film:
12 exposures 6x6 cm (2 1/4 x 2 1/4 in.)
4.5x6/120 magazine for size 120 film:
16 exposures 4.5x6 cm (1 3/4 x 2 1/4 in.)
6x6/220 magazine for size 220 film:
24 exposures 6x6 cm (2 1/4 x 2 1/4 in.)
4.5x6/220 magazine for size 220 film:
32 exposures 4.5x6 cm (1 3/4 x 2 1/4 in.)
Data 6x6/70 bulk-film magazine for perforated 70mm film:
65 – 70 exposures 6x6 cm (2 1/4 x 2 1/4 in.)
Polaroid magazine for 6x6 cm (2 1/4 x 2 1/4 in.) exposures on Polaroid film pack.

Identifying the magazines

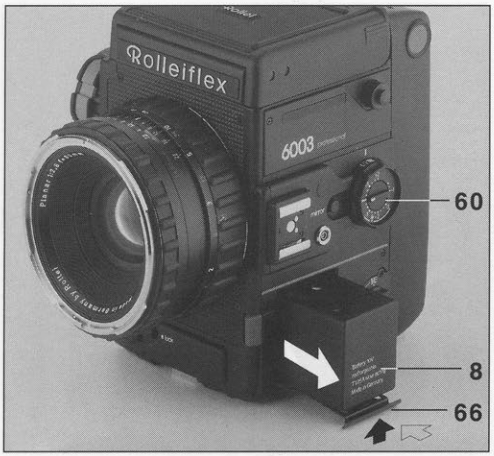
The recess "c" takes commercially available, 12 – 13 mm (½ in.) stickers. Use them – possibly in different colors - to mark the magazine number, film type or subject.

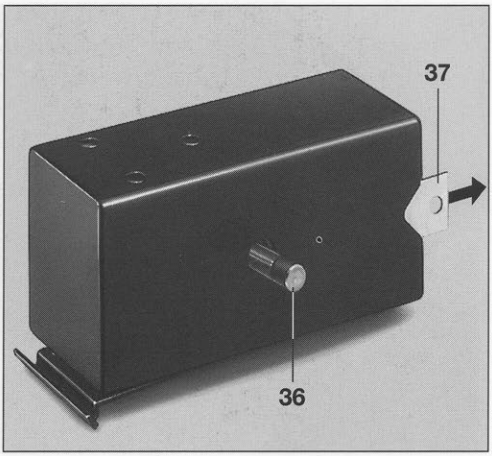
Color-coded lettering surrounding the frame-counter window also marks the different magazine types.

Using 6006 magazines

Rolleiflex 6006 film magazines can be used on the Rolleiflex 6003. Since these do not transmit the ISO speed to the camera, however, the latter will automatically default to ISO 100/21° when the exposure-compensation switch 60 is in its zero position.

Films with speeds from ISO 25/15° to 2500/35° can then be used by adjusting the exposure-compensation switch accordingly. Conversely, 6008 magazines may be used on a Rolleiflex 6006 if the film speed is set on the camera in the usual way. On request, 6006 magazines can be upgraded by the Rollei Service.





Changing the nicad battery

Press grip 66 up and pull out the spent battery 8. Hold the new battery with its grip towards the camera base and push fully into the battery compartment.

At normal temperature – around 20°C or 65 – 70°F – a fully charged battery is good for about 500 exposures, equivalent to approx. 40 size-120 films or 20 size-220 films of 6x6cm exposures. Where you cannot afford to interrupt shooting sessions or if you have to shoot in very cold weather, it is more convenient to have two battery packs available: Keep one in the camera and the second as a spare while the first is being charged.

Changing the fuse

Remove battery 8 and pull out fuse 9. Withdraw slide 37 to release spare fuse 36. Push this fully home into the fuse clips. Close slide 37 and replace battery 8. Get a new spare fuse as soon as possible (1.25 A/250 V, slow-blow); obtainable from radio, electrical and photo shops.

To avoid the risk of damage to the camera, never use a fuse other than the type specified.

If the spare fuse also blows, try to locate the cause of the trouble, such as a wrongly loaded film (especially if not spooled straight), film torn in very cold weather or film detached from backing paper. If no cause is apparent, check with Rollei Service.

Changing the lens
Depress release 58, turn lens counterclockwise and remove. Align rear red mark of alternative lens with red dot in camera, insert and turn clockwise to engage.

After changing lenses, take a new exposure reading – the new view may differ in brightness distribution.

Interchangeable lenses are presently available with focal lengths from 30 to 1000 mm. Data sheets included with the lenses inform about depth of field and also contain optical and closeup data for use with extension tubes and bellows.

Using older lenses (SLX, 6002, 6006)
When using older (non-PQ) Rolleiflex SLX, 6002 or 6006 lenses without aperture simulation, press meter switch 26 or stop-down button 31 for stopped-down reading.

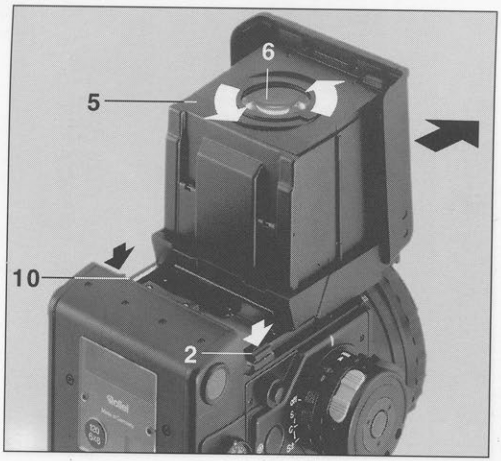
Note: Pressing meter switch 26 locks the reading in memory. Therefore be sure to repeat the reading by pressing the meter switch or stop-down button again if any change has been made in aperture or shutter-speed settings.

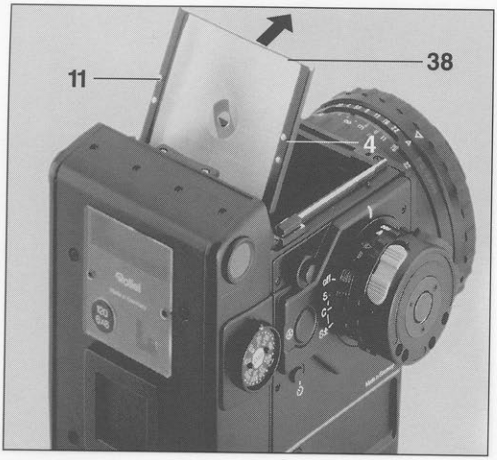
The camera will use the metered aperture/speed data for exposure, regardless of whether the meter switch or stop-down button is pressed. Due to stop-down metering, the metering range of older lenses is reduced to EV 5 – 19.

