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Characteristics, tendencies and application of variable automatic program mode

a) Preset shutter speeds between 4s and 1/15s: Program for depth of field

- tendency toward stopping down the lens while keeping shutter speeds low
- especially suitable for: good lighting conditions, short focal lengths, stationary subjects
- caution: beware of increased danger of camera shake in poor light.

b) Preset shutter speed 1/30s: normal program

- especially suited for normal scenes and light conditions
- focal lengths between 35mm and 90mm

c) Preset shutter speed 1/60s to 1/2000s: program for action shots

- tendency towards higher shutter speeds (shorter exposure times) with larger apertures - less depth of field
- especially suitable in poor light, longer focal lengths and moving subjects
- caution: less depth of field

Rule of thumb: to avoid camera shake with hand-held exposures as much as possible, set a shutter speed that numerically at least equals the 1/f-value (f = focal length in mm), i.e. the lens's focal length. For instance, when using a 180mm lens, choose shutter speeds faster than 1/180s, e.g. set the shutter speed to dial to "250" (1/250s).

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Supplementary light for aperture scale
In order to read the viewfinder's aperture scale in the dark, supplementary light can be switched on by activating the switch **[9]** located at left on the mirror housing. When switched on, the symbol "Q" lights up, otherwise "o" appears. The supplementary light is activated only when the camera's power supply is on; it extinguishes like all LED-displays after 12 s with shutter cocked.

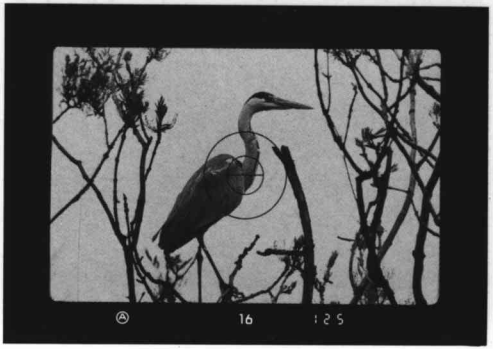
Caution:
The supplementary light for the aperture scale should not remained switched on unnecessarily, as it uses additional battery power.

Eyepiece adjustment
A sharply defined viewfinder image is essential to fully take advantage of the LEICA R7 and the high-performance LEICA R-lenses. The eyepiece lens is therefore adjustable to your eyesight, within the range from +2 to -2 diopters. To adjust the eyepiece, pull out the small setting wheel **[31]** at its left and turn this to the required setting. To do so, 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 selective exposure metering is sharply defined and in good

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

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

If the standard eyepiece adjustment from +2 to -2 diopters is inadequate for your eyesight, additional correction lenses are available (see page 51).



Focusing with the universal screen
The LEICA R7 includes a universal focusing screen as standard feature. This produces a bright, high-contrast image and is suitable for photography in most of the situations that are normally encountered. 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 focusing screen (i.e. the smaller circle).
A ring formed by a screen of rectangular microprisms surrounds the central split wedge. When the image is out of focus, this screen appears to flicker. The outer circumference of this ring also marks the outline of the field for selective exposure metering.

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

Caution: Before focusing, the eyepiece must be set to the user's diopter value (see p. 33).

Additional focusing screens are available as accessories. They offer optimum focusing for different conditions and can be changed easily (see p. 53).

Eyepiece shutter

The silicon photodiode of the exposure meter is located in the base of the LEICA R7, 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 your are not using the viewfinder, e.g. for taking photographs from a tripod, when direct sunlight or bright artificial light may enter through the eyepiece. To prevent this, turn the knob of the eyepiece shutter **[30]** at the left to the eyepiece in the direction of the arrow. When the shutter is in place, a white triangle appears in the eyepiece.

