Leica

Instructions

LEICA R6

We hope that you will obtain a great deal of pleasure from your new LEICA and wish you many years of successful photography with it. May we also draw your attention to the following facilities which are available to you:

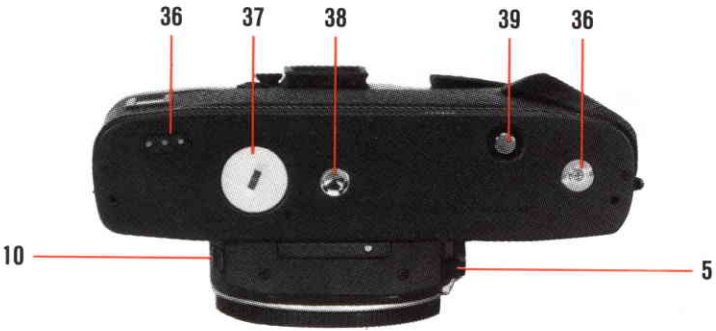
Technical service
Your authorized Leica agent's Technical Service (see warranty card) is available for servicing your camera and carrying out repairs in case of damage.

Leica Academy. The internationally famous Leica Academy teaches photographic know-how. It meets the needs of keen photographers for special training in demanding areas of 35 mm photography, projection, and enlargement.
Seminars offer participants practical information on the LEICA world of values and on the fascination of the skilled use of LEICA products. Course syllabuses are application-oriented and informative, and provide a wealth of practical suggestions, help, and advice.
Details and registration forms are available from:
Leica GmbH, Leica Academy,
Schützenstrasse 6, 6330 Wetzlar (Germany),
Telephone + 49(0)64 41 29 23 33

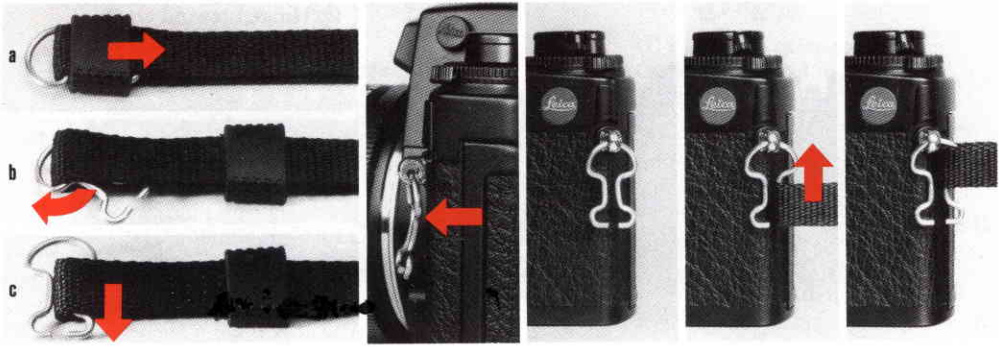
Contents

Brief description

① Eyelet for carrying strap
② Depth-of-field lever
③ Bayonet lock
④ Electronic self-timer
⑤ Cable socket for independent mirror release
⑥ Illuminating window for shutter-speed indicator
⑦ Illuminating window for aperture indicator
⑧ Self-timer LED
⑨ Coaxial flash-contact cable socket
⑩ Ancillary light
⑪ Locking button for exposure-meter override
⑫ ISO film-speed indicator
⑬ Override setting lever
⑭ Override indicator
⑮ Focusing ring
⑯ Depth-of-field scale
⑰ Red dot for alignment of interchangeable lenses
⑱ Aperture-setting ring
⑲ Selector switch (selective / integral mode) and locking button
⑳ Automatic frame counter
㉑ Film-speed setting ring



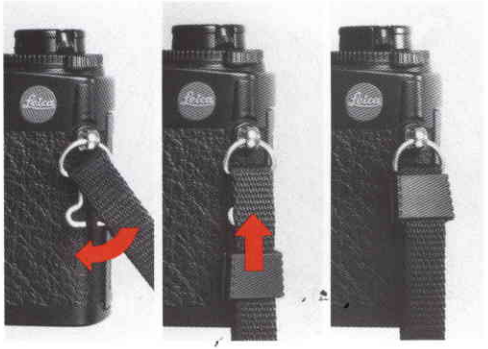
㉒ Hinged rewind crank
㉓ Film-speed lock (ISO) and battery check (C)
㉔ Battery-check LED
㉕ Accessory shoe with central X flash contact and contacts for system-compatible flash unit
㉖ Window to indicate exposure-meter mode
㉗ Film-plane indicator
㉘ Shutter release, with cable-release socket
㉙ Shutter-speed setting ring
㉚ Quick-wind lever (winds film and cocks shutter)
㉛ Eyepiece obturator
㉜ Setting wheel for eyepiece adjustment
㉝ Viewfinder eyepiece, with provision for correction lens
㉞ Film-cartridge window
㉟ Contacts for cable-free databack (visible when back is opened)
㊱ Contacts and linkage for motorized film transport
㊲ Cap to battery compartment
㊳ A-type 1/4" socket thread for tripod
㊴ Rewind-release and double-exposure button



Attaching the carrying strap

Attach the carrying strap to the eyelets ①.

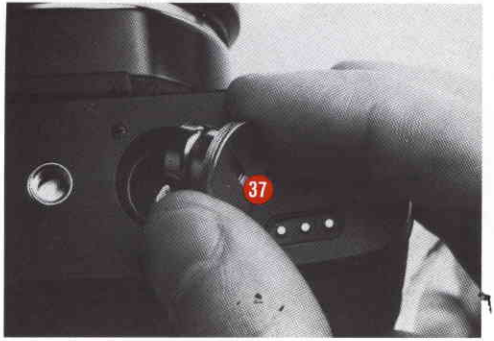
- Slide back the safety loop at the end of the strap (fig. a).
- Remove the metal hook from the strap (fig. b, c).
- Insert the hook in eyelet ①, with the bent part of the hook parallel with the side of the camera (fig. d, e).
- Insert the strap through the open end and the narrowed part of hook, then turn through 90° for a proper seating on the D-shaped loop (fig. f, g, h).
- Slide the safety loop fully home over the hook (fig. i, j).

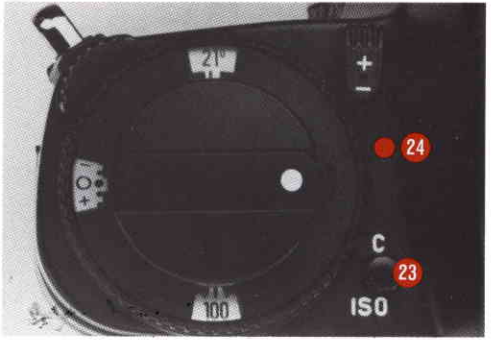


h i j

Shutter-speed setting ring

The shutter-speed setting ring ㉙ permits settings from $^1/_{1000}$ s to 1 s, B for time exposures of any length, and X = $^1/_{100}$ s for flash synchronization. B inactivates the exposure meter. There is a click stop for each of the engraved values. Do not attempt to set any intermediate value.





Inserting and checking the batteries

Exposure meter and ancillary light in the viewfinder display are powered by two silver oxide button cells or a lithium battery.

Insert a coin in the slot of the battery cap ㊲ to unscrew. Use a clean cloth to remove any oxide on the surface of the batteries and insert in the battery cap. Position the batteries as shown in the battery cap. Screw the cap with the batteries back into the baseplate of the camera.

Always check the state of the batteries before attempting to take any photographs, especially when the camera has not been used for some time. To do so, switch on the exposure meter and press the test button ㉓ for about 5 s. If the batteries are in working order, the LED ㉔ in front of the test button lights. If during these five seconds the LED dims noticeably, the batteries are nearly flat and should be replaced as soon as possible. If the LED fails to light, the batteries may have become coated with oxide. If so, simply wipe them clean by pressing the battery-test button the camera is switched on and the LED displays in the viewfinder are activated.

Silver oxide button cells
suitable for the LEICA R6

Ucar	EPX 76
Ucar	S 76 E
Ucar	357
Duracell	D 357 (10 L 14)
Varta	V 76 PX
Varta	V 13 GS
Varta	V 357
EverReady	S 76 E
National	SR 44
National	SR 44 W
Ray-O-Vac	RS 76 G
Ray-O-Vac	RW 42
Maxell	SR 44 P
Maxell	SR 44
Maxell	SR 44 SW

Lithium batteries
suitable for the LEICA R6

Duracell	DL 1/3 N
Varta	CR 1/3 N
Ucar	2 L 76

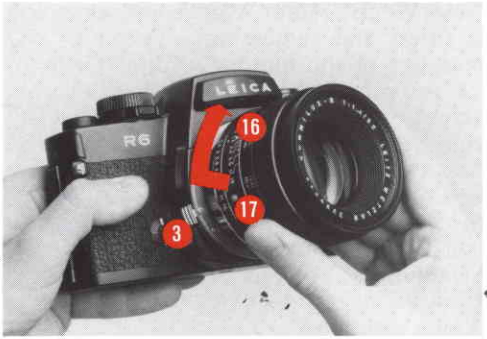
Caution:
Always remove the batteries if the camera is unlikely to be used for some time.