Viewfinder warnings with older lenses
Since there is no full-aperture simulation, the viewfinder display does not include any aperture readout. Instead, read the aperture from the lens while pressing the memo switch or stop-down button. If red LED dots appear in the auto mode, you have exceeded the limits of the available aperture or shutter-speed range. Select a different shutter speed.

All other displays correspond to those with PQ lenses (see page 18).

The following operating modes are not available with older lenses, and the LED display shows dashes (– – – –) instead of apertures and shutter speeds:
- Shutter-speed priority with B setting
- Automatic bracketing
- Fill flash with shutter-priority/aperture-priority/ programmed AE
- Selftimer.





Changing the finder

Open the standard hood, press both releases 2 and 10 simultaneously and pull the hood off towards the front. In the same way slide on the alternative finder horizontally towards the back, but without pressing the releases. These engage on their own.

A 45° prism finder or 90° eye-level finder automatically switches the camera to unreversed viewfinder display.

Changing magnifiers to suit your eyesight

The magnifier of the focusing hood can be exchanged so that eyeglass wearers may focus without their glasses. Optional magnifiers with powers from +2.5 to –4.5 diopters (matching your distance-glass prescription) are available through Rollei Service.

To change the magnifier, hold the sides of magnifier panel 5 between thumb and index fingers and press the side flaps of the hood against the panel. With the other hand, turn magnifier 6 counterclockwise by its lugs and lift out. Drop in the alternative magnifier and turn clockwise to secure.

Changing the focusing screen

Remove finder in use, withdraw both releases 4 and 11 and carefully swing frame up. Withdraw focusing screen 38 and store it in a dustfree place. Never touch its surfaces – hold it by the edges only. Insert the alternative screen – with its matte side facing the mirror – between the springs and guides. Swing down the frame, pull lightly backwards and fully push down to engage on both sides.

Hints and notes

1 Battery capacity

The battery pack contains special sintered-plate nickel-cadmium cells which stand up well to rapid charging and need virtually no maintenance. As with all rechargeable batteries, the useful capacity drops at low temperatures. After rapid charging, the battery yields power for
up to 500 exposures at +20°C (68°F)
up to 50 exposures at –10°C (14°F).
For maximum low-temperature capacity, charge the battery as fully as possible – a rapid charge followed by three hours of normal charging.
In extreme cold (below –10°C), carry the battery separately in a reasonably warm pocket and insert it only just before shooting. The external battery connector available as an optional accessory is particularly well-suited for this kind of work. In extreme cases (arctic photography, refrigerating chambers or cold laboratories), keep the camera warm or insulated.

2 Shutter release

The following means of shutter release are available: cable release, RC-120 release cable, IR remote control and timer. Any combination of these permanently active means may be used.
Accidental exposure can be avoided by switching the camera off (shutter-speed dial on "off") or pushing up the magazine slide.

3 Automatic exposure (AE) control

The camera's integral AE control is fully operational with all interchangeable finders, filters, extension tubes, the reversing adapter and the bellows. It always meters the light through the lens, allowing for angle of view and all exposure factors. Three metering modes cover all subject conditions likely to be met in practice.

The standard way
Center-weighted multi-zone metering
This is suitable for all normal subjects, i.e. with more or less uniform brightness distribution and without excessive lighting or color contrast. The major subject portions are often located in the lower two-thirds of the field; hence measurements are weighted more for this part. The edges and upper third contribute much less to the reading. With no excessive contrast, multi-zone readings are ideal for rapid and reliable shooting.

For more tricky subjects:
Spot metering
With strong backlight or subjects against a bright or dark background, spot readings are ideal to measure the luminance in a small subject detail. The circle of the split-image rangefinder in the standard screen defines the metering area. This covers approx. 1% of the field and thus allows very precise metering for individual pictorial control. If the metered detail is off center, use the AE lock to hold the setting for exposure after recomposing the picture.

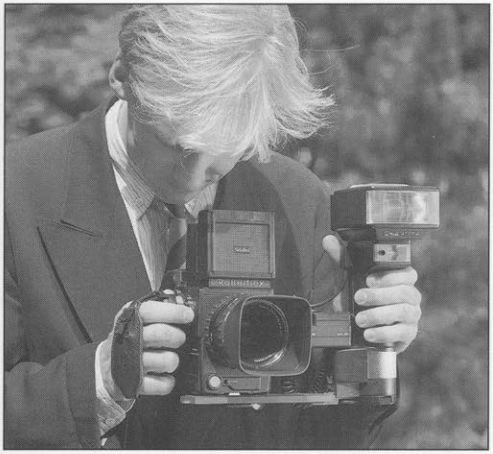
4 Exposure compensation

This is very useful for overriding, above all, automatic exposure settings. Corrections are possible from –4 $^2/_3$ to +2 EV; the switch has click stops in $^1/_3$ intervals. This special function is displayed in the viewfinder.

5 Auto bracketing

Exposure is particularly critical with color reversal film. This is why pros frequently bracket their exposures. The camera will do this automatically when you set its master switch to "S±". The "normal" exposure will then be followed by two additional ones, the first overexposed by $^2/_3$ EV, the second underexposed by $^2/_3$ EV. Keep the shutter release depressed until the camera has completed the cycle of three exposures. To obtain different amounts of variation or correct only for plus, e.g. when shooting against the light, it is easy to shift the starting point of the series with the aid of the exposure-compensation switch.

In the manual mode, the shutter speed is varied for bracketing.



6 Flash

To use the full potential of OTF flash metering, special dedicated flash units are recommended for use with the Rolleiflex 6003 Professional. The Metz 45 CT 5 and 60 CT 1 can be used with a dedicated Metz C-70 adapter. The Rollei dedicated flash adapter SCA 356, on the other hand, serves as an interface for the dedicated flash units of other manufacturers that are compatible with the SCA-300 system.

7 Fill flash

Rollei's creative fill-flash technique for the first time allows individual variation of the fill-flash output in the auto mode. Thus it is easy to obtain the right amount of fill light, for example with backlit subjects.

8 Remote control

Remote-control cables with lengths of 0.4 m, 5 m and 10 m (16 in., 16½ or 33 ft) are available as optional accessories. These plug into socket 31 and also permit remote mirror lockup.

Single and continuous exposures can be triggered from a distance of up to 60 m (200 ft) with an RC-03 IR remote-control set. A special circuit in the IR transmitter even allows a second Rolleiflex to be released in synchronism with a manually triggered camera.

Both the transmitter and the receiver are compact, light-weight units and very simple to use. The camera battery powers the receiver. Visual checks confirm transmission and reception and inform about shutter status during time exposures.

Wireless remote control opens up a wealth of attractive and previously inaccessible opportunities – from unobtrusive snapshots with a hidden camera to wildlife photography.

