

# INSTRUCTIONS



LEICA CL



112-90/Engl.

7 May 1974

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Congratulations! and, welcome to the World of Leica photography. The LEICA® CL (Compact LEICA) is the first compact rangefinder camera with interchangeable lenses and selective through-the-lens exposure metering. It features a bayonet lens mount identical with that of the LEICA M models. The small size and light weight of the LEICA CL makes it an ideal take-along camera. This camera is never in the way; it will slip into a pocket or handbag. The LEICA CL will thus be your constant companion ready always to capture anything that takes your fancy.

LEICA CL photography is fun. But to fully enjoy the many features of your camera you must also know how to operate it. This little booklet explains it all, with numerous useful hints. Read it carefully to get the most out of photography and your new LEICA CL.

LEICA CL No 1325401  
 SUMMICRON-C 40mm No 2593879  
~~88~~ ELMAR-C 90mm No 2577696

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**Brief run-down of camera features**

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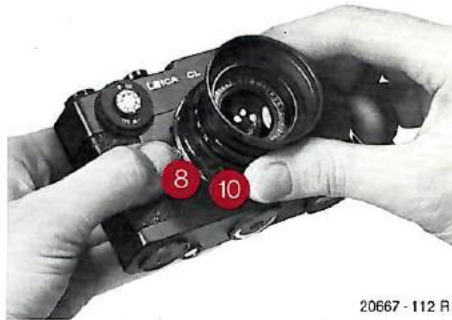
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### Fitting the lens

First remove the body cap from the camera body by depressing the bayonet lock button (8), and turning the cap to the left, then lift out.

To fit a lens, first line up the red locating mark (7) on the lens mount opposite the bayonet lock button (8) with its red mark. Insert the lens and turn to the right to engage the bayonet lock. An audible click is produced when the lens is securely seated. Always change lenses in the shade (shelter camera with your body if necessary).

### Removing the lens

Grip the lens by the fixed rear ring (10), press the bayonet lock button (8), turn the lens to the left and lift out.

When using lenses from the LEICA M system, note the information leaflet No. 120-50.

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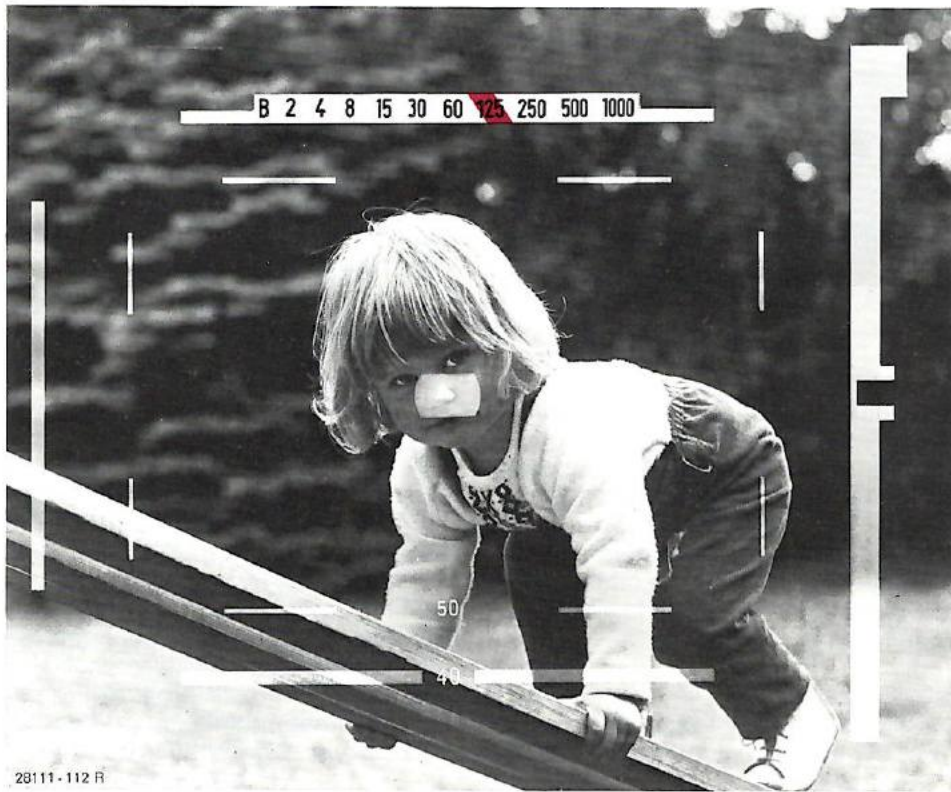
### Fitting the carrying strap