Note: When a Motor Winder or Motor Drive is fitted, the camera is powered by the batteries of the motorized film transport, i.e. you cannot check the camera's batteries. To check that the motor batteries are in fact supplying power to the exposure meter and the viewfinder displays, press the battery-test button ㉓, at the same time switching on the exposure meter, e.g. by pressing the locking button to the selecter switch (see: Switching on the exposure meter, page 18. However, this is not a battery check for the motor functions.

Notes on battery care and use:

- Store batteries in a cool, dry place
- Never use old and new batteries together
- Do not mix batteries of different makes
- These batteries are not rechargeable

Batteries contain toxic and environmentally damaging substances. Do not discard used batteries, but return them to your camera shop for recycling.



Inserting the camera lens

To avoid damage to your LEICA R6, do not attempt to fit any lens that does not have a control cam for a LEICA R camera (see page 46).

To insert a LEICA R lens irrespective of the focus and aperture settings, proceed as follows:

Grip the lens by the fixed ring ⑯. Position the red dot ⑰ on the lens mount opposite the dot on the bayonet lock ③ on the camera body. Insert the lens in this position. A slight clockwise turn clicks the lens into position.

Removing the camera lens

Grip the lens by the fixed ring ⑯. Press in the bayonet lock ③ on the camera body. Turn the lens anticlockwise and remove.

Always change lenses in the shade or in your body's shadow.

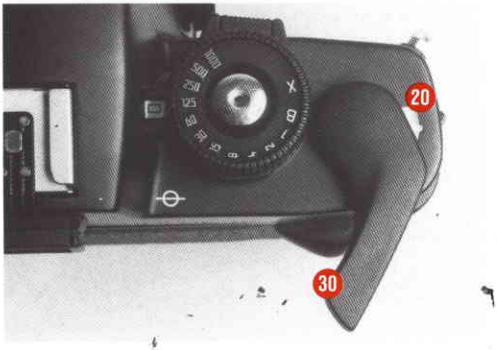
Adjusting the eyepiece

A sharply defined viewfinder image is essential for exploiting the full potential of the LEICA R6 and the high performance of LEICA R lenses. The eyepiece lens is therefore adjustable to your eyesight, with a range from + 2 to - 2 diopters.

To adjust the eyepiece, pull out the small setting wheel ㉜ on its left and turn until you obtain the correct setting. Set the lens out of focus, e. g. at the shortest focusing distance, point the camera at the sky, look through the viewfinder, and turn the setting wheel until the circle that indicates the edge of the field for the selective exposure-meter mode is sharply defined and in good contrast.

Press the wheel back into its normal position to retain the setting obtained.

In its normal position, the setting wheel turns readily, but without altering the eyepiece setting. When it is pulled out, you feel distinct click stops as you turn it.



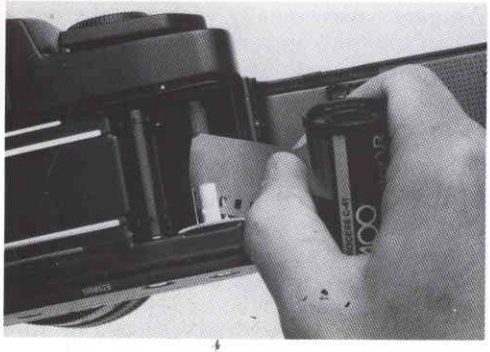
Quick-wind lever

The quick-wind lever ㉚ winds the film, turns the frame counter ⑳, and cocks the shutter.

With the lever pivoted out in the stand-by position, there is room to slide your thumb behind it and firmly support the camera.

For use with a Motor Winder or Motor Drive, see the manual supplied with the motor unit.

The ⊖ symbol marks the film plane.



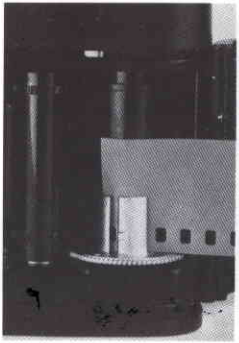


Fig. A: Right

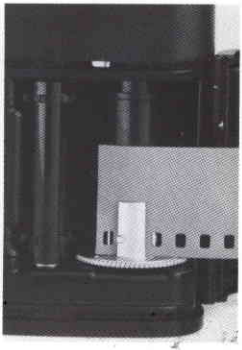


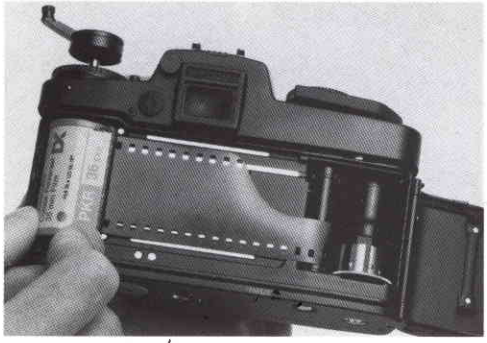
Fig. B: Wrong

Inserting the film

Pull up the rewind crank ㉒ and knob past the spring resistance to release and open the camera back*. This also resets the frame counter to S (start).

Pick up the film cartridge as shown above, emulsion side face up. Slide the end of the film obliquely from above into one of the slots of the take-up spool, making sure that the film is gripped by at least one of the retaining clips and projects **under** the next clip (see fig. A).

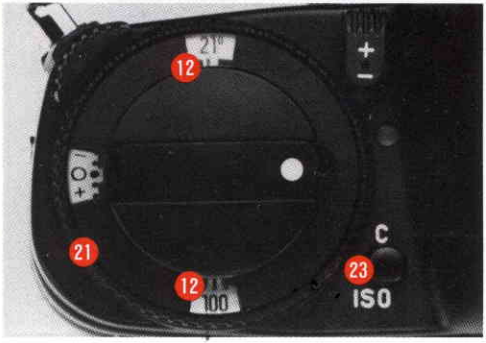
* The procedure is identical when a databack is fitted.



Pull up the rewind crank as far as it will go and insert the film cartridge in the empty cartridge chamber, then push in the rewind crank. The edge of the film must be parallel with the film guide. As you move the quick-wind lever, the sprockets of the transport drum must engage in the edge perforations of the film.
Use the quick-wind lever to wind the film one frame forward, to ensure that it lies tensioned in the film guide and that the mouth of the cartridge does not stick out.

You may occasionally wish to take out a partly exposed film and later insert it again. To ensure that the film is always inserted under the same conditions, use the quick-wind lever to cock the shutter, then release the shutter before inserting the film.
Snap the camera back shut to close the camera. Release the shutter. Wind the film one frame forward, release the shutter again, then wind on one more frame. The camera is now ready for use. The frame counter stands at 1. It counts forward to 36. To indicate the various lengths of film available, the figures 20, 24, and 36 are marked in red.

Important:
Bright light may enter through the mouth of the cartridge and damage your film. Never insert a film in bright light.



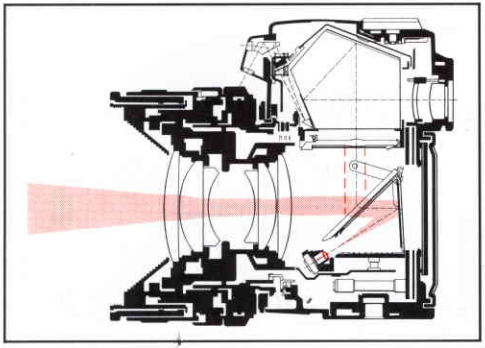
Setting the film speed

To set the film speed (ISO), press the locking button ㉓, at the same time turn the setting ring ㉑ until the required speed appears in the window ⑫. The display of all ISO values is split, e.g. for ISO 100/21°, 100 appears in the lower window and 21° in the upper.

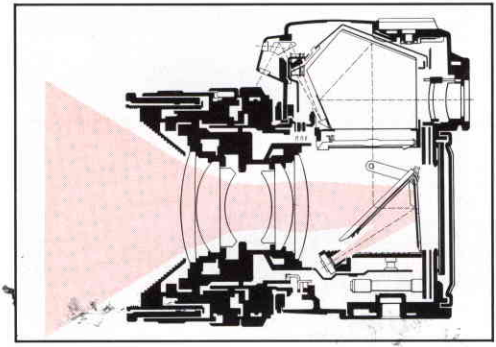
The setting range covers all values from ISO 12/12° to 3200/36° inclusive.

Rewinding and removing the exposed film

Exposure of the last frame blocks the action of the quick-wind lever. Rewind the film into its cartridge before removal from the camera. Press the rewind button ㊴ in the camera's baseplate, hinge out the rewind crank and turn it clockwise (direction of arrow) until you feel a slight resistance as the film is pulled out of the take-up spool. Pull up the rewind crank and knob to open the camera back, and remove the cartridge with the exposed film.