9 Time exposures

There are three time-exposure modes:

B setting: Set shutter-speed dial to B; – b – is displayed in viewfinder. The shutter opens as the shutter button is pressed and closes when it is released.

T setting: Engage the MEMO switch in the B setting. – t – is displayed in the viewfinder. The shutter opens when the shutter button is pressed and closes when it is pressed a second time.

A ¼in. and a ⅜in. socket are provided for tripod mounting. A quick-release plate fitting the Rollei quick-release tripod coupling makes it very easy to change from hand-held to tripod-mounted exposures and vice versa.

10 High contrast

Exposure determination becomes all the more critical, the steeper the gradation of the film and the higher the subject contrast. Try to reduce excessive contrast by fill flash, flagging off intense highlights, using more diffused lighting, changing the camera angle or viewpoint, using a different type of film, compensating development, etc. If subject contrast is still excessive, decide whether you can sacrifice detail in deeper shadows or lighter highlights and adjust the exposure accordingly.

Substitute reading

In difficult lighting conditions, a substitute reading, e.g. on a Kodak Gray Card, gives a mean value for an optimum compromise ensuring satisfactory rendition of midtones. Follow the instructions coming with the gray card.

Closeup reading

Alternatively, you may take a closeup reading, lock-in the exposure and recompose to take the picture. A spot reading would, however, be more convenient wherever feasible.

11 Macrophotography

Extension tubes and the bellows unit take you right into the realm of large-scale closeups. The tubes can be combined both with each other and with the bellows. Auto iris control is retained even then.

Extension tubes are available with lengths of 9, 17, 34 and 67 mm, all of them with double Rollei bayonet mount for a wide range of combinations. Total extension with the four rings is 128 mm. In conjunction with the extension of the prime lens, the range from 0 to 128 mm can thus be covered steplessly.

The zoom extension tube with its precision helical mount covers a continuous extension range from 22 to 68 mm and thus offers maximum ease of operation in closeup photography. It is primarily intended for use with Zeiss lenses from 40 to 250 mm and may also be combined with the reversing adapter.

The bellows unit covers a continuous extension range from 67 to 204 mm. With the reversing adapter, suitable lenses can be mounted in reverse. The bellows lens hood is a valuable accessory for this type of work which usually calls for sophisticated lighting techniques.

The aforementioned dedicated flash units, and foremost among them the Rollei MF2 Macroflash, are ideal for macrophotography since OTF metering ensures correct flash exposure even at the closest range.

12 Depth-of-field preview

For subjects requiring precise depth-of-field control, press the stop-down button to read the aperture. Then vary the shutter speed until the desired aperture is displayed. To check depth of field on the screen, preferably use the viewfinder magnifier.

13 Quick release

For sports, animals and "pin-point" action shots, fast shooting is vital to catch the right moment. To reduce the delay between shutter release and actual exposure to a minimum, the light is therefore metered and the mirror locked up in advance.

Rapid release with AE lock and mirror lockup (Quick Release)

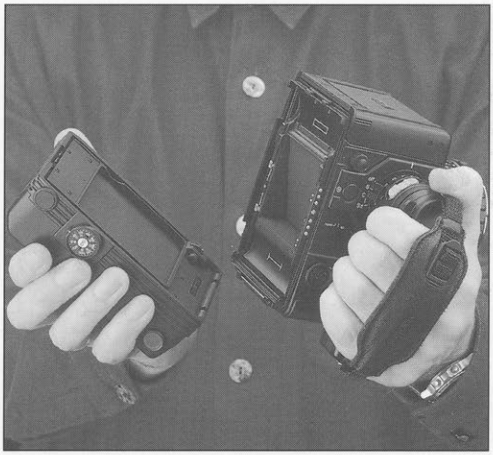
Keep the memo switch depressed and press the mirror lockup button. This prompts the camera to read the light, put the result in memory and lock up the mirror. Without the timer, the camera then waits for the shutter release to be pressed; the display reads – ⁹ᶠ –. The delay between depression of the shutter button and actual exposure is only 3-4 ms with PQ lenses and approx. 2 ms with PQS lenses.
Auto Quick Release: If the stop-down button is pressed while the display reads ⁹ᶠ, this will change to – ⁹ᶠ Auto –. Auto can be cleared by pressing the stop-down button again. If you press the shutter button while – ⁹ᶠ Auto – is being displayed, a quick release will follow, and the camera will immediately be ready for the next shot.

Note: In order to make full use of the camera's speed, the shutter should be triggered by an electrical contact or a light barrier.

14 Continuous sequences

Set master switch 1 to "C". Set the exposure and press and hold the shutter release. The camera reads the exposure for every shot and keeps exposing and advancing the film until you let go of the shutter button. With a fast enough shutter speed, you can shoot at approx. 2 fps. If you keep the shutter release depressed until the end of the film, the camera also winds off the backing paper. Preferably start a long sequence with a fresh size-120 or, better still, size-220 film. You can use AE lock for sequences, too. In that case, the exposure will be the same for all frames.

Main accessories



A line of carefully selected accessories extends the uses of the Rolleiflex 6003 Professional. Some items make handling more convenient, others are essential for special applications. The accessories of the Rolleiflex 6006/6008 can, of course, be used with the Rolleiflex 6003 Professional.

The diagram on pages 42 and 43 shows the complete camera system with all its accessories.

Interchangeable lenses

The line of lenses for the Rolleiflex 6003 Professional makes allowance for the upgraded functions of the camera and covers all aspects of creative photography. The PQ and PQS lenses are equipped for all exposure modes; they are compatible with other Series 6000 models. The lenses of the Rolleiflex 6006 and 6002 can be used on the Rolleiflex 6003 Professional with stop-down metering.

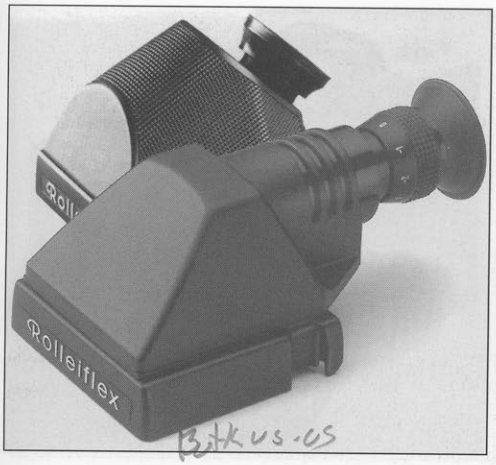
The lenses utilize Rollei's unique direct-drive technology. The camera's microprocessor controls two linear motors that drive the iris diaphragm and the shutter at speeds from $^1/_{500}$ s ($^1/_{1000}$ s) to 30 seconds, without steps, with virtually no delay and extreme precision. Ten contacts are the interface between camera and lenses, hermetically protected, with no moving parts and thus free from wear.