Using flash equipment

The LEICA R 7 is designed for through-the-lens flash-exposure control in conjunction with SCA-compatible (System Camera Adaption) electronic flash units fitted with an SCA 351 or 551 adapter. TTL-flash exposure metering offers many advantages in various fields of application and is essential for correctly exposed photographs with flash, e.g. in macrophotography, when using zoom lenses or long focal length lenses for portrait shots. Depending on the camera mode selected, it is possible to dosage flash intensity as fill-in flash to lighten up individual subjects (see below).

TTL-flash exposure metering occurs in the full-field integral mode and uses a separate silicon photodiode, well protected from stray light, in the base of the camera next to the photocell for selective/integral exposure metering.

In the modes Ⓐ, [A] and [P], a flash synchronization speed of 1/100 s is set automatically. Flash readiness and flash control symbols appear in the viewfinder of the LEICA R 7 (see below). Via suitable adapters (available in specialty stores), it is also possible to control and activate several flash units simultaneously.

Caution: for all flash applications, the working range of the respective flash unit must be taken into consideration. This may affect the range of apertures that can be set.

When using electronic flash units fitted with an SCA 350 or SCA 550 adapter, the flash light intensity is controlled via the flash unit's metering cell (in the case of computerized flash units), and not through the lens. In the modes Ⓐ, [A] and [P], a flash synchronization speed of 1/100 s is automatically set. Flash readiness and flash control symbols appear in the viewfinder. Lighting up subjects per dosaged flash does not occur, even though the symbol "≡" (see below) appears in conjunction with the respective camera mode.

In addition, all commercially available flash units with standard coaxial or central hot-shoe contacts, but without SCA adapters, can be used. However, if the flash unit is activated only via the central contact, or if a studio flash is attached to the contact **[3]**, the viewfinder display does not change, there is no automatic flash synchronization and no TTL-flash control.

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Simultaneously connecting flash units to both flash contacts is not recommended, as malfunctioning may occur. Using multiple connecting sockets, commercially available, enables you to connect more than one flash unit to the X-contact.

TTL-Flash exposure control in manual mode Ⓜ

When using the manual mode Ⓜ, all aperture values and shutter speeds between 4 s and 1/90 s can be set; the flash is controlled as primary light source. By using flash in conjunction with longer shutter speeds, many creative effects can be explored, e.g. underlaying frozen movements against a blurred blackground.

When shorter shutter speeds are set, the camera automatically activates flash synchronization at 1/100 s. Should this lead to overexposure because of sufficient ambient light, the shutter speed display "100" flashes. In this case, set a smaller aperture if possible and if the flash equipment's working range permits this.

If shutter speed is set at "100 ϟ" or "B", regardless of the camera mode, the flash is activated as primary light source and controlled through the lens. However, no exposure metering for ambient or surrounding light is effected. The "B" setting enables you to combine long-time exposures (e.g. exploding fireworks or a well-lit building in the background) with flash exposures (e.g. a group of people in the dark foreground).

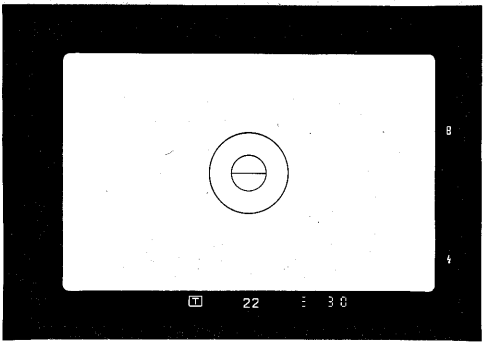
TTL-Flash exposure control in aperture priority modes Ⓐ, [A]

Any aperture values can be set; the camera sets flash synchronization at 1/100 s automatically, when the flash unit is ready. Flash is activated as primary light source.

Should the preset aperture in combination with the automatically set 1/100 s shutter speed lead to overexposure on account of sufficient ambient light, the shutter speed display "100" flashes. In this case, choose a smaller aperture if the flash's working range permits this.

TTL-fill in flash (to lighten up parts of the subject) in shutter priority [T]

Any shutter speed between 4 s and 1/90 s can be used. If faster speeds are set, the camera automatically switches to 1/100 s flash synchronization. The aperture is set automatically so as to produce correct exposure in relation to ambient light, even if no flash were used.