First thread the strap supplied with the camera (Order No. 14 194) into the non-slip pad. Then push the plain end of the strap (or of the wrist strap, Order No. 14 197) through the two eyelets (16) in the side of the camera and pull through the buckle at the other end of the strap. Adjust the strap to a comfortable length.

### Holding your CL

For a steady three-point support, grip the camera with the right hand so that the index finger is on the release button or shutter speed dial and the thumb against the rapid winding lever. Use the left hand either to support the lens from below for rapid focusing and aperture adjustment, or to grip the left side of the camera. In addition, press the LEICA firmly against your forehead. For vertical shots simply turn the camera 90°. Keep the same grip on the camera as for horizontal shots.

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between the lens axis and finder axis. The rangefinder field in the center of the viewfinder appears brighter than the surrounding image area.

On fitting 40mm, 50mm or 90mm lenses the corresponding bright-line frame automatically appears in the finder. The 40mm frame is always visible. With a 40mm lens on the camera, the 50mm frame also remains in view.

A scale above the finder area shows the selected shutter speed.

The exposure meter needle is visible at the right of the finder field. To set the correct exposure, this meter needle must be centered inside the rectangular cut-out at the right hand edge of the finder.

### The bright-line view- and rangefinder

The combined bright-line finder system of the LEICA CL is coupled with the lens. It incorporates a rangefinder, and serves as a high-quality viewfinder. The meter measuring field is a circle 1/3 the height of the frame in use. For the 90mm lens, the rangefinder patch can be considered the measuring field. You record on the film everything you see within the appropriate brightline frame. The bright-line frames, too, are coupled with the focusing movement for automatic parallax compensation, to allow for the difference in location

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**The rapid-winding lever (2)** advances the film by one frame with every full lever movement. At the same time the lever tensions the shutter and automatically advances the frame counter.

**The release button (5)** has a thread to take a cable release (Order No. 14 067). Press the release button gently – without jerking – until a soft click indicates that the shutter has tripped.

**The shutter speed dial (6)** selects the exposure time. You can adjust it before or after tensioning the shutter. It engages at all marked speeds from 1/1000 to 1/2 and B (time exposures of any length). Intermediate speeds can be set, and are fully operative, in the whole range except between 1/30 and 1/60 second. The setting index (3) for the shutter speed is on the top of the camera body. When using flash units set the dial to 1/60 second (engraved in yellow) or to a slower speed (See also flash table on page 23).



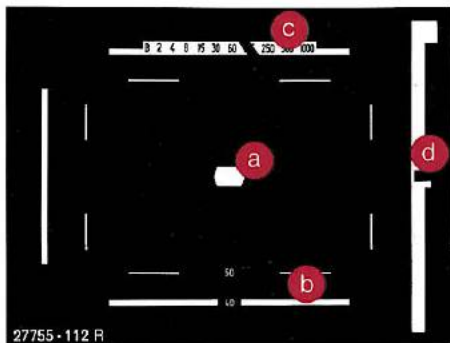
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### The distance scale

The distance scale (12) shows the distance to which the lens is set. In conjunction with the depth-of-field scale (10) it also shows the depth of the zone of sharpness. The distance is also important when calculating flash exposures from flash guide numbers. All distances are measured from the film plane, i. e., the back of the camera.

### The aperture scale

Aperture values are internationally standardized and arranged so that the amount of light reaching the film is halved every time you stop down from one aperture value to the next. Each aperture interval is equivalent to the interval between two speeds on the shutter speed dial (6). Like the shutter speed dial, the lens aperture ring (11) clicks into position at each marked setting – and also at half stop intervals. With a little practice you can thus identify aperture settings in the dark.