The line includes lenses from a 30mm fisheye to a 1000mm super telephoto, with all usual fixed focal lengths plus perspective-control and zoom lenses. In conjunction with the latest ultra-high-speed Schneider lenses, it meets every need of the professional user.

Interchangeable film magazines (accessories)

These take size 120 or 220 roll film for 6x6 or 4.5x6cm (2 1/4 x 2 1/4 in. or 1 3/4 x 2 1/4 in.) exposures. All the roll-film magazines use preloadable film inserts and have a built-in laminar drawslide. The following types are available:

- 6x6/120 magazine for 12 exposures, 6x6/220 magazine for 24 exposures. With film-speed input, automatic frame counter and integral laminar drawslide.
- 4.5x6/120 magazine for 16 exposures, 4.5x6/220 magazine for 32 exposures. Same features, with suitable masks for the film gate and the focusing screen.
- Data-70 magazine for perforated 70mm film, yielding 60 or 70 exposures, depending on film brand.
- Polaroid magazine for eight 6x6cm exposures on 8.5x10.8cm Polaroid film pack, with film-speed input.



Interchangeable finders
Four different finders and six bright focusing screens offer ideal viewing conditions for every type of subject.

The standard folding hood for waist-level viewing has an interchangeable (+2.5 to –4.5 diopters) 3x magnifier.

The 45° prism finder and the 90° eye-level finder give an upright and unreversed image. They rotate, with click stops at 90° intervals, for convenient viewing even from awkward angles.

Mounting these finders automatically switches the display to unreversed reading.

The rigid magnifying hood consists of the Rollei 6x6 magnifier and a base attachment for the camera. The Rollei magnifier is available as an optional accessory and allows viewing of 6x6 slides, negatives or paper prints, and naturally of mounted or unmounted 35mm slides. Superbly corrected, this 3x linear magnifier provides color fidelity and high definition over the entire field. The interchangeable base allows viewing both by incident and transmitted light. Together, the two items make a rigid magnifying finder hood.

V-finder for video viewing
This is attached to the camera in place of the finder hood and connected to a conventional video camera. By means of a reflecting mirror, the light path can be switched from vertical viewing to transmission to a monitor. The rotating attachment has four click stops at 90° intervals. It allows several persons jointly to review picture composition and framing. In addition, it is ideal for surveillance purposes, with the camera triggered via an IR remote control.

Bright focusing screen with central split-image rangefinder and microprism collar (standard)
Split-image rangefinder for highly precise focusing on vertical lines, microprism collar for focusing on randomly textured detail. Microfine screen permits focusing over the entire field.

Clear glass screen
Ideal for precise focusing at any aperture, especially for closeup photography. Particularly well-suited where focusing aids are liable to interfere.

Bright focusing screen
Microfine screen for full-area focusing and unobstructed composition. Also suitable for lenses of very small effective aperture and for depth-of-field previewing. Lines mark the horizontal and vertical 4.5x6cm (1 3/4 x 2 1/4 in.) format.

Bright focusing screen with microprism spot
For rapid focusing with microprism and ground-glass screen. Disappearance of image shimmer is a precise focusing criterion even in poor light.

Superbright "High-D Screen"
This superbright screen is well-suited for practically any shooting situation. It allows very good and fast assessment of focus and depth of field even in critical lighting situations, for instance in twilight or in a portrait studio. Its patented microlens structure combines outstanding focus rendition with illumination right out to the corners of the field.

Lines mark the horizontal and vertical 4.5x6cm (1 3/4 x 2 1/4 in.) format. A central split-image rangefinder facilitates focusing on vertical lines.

Bellows unit
With rack-and-pinion drive and focusing stage. Clamping screws lock the extension, shown on a scale. With 1/4 in. tripod bush.
Retains all automatic camera functions.

Extension tubes
These are 9, 17, 34 and 67 mm long and may be used alone or in combination, even with bellows unit and reversing adapter. They retain all automatic functions of the camera.

The zoom extension tube with its precision helical mount covers a continuous extension range from 22 to 68 mm and thus offers maximum ease of operation in closeup photography. It is primarily intended for use with Zeiss lenses from 40 to 250 mm and may also be combined with the reversing adapter.

Reversing adapter
Enlarges the camera's closeup potential by allowing reverse mounting of 50 to 120mm lenses, and links up all automatic functions. Ideal with the bellows unit, where the reverse-mounted 80mm Planar f/2.8, for instance, yields magnifications from 1.8x to 3.5x.

Timer
For specially long exposure intervals from 1 s to 59 hours and 59 minutes. Can trigger 1 to 999 exposures.

The preset program of exposures and intervals remains on view, while an illuminated display counts down exposure numbers and intervals. The program can be interrupted and additional exposures made during standby intervals.

Quartz control ensures extreme timing accuracy (to within $^{1}/_{20\,000}$ s) to meet even exacting scientific requirements.

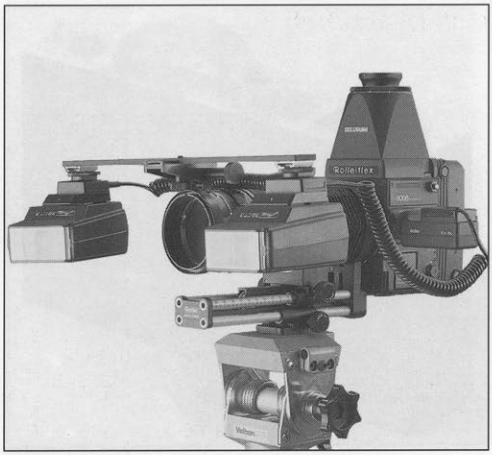
IR Remote Control Set RC-03
Can trigger single exposures or sequences, multiple or time exposures from up to 60 m (200 ft) away, or release a second or third Rolleiflex in synchronism with the master camera.

The transmitter and receiver are compact, light-weight units and simple to handle. The camera's battery powers the receiver.

Visual checks confirm signal transmission and reception as well as the duration of sequences and time exposures. Applications of wireless remote triggering range from unobtrusive shots by a hidden camera to photographing shy or dangerous animals from a safe distance.

Rollei SCA-356 flash adapter
For dedicated flash photography with the flash units of other manufacturers for the SCA-300 system.

All connections to the camera are made by simply slipping the flash unit with an SCA adapter into the camera's hot shoe. OTF metering guarantees optimum flash exposure.



Rollei MF-2 Macroflash
In conjunction with a Rollei SCA-356 adapter, the macroflash set brings the benefits of TTL flash control to closeup photography. The two Metz flash units with rotating and tilting reflectors (GN 32/m for ISO 100/21°) are controlled in synchronism. However, they may also be adjusted manually or used at different subject-to-flash distances for optimum lighting control.

