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LEICA FLEX SL

Instructions

You are holding a LEICAFLEX in your hands . . .

You have chosen this famous single-lens reflex camera with the most up-to-date selective through-the-lens CdS metering system. Once you start working with the LEICAFLEX you will appreciate its immense photographic scope and the remarkable precision with which it operates.

Its simple operation never distracts you from your subject – you are always sure of capturing the vital fleeting moment.

The large, bright LEICAFLEX viewfinder is also your information center for the different controls: framing, focusing and selective light metering. The controls are arranged for most convenient access. After short practice their operation will become second nature.

But please take the few minutes required to read these instructions carefully.

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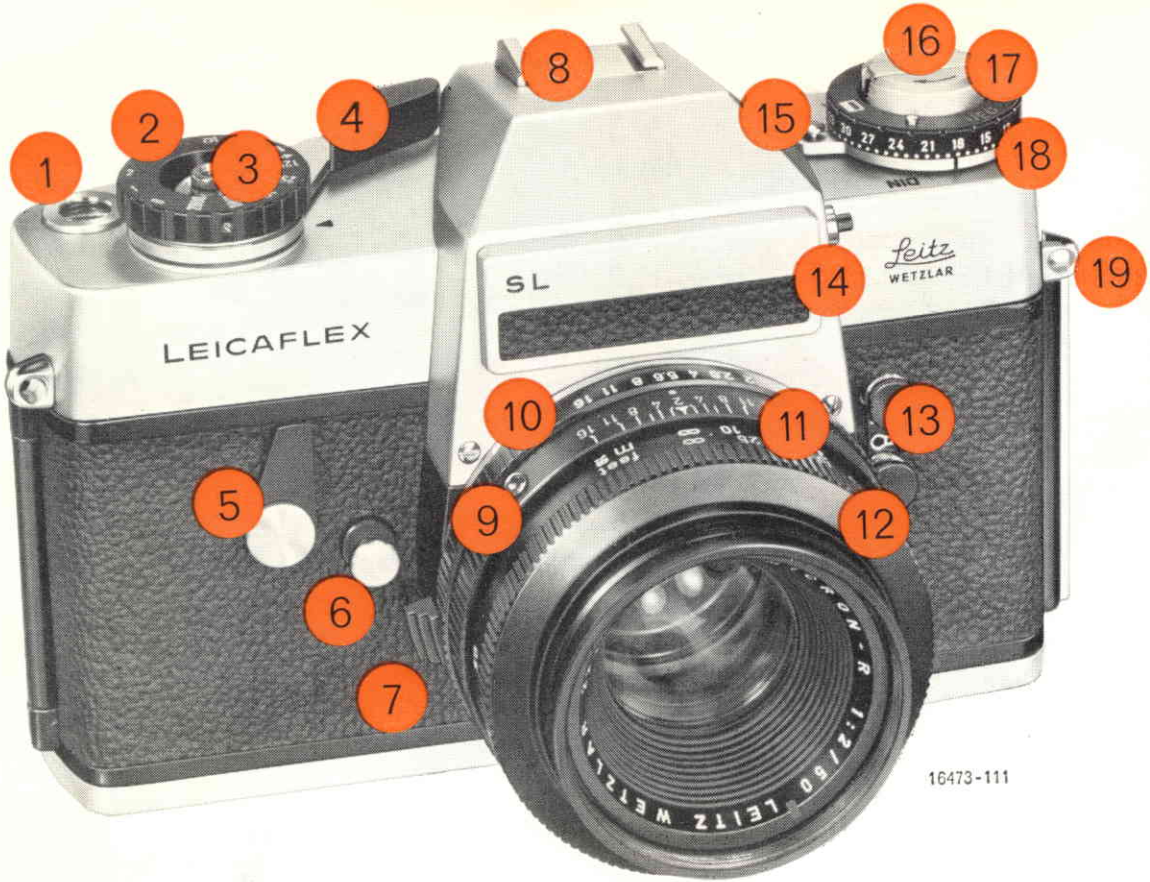
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1 = Self-starting frame counter
2 = Shutter speed dial
3 = Shutter release with cable-release threading
4 = Rapid winding lever to tension shutter and advance film, also switches exposure meter on and off
5 = Self-timer (delayed action release)
6 = Depth-of-field preview button
7 = Lens bayonet lock
8 = Accessory shoe
9 = Red dot for lens changing
10 = Auto-aperture control ring
11 = Depth-of-field scale
12 = Focusing ring