Here, flash control occurs through the lens, but the camera deliberately moderates flash intensity. This means that parts of the subject that are in the shade are lightened without affecting ambient light.

In this case, when flash intensity is dosaged to lighten up parts of subject, the symbol ≡ appears in the viewfinder.

Should the shortest possible flash synchronization time (fastest shutter speed) of 1/100 s lead to overexposure on account of strong ambient light, the "100" symbol in the viewfinder flashes. Exposure despite this warning could lead to overexposure.

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Variable TTL-flash control in automatic program mode [P]

The automatic program mode [P] offers the possibility of automatically balancing flash light intensity and ambient light. This makes for particularly carefree flash photography in many situations. Remember to set the smallest aperture, as always in automatic program mode.

Flash exposures in poor light, e.g. dark interiors (flash as primary light source):

The camera automatically selects flash synchronization at 1/100s and f-stop 5.6. The flash acts as primary light source to lighten the subject and is controlled via the camera's TTL-flash exposure control.

Fill-in flash in normal light (flash lightens up darker parts of the subject):

The camera sets to flash synchronization at 1/100s; the aperture is automatically regulated depending on ambient light. This would produce correct aggregate exposure even without flash. Now the camera moderates flash intensity to lighten up shaded parts of the subject (e.g. in backlighting situations) while not affecting the ambient light. To indicate this, the symbol for fill-in flash ≡ appears in front of the shutter speed display ("100").

Flash exposures in bright light (flash unnecessary):

If ambient light is so bright, that flash synchronization at 1/100s and smallest aperture would lead to overexposure, the camera automatically sets to 1/2000s and displays the new shutter speed in the viewfinder. The corresponding aperture is regulated automatically to ensure correct exposure. The flash unit is nevertheless activated, but, due to the extremely high shutter speed (1/2000s), it has no effect on the exposure result.

Flash Control with the LEICA R7

Flash control	Shutter speed setting	Aperture setting	Program mode
Primary light	"100 ⚡" or "B"	manual 1.4 to 32	any
	manual[1] 4 s to 1/90 s	manual 1.4 to 32	Ⓜ
	automatic 1/100 s	manual 1.4 bis 32	Ⓐ or [A]
Automatic primary light	automatic 1/100 s	automatic 5.6	[P]
or fill-in flash[2]	automatic 1/100 s	automatic 1.4 bis 22	
Fill-in flash	manual[1] 4 s to 1/90 s	automatic 1.4 to 22	[T]

[1] Automatic switchover to 1/100 s when shutter speed is set to 1/125 s and shorter.
[2] Fill-in flash, if provided that ambient light is sufficient for correct exposure at 1/100 s and automatic aperture setting.
When the aperture range is underlimit (underexposure), the flash is automatically switched to primary light (full intensity).
When the aperture range is overlimit (overexposure), shutter speed is set to 1/2000 s and the corresponding aperture (depending on ambient light) is set automatically. The flash remains inactive.

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Flash readiness display

The flash symbol "⚡" at bottom right in the viewfinder flashes about 2x/s (2 Hz) when the flash unit (in conjunction with SCA-adapters 350, 351, 550 and 551) is ready – regardless of the camera mode set and in the "100 ⚡" and "B" setting.

Caution: with some flash units, flash readiness and switchover to 1/100 s occurs as soon as approx. 70% flash intensity is available. In these cases, it is advisable to wait a few seconds before repeating flash exposure, especially to avoid underexposure, e. g. with very small apertures or great subject-to-camera distance.