Bellows lens hood
The extending bellows hood flags off unwanted back and side light. Its extension scale is marked for focal lengths of 80 and 120-250 mm. It comes complete with screening masks for 120 and 250mm lenses. A rear drawer takes 75x75mm gelatine filters.

Lens table

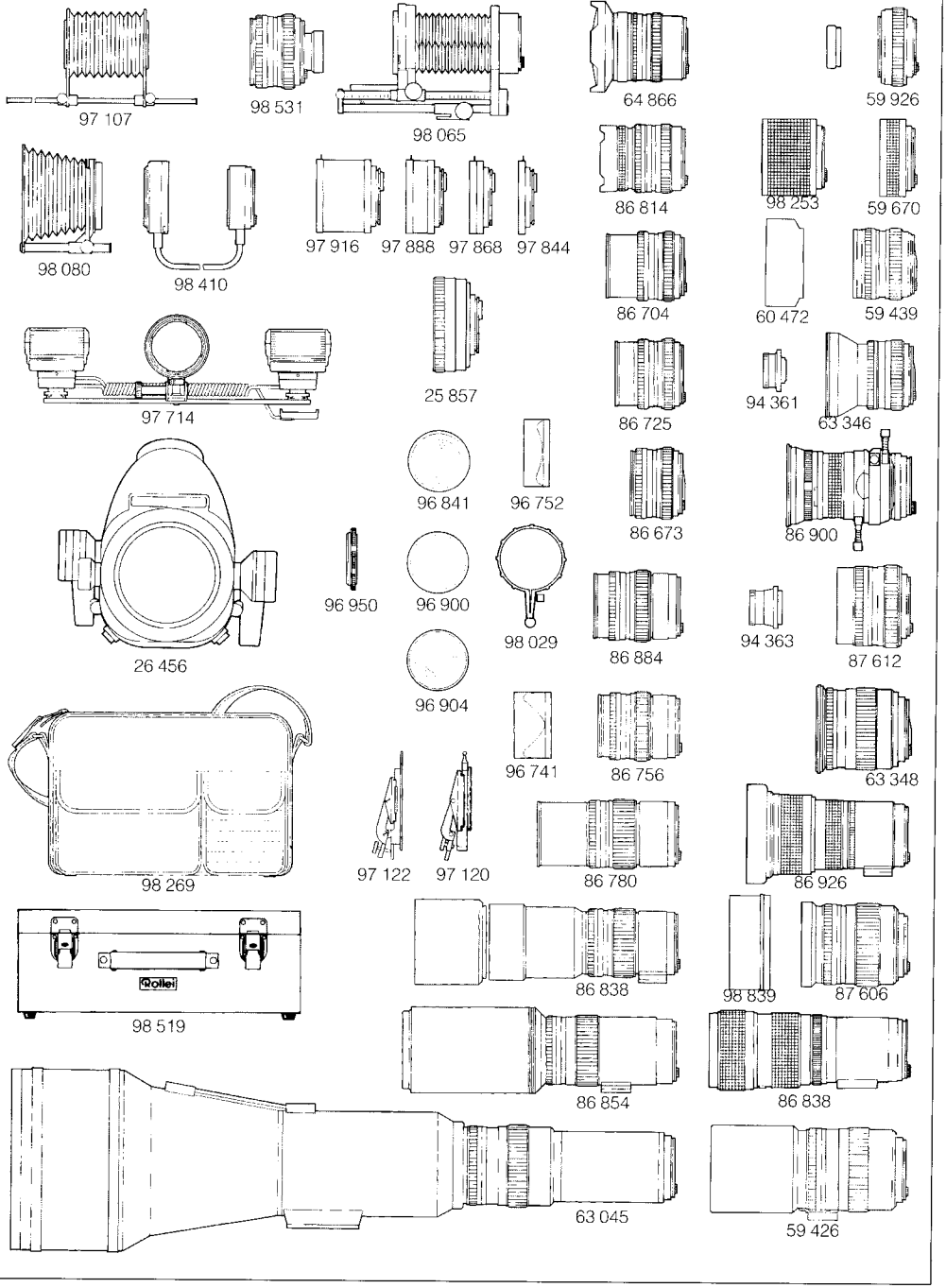
	Aperture range	Shutter-speed 30 sec –	Angle of view diag./hor.	Design	Focussing range	Maximum diameter	Maximum lengt	Weight	Filter fitting
30 mm F-Distagon f/3.5 HFT PQ	f/3.5–22	1/500	180/112°	8 elements 7 groups	∞–0.3 m (12 in.)	108 mm 4.25 in.	122 mm 4.81 in.	1550 g 54.6 oz.	built-in M 24 x 0.5
40 mm Super-Angulon PQ f/3.5 HFT (with floating elements)	f/3.5–22	1/500	88/68°	8 elements 8 groups	∞–0.4 m (19 in.)	83.2 mm 3.28 in.	72 mm 2.83 in.	750 g 26.4 oz.	M 77 x 0.75
40 mmDistagon f/4 HFT PQ (with floating elements)	f/4–32	1/500	88/69°	11 elements 10 groups	∞–0.5 mm (20 in.)	83 mm 3.27 in.	90 mm 3.45 in.	1040 g 36.7 oz.	M 95 x 1 via lens load No. 60471
50 mmDistagon f/4 PQ	f/4–32	1/500	75/57°	7 elements 7 groups	∞–0.5 m (20 in.)	81.5 mm 3.2 in.	96 mm 3.78 in.	840 g 29.6 oz.	Rollei bayonet size VI
50 mm Super-Angulon f/2.8 PQS HFT	f/2.8–22	1/1000	74/56°	9 elements 8 groups	∞–0.6 m (2 ft)	104 mm 4.1 in.	115 mm 4.55 in.	1600 g 56.4 oz.	M 95 x 1
60 mm Distagon f/3.5 HFT PQ	f/3.5–22	1/500	67/49°	7 elements 7 groups	∞–0.6 m (2 ft)	81 mm 3.19 in.	83 mm 3.27 in.	770 g 27.2 oz.	Rollei bayonet size VI
80 mmPlanar f/2.8 HFT PQS	f/2.8–22	1/1000	52/38°	7 elements 5 groups	∞–0.9 m (3 ft)	81.5 mm 3.2 in.	63 mm 2.48 in.	590 g 20.8 oz.	Rollei bayonet size VI
80 mm Xenotar f/2 HFT PQ	f/2–16	1/500	52/38°	7 elements 5 groups	∞–0.8 m (2.6 ft)	97.3 mm 3.93 in.	100 mm 3.93 in.	960 g 58.2 oz.	Rollei bayonet size VI
90 mm Apo-Symmar PQS f/4 HFT Macro	f/4–32	1/1000	47/34°	6 elements 4 groups	∞–0.4 m (19 in.)	104 mm 4.1 in.	110 mm 4.34 in.	860 g 30.30 oz.	M 95 x 1
120 mm Makro-Planar PQS f/4 HFT	f/4–32	1/1000	36/26°	6 elements 4 groups	∞–0.8 m (2.6 ft)	81.5 mm 3.2 in.	102 mm 4.02 in.	960 g 33.9 oz.	Rollei bayonet size VI
150 mm Apo-Symmar f/4.6 PQ HFT Makro	f/4.6–32	1/500	29/21°	6 elements 4 groups	∞1:1.1**	81.5 mm 3.2 in.	81.5 mm 3.2 in.	706 g 24.0 oz.	Rollei bayonet size VI
150 mm Sonnar f/4 HFT PQ	f/4–32	1/500	29/21°	5 elements 3 groups	∞–1.4 m (4.6 ft)	81.5 mm 3.2 in.	102 mm 4.02 in.	890 g 31.4 oz.	Rollei bayonet size VI
150 mm Sonnar f/4 HFT PQS	f/4–32	1/1000	29/21°	5 elements 3 groups	∞–1.4 m (4.6 ft)	81.5 mm 3.2 in.	102 mm 4.02 in.	890 g 31.4 oz.	Rollei bayonet size VI
180 mmTele-Xenar F/2.8 PQ HFT	f/2.8–22	1/500	25/18°	6 elements 6 groups	∞–1.8 m (6 ft)	100 mm 3.94 in.	150 mm 5.9 in.	1525 g 53,7 oz.	M 95 x 1 (filters) Bay. Ø 104 (Sun.)
250 mm Sonnar f/5.6 HFT PQ	f/5.6–45	1/500	18/13°	4 elements 3 groups	∞–2.5 m (8.2 ft)	81.5 mm 3.2 in.	170 mm 6.7 in.	1150 g 40.6 oz.	Rollei bayonet size VI
250 mmSonnar f/5.6 HFT PQS	f/5.6–45	1/1000	8/13°	4 elements 3 groups	∞–2.5 m (8.2 ft)	82.5 mm 3.25 in.	170 mm 6.7 in.	1150 g 40.6 oz.	Rollei bayonet size VI
300 mm Apo-Tele-Xenar f/4 PQ HFT	f/4–32	1/500	15/11°	6 elements 6 groups	∞–3.2 m (10.5 ft)	101 mm 3.95 in.	262 mm 10.31 in.	2000 g 40.6 oz.	M 95 x 1
350 mm Tele-Tessar f/5.6 PQS HFT	f/5.6–45	1/500	13/9°	4 elements 4 groups	∞–5 m (16.4 ft)	90 mm 3.54 in.	227 mm 8.94 in.	1650 g 58.2 oz.	M 86 x 1 screw-in
500 mmTele-Tessar f/8 PQ HFT	f/8–64	1/500	9/6°	5 elements 3 groups	∞–8.5 m (28 ft)	100 mm 3.94 in.	316 mm 12.4 in.	1995 g 70.4 oz.	M 86 x 1 screw-in
1000 mm Tele-Tessar f/8 PQ HFT	f/8–64	1/500	4.5/3°	4 elements 4 groups	∞–21 m (68.9 ft)	215 mm 8.47 in.	790 mm 31.14 in.	8740 g 19.3 lbs	–
55 mm PCS-Super-Angulon PQ f/4.5 HFT shift & tilt lens	f/4.5–32	1/500	70/85°	10 elements 8 groups	∞–0.5 m (20 i.)	104 mm 4.1 in.	155 mm 6.1 in.	1650 g 58.2 oz.	Rollei bayonet Ø 104
75–100 mm Variogon PQ f/4.5 HFT zoom lens	f/4.5–32	1/500	55/40° 29/21°	15 elements 13 groups	∞–1.8 m (6 ft) & ma.	100 mm 3.94 in.	180 mm 7.09 in.	1800 g 63.5 oz.	M 95 x 1 screw-in
140–280 mm Variogon PQ f/4.5 HFT zoom lens	f/5.6–45	1/500	32/23° 16/11°	17 elements 14 groups	∞–2.5 m (8.2 ft) & macro	94 mm 3.7 in.	238 mm 9.37 in.	1750 g 61.7 oz.	M 95 x 1 screw-in or 93 mm Series 9a drop-in filter
The 2 x tele-converter doubles the focal length, extending the lens range to a 2000 mm super tele or to a 280–560 mm super zoom system. The converter is particularly recommended for focal lengths between 80 an d 150 mm.									
Longar 1.4 x tele-converter. Specially designed for the new fast tele lenses, this converter a 1.4 times extension of the focal lenght. while, at the same time, reducing the f-number by one stop.									