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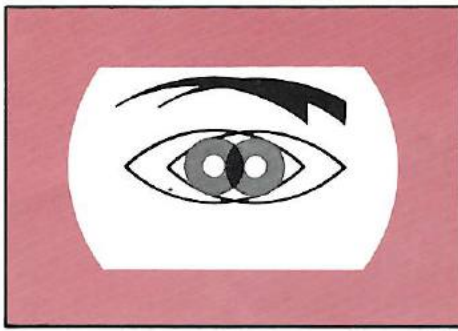
### Focusing

The rangefinder field appears in the center of the finder as a bright and sharply outlined area. If you block the large viewfinder window (15) with one finger, only the central rangefinder field (a) remains visible together with the reflected bright-line frames (b), the shutter speed scale (c) and the exposure meter needle (d). You can focus the image by double-image or split-image matching.

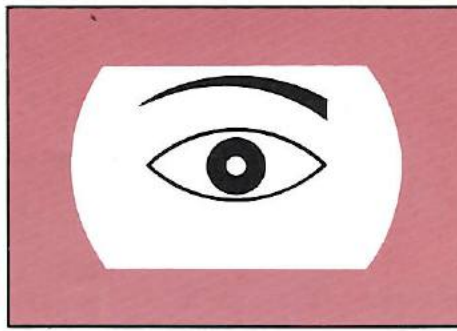
For double-image (coincidence) focusing, for instance on a highlight in the eye in a portrait, observe the sub-

ject through the finder and turn the lens focusing mount (12) until the two images fuse into one.

Split image focusing: Sight an edge or other clear outline and turn the focusing mount (12) until the broken outline appears continuous in the rangefinder field. This is the more accurate and hence the preferable method of focusing.

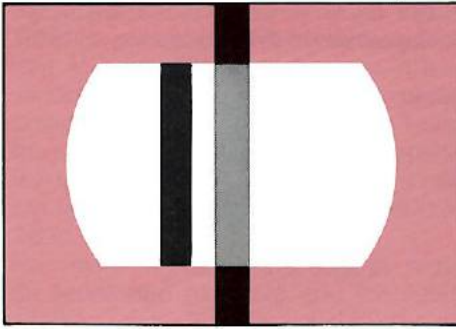


Double image = unsharp

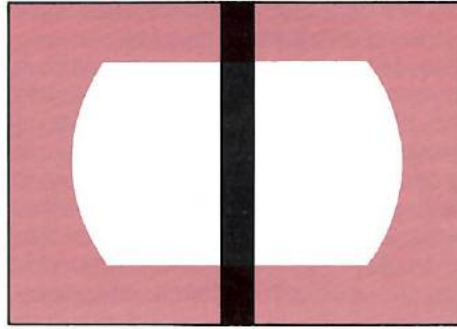


Single image = sharp

Broken and double line = unsharp



Continuous single line = sharp



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### The depth-of-field scale

The LEICA CL lenses have a fixed ring with a depth-of-field scale (10), a rotating focusing mount with distance scale (12) and an aperture ring (11).

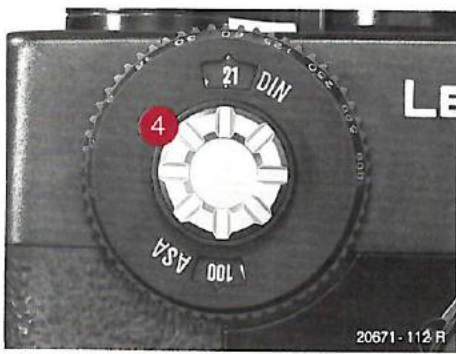
The lens reproduces at maximum sharpness a subject plane (parallel to the film plane) on which the lens is actually focused. Optimum sharpness gradually falls off in front of and behind this subject plane, but within a certain zone the image appears acceptably sharp. This depth-of-field zone depends on the subject distance, the focal length of the lens and the aperture

used. Stopping down increases the depth-of-field, opening the iris diaphragm decreases it.

The depth-of-field scale shows the depth-of-field at any distance setting of the lens.