Flash control display

With finger kept on the exposure release button, the flash symbol "⚡" shows whether flash intensity (in conjunction with SCA-adapters 351 and 551) was sufficient for correct exposure:

a) symbol flashes at 2 Hz:
flash intensity was sufficient, immediate flash readiness for next exposure.

b) symbol flashes for 2 s at approx. 8 Hz:
flash intensity was sufficient; condensor drained.
Await renewed flash readiness before next exposure.

c) no display:
flash intensity was insufficient.
Try repeating the exposure with larger aperture; await renewed flash readiness before next exposure.

Self-timer
To set the self-timer, cock the shutter and turn the self-timer button **[7]** through 30° clockwise in the direction indicated by the arrow. To start the self-timer, gently press the shutter release or the locking button for the mode selector; the camera remains switched on and the shutter is released after a delay of about 10 s. To indicate that the self-timer is activated, the LED **[2]** flashes; about 2 s before the self-timer releases the shutter, the flashing changes to continuous light.

Throughout the countdown you can stop the self-timer at any time by turning back the self-timer button **[7]** to its original position; to prolong it by restarting, simply press the release button again lightly.

Independent mirror release
The LEICA R7's mirror can be hinged up independently before exposure via a cable-release attached to the separate cable-release socket **[8]**. The lens's automatic spring-back diaphragm is simultaneously closed to the preset aperture value.

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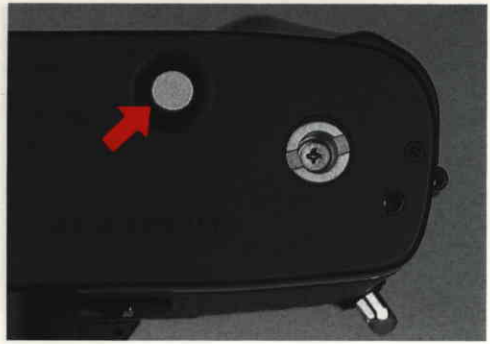
Independent mirror release is activated by short pressure on the cable-release, after which pressure is released. Exposure release is then effected via the camera's exposure release button (with or without cable-release). The mirror and diaphragm return to their normal positions automatically after exposure has occured; cancelling the independent mirror release manually is not possible. The independent mirror release must be activated separately before every exposure, if desired.
When activated, it prevents electromagnetic shutter release, e.g. via self-timer, winder or drive or electric cable release.

The depth of field level must not be activated when the mirror is hinged up, as this might cause the shutter to close.
Independent mirror release and subsequent exposure release via double cable-release is not possible.

Caution!

After the mirror has been hinged up as described, the camera's exposure metering is out of action; the correct aperture/shutter speed balance must be set beforehand. The aperture and shutter values actually set come into effect during exposure with independent mirror release, irrespective of the camera mode selected.



Multiple exposures
Take the first exposure, press the rewind-release button **[39]**, and move the quick-wind lever. The same frame is now ready for a further exposure. At the end of its travel, the quick-wind lever automatically resets the rewind button. To expose the same frame yet again, simply press the rewind-release button **[39]** each time before you move the quick-wind lever.

The MOTOR-WINDER R and MOTOR-DRIVE R also permit multiple exposures. For details, see the manuals supplied with these accessories.

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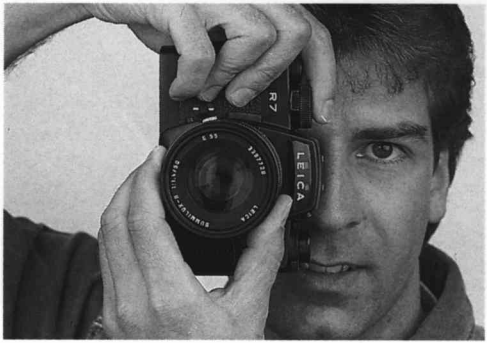
Depth of field lever
When you use a lens with an automatic diaphragm, the exposure meter of the LEICA R 7 works at full lens aperture. Press the depth of field lever **[5]** to close the lens diaphragm to the preset value; when it is in this position, you can visually check the depth of field. This is particularly useful for close-ups.