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13 = Flash outlets
14 = Button for testing meter battery
15 = Push button lock for DIN/ASA setting
16 = Folding film rewind crank
17 = Film-type reminder dial
18 = DIN film-speed scale
19 = Strap lugs

20 = Locking bar for camera back
21 = ASA film-speed scale
22 = Cover of meter battery compartment
23 = Viewfinder eyepiece, accepting mounted correction lenses
24 = 1/4" tripod bushing
25 = Film rewind release button

Holding the camera properly





For a steady three-point support hold the camera with your right hand. Place your index-finger on the shutter release and your thumb against the rapid winding lever.
Support the camera below the lens with your left hand, and press against your forehead.
To take vertical pictures, simply turn the camera around 90 °. Leave your hands in the same position as for horizontal pictures, ready for focusing, releasing and advancing the film.

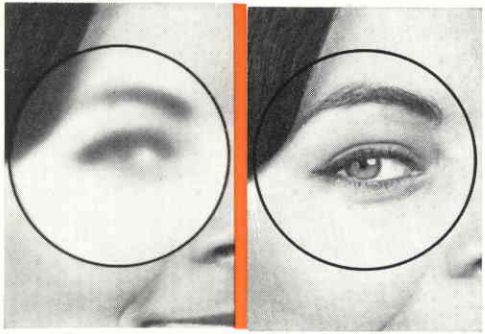
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The large, bright LEICAFLEX viewfinder

Focusing



25455 a - 11

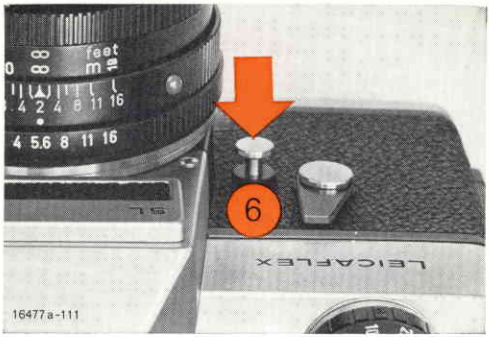
Center spot shimmers = out of focus

25457 a - 11

Center spot clear = in focus

Focusing is possible over the entire viewfinder field. The central rangefinder spot for high-speed focusing consists of minute and highly precise microprisms which scatter the incident rays to give a shimmering effect when the subject is not in focus. Outside this spot the finder screen is finely ground and can be used to check focus over the entire picture area. To focus the subject, turn the lens focusing ring (12).

The depth-of-field preview button



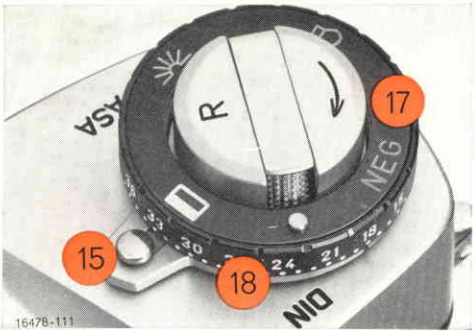
The depth-of-field preview button affords a visual check of the depth-of-field effect to be expected at the selected aperture. Pressing the button (6) stops the lens diaphragm down to the preselected value.

Caution: Do not press this button during light measurement! (exception: see page 12)

Even **eyeglass wearers** will normally be able to see the entire viewfinder field. In special cases, mounted correction lenses slip onto the viewfinder eyepiece.

Setting the film speed index

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The setting ring (21 resp.18) is engraved with ASA and DIN values. To set the speed corresponding to the film in the camera, depress the button (15) and turn the ring to bring the desired film speed value opposite the index.

Correct exposure depends on the right film-speed setting!

The setting range extends from 8 to 6.400 ASA and from 10 to 39 DIN. The dots between the ASA-values stand for:

. = 8	50	. = 320	1.600
. = 10	. = 64	400	. = 2.000
12	. = 80	. = 500	. = 2.500
. = 16	100	. = 640	3.200
. = 20	. = 125	800	. = 4.000
25	. = 160	. = 1.000	. = 5.000
. = 32	200	. = 1.250	. = 6.400
. = 40			

The dial (17) can be set to the following symbols to remind you of the type of film in the camera:

= black-and-white film

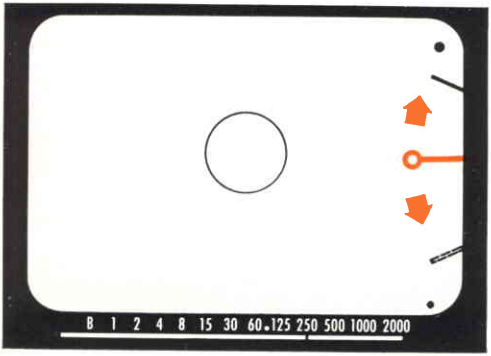
= daylight reversal color film

= tungsten-type reversal color film

NEG = color negative film

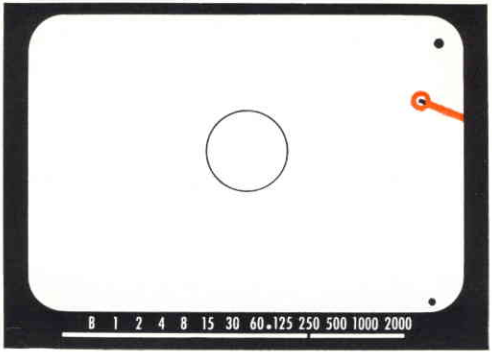
Set the symbol you want opposite the lock button (15)

The built-in exposure meter



25330-11

Turning the auto-aperture control ring (10), moves the follow pointer at the edge of the finder field:
towards the large upper dot (= diaphragm opens), or
towards the small lower dot (= diaphragm closes).



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Follow pointer aligned with meter needle = camera set for correct exposure.

The rapid winding lever (4) switches the battery-powered CdS exposure meter on and off. To save battery life, switch off the light meter by pushing the winding lever fully against the camera body. Hold the camera horizontally when making light measurements.
The central focusing spot is also the measuring field of the LEICAFLEX SL through-the-lens exposure meter.

With all lenses it is approximately 1/6 of their angle of view. With this accurately defined spot you can therefore precisely measure a selected subject area. A general rule: measure that part of the scene which is wanted with maximum detail, or whose tone is most representative of the scene average.

The **follow pointer** of the built-in exposure meter is visible on the right-hand side of the viewfinder field. It is cross-coupled with the auto-aperture control ring (10) of the lens and the shutter speed dial (2). To set the correct exposure, simply line up the follow pointer with the **meter needle.**

To do this, turn the auto-aperture control ring (10) of the lens, and/or the shutter speed dial (2). This means that either the shutter speed or the f/stop can be preset. The shutter speed scale appears in the viewfinder below the picture area and the vertical bar will show the speed set.

To test the battery

Hold the camera horizontally, look through the viewfinder and press button (14). If the battery is good the meter needle will move at least as far as the index mark in the lower right-hand corner of the finder field. If the needle does not swing down fully, the battery needs replacing.

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LEICA lenses

With the aid of an adapter (Cat. No. *14 127) all LEITZ lenses designed for the LEICA with VISOFLEX reflex housing can also be used on the LEICAFLEX SL. In this case the light is measured at working aperture. Line up the follow pointer in the viewfinder with the meter needle by adjusting the lens aperture and/or the shutter speed dial (2).

Using filters

Since the light is measured through the lens, no allowance need generally be made for filter factors.

With some filters a slightly longer exposure could be of advantage. The factors in the following table will then serve as a guide.

Yellow filter 1	+ ½ f/stop
Yellow-green filter	up to + 1 f/stop
Orange filter	up to + 1 f/stop
Polarizing filter	up to + 1 f/stop

Close-up photography

For close-up photography with ELPRO attachments, focusing bellows or other forms of extension no exposure increase factors need be applied to the measured exposure. The LEICAFLEX SL meter will automatically indicate the correct exposure.

LEICAFLEX lenses without the through-the-lens metering cam

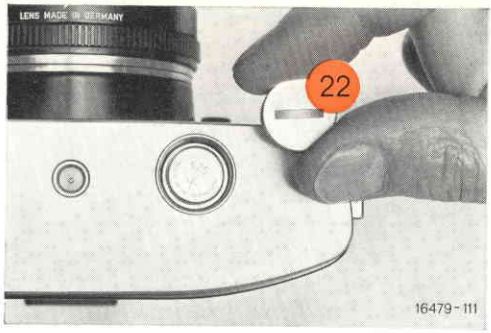
Lenses for the LEICAFLEX SL with through-the-lens measurement can be recognized by the two cams in the bayonet mount, which serve to control the exposure meter.