Selective mode

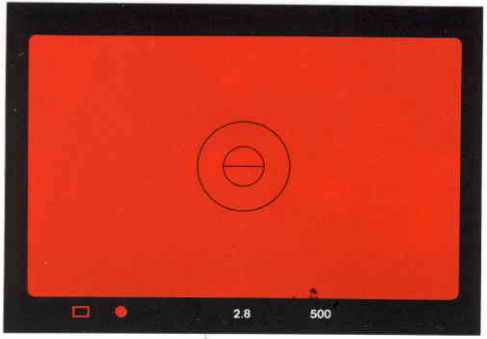


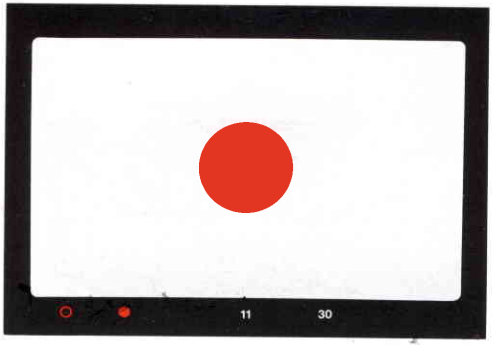
Full-field integral mode

Exposure-meter modes
The LEICA R6 has an exposure-meter system that provides two alternative modes:

○ Selective mode
□ Full-field integral mode

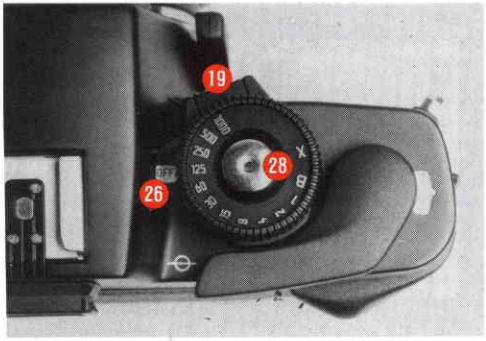
The exposure meter measures the light through the lens (TTL exposure-meter system). It uses a silicon photodiode, placed in the base of the camera to protect it from stray light. When you use any LEICA R lens with an automatic diaphragm, the exposure meter works at full aperture. The symbol displayed in the window ㉖ next to the selector switch and at the lower left of the viewfinder indicates the mode selected.

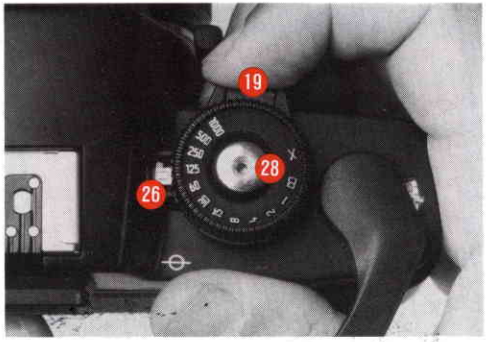




Full-field integral mode
Most photographic subjects contain details of varied brightness. The light reflection of this type of subject corresponds to a mean grey value of 18%. This is the calibration value for all exposure meters.
The full-field integral mode is suitable for all subjects in normal light, when there are no extremes of light or colour, and where the light and dark areas are fairly evenly distributed over the entire field.

Selective mode
This is the method of choice if the brightness range of the subject is very large.
The large central circle in the viewfinder indicates the field covered in this mode, in which the exposure meter measures only the light reflected by the exact area of the subject that should determine the exposure. The field is the same size on all focusing screens and for all lenses, whatever their focal length, and is clearly marked in the viewfinder.





Switching on the exposure meter and choosing the exposure-meter mode

The selector switch ⑲ has three positions: OFF, selective, and integral, in that order. To select the required mode, press the locking button and at the same time move the selector switch ⑲ from OFF to integral. To switch from integral to selective and vice versa, move the switch fully home from left to right or from right to left. Mode selection also activates the exposure meter (see: Activating the exposure meter).

Switching off the exposure meter

To switch off the exposure meter, set the selector switch to selective, press the locking button and at the same time move the switch to OFF.

Window ㉖ displays the state of the exposure meter:

OFF = Switched off
○ = Switched on, selective mode
□ = Switched on, integral mode

Activating the exposure meter

Check that the exposure meter is switched on and set the mode required. There are three means of activating the exposure meter: press lightly on the shutter-release button ㉘ as far as the pressure point; press the locking button to the selector switch ⑲; or press the battery-check button ㉓. When the exposure meter is active, the LED display in the viewfinder lights. If the shutter is cocked when you release the button you have used to activate the system, the LEDs continue to light for about 12 s. If the shutter is not cocked, the LEDs go out immediately.

To indicate that the exposure meter is ready, one or two of the LEDs of the shutter/aperture balance light. In very poor light, in the threshold region of the exposure meter's range, the system has to settle down for two or three seconds before it can give an accurate reading.

Setting the correct shutter/aperture combination

For a correct exposure, check that the shutter is fully cocked and the shutter-speed setting ring is set to the required click stop. Activate the exposure meter. Turn the shutter-setting ring and/or the aperture-setting ring on the lens until the round central LED of the shutter/aperture balance lights. The two arrow-shaped triangular LEDs of the shutter/aperture balance indicate under- or overexposure and the direction in which to turn the setting ring(s) for a correct exposure, as follows:

- ▶ Underexposure by at least a full stop: turn clockwise
- ▶● Underexposure by half a stop: turn clockwise
- ● Correct exposure
- ●◀ Overexposure by half a stop: turn anticlockwise
- ◀ Overexposure by at least a full stop: turn anticlockwise

Full-aperture exposure control
Practically every LEICA R lens has an automatic diaphragm. A spring opens the diaphragm to full aperture for the exposure-meter reading and closes it to the required aperture setting for the exposure.

Working-aperture exposure control
Some lenses and accessories do not have an automatic diaphragm or have no linkage mechanism for it. This applies, for example, to lenses with a focal length of 400 mm or more and to the Focusing Bellows R. In these cases, you have to obtain the exposure-meter reading at working aperture.

Caution:
To avoid misleading exposure-meter readings, do not press the depth-of-field lever while taking a reading.

Effective working range of exposure meter
In the LEICA R6, the sensitivity of the photodiode, the film-speed setting, the nominal aperture of the lens in use, and the range available on the camera's shutter-speed setting ring and on the aperture-setting ring of the lens determine the effective working range of the exposure meter (see: Working diagram of exposure meter, page 23). Depending on the lens in use, it extends from f/1.4 to f/32.
If in poor light a small aperture does not let you achieve a balance, measure the light at full aperture and compute the time exposure for the aperture you want to use with the shutter set to B (see diagram).
If in poor light a slow film prevents you from obtaining a balance, measure the light at a faster film-speed setting and compute the time exposure required with the shutter set to B; do not forget to reset the film speed.

Range of exposure meter

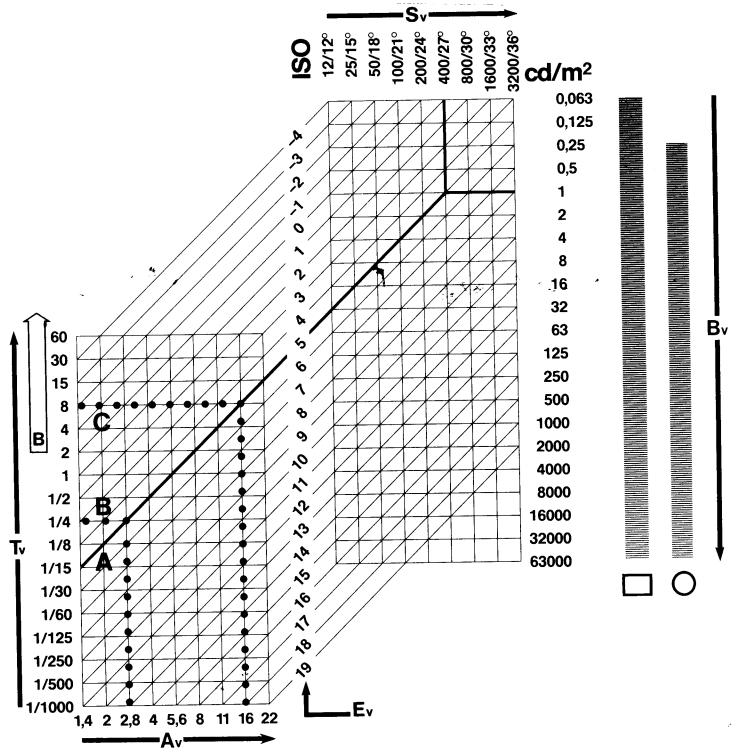
In selective mode, the exposure meter has a range from 0.25 cd/m² to 63 000 cd/m² at f/1.4, corresponding to the standard exposure values for ISO 100/ 21° from 1 s at f/1.4 to 1/1000 s at f/22.

In integral mode, its range is from 0.063 cd/m² to 63 000 cd/m² at f/1.4. This corresponds to the standard exposure values for ISO 100/21° film from EV - 1 to EV + 19, or from 4 s at f/1.4 to 1/1000 s at f/22.