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

Depth of field scale on lens
The depth of field scale **[11]** on the lens indicates the depth of field available for the focusing distance at the aperture you have set.
For example, when focusing a SUMMICRON-R f/2/50 mm lens at 5 m, the depth of field at f-stop 11 is from 3 m to about 20 m. At f-stop 4, the field is in focus from about 4 m to 8 m. The Leica depth of field table (Order no. 920003) contains full details of the depth of field available at any focal length.



Holding the camera correctly
To give the camera steady three-point support, hold the camera with the right hand, the index finger resting on the release button and the thumb inserted behind the hinged-out quick-wind lever, while the left hand supports the lens from below.

For upright (portrait) exposures, simply turn the camera through 90°, with your hands in the same position as before, ready to transport the film and focus the lens.

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Filters and their use

In TTL systems, the exposure meter automatically takes into account the light absorbed by the filter in use, but sensitivity in various parts of the spectrum may vary according to the type of film emulsion used. Extreme and dense filters may therefore cause deviant readings. For example, an orange filter as a rule needs about one extra f-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 values can be given.

In the case of the circular polarizing filter we supply for LEICA lenses, determine the exposure as you would do with any other filter, in either integral or selective mode. The high-efficiency multiple coating on the semi-transparent swing mirror of the LEICA R7 acts as a powerful polarizing surface. As a result, the use of linear polarizing filters is not advisable, because their positioning to inhibit and transmit light may seriously affect the accuracy of the exposure meter.

Using existing lenses and accessories

The entire range of LEICA R-System Lenses and accessories can be used without modification on the LEICA R7.

The ELMARIT-R f/2.8/180 mm (to serial no 2939700) and TELYT-R f/4/250 mm lenses (to serial no 3050600) as well as some accessories can only be used with aperture priority and manual mode.

To avoid damaging your LEICA R7, do not attempt to use it with lenses and accessories for LEICAFLEX' models without a control cam. To use your LEICAFLEX lenses with the LEICA R exposure meter system, they must be fitted with a control cam. You can continue to use such modified lenses and accessories without restriction on all LEICAFLEX models.

LEICA M Lenses on the LEICA R7

You can use the LEICA R7 with any lens of the LEICA M range which is suitable for the VISOFLEX R adapter. The operating conditions, such as focusing distance and object field obtainable, are the same as those that apply to the use of these LEICA M Lenses with the VISOFLEX. A special adapter (order No. 14167) ensures compatibility of these two LEICA 35 mm camera systems, but because these lenses have no automatic diaphragm, the exposure meter has to use the working aperture.

Hints on care

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. For cleaning, the brush must be perfectly dry. Avoid mechanical damage to the focusing screen: do not allow the metal ferrule 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 the camera baseplate) e.g. in your "Leica pass"; this information may be important in case of loss.

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Motor film advance and handgrip

A MOTOR-WINDER R (order No. 14208) or MOTOR-DRIVE-R (order No 14310) fitted to the LEICA R7 automatically transports 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 NiCd rechargeable batteries or non-rechargeable alkaline batteries; the drive requires ten such batteries.

The handgrip (order No 14317) with its adjustable leather loop lets you hold the LEICA R7 with motor winder or drive more securely and more comfortably.

Caution: Even when using a MOTOR-DRIVE R and MOTOR-WINDER R on the LEICA R7, the camera draws power only from the camera batteries.

DB-2 LEICA R Databack

The DB-2 LEICA R databack (order No. 14216) is a quartz- and microprocessor-controlled camera back for projecting data on the film during exposure. It is interchangeable with the standard LEICA R7 camera back supplied. No cable link is necessary between camera and databack.

The following data can be imprinted:

- Day, month, year in various sequences
- Automatic calendar to 31 December 2099
- Day, hour, minute
- Any fixed number up to 999999
- Automatic numbering of exposures, in ascending or descending order

The data are projected into the lower right hand corner of the frame (horizontal format).