It, for instance, you focus the 40mm, SUMMICRON-C f/2 lens on 5 meters or 16 1/2 feet (between the 10 and 25 foot marks on the distance scale) the depth of field at f/4 extends from about 4 meters to 10 meters (13 1/2 to 33 feet). If, with the same distance setting, you stop down to f/11, the depth extends from about 2.5 meters (8 1/2 feet) to infinity.

Exact depth-of-field values are listed in the depth-of-field table No. 110-57.



### The exposure meter

For accurate exposure measurement you must set the correct film speed on the film speed dial.

The film speed dial (4) shows equivalent ASA and DIN speed values in two windows. To set the speed, lightly press down the button (4) and turn it to bring the appropriate speed value opposite the index mark in the window. You can set film speeds from ASA 25 to 1600 or 15 to 33 DIN.

For meter readings the shutter must be **tensioned** (cocked) and the rapid winding lever (2) pulled slightly **out of**

**its rest position.** After releasing, the meter needle may move in the finder but no exposure readings are possible. Hold the camera horizontally for exposure readings. The LEICA CL exposure meter measures selectively through the lens, i. e., it reads a central image portion. Use the rangefinder area as a guide to the measuring field. This rangefinder field, extended to a full circle, shows the measuring area with the 90mm lens on the camera. With the 40mm lens the measuring area is about twice as large within the finder field. We have deliberately not

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included additional markings to avoid cluttering up the finder.

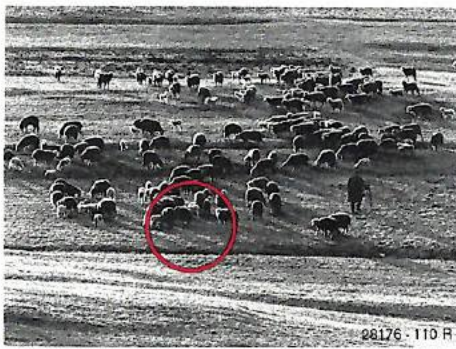
The meter needle of the built-in exposure meter appears to the right of the finder. The exposure is correctly set when the meter needle is lined up with the central rectangular cut-out at the right finder edge. This is controlled by the lens aperture ring (11) and the shutter speed dial (6). You can preselect either the exposure time or the aperture. If a red signal appears at the right-hand side of the finder on adjusting the shutter speed dial, switch to a suitable faster speed (shorter time) to make the red signal disappear. Then stop down or open the lens aperture to center the meter needle in the rectangular cut-out. If you cannot center the needle, the available light is inadequate for a reading.

The selected shutter speed is always visible on a scale above the finder area. Selective measurement of a central image area with the LEICA CL makes close-up readings – essential for many subject conditions – possible at normal distances. As a general rule, measure



the spot on which you focus.

Selective light metering also copes with problems of unbalanced brightness distribution, e. g., predominant light or dark areas.



28176 - 110 R



28177 - 110 R

In the illustrations one landscape has a large sky area while the other includes only foreground. Yet both need the same exposure; so measure a medium-tone area in both cases.

When shooting snow scenes in sunlight, measure an area of snow in the shade, or sight the subject so that the measuring field takes in approximately equal areas of snow and shadow. The circles marked in the illustrations show examples of preferred areas for selective readings.

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20672 - 112 R

### Testing the battery

The built-in exposure meter is powered by a 1.35 volt mercury oxide cell. Use a Mallory PX 625 button cell or equivalent cells of other makes - e. g. Varta Pertrix 7002 or Mallory National H-D. To test the battery hold the camera horizontally and view through the finder. Turn the shutter speed dial (6) to make a pointer appear in the cut-out in the top right-hand corner of the finder. Press the battery test button (23). If the meter needle now moves into the central rectangular cut-out at the right of the finder, the battery is serviceable.

Do your battery test before changing film!

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20692 - 112 R

**Using filters**

To fit Series 5.5 filters, unscrew the lens hood, place the filter in position and secure it by screwing the hood in again (Note: screw thread at the front of the lens is **not** the same as the LEICA E 39 filter thread).