The diagram gives all the important data for the exposure-meter system of the LEICA R6, such as sensitivity and range.

Low-light warning

The camera has a linear measuring range for correct exposures. When there is too little light for this range, the exposure meter can no longer produce an accurate reading. The low-light warning is given by flashing LED(s) in the viewfinder's shutter/aperture balance.

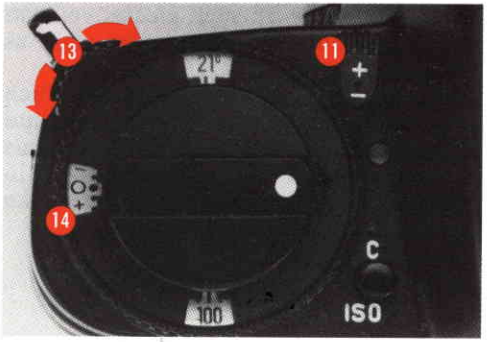


Working diagram of exposure meter

This diagram uses the standard layout in which camera and lens data are on the left, film speed and exposure-meter range on the right, and the exposure values (EV) lie between them. Time exposures are indicated diagrammatically by the arrow on the left. Line A in this example shows that in poor light (1 cd/m^2), for a fast film with an ISO rating of 400/27°, the exposure value is 5. For this, an f/1.4 SUMMILUX R lens needs an exposure of 1/15 s at full aperture. When you have adjusted the shutter/aperture balance in the viewfinder, the shutter-setting ring on the camera, the aperture ring on the lens, and the exposure display in the viewfinder show the same combination of shutter and aperture data. Line B shows that if you stop down to f/2.8 in the same conditions (EV5), the required exposure is 1/4 s. These values are again displayed after you have adjusted the shutter/aperture balance.

If you set the lens to its smallest stop of f/16, the exposure meter cannot give you a direct reading and there is no shutter-speed setting available. Further, you can no longer achieve a balanced shutter/aperture combination; in the viewfinder's shutter/aperture balance only the triangular LED on the left lights. In such a case, you can readily compute the correct exposure as follows:

In this example, the last reading for which you can obtain a balanced shutter/aperture combination is 1 s at f/5.6. This corresponds to 2 s at f/8, 4 s at f/11, and 8 s at f/16 (dotted line C). Set the shutter to B and take an eight-second time exposure.



Manual override control (exposure correction)

Exposure meters are calibrated to a standard grey value for an average photographic subject. If the subject is not in accordance with this standard, manual override correction of the exposure-meter reading becomes necessary.

Manual override is more often necessary in the full-field integral mode. In selective mode, the subject usually contains a representative detail with an average grey value that the more limited field of this mode makes suitable for an accurate measurement.

Generally, you correct the indicated exposure only after you have brought the shutter/aperture combination into balance by altering either the shutter speed or the aperture. When you set the override control, you obtain a direct adjustment.

Positive override correction
In a very brightly lit subject, such as snow, sand, or water, the high reflectivity causes the exposure meter to indicate too short an exposure. To prevent underexposure, select a slower shutter speed. For snow, for example, you may have to reduce the exposure from 1/125 to 1/30 s, i.e. in this case set the override control to +2.

Negative override correction
In a very dark subject that reflects only a small amount of light, the exposure meter indicates too long an exposure. To prevent overexposure, select a faster shutter speed, for example from 1/60 to 1/125 s, i.e. in this case set the override control to -1.

To set the override control, press the locking button ⑪ and turn the setting scale ⑭ to the required value by lever ⑬. To lock the button ⑪, press it in and turn it to the left. When the override control is at 0, the lever ⑬ fits snugly into the camera body. The override control can be set in steps of one-third of an exposure value, from EV +2 to EV -2. At the extremes of the ISO scale, the override control works only within limits. When override is active, the viewfinder symbol that indicates the active exposure-meter mode flashes.

The viewfinder as composition and control centre

The viewfinder of the LEICA R6 helps you compose your photographs and is the control centre for all important items of information:

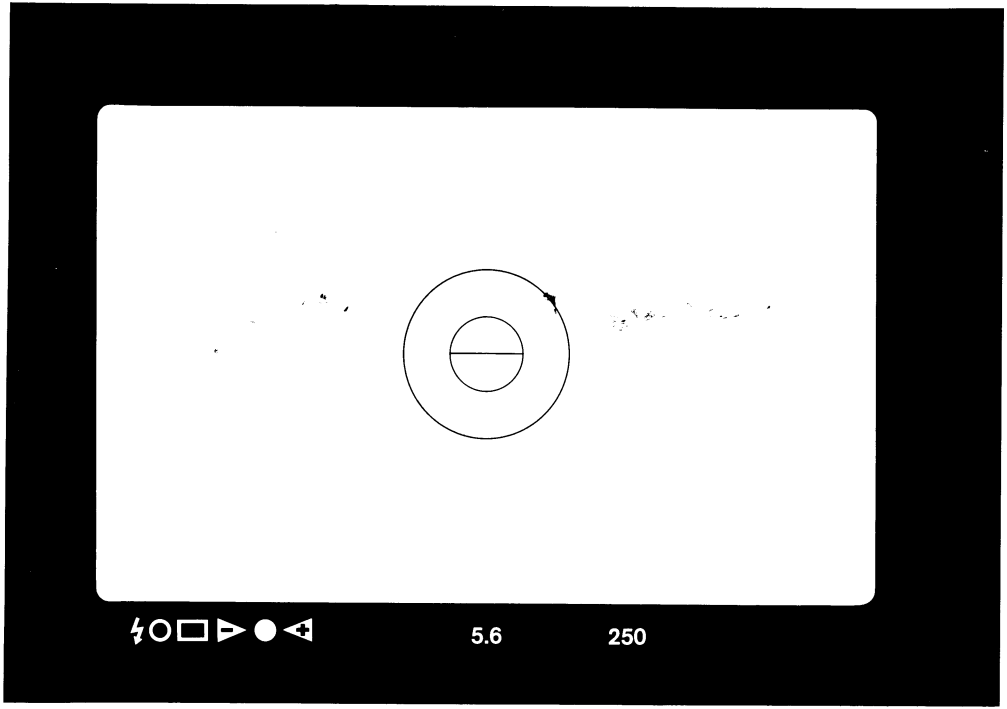
It lets you assess focus, picture excerpt, and perspective. The larger of the two central circles clearly defines the field for selective exposure-meter mode. The viewfinder area is 92 % of the frame size. With the eyepiece at 0 diopters and a standard 50 mm lens fitted and focused to infinity, it has an 0.8 x magnification.

The viewfinder displays all essential data. When the shutter is cocked, the LEDs light for about 12 s when the locking button to the selector switch, the battery-check button, or the shutter release is pressed and released. To avoid confusion, only essential data are displayed.

The illustration on page 27 shows all the displays at the same time.

When flash units of the SCA 300 and SCA 500 systems are used, the ϟ at the lower left of the viewfinder frame indicates 'flash ready' and 'flash exposure finished' (see page 36). At its right are the symbols indicating the active exposure-meter mode, i.e. selective (○) or integral (▭). Further to the right are the three symbols of the shutter / aperture balance. The preset aperture is projected into the centre of the viewfinder frame and next to it is the selected shutter speed. In poor light, both displays can be illuminated (see page 28).

The large circle in the centre of the viewfinder indicates the field for the selective exposure-meter mode. The illustration shows the universal focusing screen supplied as the standard focusing screen with every LEICA R6.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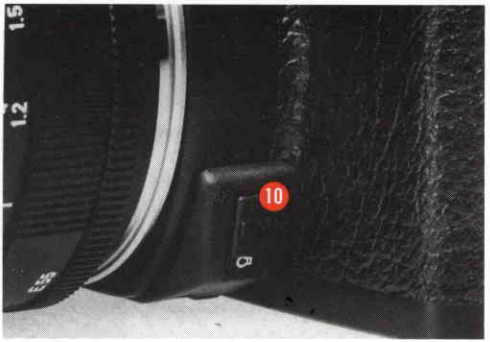
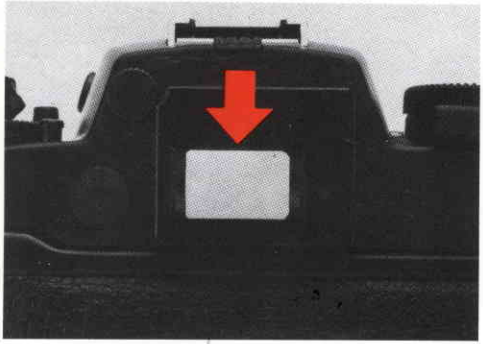


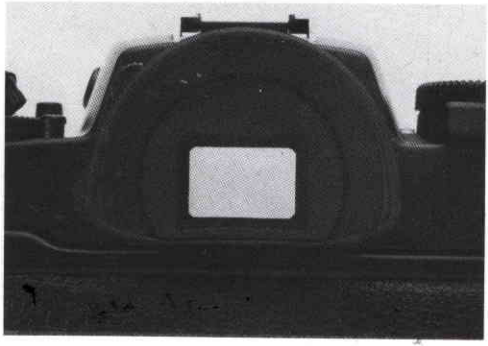
Ancillary light

To allow you to see the viewfinder display of the selected shutter speed and aperture in the dark, the LEICA R6 has ancillary lighting. The switch ⑩ is at the lower left of the mirror housing. The symbol ○ indicates that the ancillary light is switched off. To switch it on, push the switch up to position ♀ . To activate the ancillary light, check that the exposure meter is switched on and touch the shutter release or press either the locking button to the selector switch or the battery-check button. The light is visible from the outside on the lens ⑦ and in the illuminating window for the shutter-speed indicator ⑥. After you release the button, the ancillary light remains lit for about 12 s and then switches off automatically.