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Camera bags
Several LEICA ever ready camera bags are offered for the LEICA R7, with different sized front compartments. In addition, there are a number of larger combi-bags for holding camera equipment, several lenses as well as accessories.

Correction eyepiece lenses
To change the eyepiece diopter beyond the ±2 range, correction lenses are available for p lus/minus 0.5/1.0/1.5/2.0/3.0 diopters. These correction lenses are held in position by the eyecup or a special attachment that is mounted on the eyepiece. Both are locked into position securely.

Eyecup
A flexible eyecup (order no. 14215) is available to shield the eye from stray light. This makes the viewfinder image still more brilliant and permits more accurate focusing. The eyecup can also be used for fitting a correction lens.

Angle finder
On the repro stand or for shots with a bird's eye view, the angle finder (order no. 14300) makes scurtinizing the viewfinder easy. By simple switchover, a 2x magnifyer can be activated.

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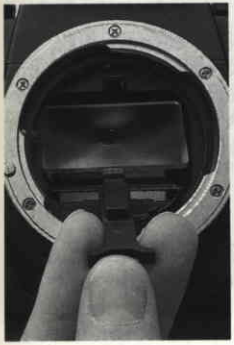

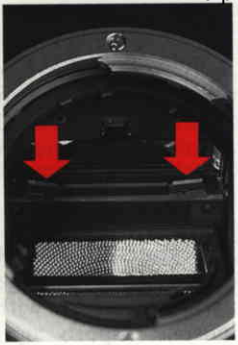

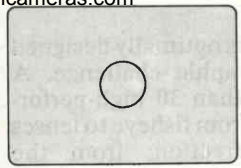

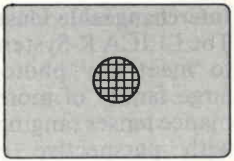

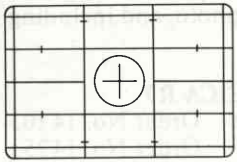

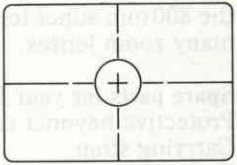

Interchangeable focusing screens
Special tasks require focusing screens tailor-made for fast, accurate focusing. Each of these is supplied in a case, complete with a pair of tweezers and a lens brush. Four further focusing screens are available for the LEICA R7:

- the plain ground-glass (order no. 14304) screen for extreme close-range photography and very long focal lengths;
- the microprism screen (order no. 14305) for maximum ease of composition;
- the full-field ground-glass (order no. 14306) screen with a grid for architectural photography and the reproduction of documents, including marks for making slides for TV projection;
- the clear-glass focusing screen (order no. 14307) with crosslines for scientific photography, such as photomicrography and astrophotography.

Interchangeable lenses
The LEICA R-System is optimally designed to meet any photographic challenge. A large family of more than 30 high-performance lenses ranging from fisheye to lenses with perspective correction; from the distortion-free 15 mm ultra wide-angle to the 800 mm super telephoto, and including many zoom lenses.

Spare parts for your LEICA R7

Protective bayonet cap	Order No. 14103
Carrying strap	Order No. 14253
Flash-contact cap	Order No. 14315
Universal focusing screen	Order No. 14303

Enlargers
When you use a superb camera like the LEICA R7, the reproduction equipment should match the camera's quality and performance. The LEICA V35 enlarger with autofocus is the perfect complement to your LEICA R7.

Projectors
For your LEICA R7 slides there is a comprehensive range of versatile, easy-to-use projectors, with a large choice of lenses. Superb optical performance in combination with traditional LEICA precision mechanics are the common denominator of all LEICA projectors.

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Technical service

Any authorized Leica agent's Technical Service (see warranty card) is available for servicing your camera and carrying out repairs in case of damage. Please contact your authorized Leica dealer or any national Leica Camera agency.


LEICA
R7
Leica
SUMMILUX-R 1:1.4/50
3386095

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Technical Data on the LEICA R7

Camera type: microprocessor-controlled 35 mm single-lens reflex camera with electronic multi-blade focal plane shutter and multi-mode automatic functions.