**with extension bellows

The Rolleiflex 6003 System

59926	M39/40 adapter
59670	1.4x Longar teleconverter
59439	40mm Super-Angulon f/3.5 HFT
63348	50mm Super-Angulon f/4.5 HFT
86900	55mm Super-Angulon f/4.5 HFT
87612	80mm Xenotar f/2 HFT
63346	90mm Apo-Symmar f/4 HFT
86926	75-150mm Variogon f/4.5 HFT
87606	180mm Tele-Xenar f/2.8 HFT
98839	Lens hood for 180mm f/2.8
86838	140-280mm Variogon f/5.6 HFT
59426	300mm Apo-Tele-Xenar f/4 HFT
64866	30mm F-Distagon f/3.5 HFT
86814	40mm Distagon f/4 HFT
98253	2x teleconverter
60471	Lens hood for 40mm f/3.5 or 40mm f/4
86704	50mm Distagon f/4 HFT
86725	60mm Distagon f/3.5 HFT
86673	80mm Planar f/2.8 HFT
86884	120mm Makro-Planar f/4 HFT
86756	150mm Sonnar f/4 HFT
86780	250mm Sonnar f/5.6 HFT
86838	350mm Tele-Tessar f/5.6 HFT
86854	500mm Tele-Tessar f/8 HFT
63045	1000mm Tele-Tessar f/8 HFT
98519	Aluminum case
97122	24x36mm slide-copying stage
97120	6x6cm slide-copying stage
97714	MF-2 TTL Macroflash
96841	Zeiss Softar I soft-focus attachment
96900	Circular polarizing filter –1.5
96904	Zeiss Softar II soft-focus attachment
98029	Quick-focusing lever
96950	Size VI gelatine-filter holder
98080	Bellows lens hood
98410	Reversing adapter
97916	Extension tube, 67 mm
97888	Extension tube, 34 mm
97868	Extension tube, 17 mm
97844	Extension tube, 9 mm
98065	Bellows unit
98531	150mm Apo-Symmar f/4.6 HFT
97107	Extension bellows for slide-copying stages
96752	Lens hood, size VI, for 50mm f/4 and 60mm f/3.5 lenses
96741	Lens hood, size VI, for 80-250mm lenses (except 180 mm)
98839	Lens hood for 180mm f/2.8
63948	V-finder universal finder hood
96921	Magnifying hood
97814	45° prism finder
62903	90° eye-level finder
64899	Rapid charger
97995	Nicad battery
98200	External battery connector
91187	Car battery cable
98017	Carrying strap
62632	Aperture/alignment mirror set
97069	Bright focusing screen with central split-image rangefinder and microprism collar
10772	Superbright "High-D" focusing screen
64911	Bright focusing screen
64913	Bright focusing screen with microprism spot