The ancillary light can also be switched on with the shutter set to B.

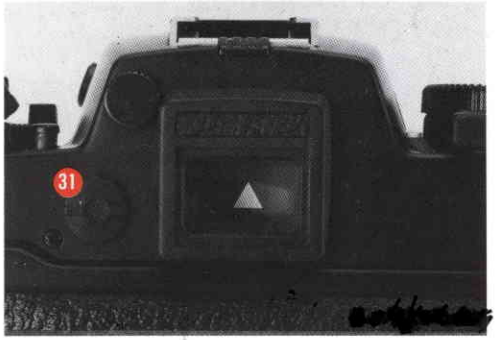
To avoid inadvertent battery drain, do not leave the ancillary light switched on unnecessarily.





Correction lenses
If the standard eyepiece adjustment from +2 to −2 diopters is inadequate for your eyesight, the following positive and negative supplementary correction lenses are available: 0.5, 1.0, 1.5, 2.0, and 3.0 diopters. The correction lenses are held by a special holder or by the eyecup. You can slide these over the eyepiece mount. A safety catch holds them in place so that they cannot be lost.

Eyecup
A flexible eyecup (code 14215) is available to shield the eye from stray light. This makes the viewfinder image still more brilliant and lets you focus more accurately.



Eyepiece obtura
The silicon photodiode of the exposure meter is located in the base of the camera, where it is protected from stray light. Normally, therefore, there is little likelihood of light entering the viewfinder eyepiece and affecting exposure-meter readings, except when you are not using the viewfinder for taking photographs from a tripod and direct sunlight or bright artificial light enters the eyepiece. To prevent this, turn the knob of the obturator ㉛ at the left of the eyepiece in the direction of the arrow. When the obturator is in place, a white triangle appears in the eyepiece.

Caution: If the obturator is not completely swung back, it may cover up the display in the lower margin of the viewfinder frame.

Focusing with the universal screen

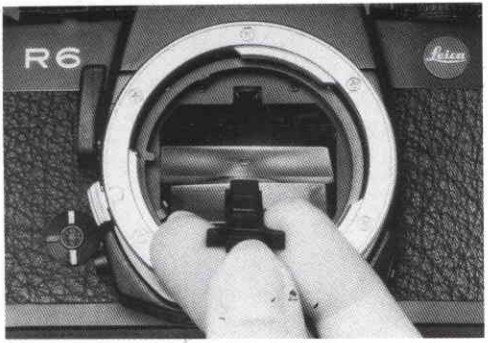
Standard delivery of the LEICA R6 includes a universal focusing screen. This produces a bright, high-contrast image and is suitable for photography in most of the situations that are normally encountered.

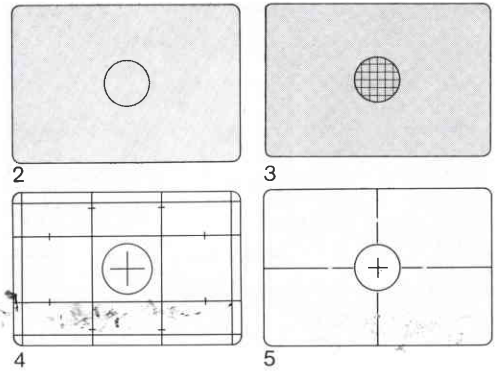
To focus, turn the focusing ring ⑮ on the lens.

When the image is out of focus, the edges and lines of the subject are discontinuous in the upper and lower semicircles of the split-image rangefinder.

A ring formed by a screen of rectangular microprisms surrounds the central split wedge. When the image is out of focus, this screen seems to flicker. The outer circumference of the ring also marks the outline of the field in the selective exposure-meter mode.

The remainder of the screen looks like a ground-glass screen and is ideal for focusing long-focus lenses and in close-range photography.





Interchangeable focusing screens
In addition to the universal screen, four optional focusing screens are available for the LEICA R6. Each of these is supplied in a case, complete with a pair of tweezers and a dust brush.

Caution:
To change the focusing screen, always use the tweezers supplied (see instructions for interchangeable focusing screens). Do not touch the focusing screen with your fingers.

Special tasks require tailor-made systems for fast, accurate work. This is why four further focusing screens are available for the LEICA R6: the full-field ground-glass screen (No. 2) for extreme close-range photography and very long focal lengths; the microprism screen (No. 3) for undisturbed composition; the full-field ground-glass screen with a grid for architectural photography and the reproduction of documents, including marks for making slides for TV projection; and the clear-glass focusing screen with cross-hairs for scientific photography, such as photomicrography and astrophotography.

Depth-of-field lever
When you use a lens with an automatic diaphragm, the exposure meter of the LEICA R6 works at full lens aperture. Press the depth-of-field lever to close the lens diaphragm to the preset value; when it is in this position, you can visually assess the depth of field. This is particularly useful for close-ups.

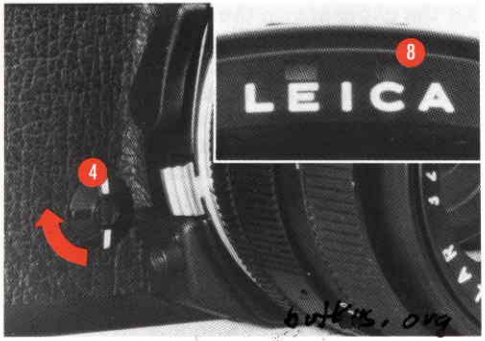
Do not press the depth-of-field lever while taking an exposure-meter reading or when the mirror is hinged up by the independent mirror release (see pages 20 and 34).

Depth-of-field scale on lens
The depth-of-field scale on the lens indicates the depth of field for the focusing distance set.
For example, if you focus a 50 mm f/2 SUMMICRON™-R lens at 5 m, at stop f/11 the depth of field extends from 3 m to about 20 m. At stop f/4, the field from about 4 m to 8 m is in focus.
Our depth-of-field table No. 920003 gives full details of the depth of field available at all focal lengths.

Socket for cable release
The shutter-release button ㉘ has a socket for a standard cable release with a conical screw thread.

Independent mirror release
Insert a cable release in the special socket ⑤ and press briefly to hinge up the mirror before the exposure and to close the automatic diaphragm to the preset value. To release the shutter, press the shutter release either manually or by cable release. The mirror and automatic diaphragm are reset automatically when the shutter is released, but cannot be reset manually. The independent mirror release must be actuated each time you wish to hinge up the mirror.
When the independent mirror release is used, an electromagnetic shutter release becomes inoperative, e.g. of the self-timer or the release of a motorized film transport, or a electric cable release.

To avoid inadvertently releasing the shutter, do not press the depth-of-field lever at the same time as the independent mirror release.



Self-timer

To set the self-timer, cock the shutter and turn knob ④ 30° clockwise in the direction of the arrow. To cancel, turn back the self-timer knob anticlockwise to its initial position. To start the self-timer, with the selector switch in either position ○ or □, gently touch the shutter release or press the locking lever to the selector switch; the camera remains switched on until the shutter is released. To indicate that the self-timer is activated, the LED ⑧ flashes; about 2 s before the self-timer release the shutter, the flashing changes to continuous light.

While the LED continues to flash, you may stop the self-timer at any time by turning back the self-timer knob ④. To restart and thus extend the delay, press the release button again.

Use of flash equipment

The LEICA R6 provides for through-the-lens flash-exposure control. This uses a separate silicon photodiode, well protected from stray light, in the base of the camera next to the photocell for the selective/integral exposure-meter modes (see page 16). When used with an SCA 300 or SCA 500 system-compatible electronic flash unit fitted with an SCA 351 or SCA 551 adapter, the LEICA R6 permits TTL flash-exposure control, i.e. the viewfinder indicates when the flash is ready for use and immediately after exposure it shows whether the flash was adequate. With an SCA 350 or SCA 550 flash adapter, the viewfinder indicates when the flash is ready for use, but in this case the flash unit's sensor measures the flash exposure and indicates whether the flash was adequate.

You may use any commercially available flash unit with a standard coaxial or central hot-shoe flash contact. To avoid malfunctions, do not connect your flash unit to both contacts at the same time.