It is recommended that lenses with one cam for the LEICAFLEX, without through-the-lens measurement, only have the second cam installed at the factory or an authorized LEITZ-agency in order to achieve proper internal through-the-lens light measurement.

Without this conversion, single cam LEICAFLEX lenses can be used by observing the following procedure:

Keep the depth-of-field preview button (6) depressed during light metering in order to close the diaphragm to the preselected aperture. Bring the follow-pointer into alignment with the meter needle by turning the lens aperture control ring (10) or shutter speed dial (2). Then open the lens diaphragm by one stop or reduce the shutter speed by 1/2 value. Release the depth-of-field preview button while making the exposure.

Changing the battery



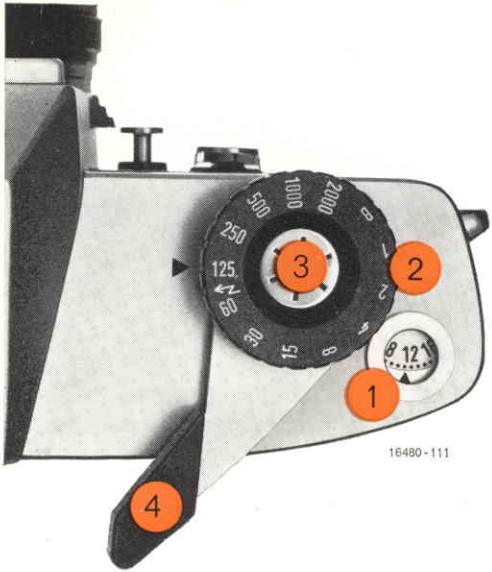
The built-in exposure meter is powered by a mercury oxide cell.

The Mallory PX 625 cell (with white ring) is recommended, especially for low temperature operation. The Mallory PX 13 cell may also be employed. These cells have an average life of 1 to 2 years.

With a coin unscrew the cover (22) in the camera base. When inserting the new battery make sure that the inscribed side faces outward.

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The right-hand controls



A single stroke of the **rapid winding lever (4)** advances the film by one frame, winds the shutter and advances the frame counter (1). The lever clicks into place in its rest position (exposure meter cut off) and in its operating position.

Shutter speeds are controlled by **dial** (2) which has click-stops at all engraved speeds. It may be set before or after tensioning the shutter. Any intermediate value can be set and is fully effective, except between 1/4 and 1/8 or between 1/30 and 1/60. At "B" the shutter remains open as long as the release button is held down. The LEITZ locking cable release (Cat. No. 14 067) is used for time exposures. The $\frac{1}{\text{X}}$ = 1/100 sec is the highest shutter speed setting used to synchronize electronic-flash units. The **shutter release (3)** is threaded to take a standard cable release. Depressing the shutter release starts the following successive camera functions:

1. The mirror swings up.
2. At the same time the secondary mirror for the internal meter cell folds up flat against the main mirror.
3. The lens aperture stops down to the preset value.
4. The shutter runs off.
5. The mirror swings back down into the light path.
6. At the same time the secondary mirror for the meter cell swings down again into measuring position.
7. The lens aperture reopens.



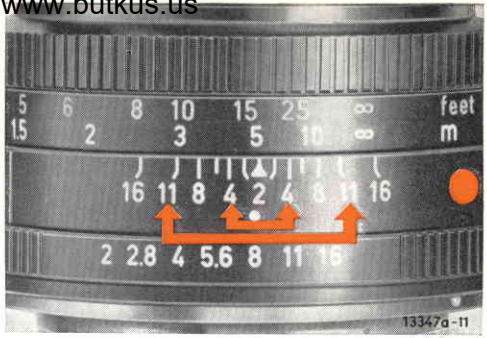
The left-hand controls

All LEICAFLEX lensmounts follow the same design, i. e. the rotating preset auto-aperture control ring (10), the fixed ring carrying the depth-of-field scale (11) and the focusing ring (12) are arranged in the same manner. So once your left hand is used to the controls on one lens, you adjust all settings in exactly the same way with all other lenses. The lenses specifically manufactured for the LEICAFLEX SL feature two cams for exposure control. These lenses may also be used on LEICAFLEX cameras without through-the-lens measurement.

For using LEICAFLEX lenses with only one cam on the LEICAFLEX SL, see page 12.