Lens mount: LEICA R-Bayonet.

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

Switching on the camera: Turn shutter speed dial from "OFF" position and either slightly press shutter release button or mode selector button. With shutter cocked, the viewfinder LED's remain lit for about 12 s after you release whatever button had been pressed to switch on the camera.

Exposure meter: Selective and integral through-the-lens, combined with camera modes to form programs. Exposure meter works at full aperture with LEICA R-Lenses with automatic spring-back diaphragm, and at working aperture with lenses and accessories without automatic diaphragm.

Selective exposure metering: Measuring field 7 mm diameter (approx. 4.5 % of 35 mm format), marked in viewfinder.

Integral exposure metering: center-weighted full-field integral metering.

Program modes: set via program selector:

- Ⓜ Manual setting of shutter speed and aperture, selective metering.
- Ⓐ Aperture Priority, selective metering.
- [A] Aperture Priority, full-field integral metering.
- [T] Shutter Priority, full-field integral metering
- [P] Variable automatic program mode with full-field integral metering.

Exposure metering memory: in aperture priority mode with selective metering, by pressing shutter-release button to pressure point, memory active as long as finger is held in position.

Exposure override: From +3 to -3 exposure values, with half value click stops.

Film speed range:
manual setting: from ISO 6/9° to ISO 12800/42°;
DX code: from ISO 25/15° to ISO 5000/38°

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

Metering range of exposure meter: selective metering from 0.5 cd/m² to 125000 cd/m² at f/1.4, i.e. from Ev +2 to +20 for ISO 100/21° film or from 1/2 s at f/1.4 to 1/2000 s at f/22.
Integral metering from 0.125 cd/m² to 125000 cd/m² at f/1.4, i.e. from Ev 0 to +20 for ISO 100/21° film, or from 2 s at f/1.4 to 1/2000 s at f/22.

Power supply: 6 volt. 2 lithium cells (Ø 11.6 mm x 10.8 mm) á 3 V or four silver oxide button cells (Ø 11.6 mm x 5.4 mm) á 1.5 V.

Battery check: automatic display in viewfinder.

Viewfinder system: Built-in pentaprism. 5 interchangeable focusing screens.

Viewfinder eyepiece: Setting ring for adjustment from +2 to -2 diopters. Built-in eyepiece shutter. Eyepiece mount with mount for supplementary correction lenses, eyecup, and 90° angle finder attachment.

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

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

LED displays in viewfinder:
- program symbol
- automatically resp. manually set shutter speed (7 segment display)
- automatically set aperture for the shutter priority and automatic program modes
- flash readiness and flash-exposure control, with system-compatible flash equipment
- fill-in flash indicator
- exposure metering memory active, in aperture priority mode with selective metering. The symbol goes out, the metered value continues to be displayed
- light-balancing meter for setting manual exposure.

Automatic brightness adjustment: of all LED displays.

Data displayed in viewfinder: lens aperture set.

Supplementary viewfinder light: for illuminating lens aperture display (aperture scale on lens).

LED warning indicators in viewfinder:
- plus/minus correction (override)
- low-light warning
- over- or underexposure
- limited aperture range in automatic program and shutter priority (lens aperture not set to smallest value)
- correction of preset time in shutter priority
- discrepancy between manually set and DX-coded film speed
- in DX-setting, with non-DX coded films or no film (additional warning symbol via external LED next to film speed dial)
- low battery warning.

Flash connection: standard X coaxial contact socket adjacent to prism housing, for bulb and electronic flash units. Central X hot-shoe contact.

TTL flash-exposure metering control: with system SCA 300 or 500 dedicated flash units and SCA 351 or 551 adapters.

Flash as main light source: in manual setting: all shutter speeds from 4 s to 1/90 s, in faster shutter speed settings automatic switchover to 1/100 s; in aperture priority mode: automatic switchover to 1/100 s; in "B" and "100 ⚡" settings.