Set the exposure on the shutter-speed ring. For synchronized electronic flash, the shortest exposure for X is $^1/_{100}$ s. You can also set the shutter manually to any shutter speed from $^1/_{60}$ s to 1 s, and to B. Set the correct aperture as indicated in the instructions supplied with your flash unit.

TTL exposure control

The accessory shoe of the LEICA R6 has a central hot-shoe contact and the control contacts for any electronic flash fitted with an SCA 351 or SCA 551 adapter. Within the range available for flash, you may use any aperture available on the lens fitted (see the manual supplied with your flash unit).

With the exposure meter switched on (see page 18) and an SCA 300 or SCA 500 flash unit used in conjunction with an SCA 350, SCA 351, SCA 550, or SCA 551 adapter, 'flash ready' is indicated as follows:

When the shutter is set to X, the ϟ symbol at lower left in the viewfinder flashes twice a second.

When the shutter is set to any speed from 1/60 s to 1 s, the ϟ symbol remains constantly lit.

If the shutter speed set is too fast for flash photography, i.e. 1/125 s to 1/1000 s, the ϟ symbol does not light.

When the shutter is set to B, none of the displays in the viewfinder lights, but TTL exposure control is possible. The flash unit indicates 'flash ready'.

When you use an SCA 351 or SCA 551 adapter, leave the finger on the shutter release after exposure to check that the flash was adequate.

X setting

Slow flashing (twice a second): Flash was adequate. Only slight discharge of condenser, flash immediately ready for use again.

Fast flashing at eight times a second, then slow flashing (2 Hz): Flash was adequate. Moderate discharge of condenser, flash ready for use in 2 s. Slow flashing indicates 'flash ready'.

Fast flashing (8 Hz) for 2 s, break (no light), then slow flashing (2 Hz): Flash was adequate. Heavy discharge of condenser. Resumption of flashing indicates 'flash ready'.

No light, followed by slow flashing (2 Hz): Flash was **inadequate** and the condenser was fully discharged. Resumption of flashing indicates 'flash ready' (also see table).

Shutter-speed setting 1 s to 1/60 s

After exposure, the ϟ symbol in the viewfinder display remains lit (see table). If the setting was too fast for flash, i.e. 1/125 s to 1/1000 s, the ϟ symbol does not light.

B setting
None of the displays in the viewfinder lights.

Caution: The film speed set on the camera (see page 14) also governs TTL flash-exposure control. Settings on the flash unit are disregarded.

LEICA R6 viewfinder display when SCA 300 or SCA 500 flash units are used

Setting of shutter speed	Before exposure with SCA 351, SCA 551, SCA 350, or SCA 550	After exposure with SCA 351 or SCA 551			
	Flash ready	Flash was adequate:			Flash was inadequate:
		Flash ready immediately	Flash ready after 2 s	Flash ready after some time	
X	ϟ flashes twice a second (2 Hz)	ϟ flashes twice a second (2 Hz)	ϟ flashes 2 s at 8 Hz, then at 2 Hz	ϟ flashes 2 s at 8 Hz, off, then at 2 Hz	off, then at 2 Hz
1 s to 1/60 s	ϟ lights continually	ϟ lights continually	ϟ lights continually	ϟ lights 2 s continually, off, then lights continually	off, then lights continually
1/125 s to 1/1000 s	ϟ off	ϟ off			
B	No display (power off)				

Override of TTL flash-exposure control
Exposure control is always integral. The light reaches a silicon photodiode next to the photocell for the integral/selective exposure-meter mode (see page 16). Although the appearance of the film emulsion used in all standard 35 mm film varies, its reflectivity is about the same irrespective of type, hence the correct exposure is generally achieved. In exceptional circumstances, you can correct exposure by manual override. Polaroid instant film, for example, requires negative correction by four to five click-stops. Override correction is also necessary when the flash subject consists mainly of light or dark details (see page 24).

Caution: Some flash units indicate 'flash ready' when they are only about 70 % fully charged. If you use this type of unit for a flash exposure as soon as the 'flash ready' sign appears and the photograph requires the full power of the flash unit, under exposure results. To avoid this when you use this type of equipment, always wait a few seconds longer to allow it to recharge fully before the next exposure.

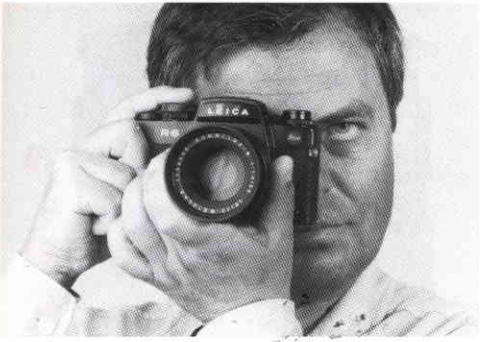
Conventional flash units
Connect via coaxial flash socket or central hot-shoe contact of LEICA R6.

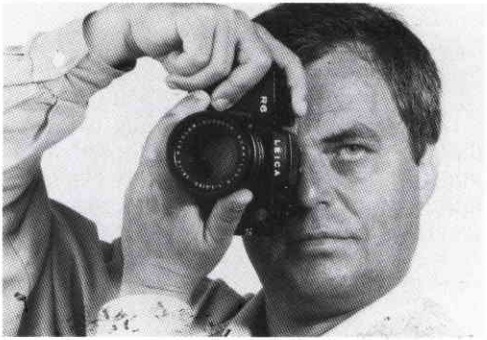
Coaxial plug
Any commercially available electronic flash unit and studio flash equipment with a standard coaxial plug is suitable for use with a LEICA R6. Connect the plug to the X flash-cable socket ⑨ on the left of the prism dome. If you use a commercially available multiple plug adapter, you can connect several flash units to the X socket.
To avoid malfunctions, do not connect flash units to both contacts at the same time.

Hot-shoe contact
Connect conventional electronic flash units to the X hot-shoe contact in the accessory shoe.

Flashbulbs
As in the case of electronic flash equipment, you can connect flashbulbs either to the coaxial socket ⑨ or the central contact in the accessory shoe. The table below gives details of the shutter speeds for use with synchronized flash:

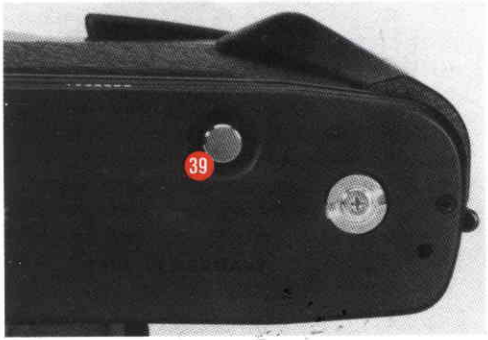
		X = 1/100 s 1/60 s to 1 s, B
Electronic flash		
Flashbulbs	**AG 3 B** **Flashcubes** **PF 1 B** **XM 1 B** **M 3** **PFC 4**	1/30 s to 1 s, B





Holding the camera correctly
To give the camera steady three-point support, and for fast focusing and film transport, grip the camera with the right hand, rest the index finger on the release button, and insert the thumb behind the hinged-out quick-wind lever, while the left hand supports the lens from below.

For upright (portrait) exposures, simply turn the camera, with the hands in the same position as before.



Multiple exposures

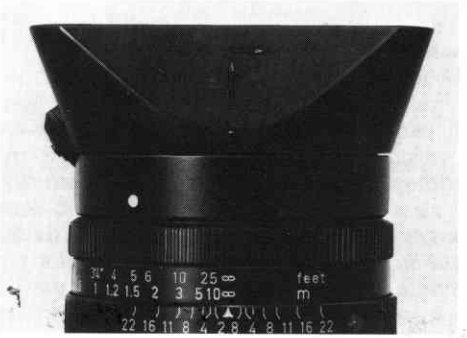
Take the first exposure, press the rewind button ㊴, and move the quick-wind lever. The same frame is now ready for a further exposure.

At the end of its movement, the quick-wind lever automatically resets the rewind button. If you want to expose the same frame yet again, press the rewind each time before moving the quick-wind lever.

The Motor Winder and Motor Drive also permit multiple exposures. For details, see the manuals supplied with these accessories.

Design of LEICA R lenses

The layout of the controls is standard for all LEICA R lenses. This ensures that no matter what focal length you use, the left hand can work fast and reliably. These controls are the aperture-setting ring ⑱, the fixed depth-of-field scale ⑯, and the focusing ring ⑮.



Automatic diaphragm

Most LEICA R lenses have automatic diaphragms, i. e. you always see the viewfinder image at full aperture and hence at maximum viewfinder brightness both before and after exposure. Just before the exposure or when you press the depth-of-field lever, the lens diaphragm closes to the preset value.

Certain LEICA R lenses do not have an automatic diaphragm. These are the 28 mm f/2.8 PC-SUPER-ANGULON-R, the 35 mm f/4 PA-CURTAGON-R, the 400 mm f/6.8 TELYT™-R, the 500 mm f/8 MR-TELYT-R, the 560 mm f/6.8 MR-TELYT-R, and the 800 mm f/6.3 MR-TELYT-S. For these, see 'Working-aperture exposure control', page 20.