97054	Clear glass screen
61396	LSC focusing screen
11616	Rolleiflex 6003 Professional with 80mm Planar lens f/2.8 HFT PQ
88798	6x6/120 magazine
88799	6x6/220 magazine
88800	4.5x6/120 magazine
88801	4.5x6/220 magazine
62730	Digital ScanPack
25957	Digital ChipPack
59901	Action grip
98004	Film insert
13493	Film stage for interchangeable magazines
97979	Polaroid magazine
89445	Data-70 magazine
97661	Rollei SCA-356 dedicated flash adapter
96725	Quick-release tripod mount
97104	Focusing stage
60196	IR remote-control set
98130	Timer
98874	RC-120 remote control
98389	FRC-1 remote footswitch


97 107
98 531
98 065
64 866
59 926
86 814
98 253
59 670
98 080
98 410
97 916
97 888
97 868
97 844
86 704
60 472
59 439
97 714
25 857
86 725
94 361
63 346
96 841
96 752
86 673
86 900
96 950
96 900
98 029
26 456
86 884
94 363
87 612
96 904
96 741
86 756
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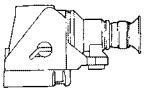

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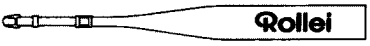

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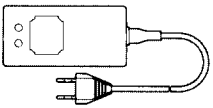

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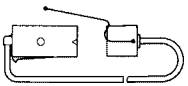

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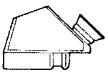

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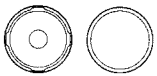

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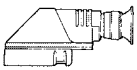

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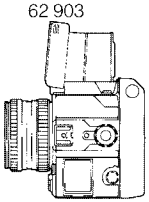

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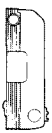

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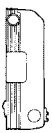

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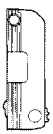

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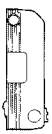

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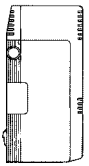

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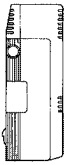

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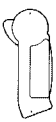

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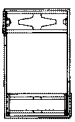

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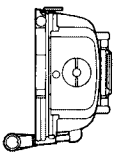

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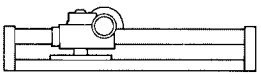

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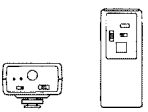

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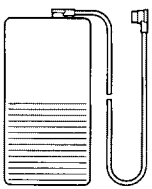

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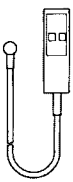

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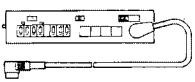

98 104

Trouble-shooting

Problem
Nothing works
with – SLIDE – display
Film fails to advance to frame 1
No aperture display
– – – – – – display with PQ lens
– – – – – – display with older lens
88 8888 display with PQ lens on auto with PQ lens on manual
88 8888 display with older lens
Aperture display blinks with PQ lens
In shutter-priority AE additional LEDs light up with older lens
Shutter speed blinks with PQ or older lens
Fastest speed blinks with PQ or older lens
No aperture or shutter-speed display with older lens
Shutter does not operate right away

Cause	Remedy
Camera not switched on Battery not inserted or exhausted Lens unlocked	Turn master switch to "S" Insert or recharge battery Lock lens
Loose turns in backing paper	Press shutter release again; if necessary, tighten backing paper by hand before loading film
Lens is not PQ type	Mount PQ lens
Camera set to B or T in shutter-priority AE	Select different exposure mode
Camera set to auto bracketing or B and shutter-priority AE	Select different exposure mode
EV ≤ 0	Use flash
EV ≤ 5	Use larger aperture or flash
Limit of aperture range	Use different shutter speed
Limit of aperture range	Use different shutter speed
Limit of shutter-speed range	Change aperture
Faster speed set than available	Change to slower speed till display steady
With older lenses and aperture-priority AE, display of shutter speed (or aperture-range limit) appears only when lens is stopped down	Use meter switch or stop-down button to stop lens down
Selftimer activated	Set switch 30 to "off"

Trouble-shooting

Problem
No balance LEDs on manual with older lens
With older lens, no change in exposure display after correcting aperture or speed
Premature exhaustion of battery
No image on screen
Screen image appears unsharp
Correct exposure setting impossible
Exposure reading yields different result with lens of other focal length
Shutter release remains locked, but preceding exposure reading was OK
Camera cuts off during exposure sequence
No fill flash in dedicated flash mode

Cause	Remedy
With older lenses and manual metering, balance LEDs light up only when lens is stopped down	Use meter switch or stop-down button to stop lens down
Correction was made with meter switch pushed forward	Release meter switch and repeat reading
Operating temperature too low	Keep battery warm and recharge or use spare battery or external battery connector
Mirror locked up	Press shutter release and repeat meter reading
Screen inserted wrong way round or not fully engaged	Insert screen correctly (matt side down), push screen frame home fully
Poor eyesight	Use eyesight correction lens (+2.5 to –4.5 diopters, available through Rollei service)
Wrong aperture or shutter speed selected	Set different aperture or shutter speed
Wrong choice of film or very unfavorable lighting	Use faster/slower film, ND filter, artificial light or flash; use lens with smaller minimum aperture
New reading makes allowance for different brightness distribution in smaller/larger field	Unnecessary, since difference in brightness distribution is simply due to difference in coverage
Battery warning went unheeded; camera switches off when battery voltage drops below safe level	Change or recharge battery
Battery exhausted	Use fully charged battery
Failure to set fill-flash factor	Set fill-flash factor between -1/3 EV and -3 EV on exposure-compensation switch

Trouble-shooting

Problem	Cause
Camera switches off during film laoding or advance; fuse blows	Film base brittle, e.g. in cold weather or after refrigerated storage
	Film wound up unevenly
Faulty exposure	Light changed after mirror lockup
	Stray light entering focusing hood (especially from fluorescent tubes)
	Viewfinder warnings went unheeded
Pictures unsharp	Camera used with wrong back (SLX/6002)
Frame counter stops at 15 or 16	Size 120 film used in size 220 back
Size 220 film not wound up fully	Size 220 film used in size 120 back
One or two frames unexposed at end of film	Film insufficiently advanced during loading

Remedy
Keep film (and camera) warm; replace fuse; carry spare battery in warm pocket
Replace fuse (use only type 1.25 A/250 V, slow-blowing)
Do not use mirror lockup in rapidly changing light – let AE control act till last moment
Swing up focusing magnifier; avoid direct light in hood; close hood, if necessary
Take reading before every exposure and watch for warning signals (blinking aperture or speed display, balance LEDs out by more than 2 EV, -- ----, 88 8888)
Use camera only with proper magazine
Press shutter release twice to spool up film end. Pictures probably unsharp due to poor film flattening
Press shutter release about 20 times
Wind on backing paper until arrow mark lines up with index

The care of your camera

Like any other instrument expected to give long-term reliable service, the Rolleiflex 6003 Professional calls for suitable care in handling. Use these proven methods for cleaning:

Remove dust with a soft camel-hair brush or a rubber blower. If external lens surfaces need cleaning, gently breathe on them and wipe clean with optical lens tissue. To kill static, breathe on the surface and allow the condensation to evaporate without wiping.