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The automatic aperture

All LEICAFLEX lenses have a fully automatic diaphragm. This means that at all times – before and after exposure – the finder image is visible with the lens fully open for maximum brightness. The diaphragm closes down to the preset aperture only just before the exposure or when the depth-of-field preview button (6) is depressed.

The depth-of-field scale

indicates the zone of sharpness extending in front of, and behind the plane of focus.

For example, if you have set the 50 mm SUMMICRON-R f/2 lens at 15 ft, the zone of sharpness at f/11 extends from about 10 to 60 ft. If you open your lens up to f/4, the depth-of-field will range from about 13 to 24 ft. For further details regarding depth-of-field, see our depth-of-field table No. 11-57.

Changing lenses

Removal

LEICAFLEX lenses are changed as follows: Hold the lens by the fixed ring (11). Push back the bayonet lock (7), turn the lens to the left, and remove it from the camera.

mike butkus

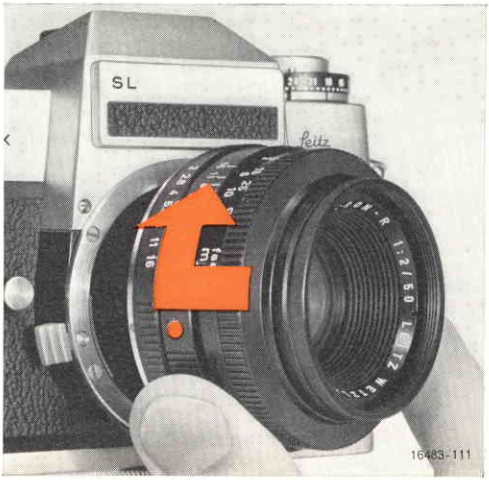
Digitally signed by mike butkus
DN: cn=mike butkus, o=orphancameras, ou=29, email=mike@butkus.org, c=US
Date: 2017.10.08 13:45:53 -04'00'

Insertion

When inserting the lens into the camera bayonet mount, first line up the red dot (9) on the lens mount with the red bayonet lock (7). A short turn to the right will lock the lens in the bayonet mount with an audible click.

Always turn your back to the sun when changing lenses!





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Every LEICAFLEX lens (except the 21 mm) has a screw-in filter-retaining ring (b).

Lens	Filter series
21 mm SUPER-ANGULON-R f/4	VIII 1/2*
35 mm ELMARIT-R f/2.8	VI
50 mm SUMMICRON-R f/2	VI
90 mm ELMARIT-R f/2.8	VII
135 mm ELMARIT-R f/2.8	VII
180 mm ELMARIT-R f/2.8	VIII

To mount a filter, unscrew the retaining ring (b), insert the filter and replace the ring. To unscrew the retaining ring, grip it on one side only; this avoids distorting the ring (see illustration).

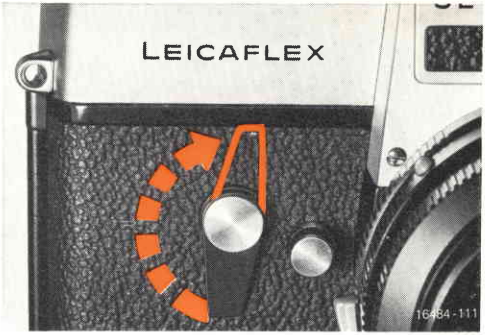
* = VIII 1/2 filters for the 21 mm SUPER-ANGULON-R f/4 are held in place by a special lenshood.

Lenshoods

are designed to match the corresponding lenses. The same clip-on hood (a) is used for the 35 and 50 mm lenses. When the camera is not in use, this hood may be reversed on the lens. With the lens cap hood in position, the front element is now protected. To reverse the lenshood, press the spring buttons on both sides. The long-focus LEICAFLEX lenses starting with 90 mm have built-on telescopic lenshoods.

The lenshood for the 21 mm SUPER-ANGULON-R f/4 is attached by aligning the two red dots, then locked in place by turning to the right. To detatch the lenshood, pull the same somewhat forward and turn it to the left. The 21 mm lenshood is also used to hold filters for this lens.