Lens hoods

A functionally designed lens hood is an essential part of every LEICA R lens. Use the lens hood whenever you use the camera, because it protects the lens against stray light and glare, rain drops and fingerprints. Most LEICA R lenses are supplied with a fixed telescopic lens hood.

The lens hood also serves as a standard filter holder.

The screw-in lens hood for the 28 mm f/2.8 PC-SUPER-ANGULON-R also serves as a holder for size 67 EW extra-wide-angle filters.

Filters

LEICA R lenses with fixed telescopic lens hood are suitable for screw-in and standard filters. For standard filters, filter holders must be used. These are available as optional accessories.

Generally, screw-in filters are preferable, because they are easy to use, particularly in the case of the circular polarizing filters. For removable lens hoods, standard filters are suitable; here the lens hood also serves as a filter holder. First insert the filter in the lens hood, then attach the hood and filter to the lens (this does not apply to the 19 mm f/2.8 ELMARIT™-R lens). For turning circular polarizing filters, the 24 mm and 28 mm

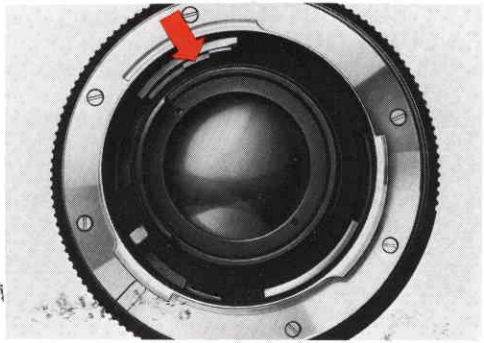
f/2.8 ELMARIT-R and the 35 mm f/4 PA-CURTAGON-R have a turning mechanism. On the 28 mm f/2.8 PC-SUPER-ANGULON-R, fit the 67 EW circular polarizing filter instead of a lens hood.

Screw-in filters and filter holders are easy to remove. To prevent strain on the filter, hold it on one side only and unscrew.

The use of filters

In TTL systems, the exposure meter automatically takes into account the reduced amount of light that passes through the lens. However, the sensitivity of various types of film differs for some parts of the spectrum. Extreme and dense filters may therefore cause deviant readings. For example, as a rule an orange filter needs about one extra stop and a red filter an average of about two stops more than the exposure-meter reading obtained. However, the red sensitivity of black-and-white film can vary widely, and no generally applicable value can be given.

In the case of circular polarizing filters, measure as you would do with any other filter. Because the high-efficiency multiple coating on the semi-transparent swing mirror of the LEICA R6 acts as a powerful polarizing surface, do not use linear polarizing filters; such filters seriously affect the accuracy of the exposure meter.



Existing LEICA R and LEICAFLEX lenses and accessories

All lenses and accessories for LEICA R cameras can be used without modification with the LEICA R6.

To avoid damaging the camera body of your LEICA R6, do not attempt to use it with lenses and accessories for LEICAFLEX™ models without a control cam. You can have your LEICAFLEX lenses fitted with such a control cam (see illustration) at any time for use with the LEICA R exposure-meter system. You can continue the unrestricted use of such modified lenses and accessories on all LEICAFLEX models.

Use of LEICA M lenses on the LEICA R6

You can use the LEICA R6 with any lens of the LEICA M range suitable for the VISOFLEX™ adapter. The operating conditions, such as focusing distance and object field obtainable, are the same as apply to the use of these LEICA M lenses with the VISOFLEX. A special adapter (code 14167) ensures the compatibility of these two LEICA 35 mm camera systems. Because these lenses have no automatic diaphragm, the exposure meter has to use the working aperture (see page 20).

Hints on the care of your LEICA R6 and its lenses

Carefully remove dust and fluff on the mirror by means of a soft, dry sable brush from which you repeatedly remove any grease with ether before and during cleaning.
Avoid mechanical damage to the focusing screen: do not allow the metal mount of the brush to touch the screen.
To avoid forcing dust into the camera's interior, do not blow into the mirror chamber.
When pointed at the sun, a camera lens acts as a burning glass. To protect your camera, always use a lens cap, keep the camera in its bag, and place it in the shade.
In addition to its designation by type and model, each lens has a serial number. Make a note of the serial numbers of all your lenses and of your camera (on camera baseplate); this may be important in case of loss.

To remove dust on external lens surfaces, carefully use a soft sable brush or a clean, dry, soft cotton cloth. Do not use spectacle-cleaning tissue or cloth impregnated with chemicals that may attack the glass of your camera lens; the composition of glass used for spectacles is different from that of high-performance camera lenses.

In unfavourable conditions such as the seaside, a colourless ultraviolet filter protects the front lens from damage by seawater spray, sand, etc. Although such a filter is optically flat, it forms an additional pair of surfaces which at a certain angle of incidence may cause unwanted light reflection in the image, particularly in photography against the light and with high-contrast subjects. Do not use a filter in such conditions; the lens hood also provides some protection against fingerprints and raindrops.

Camera cases

Two ever-ready cases are available for the LEICA R6, one with a standard front flap and one with an extra-long flap. To detach the front flap, slide up the press stud at the back of the case to unlock. The two types of case are suitable for use with the following lenses:

	Standard ever-ready case (code 14510)	Ever-ready case with long front flap (code 14515)
16 mm f/2.8	–	yes
19 mm f/2.8	–	without lens hood
21 mm f/4	without lens hood	without lens hood
24 mm f/2.8	without lens hood	without lens hood
28 mm f/2.8	without lens hood	yes
35 mm f/1.4	–	yes
35 mm f/2	–	yes
35 mm f/2.8	yes[1)]	yes
35 mm PA f/4	without lens hood	yes
50 mm f/1.4	yes	yes
60 mm f/2.8	–	yes
80 mm f/1.4	–	yes
90 mm f/2	–	yes
35 mm to 70 mm	–	yes

1) From serial nº 2928901

In addition, there is a wide choice of combination bags for camera outfits that include several lenses and various accessories.

MOTOR WINDER R
MOTOR DRIVE R

A MOTOR WINDER or MOTOR DRIVE fitted to the LEICA R6 automatically transport the film and cocks the shutter after each exposure. The MOTOR WINDER transports the film at up to 2 frames per second. The MOTOR DRIVE can be set for single exposures, 2 fps, or 4 fps. Either unit is suitable for all shutter speeds available on the camera. The winder is powered by six standard rechargeable NiCd or non-rechargeable alkaline batteries, the drive requires ten such batteries.

If you want to use the shutter release of the motorized film transport, make sure that the exposure meter of the LEICA R6 is switched on. If the exposure meter is switched off, the motor functions only when you use the camera's shutter release.

MOTOR WINDER R (code 14208)
MOTOR DRIVE R (code 14310)

The handgrip with its adjustable leather loop lets you hold the LEICA R6 with motor winder or drive more securely and more comfortably.

Handgrip (code 14308)

RC LEICA R electronic remote-control unit
This handy electronic remote-control shutter release for the LEICA R6 has a digital frame counter. that indicates each exposure by feedback from the camera. The RC LEICA R also works as a timer for series of photographs at preset time intervals, from about two exposures a second to one exposure about every ten minutes. You can fit the RC LEICA R to a Motor Winder R or the Motor Drive R.

RC LEICA R remote control (code 14277)

DB 2 LEICA R databack
(code 14216)

DB 2 LEICA R databack

The DB 2 LEICA R databack is quartz- and microprocessor-controlled for projecting data on the film during exposure. It can be fitted to the LEICA R6 instead of the standard camera back. No cable is necessary between camera and databack.

The following data can be projected into the lower right of the landscape format:

- Day, hour, minute
- Automatic calendar to 31 December 2099, with day, month, and year in any required order
- Any six-digit figure
- Automatic numbering of exposures, in ascending or reverse order

Interchangeable lenses

The LEICA R system is the means of achieving the perfect solution to any photographic problem, whatever the task or situation. There is a large choice of lenses, from fisheye to zoom and from distortion-free 15 mm ultra-wide-angle to 800 mm telephoto.