Use special care in cleaning the focusing screen: Remove dust only with a blower or soft camel-hair brush. Protect both sides against fingerprints. Keep the camera away from harmful fumes and dampness.

In highly humid tropical and subtropical climates, metal parts risk corrosion and glass surfaces fungus growth. Whenever possible, dry out the camera in the sun and fresh air. Keep magazines and film tracks clean (gelatine fragments rubbed off the film attract fungus growth). Take special care against any kind of dirt or soiling.

Should any problems be encountered, consult your nearest Rollei Service Center.

Specifications

Camera type
Modular single-lens camera with microprocessor control, multimode exposure control, variable metering patterns, TTL flash control, autowinding and action grip.

Picture sizes
6x6 cm and 4.5x6 cm ($2^1/_4$ x $2^1/_4$ and $1^3/_4$ x $2^1/_4$ in.)

Film types
Size 120 and 220 roll film for 12 or 24 exposures, respectively (6x6 cm), or 16 and 32 exposures, respectively (4.5x6 cm); Polaroid film packs; perforated 70mm film.

Film speeds
Set on film magazine in $^1/_3$ EV from ISO 25/15° to 6400/39°. ISO speed displayed during setting.

Shutter
Electronically controlled leaf shutter, $^1/_{500}$ s and $^1/_{1000}$ s to 30 seconds in $^1/_3$ increments plus B,T, direct drive controlled by two linear motors in each lens.

Exposure metering
1. Center-weighted multi-zone metering with seven silicon photocells in five groups behind instant return mirror. Two metering patterns.
2. Spot metering by photodiode on center of focusing screen (approx. 1% of frame area).

Quick release
Shutter operates approx. 3-4 ms after depression of shutter release with PQ lenses, approx. 2 ms with PQS lenses.

Auto quick release
Automatic quick-release standby after every exposure.

Exposure modes
1. Shutter-speed priority AE.
2. Aperture-priority AE.
3. Programmed AE, based on fast-speed priority.
4. Meter-assisted manual in $^1/_3$ EV increments.

Metering range
EV 0 to EV 19 with ISO 100/21° film, f/2 lens.
EV 5 to EV 19 with 6006 lenses.

AE lock
Locks aperture and speed (EV). Works in all automatic modes.

Exposure correction
Manually set in $^1/_3$ EV increments from $-4^2/_3$ to +2 EV. Auto bracketing (S± position) with $\pm^2/_3$ EV display during setting.
Three-shot sequence variable from $\pm^1/_3$ to $\pm^9/_3$.

Automatic flash control
OTF flash metering via additional Si photodiode; flash-ready and auto-check signals in finder. Film-speed range ISO 25/15° to 400/27°. Fill flash in all auto modes.

Flash synchronization
At all shutter speeds from $^1/_{1000}$ s (PQS) $^1/_{500}$ s (PQ) to 30 seconds. Hot shoe with contacts for dedicated flash units (SCA-300 System), Rollei SCA-356 flash adapter.

Shutter release
Electromagnetic releases on camera front and shutter-speed dial. Additional remote-control sockets. Selftimer.

Depth-of-field preview
Stop-down button operates in all exposure modes.

Mirror lockup
In any operating mode; stores and displays exposure reading. Shutter speed, ISO and exposure compensation can be varied after lockup.

Lens mount
Rollei bayonet mount with 10 contacts for transmission of iris and shutter drive pulses. Full exposure coupling retained even with bellows, extension tubes and reversing adapter.

Lenses
Interchangeable Zeiss and Schneider PQ (professional-quality) and PQS lenses for use of all camera functions with full-aperture metering; stop-down function for depth-of-field preview. Earlier non-PQ Zeiss and Schneider lenses usable with stop-down metering only.

Multiple exposures
Film advance disengaged in ME position of camera switch; screen image permanently visible.

Mirror
Instant return mirror with partially transmitting multicoating and pneumatic brake. Lockup provision.

Finder system
Camera supplied with folding hood containing swing-out, interchangeable magnifier. Optional 45° prism finder, rigid magnifying hood and 90° eye-level finder.
Interchangeable focusing screens.

Viewfinder information
LED displays for shutter speed and aperture (in 1/3 increments), balance signals for manual metering, exposure correction, spot/multi-spot metering, AE lock, flash ready, auto check, battery check.

Film advance
Built-in high-performance motor for single shots and sequences with up to 2 fps. Automatic advance to first frame. Automatic wind-off after last frame.

Power supply
Rechargeable sintered-plate nicad battery for about 500 exposures at room temperature. Rapid charger (110-240 V, 50/60 Hz) with automatic charge limiter and 12-volt connector for car battery.

Action grip (accessories)
With four click stops (for waist-level and eye-level shooting), detachable. Detachable leather strap.

Interchangeable film magazines (accessories)
For 6x6cm and 4.5x6cm pictures on size 120 and 220 film. Built-in laminar drawslide, film-speed input, film-type reminder and preloadable film inserts. Type Data-70 magazine for 60-70 exposures. Polaroid back for film packs (8 exposures 6x6 cm). Earlier Rolleiflex 6006 magazines usable. Automatic film-speed input ISO 100/21°. Other speeds by exposure-compensation adjustment. Can be converted by Rollei.

Connections
Universal 14-contact threaded socket for timer, remote releases, pedal switch, infrared remote control.
Quick-release tripod coupling. 1/4 and 3/8 in. tripod sockets.

Operating temperature
From -20°C to +60°C.
Special adaptations available from Rollei Fototechnic for extreme temperatures.

Size (wxhxd)
Without lens: 143 mm x 139 mm x 124 mm.
With 80mm f/2.8 lens: 143 mm x 139 mm x 176 mm.

Weight
Approx. 1450 g (51 oz) without lens, 2060 g (72 oz) with 80mm f/2.8 lens.