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Flash as fill-in: In shutter priority: all shutter speeds from 4s to 1/90s, with faster shutter speed settings automatic switchover to 1/100s.

Automatic switchover between flash as main light source and fill-in flash:
In automatic program mode: automatic switchover to 1/100s. Flash intensity dosaged via TTL-control metering, depending on ambient light (flash as main light source, fill-in flash or no flash effect).

Flash exposure metering: center-weighted, integral.

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°.

Exposure override for flash exposure metering: plus/minus 3 Ev in half-values.

Shutter: Electronically controlled focal-plane blade shutter, vertical action.

Shutter speed setting dial: easy-reach 6.5mm height; centrally positioned exposure release button.

Electronically computed shutter speeds: For automatic programs continuous from 16s to 1/2000s. Manual settings from 4s to 1/2000s in half values.

Mechanical shutter-speed settings:
"100 ⚡" = 1/100s flash sychronization, or in case of battery failure. "B" for time exposures of any length. (Exposures in "B"-setting electronically controlled when using drive in 4 fps setting)

Mirror system: Semi-transparent, vacuum coated swing mirror, coated with 17 layers, reflects 70% and transmits 30% light, backed by Fresnel reflector (1345 microreflectors) to concentrate light on exposure meter's photocell.

Film transport: Single-movement quick-wind lever (130° movement), optional MOTOR-WINDER-R (2 fps) or MOTOR-DRIVE-R (single frame, 2fps, 4fps).

Frame counter at top of camera: frame count in ascending values. Automatic reset to "0" when camera back is opened. Built-in reading magnifyer.

Multiple exposures: Press rewind locking button. Automatic reset when shutter is cocked; exposure counter does not move forward. Any number of exposures possible. Multiple exposures also possible with motorized film advance units.

Film rewind: via hinged crank lever at top left of camera.

Shutter release: Shutter-release button with standard thread for cable release. Press down 0.3mm to first pressure point to switch on (viewfinder LEDs light, exposure meter switched on). Press down approx. 0.9mm to second pressure point to activate memory for exposure metering value. Press down approx. 1.35mm for electromagnetic shutter release for electronically computed exposures. Press down approx. 2mm for mechanical release ("B" and "100⚡").

Independent mirror release: via separate cable-release connection

Self-timer: approx. 10s countdown; flashing red LED on front of camera indicates that self-timer is set. Repeat countdown by pressing exposure release button again; cancel by turning self-timer dial.

Film plane: Mark at top of camera.

Camera body:
Body: Die-cast aluminium,
Camera top: 1mm die-cast-zinc,
Base plate: 0.8mm brass,
Black or silver chrome finish.

Camera back: with right-hand thumbhold and film-cartridge window with built-in magnifyer; interchangeable with Data Back.

Depth of field lever: to the right of lens bayonet, enables visible assessment of depth of field.

Tripod thread: A 1/4 (1/4" according to DIN 4503).

Standard thread for cable release connection: for cable release and mirror lock-up.

Dimensions and weight (camera body only, without lens):
Height: 94,8 mm (3.7")
Length: 138.5 mm (5.5")
Depth: 62.2 mm (2.4")

Weight: 670 g (1 lb 7oz).

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23 Display window for mode selected
24 Film-plane mark
25 Shutter release, with screw socket for cable release
26 Shutter speed setting dial
27 Quick-wind lever to wind film and cock shutter
28 Automatic frame counter with magnifyer-window
29 Mode selector with locking window
30 Eyepiece shutter
31 Eyepiece adjustment setting ring
32 Viewfinder eyepiece
33 Attachment for angle magnifyer, viewfinder eyepiece and holder for correction lenses
34 Film-cartridge window
35 Contacts for motorized film advance units
36 Unlocking button for battery compartment cap
37 Battery compartment cap
38 ¼" A type socket thread for tripod
39 Rewind release and double-exposure button