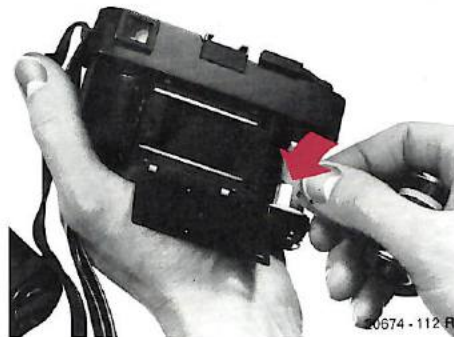
Through-the-lens metering generally allows for the filter factor. Films however differ in their spectral response; hence the readings may not be fully reliable with very dense filters. For instance with an orange filter the exposure must be increased by one stop, with a red filter by about two stops. No precise values can be quoted, as the red-sensitivity of black-and-white films can vary appreciably.

**Changing the battery**

Open the camera back (see page 22). The button cell is now visible just below the film take-up spool for easy changing.



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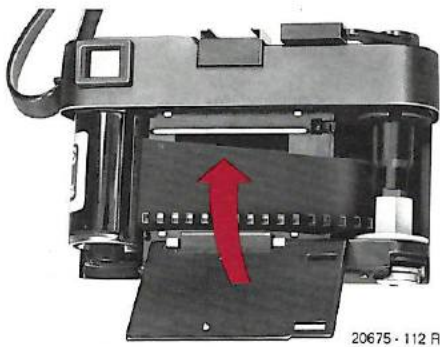
**Loading the film**

First check that the camera is empty by turning the rewind crank (18) in the direction of the arrow. If you feel a resistance, proceed as indicated on page 22.

The LEICA CL only takes films in cartridges with a standardized spool, having lugs inside **both ends**.

To load the film, unfold the base plate latch (19) and turn to the left. The whole camera back and base plate can then be pulled off and remain attached to the carrying strap. Fold away the pressure plate to open the film track. The

film leader can be – but need not be – trimmed. Push the film leader obliquely from above over one of the lugs of the take-up spool, as shown in the illustration. Then insert the cartridge in the empty film chamber. Check that the film edge runs parallel to the film track. On carefully operating the rapid-winding lever (2) the sprockets of the transport shaft **must** engage the perforation holes of the film. Fold down the pressure plate and push the camera back on again. Lock by turning the base plate latch (19) and fold down. Advance the film by two frames, releasing the shut-



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ter each time.

After the second transport movement gently tension the film by turning the rewind crank (18) in the direction of the arrow.

The film advances correctly if the rewind crank (18) rotates during operation of the winding lever. Advance the film (after releasing the shutter) once more; the automatic frame counter (1) now indicates No. 1 and the camera is ready for the first exposure. The frame counter (1) only operates if the camera back was correctly locked in position.

After loading the film remember also to set the correct film speed (see page 15).




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20676 - 112 R

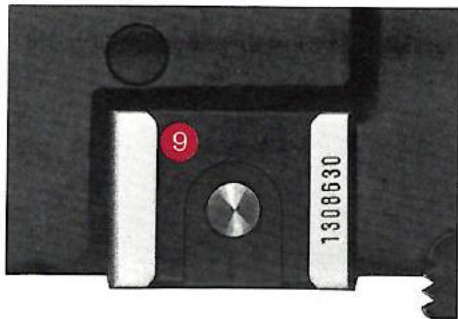
### The film type indicator

The film type indicator (22) in the camera base can be set to the type of film loaded in the camera, indicated by the following symbols:

-  = black-and-white film
-  = daylight type reversal color film
-  = artificial light type reversal color film
- NE = negative color film

### Unloading the film

Once the last frame is exposed, the rapid-winding lever (2) can no longer be operated. The film now needs re-winding. Press the rewind release button (21) to disengage the transport, unfold the rewind crank (18), and turn in the direction of the arrow. Keep turning until you feel a slight resistance, then rotate the crank by a further turn to wind the film fully back into the cartridge. Open the camera and remove the film cartridge.