Self-timer (delayed-action release)

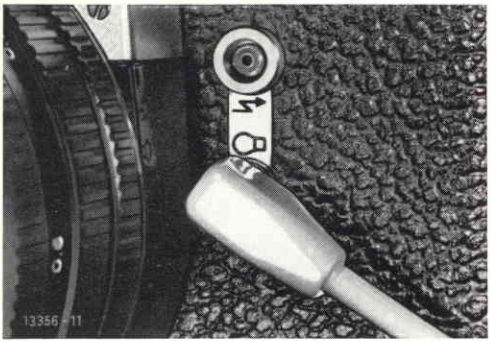


The self-timer can be used with any shutter speed. Wind it by turning lever (5) through 180 °, then start the self-timer by pressing the shutter release (3). The LEICAFLEX shutter must first be wound with the rapid winding lever (4). The shutter is released after a delay of approximately 10 sec. During this period the lever slowly returns to its initial upright position. The shutter is triggered shortly before the lever reaches this point.

If lever (5) is turned only halfway, the shutter release (3) may be blocked, even if the lever was turned back by hand to its initial position. In this case turn lever through 180 ° and start self-timer as described.

Flash synchronization

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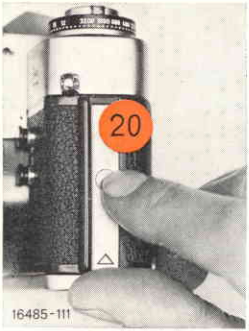
Any commercial flash unit with standard PC-type flash plug may be used with the LEICAFLEX.

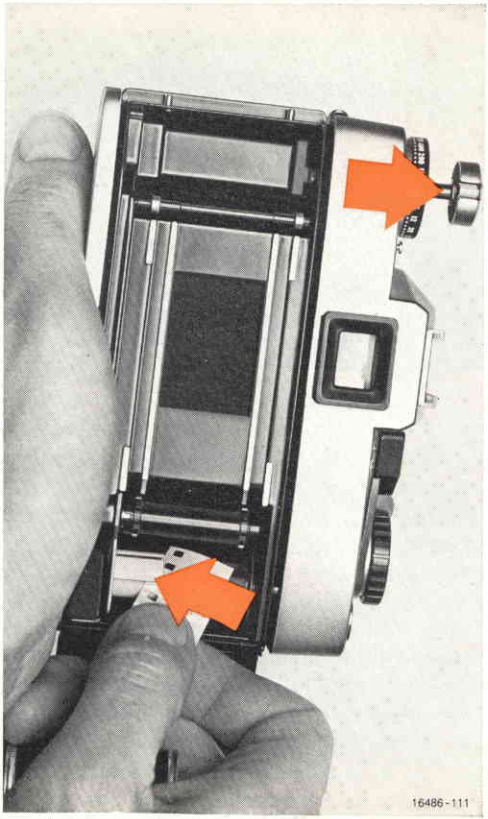
The two flash outlets (13) are located on the camera front. The upper contact marked ϟ is for electronic-flash units, the lower one marked ? for flashbulbs. Both types of flash may also be used simultaneously. The table opposite indicates the various possibilities.

LEICAFLEX Flash Table

		Electronic-Flash B → ϟ (1/100)	ϟ Contact (upper)
FLASH BULBS	M 2	1 → 1/30	
	AG 1 B AG 3 B Flash cubes	1 → 1/60	
	XM 1 B PF 1 B XM 5 B PF 5 B	1 → 1/125	? Contact (lower)
	GE 5 25 M 3 PF 60 B	1 → 1/250	

Film loading

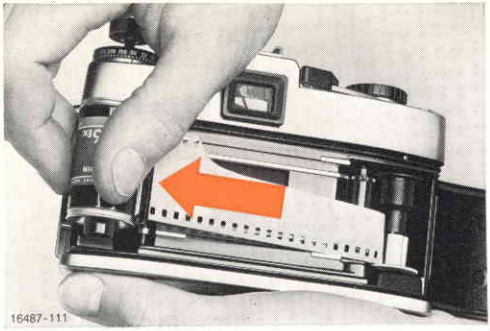




Open the camera back by pressing the safety button while pushing the locking bar (20) upwards. The frame counter (1) automatically springs to two marks before zero. Wind the advance lever and press the shutter release. Pull up the rewind crank (16). Holding the film at an angle from above, slide the end of the tongue into one of the take-up spool slots as illustrated. Only then insert film cartridge into cartridge chamber. Push the rewind crank down and, if necessary turn slightly to engage the cartridge spool. Before closing the back, work the advance lever slowly to make certain that the sprocket teeth engage the film perfo-

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Film removal





rations, and that the film edges run parallel to the film guide rails.

The back is locked by simply closing it. Gently turn the rewind crank in the arrow direction to take up any slack in the film cartridge; a slight resistance will be felt.