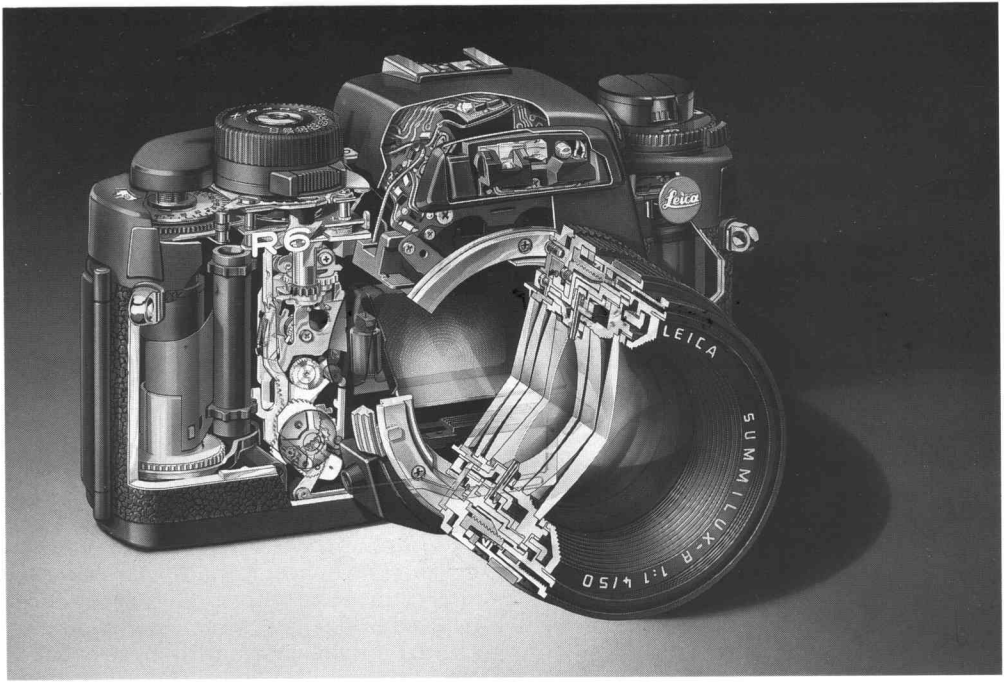
Enlargers
When you use a superb camera like the LEICA R6, the reproduction equipment should match the camera's quality and performance. The LEICA FOCOMAT™ V35 autofocus enlarger is the perfect complement to your LEICA R6.

Projectors
For your LEICA R6 slides there is a comprehensive range of versatile, easy-to-use projectors, with a large choice of options. Common to all LEICA projectors is their traditional LEICA precision and outstanding optical performance.

Binoculars
Superb optics are the most outstanding single feature of all TRINOVID™ binoculars. They are made of the same high-grade optical glass as the world-famous LEICA camera lenses. Their brilliant optical performance and exceptional resolution ensure that you obtain a vivid three-dimensional image even in poor light.

Spare parts for your LEICA R6	Code
Protective cap to bayonet fitting of camera	14103
Carrying strap	14253
Flash-contact cap	14315
Universal focusing screen	14303
Focusing screens	
Full-size ground-glass screen	14304
Microprism screen	14305
Ground-glass screen with superimposed grid	14306
Clear-glass screen with central cross-hairs	14307

Camera use in the tropics
If you are planning to spend several months in hot, humid, tropical conditions, our Technical Service Department can treat your camera and lenses with fungicide. The treatment will give your equipment substantial protection against fungus attack.



Technical data

Camera type: 35 mm single-lens reflex camera with mechanical shutter release and through-the-lens exposure-meter system.

Lens attachment: LEICA R bayonet.

Lenses: Choice of more than thirty LEICA R lenses with focal lengths from 15 mm to 800 mm.

Shutter: Manually controlled metal-blade focal-plane shutter, vertical action, compact design.

Shutter speeds: Setting ring, click-stop settings for B and from 1 s to 1/1000 s; X = 1/100 s for electronic flash synchronization.

Shutter-speed setting ring: Projects 6.5 mm for positive grip, central release button.

Shutter release: Two-stage release button with standard socket thread for cable release. Switches on exposure meter at pressure point after 0.3 mm, releases shutter after 1.6 mm.

Swing-mirror system: Semi-transport swing mirror coated 17 layers by vacuum deposition, reflects 70 % and transmits 30 % light, backed by Fresnel reflector for selective and integral modes; Fresnel reflector consists of 1345 micro-reflectors that concentrate light on exposure meter's photocell. Vibration-free mirror action.

Independent mirror release: Special cable-release socket for hinging up mirror without releasing shutter, also sets diaphragm of lens used to selected stop. Shutter controlled by main shutter-release button, with or without cable release.

Electromagnetic self-timer: About 9 s delay; flashing red LED on front of camera indicates that self-timer is set.

Film transport: Single-movement quick-wind lever (130° movement), optional Motor Winder R (2 fps) or Motor Drive R (single frame, 2 fps, 4 fps).

Film plane: Mark at top of camera.

Exposure counter at top of camera. Counts forward from start at S (frame –2) to 36; film length for 20, 24, and 36 exposures marked in red. Automatic reset when camera back is opened.

Multiple exposures: Press rewind locking button. Automatic reset when shutter is cocked; exposure counter does not move on. Any number of exposures possible. Multiple exposures also possible with motor winder/drive.

Rewind lever: Hinged crank at top left of camera.

Exposure meter: Selective and integral through-the-lens modes. Selector switch below shutter-setting ring. Exposure meter works at full aperture with LEICA R lenses with automatic diaphragm, at working aperture with lenses and accessories without automatic diaphragm.

Photocell: Silicon photodiode, protected from stray light in lower part of camera. For selective mode, the selector switch automatically places a condenser lens in front of photodiode.

Selective mode: Measuring field 7 mm diameter, marked in viewfinder.

Integral mode: Centre-weighted mean of full-field measurement.

Measuring range of exposure meter: Selective mode from 0.25 cd/m² to 63000 cd/m² at f/1.4, i.e. from EV +1 to +19 at ISO 100/21°, or 1 s at f/1.4 to f/22 at 1/1000 s.
Integral mode from 0.063 cd/m² to 63000 cd/m² at f/1.4, i.e. from EV -1 to +19 at ISO 100/21°, or 4 s at f/1.4 to f/22 at 1/1000 s.

Film-speed range: ISO 12/12° to ISO 3200/36°.

Power supply: Two silver oxide button cells or lithium battery. Press test button to check battery voltage.

Battery life: About 2500 exposures at 12 s for each exposure-meter reading, i.e. about 70 films of 36 exposures each.

Switching on exposure meter: First select mode by light touch on shutter release; by pressing stop button on selector switch; by light touch on release button of Motor Winder R or Motor Drive R; or by pressing test button for battery check fully home.
With shutter cocked, viewfinder display remains lit for about 12 s after release of button or switch used to activate it.

Display of exposure-meter mode selected: By symbol in window next to shutter-setting ring, and in viewfinder.

Display of shutter/aperture balance in viewfinder.

Balancing shutter and aperture: Set manually by selecting aperture and turning shutter-setting ring or by selecting shutter and turning aperture-setting ring until central, circular LED or shutter/aperture balance in the viewfinder shows them balanced. The two triangular LEDs, either alone or together with the central LED, indicate over- or underexposure and the direction in which to turn the setting ring concerned.

Switching off exposure meter (selective mode): Press locking button again and move selector switch to OFF.

Viewfinder system: Built-in pentaprism. Five interchangeable focusing screens.

Viewfinder eyepiece: Setting ring for adjustment from +2 to -2 diopters. Built-in eyepiece obturator. Eyepiece mount with retaining ring for holder of supplementary correction lenses, eyecup, and 90° viewfinder attachment.

Viewfinder field: 34.6 mm x 23 mm, i.e. 92 % of frame size.

Viewfinder magnification: 0.8 x at 0 diopter with 50 mm lens.

Viewfinder display in lower margin of viewfinder image.

Data projected into viewfinder: Aperture setting, shutter-speed setting (1 s to 1/1000 s, B, X).

LED displays when exposure meter is activated: Symbols indicate exposure-meter mode selected, shutter/aperture balance; flashing ϟ symbol indicates 'flash ready' and exposure check.

LED warning indicators: Low-light warning, over- and underexposure override.

Ancillary light may be switched on in poor ambient light for projected data of shutter speed and stop; activated only when exposure meter is ON.

Electronic flash synchronization: Standard X coaxial contact socket for bulb and electronic flash units adjacent to prism housing. Central X hot-shoe contact.

TTL flash-exposure control: Flash exposure measured through camera lens for electronic flash units designed for system camera fittings 300 or 500, i.e. dedicated flash units SCA 300 or SCA 500 using SCA 351 or SCA 551 adapters.

Shutter settings for flash: Automatic: X = 1/100 s (automatic). Manual: B, 1 s to 1/60 s.

Override for TTL flash-exposure control: ± two stops in steps of one-third, simple one-hand control.

Photocell for TTL flash-exposure control: Silicon photodiode, next to photocell of exposure meter, protected from stray light in lower part of camera.

Film-speed range for TTL flash-exposure control: ISO 12/12° to ISO 3200/36°.

Camera body: Die-cast aluminium, camera top 1 mm die-cast zinc, bottom panel 0.8 mm brass. Camera back with right-hand thumbhold and film-cartridge window (shows type and speed of film in use), interchangeable with databack. Electric contacts for LEICA R DB 2 databack. Lever at right of lens attachment for visual check of depth of field. Standard 1/4" A thread for tripod screw. Eyelets at sides for carrying strap. Mechanical contact for Motor Winder R or Motor Drive R. Black or silver chromium finish.

Dimensions and weight (excl. lens): 89.1 mm (3 1/2") high, 138.5 mm (5 1/2") long, 32.2 mm (1 1/4") deep 63.5 mm (2 1/2"); weight 625 g (1 lb 6 oz).

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