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### Flash synchronization

The LEICA CL can be used with all flash units equipped with a hot-shoe contact. Push the unit into the accessory shoe (9); this automatically synchronizes the flash with the camera. The accessory shoe also takes commercial synchronizing adapters for flash units with a cable link. For electronic flash set any shutter speed between 1/60 second (marked in yellow) and B.

### Flash table

<b>Electronic flash</b>	<b>B to 1/60 second</b>
<b>Flash bulbs:</b>	} <b>B to 1/30 second</b>
<b>M 2</b>	
<b>AG 1</b>	
<b>AG 3</b>	
<b>Flash cubes</b>	

### Care of your LEICA CL and its lenses

Each lens carries engraved on the front mount the name, speed, focal length and its individual serial number. Make a note of this number, together with the camera serial number marked on the accessory shoe (9). This information can be useful in case of loss. The brownish-purple sheen on the glass surfaces indicates that you have a modern coated LEICA lens. This anti-reflection coating greatly increases image brilliance and contrast. Clean off any dust with a soft sable brush or carefully wipe with a well washed cotton cloth (for instance a handkerchief) or a lens tissue. Avoid treated tissues as sold for cleaning spectacles. Often these are impregnated with chemicals which can attack the optical glass surface. Spectacle glass has a different composition from the optical glass used for high-quality lenses.

When you use the camera under adverse atmospheric or dusty conditions, take care to protect the lens against salt water spray or sand, possibly, by

a colorless UVa filter (Caution: In certain light conditions - especially when shooting against the light or with artificial light - placing any glass element, even a plane-parallel filter, in front of the lens can sometimes cause disturbing reflections). Avoid leaving your LEICA in bright sunshine, especially with the lens facing up, as the lens could then act as a burning glass. Protect the camera body and shutter by using the lens cap, or by keeping the camera in its case or at least in the shade, away from excessive heat.



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## Accessories

### Interchangeable lenses

The two lenses specially provided for your LEICA CL are a 40mm SUMMICRON-C f/2 (Order No. 11 542) and the 90mm ELMAR®-C f/4 (Order No. 11 540).

The bayonet lens mount is identical to that of the LEICA M models. This allows the use of numerous lenses from the LEICA M system.

For further information see the leaflet No. 120-50.

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20677 - 120 R



20878 - 120 R

### Cases

Use the ever-ready case (Order No. 14 542) to hold the LEICA CL with the 40mm SUMMICRON®-C f/2 lens. The carrying strap or wrist strap goes through the openings provided in the case so that the latter also hangs on the strap.

In addition an attractive and compact combination case (Order No. 14 825) is available to hold the LEICA CL with two lenses.

### Enlargers

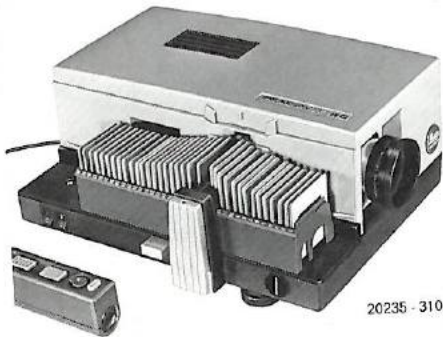
To make the most of the high performance of a camera such as the LEICA you need an enlarger of equal quality. Two proved top-quality LEITZ enlargers with automatic focusing have been available for many years: The FOCOMAT Ic as a 35mm enlarger, and the FOCOMAT<sup>®</sup> Ilc to take all negative sizes from 12 x 17mm to 2 1/2 x 3 1/2 inches (6 x 9 cm).

Detailed literature on request.



20172 - 170 R

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20235 - 310 R



17042 - 310 R

### Projectors

To project your slides you have a wide choice of projectors for various applications. They offer optimum convenience in operation and extended versatility with additional equipment. A leading feature of all LEITZ projectors is outstanding optical performance linked with traditional LEITZ precision. Please ask for descriptive literature.

**Interchangeable  
LEICA M lenses  
on the LEICA CL**



The bayonet lens mount of the LEICA® CL is identical with that of the LEICA M models. Hence numerous LEICA M lenses are usable on the LEICA CL. In addition, older screw-mounted lenses can be used with the appropriate bayonet/screw adapter rings (Order No. 14 097 for 50mm, Order No. 14 098 for 28mm and 90mm and Order No. 14 099 for 35mm).