Advance-and-release twice to bring unexposed film into position. If loaded properly, the rewind crank will rotate backward during movement of the advance lever. After the third stroke, the camera is ready for the first exposure and the frame counter (1) stands at "1".

When the entire film length is exposed, the winding lever (4) can no longer be moved. Don't force it! Because some films are not very securely fastened to the cartridge spool, it is advisable to wind gently when advancing the last few frames. To rewind the film into the cartridge, press the rewind release button (25), unfold the rewind crank (16) – **do not pull the knob out!** – and turn in the arrow direction until you feel an increased resistance. Give the crank a few more turns to ensure that the film is completely wound back into the cartridge. Open the camera back, pull up the rewind knob and remove the film cartridge. The frame counter (1) moves backwards during rewinding.

Tips on the care of the LEICAFLEX and its lenses

Dust and fluff on the mirror should be carefully removed with the aid of a soft lens brush which is repeatedly rinsed with alcohol before and during cleaning. Dust and fluff on the underside of the finder screen should be removed only if they impair the finder image considerably. In this case use an antistatic brush repeatedly rinsed in pure alcohol. Never touch the finder screen with the mount of the brush.

Important: Do not blow into the mirror housing, because the stream of air might carry dust into the interior of the camera mechanism.

Avoid pointing the camera towards the sun for a prolonged period of time. A camera lens acts as a burning glass. So protect the interior of your camera by placing the lens cap over the lens and carry the camera in its case.

The front ring of every lens bears its individual serial number and type designation. It is good policy to note down this number as well as the serial number of the camera, which is on the LEICAFLEX base-plate. Should your camera

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ever be lost, these numbers will be vital in tracing and identifying it.

A brownish-violet surface tinge marks the high-quality antireflection coating of LEICAFLEX lenses. These coatings considerably increase the clarity and brilliance of your pictures.

To remove dust from accessible lens elements, use a soft lens brush, or carefully dab the glass surfaces with a clean, dry, and soft linen rag. Colored or chemically impregnated lens tissues intended for cleaning eyeglasses, should not be employed because these chemical substances may attack the lens surface.

Remember that it is better to keep your lens clean than to keep cleaning your lens!

The clear LEITZ UVa filter, which you may leave permanently on the lens, will protect the front surface against damage from foreign matter such as sand or salt-water spray. The lenshood also protects the lens from fingerprints, raindrops and snow.

LEICAFLEX accessories

Interchangeable lenses

In addition to the standard 50 mm SUMMICRON-R f/2 lens, LEICAFLEX owners may choose from the following range of interchangeable auto-aperture lenses with SL lightmeter coupling:

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ELMARIT-R
35 mm f/2.8

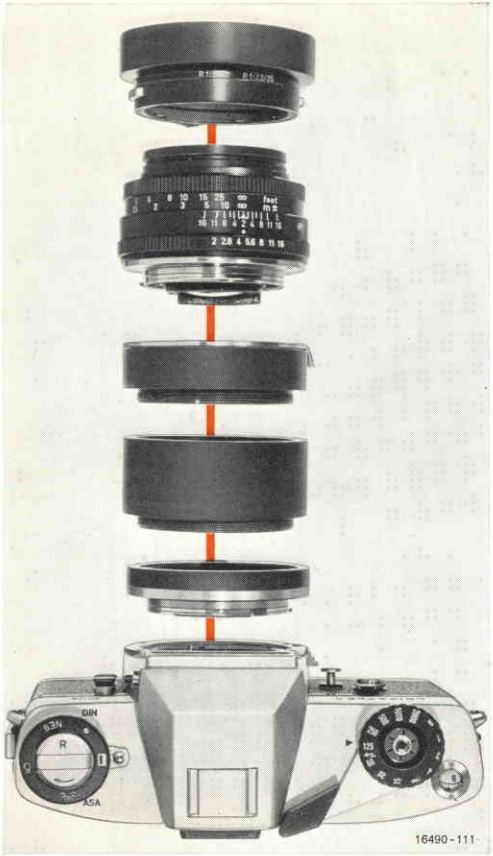
SUPER-AGULON-R
21 mm f/4 *

ELMARIT-R
90 mm f/2.8

ELMARIT-R
180 mm f/2.8

ELMARIT-R
135 mm f/2.8

* = previous 21 mm SUPER-ANGULON f/3.4 lenses can not be used with the LEICAFLEX SL.



1:1 extension tube set

This set of three tubes is used primarily with the 50 mm SUMMICRON-R f/2 lens, with which it permits close-ups down to 1 : 1 (image: object size ratio). The tube length can be further increased by inserting additional middle-rings, producing an extension suited for use with 90, 135 and 180 mm lenses. For further details see leaflet No. 111–68.

ELPRO close-up lenses

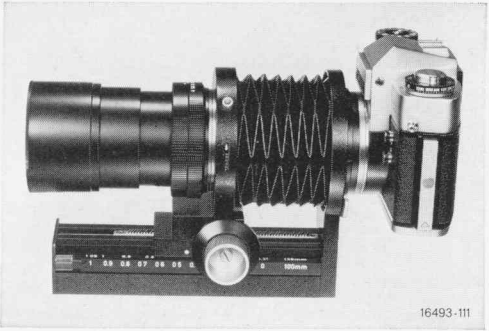
ELPRO lenses are two-element achromats for the close-up ranges. They extend the focusing range of the camera. Being achromatic, these lenses also ensure optimum image quality in the near range. Crisp sharpness is achieved even with medium lens apertures. Photographic technique, including exposure measurement, is the same as for the normal focusing ranges.

See also leaflet No. 111–78.

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Focusing Bellows



LEICAFLEX SL with LEICA-lens

Focusing bellows

Together with the special 100 mm MACRO-ELMAR f/4 lens, the focusing bellows for the LEICAFLEX SL permits continuous focusing from infinity down to 1 : 1. The 50, 90, 135 and 180 mm lenses can also be used with the focusing bellows for close-up and macro photography.

LEICA lenses on the LEICAFLEX

The special LEICA-to-LEICAFLEX lens adapter No. *14127 makes possible the use of all VISOFLEX-mounted LEICA lenses on the LEICAFLEX, without changing their normal focusing ranges. Please see page 12.

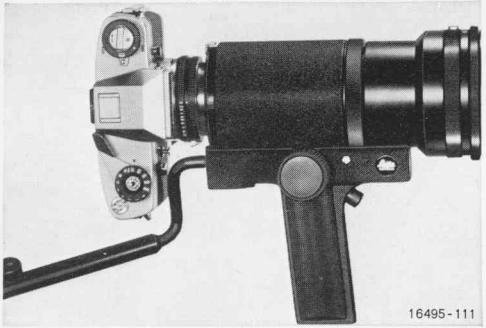
Vignetting that might be visible in the viewfinder will have no effect on the photograph.

TELEVIT-R rapid-focusing mount

The TELEVIT-R is a rapid-focusing mount specially designed for the 400 mm TELYT f/5.6 and 560 mm TELYT f/5.6 lenses. In addition, the optical unit of the 280 mm TELYT f/4.8 LEICA lens can be used in the TELEVIT-R with the bayonet ring No. 14 138.

Please request our special leaflet No. 110-69.

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LEICAFLEX SL with TELEVIT-R



LEICAFLEX SL motor

An electric motor may be used in conjunction with a special model, the LEICAFLEX SL-MOT. It allows shooting speeds of about 3 frames per second. Any shutter speed between 1 and $^{1}/_{2000}$ sec may be used. This electric motor is powered by ten 1.5-volt standard batteries (Type R 6 in Germany, AA in the US.). One set of batteries is sufficient for about 50 films.
Detailed information will be supplied on request.



Enlarging / Projection

Carrying cases

An ever-ready case is recommended for the LEICAFLEX with standard lens.

More extensive camera outfits including several lenses and accessories should be stored and carried in the Combination Case (Cat. No. 14 822) or the Universal Case (Cat. No. 14 809).

www.butkus.us

Projection

To project your LEICAFLEX slides, there is a wide choice of LEITZ projectors for every application, offering ease of operation, great versatility and top-quality lenses.

One feature of all LEITZ projectors is their outstanding optical performance combined with traditional LEITZ mechanical precision. Please request detailed literature on LEITZ slide projectors.



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Enlargers

The LEICAFLEX SL is a precision camera and calls for an enlarger of equal optical quality.

For decades LEITZ have supplied two well proven autofocusing enlargers; the FOCOMAT Ic for 35 mm film, and the FOCOMAT IIc for all negative sizes up to 6 x 9 cm (2 1/4 x 3 1/4"). For further information see our leaflets No. 170-2 and 170-9.

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