The LEICA CL finder incorporates bright-line frames for the 40mm, 50mm, and 90mm fields of view. The total visible field is approximately that for 35mm lenses. 28mm lenses require the finder (Order No. 12 007).

**Exceptions:**

1. The following lenses, when used on the LEICA CL, require removal of their lens hoods, particularly at close distances:

- 35mm SUMMICRON® f/2**
- 35mm SUMMILUX® f/1.4**
- 50mm SUMMILUX f/1.4**
- 50mm NOCTILUX® f/1.2**
- 90mm ELMARIT® f/2.8**

When used on the LEICA CL, the high speed 50mm SUMMILUX f/1.4 and 50mm NOCTILUX f/1.2 lenses should be stopped down to at least f/2.

**2. Lenses with extended focusing range:**

The LEICA CL rangefinder covers a focusing range from infinity down to 32" (0.8m). Some LEICA M lenses focus on still nearer distances, but only by using their distance scales, not by rangefinder:

- 28mm ELMARIT f/2.8**
- 35mm SUMMICRON f/2**
- 50mm SUMMICRON f/2 (Order No. 11 817)**

The **50mm SUMMICRON f/2 (dual-range)** can be used without its near-focusing attachment only, i.e. down to a distance of 3' 4" (1m).

3. Collapsible lenses need safety strips to limit the retraction of the lens barrel. These can be fitted by the user, employing embossing tapes available everywhere for Dymo and similar embossing machines. Apply the tape

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around the lens barrel, leaving a gap of about 1mm. To cut the right length first do a paper template.

Collapsible lens:	Required tape width
50mm ELMAR® f/3.5	} 9.5mm (3/8 inch)
50mm ELMAR f/2.8	
50mm SUMMAR f/2	
50mm SUMMITAR f/2	
50mm SUMMICRON f/2	
90mm ELMAR f/4	
50mm HEKTOR® f/2.5	12.7mm (1/2 inch)

4. The following lenses of the LEICA M range cannot be used on the LEICA CL:

- (a.) Lenses whose rear mount protrudes too far into the camera body, such as the 28mm ELMARIT f/2.8 (serial numbers below 2314921) and the 21mm SUPER-ANGULON.
- (b.) Lenses with a finder attachment such as the 35mm wide angle lenses for the LEICA M3 and the 135mm ELMARIT f/2.8.
- (c.) The 50mm Dual-Range SUMMICRON, except without finder attachment.
- (d.) The 90mm SUMMICRON f/2.

**CL Lenses on LEICA M cameras**

Screw-mounted LEICA lenses and lenses for the LEICA M models have a differential helical focusing movement, i.e. the rear focusing barrel bearing against the rangefinder coupling roller moves only in and out. For a more compact and lightweight design, the 40mm SUMMICRON-C f/2 and 90mm ELMAR-C f/4 for the LEICA CL have instead a direct rear focusing cam. These lenses can be mounted on the LEICA M, but do not provide precise coupling with the rangefinder. For this reason we do not recommend using the CL lenses on the LEICA M cameras.

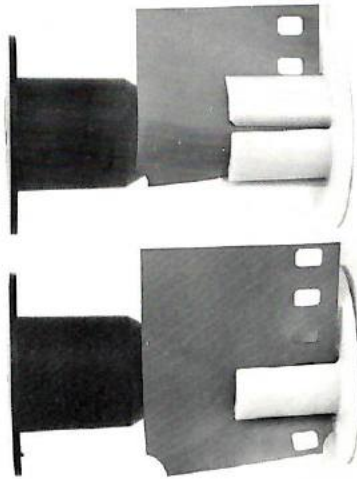
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Design specifications subject to change without notice.

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List **120-50/Engl.** Printed in W. Germany VIII/73/DY/B

Insert for Instructions  
**LEICAFLEX SL & LEICA CL**

**Film loading**



The leader, trimmed or untrimmed, should be inserted into one of the slots of the takeup spool, from above, as shown in the illustration. Make sure it adheres firmly to the core of the spool.